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|--------------------------------|-------------------------------------------------------------------------------------------------|
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| <b><i>Title</i></b>            | TC/TM DATABASE FOR THE EPIC PN CAMERA SYSTEM (EPCS)                                             |
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| <b><i>Handle</i></b>           | <a href="http://hdl.handle.net/20.500.12386/33399">http://hdl.handle.net/20.500.12386/33399</a> |

# EPCS TM PARAMETER DETAILED LIST

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Appendix F

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1001 | D Prim PW Consum | V   | A    | 3   | 12  | 16 | none |         | 0,3     | 0,6     | none     | none     |

This field contains the measurement of the of the primary power current measured in the EPDH.

**CALIBRATION CURVE**     $ENG [A] = ((Raw\ Value * 16) / 4095) - 8$

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1002 | D P.S. Temp #1 | V   | degC | 3   | 12  | 16 | none |         |         |         | none     | none     |

This field contains the first temperature measured in a hot point inside the EPDH Power Supply.

**CALIBRATION CURVE**     $ENG [^{\circ}C] = (Raw\ Value * 0.004884 - 10) * (-25.054) + 83.137$

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1003 | D P.S. Temp #2 | V   | degC | 3   | 12  | 16 | none |         |         |         | none     | none     |

This field contains the second temperature measured in a hot point inside the EPDH Power Supply.

**CALIBRATION CURVE**     $ENG [^{\circ}C] = (Raw\ Value * 0.004884 - 10) * (-25.054) + 83.137$

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1004 | D +5 V PW Supply | V   | V    | 3   | 12  | 16 | none | 5       | 4,7     | 5,3     | none     | none     |

This field contains the monitor of the EPDH Power Supply + 5 V secondary voltage.

**CALIBRATION CURVE**     $ENG [V] = (((Raw\ Value * 20) / 4095) - 10) * 2$

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1005 | D DBU Power Sup. | V   | V    | 3   | 12  | 16 | none | 6       | 5,7     | 6,3     | none     | none     |

This field contains the monitor of the DBU + 6 V Power Line.

**CALIBRATION CURVE**     $ENG [V] = (((Raw\ Value * 20) / 4095) - 10) * 2$

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1006 | D +15V PW Supply | V   | V    | 3   | 12  | 16 | none | 15      | 14,5    | 15,5    | none     | none     |

This field contains the monitor of the EPDH Power Supply + 15 V secondary voltage.

**CALIBRATION CURVE**     $ENG [V] = (((Raw\ Value * 20) / 4095) - 10) * 2$

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1007 | D -15V PW Supply | V   | V    | 3   | 12  | 16 | none | -15     | -15,5   | -14,5   | none     | none     |

This field contains the monitor of the EPDH Power Supply -15 V secondary voltage.

**CALIBRATION CURVE**     $ENG [V] = (((Raw\ Value * 20) / 4095) - 10) * 2$

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1008 | D Operating Mode | V   | n/a  | 2   | 8   | 8 | none |         | 0       | 16      | none     | none     |

This field contains the selected EPCS operating mode This parameter is affected by TCs from F0001 to F0008.

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Safe StandBy |
| 1         | Idle         |
| 2         | Observation  |
| 4         | Offset/Noise |
| 5         | CCD Diagnos. |
| 6         | Extraheating |
| 16        | InFlightTest |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1009 | D Valid Mode | V   | n/a  | 2   | 8   | 8 | none |         | 0       | 255     | none     | none     |

This field contains describes if the selected EPCS operating mode is valid.

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Valid Mode   |
| 1         | EnteringMode |
| 2         | Leaving Mode |
| 255       | NotValidMode |

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| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1010 | D Door Hop ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter gives the status of the EPDH Door HOP power switch used to power the actuators in the EPCH This parameter is affected by both TCs F0044 & 45.

## RAW VALUE MEANING

|   |     |
|---|-----|
| 0 | Off |
| 1 | On  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1011 | D Ven Val HOP St | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter gives the status of the EPDH Venting Valve HOP power switch used to power the actuators in the EPCH This parameter is affected by both TCs F0047 & 48.

## RAW VALUE MEANING

|   |     |
|---|-----|
| 0 | Off |
| 1 | On  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1012 | D FW MotorStatus | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter gives the status of the EPDH FW motor power switch used to power the actuators in the EPCH This parameter depends on both TCs F0049 & 50.

## RAW VALUE MEANING

|   |     |
|---|-----|
| 0 | Off |
| 1 | On  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1013 | D ExtH Heater ST | V   | n/a  | 2   | 1   | 1 | F0007 | 0       | 0       | 1       | none     | none     |

This parameter gives the status of the EPDH Extraheating heater power switch used to power the actuators in the EPCH

## RAW VALUE MEANING

|   |     |
|---|-----|
| 0 | Off |
| 1 | On  |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1014 | D Door HOP LCP | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter gives the last commanded position of the Door HOP power switch used to power the actuators in the EPCH This parameter depends on both TCs F0044 & 45.

## RAW VALUE MEANING

|   |     |
|---|-----|
| 0 | Off |
| 1 | On  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1015 | D VenVal HOP LCP | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter gives the last commanded position of the Venting Valve HOP power switch used to power the actuators in the EPCH This parameter depends on both TCs F0047 & 48.

## RAW VALUE MEANING

|   |     |
|---|-----|
| 0 | Off |
| 1 | On  |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1016 | D FW Motor LCP | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter gives the last commanded position of the Filter Wheel motor power switch used to power the actuators in the EPCH This parameter depends on both TCs F0049 & 50.

## RAW VALUE MEANING

|   |     |
|---|-----|
| 0 | Off |
| 1 | On  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1017 | DExtH Heater LCP | V   | n/a  | 2   | 1   | 1 | F0007 |         | 0       | 1       | none     | none     |

This parameter gives the last commanded position of the Extraheating heater switch used to power the actuators in the EPCH

## RAW VALUE MEANING

|   |     |
|---|-----|
| 0 | Off |
| 1 | On  |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1018 | D Door HOP CLS | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter gives the Current Limiter Status of the Door HOP switch used to power the actuators in the EPCH

## RAW VALUE MEANING

|   |            |
|---|------------|
| 0 | Not Active |
| 1 | Active     |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1019 | D VenVal HOP CLS | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter gives the Current Limiter Status of the Venting Valve HOP switch used to power the actuators in the EPCH

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1020 | D FW Motor CLS | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter gives the Current Limiter Status of the FW Motor switch used to power the actuators in the EPCH

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1021 | DExtH Heater CLS | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter gives the Current Limiter Status of the Extraheating heater switch used to power the actuators in the EPCH

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1022 | D HBR1 Ch. Conf. | V   | n/a  | 2   | 8   | 8 | F0031 |         | 0       | 6       | none     | none     |

This parameter contains the current operating mode selected for HBR 1 channel

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Disabled     |
| 1         | ImaFullFrame |
| 2         | ImaLargeWind |
| 3         | ImaSmallWind |
| 4         | Timing       |
| 5         | Burst        |
| 6         | Transparent  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1023 | D HBR2 Ch. Conf. | V   | n/a  | 2   | 8   | 8 | F0031 |         | 0       | 6       | none     | none     |

This parameter contains the current operating mode selected for HBR 2 channel

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Disabled     |
| 1         | ImaFullFrame |
| 2         | ImaLargeWind |
| 3         | ImaSmallWind |
| 4         | Timing       |
| 5         | Burst        |
| 6         | Transparent  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1024 | D HBR3 Ch. Conf. | V   | n/a  | 2   | 8   | 8 | F0031 |         | 0       | 6       | none     | none     |

This parameter contains the current operating mode selected for HBR 3 channel

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Disabled     |
| 1         | ImaFullFrame |
| 2         | ImaLargeWind |
| 3         | ImaSmallWind |
| 4         | Timing       |
| 5         | Burst        |
| 6         | Transparent  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1025 | D HBR4 Ch. Conf. | V   | n/a  | 2   | 8   | 8 | F0031 |         | 0       | 6       | none     | none     |

This parameter contains the current operating mode selected for HBR 4 channel

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Disabled     |
| 1         | ImaFullFrame |
| 2         | ImaLargeWind |

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- 3 ImaSmallWind
- 4 Timing
- 5 Burst
- 6 Transparent

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1026 | D HBR1 Buff Occ | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 75      | none     | none     |

This parameter contains the HBR 1 channel buffer occupation expressed in percentage of the whole buffer previously sized.

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1027 | D HBR2 Buff Occ | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 75      | none     | none     |

This parameter contains the HBR 2 channel buffer occupation expressed in percentage of the whole buffer previously sized.

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1028 | D HBR3 Buff Occ | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 75      | none     | none     |

This parameter contains the HBR 3 channel buffer occupation expressed in percentage of the whole buffer previously sized.

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1029 | D HBR4 Buff Occ | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 75      | none     | none     |

This parameter contains the HBR 4 channel buffer occupation expressed in percentage of the whole buffer previously sized.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM  | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|----------|----------|----------|
| F1030 | D Course OBT Rst | V   | n/a  | 9   | 5   | 48 | none |         | 0       | 16777215 | none     | none     |

This parameter contains the EPDH On Board Time sampled when the last reset of the course EPEA On Board Time occurred Engineering Value [s] = (Raw Value) \* 2E-16

## RAW VALUE MEANING

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1031 | D LBR I/F Status | V   | n/a  | 2   | 0   | 16 | none |         |         |         | none     | none     |

This parameter contains information about the EPDH LBR I/F status

## RAW VALUE MEANING

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1032 | DLast Com FW Pos | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 1599    | none     | none     |

This parameter contains information about the last commanded Filter Wheel position. This parameter value depends on TCs F0129 & 130. The position is expressed in motor steps.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1033 | D HBR 1 Disc Pix | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of pixels received from HBR 1 channel and discarded by EPDH starting from entering of the counting mode (TLM buffer full). In case more than 32767 pixels are discarded this parameter is set to 65535.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1034 | D HBR 2 Disc Pix | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of pixels received from HBR 2 channel and discarded by EPDH starting from entering of the counting mode (TLM buffer full). In case more than 32767 pixels are discarded this parameter is set to 65535.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1035 | D HBR 3 Disc Pix | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of pixels received from HBR 3 channel and discarded by EPDH starting from entering of the counting mode (TLM buffer full). In case more than 32767 pixels are discarded this parameter is set to 65535.

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1036 | D HBR 4 Disc Pix | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of pixels received from HBR 4 channel and discarded by EPDH starting from entering of the counting mode (TLM buffer full). In case more than 32767 pixels are discarded this parameter is set to 65535.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1037 | D HBR 1 Disc Cyc | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of frames/cycles received from HBR 1 channel and discarded by EPDH starting from entering of the counting mode. In case more than 32767 frames/cycles are discarded this parameter is set to 65535.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1038 | D HBR 2 Disc Cyc | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of frames/cycles received from HBR 2 channel and discarded by EPDH starting from entering of the counting mode. In case more than 32767 frames/cycles are discarded this parameter is set to 65535.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1039 | D HBR 3 Disc Cyc | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of frames/cycles received from HBR 3 channel and discarded by EPDH starting from entering of the counting mode. In case more than 32767 frames/cycles are discarded this parameter is set to 65535.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1040 | D HBR 4 Disc Cyc | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of frames/cycles received from HBR 4 channel and discarded by EPDH starting from entering of the counting mode. In case more than 32767 frames/cycles are discarded this parameter is set to 65535.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1041 | D CntModStaTime1 | V   | n/a  | 3   | 11  | 15 | none |         | 0       | 32767   | none     | none     |

This parameter contains the time (s) at which HBR1 channel entered the last counting mode (more than 75 % of TM buffer filled). The time is the first word (only seconds) of the Time Info received from EPEA.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1042 | D CntModStoTime1 | V   | n/a  | 3   | 11  | 15 | none |         | 0       | 32767   | none     | none     |

This parameter contains the time (s) at which HBR1 channel exit the last counting mode (less than 25 % of TM buffer filled). The time is the first word (only seconds) of the Time Info received from EPEA.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1043 | D CntModStaTime2 | V   | n/a  | 3   | 11  | 15 | none |         | 0       | 32767   | none     | none     |

This parameter contains the time (s) at which HBR2 channel entered the last counting mode (more than 75 % of TM buffer filled). The time is the first word (only seconds) of the Time Info received from EPEA.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1044 | D CntModStoTime2 | V   | n/a  | 3   | 11  | 15 | none |         | 0       | 32767   | none     | none     |

This parameter contains the time (s) at which HBR2 channel exit the last counting mode (less than 25 % of TM buffer filled). The time is the first word (only seconds) of the Time Info received from EPEA.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1045 | D CntModStaTime3 | V   | n/a  | 3   | 11  | 15 | none |         | 0       | 32767   | none     | none     |

This parameter contains the time (s) at which HBR3 channel entered the last counting mode (more than 75 % of TM buffer filled). The time is the first word (only seconds) of the Time Info received from EPEA.

## CALIBRATION CURVE

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1046 | D CntModStoTime3 | V   | n/a  | 3   | 11  | 15 | none |         | 0       | 32767   | none     | none     |

This parameter contains the time (s) at which HBR3 channel exit the last counting mode (less than 25 % of TM buffer filled). The time is the first word (only seconds) of the Time Info received from EPEA.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1047 | D CntModStaTime4 | V   | n/a  | 3   | 11  | 15 | none |         | 0       | 32767   | none     | none     |

This parameter contains the time (s) at which HBR4 channel entered the last counting mode (more than 75 % of TM buffer filled). The time is the first word (only seconds) of the Time Info received from EPEA.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1048 | D CntModStoTime4 | V   | n/a  | 3   | 11  | 15 | none |         | 0       | 32767   | none     | none     |

This parameter contains the time (s) at which HBR4 channel exit the last counting mode (less than 25 % of TM buffer filled). The time is the first word (only seconds) of the Time Info received from EPEA.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1049 | D Door HOP ArmST | V   | n/a  | 2   | 8   | 8 | none |         | 0       | 255     | none     | none     |

This parameter contains the EPDH Door HOP switch arming status. This parameter is affected by both TCs F0043 & 45.

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Not Armed |
| 255       | Armed     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1050 | D VenValHOPArmST | V   | n/a  | 2   | 8   | 8 | none |         | 0       | 255     | none     | none     |

This parameter contains the EPDH Venting Valve HOP switch arming status. This parameter is affected by both TCs F0046 & 48.

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Not Armed |
| 255       | Armed     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1051 | D H/K Refresh ST | V   | n/a  | 2   | 0   | 16 | none |         | 0       | 65535   | none     | none     |

This parameter gives the refresh status of the EPCE H/K block contained in this packet.

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1052 | DTimAutRstPreVal | V   | n/a  | 3   | 12  | 16 | F0063 |         | 1       | 32400   | none     | none     |

This parameter contains the preset value (in seconds) loaded in the EPDH counter used for the automatic reset of the EPEA time.

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1053 | C CE_SECCNT | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This field contains the EPCE time counter with the resolution of 1 second.

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1054 | C CE_ERRCNT | V   | n/a  | 3   | 4   | 8 | F0078 |         | 0       | 255     | none     | none     |

This field contains a counter indicating the number of times an error was detected in the EPCE. The last error code is indicated in CE\_LASTERR (PREF F1055). The TC CE\_RESERR will reset this counter.

## CALIBRATION CURVE

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1055 | C CE_LASTERR | V   | n/a  | 2   | 8   | 8 | F0078 |         | 0       | 255     | none     | none     |

This field contains a code indicating the last error detected in the EPCE. The TC CE\_RESERR will reset this counter.

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1056 | C CE_CMDCNT | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This field contains a counter indicating the number of commands (with the exception of CEHKSEND commands) accepted in the EPCE. The last accepted command is indicated by CE\_LASTCMD (PREF F1107).

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1057 | C CE_CMDREJ | V   | n/a  | 3   | 4   | 8 | F0078 |         | 0       | 255     | none     | none     |

This field contains a counter indicating the number of commands rejected in the EPCE. The TC CE\_RESERR will reset this counter.

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1058 | C FWTH ADC Stat | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

Filter Wheel TH ADC ready/not ready (0/1). The TC CE\_RESERR will reset this counter. This monitor is available also in Debug mode.

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Ready     |
| 1         | Not Ready |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1059 | C CE_OVRRUNS | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This field contains a counter indicating the number of SIO receive buffer overrun detection in the EPCE.

## CALIBRATION CURVE

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1060 | C CE_BYTEREC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This field contains a counter indicating the total number of bytes received from the EPDH through the LBR I/F.

## CALIBRATION CURVE

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1061 | C CE_BYTESND | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This field contains a counter indicating the total number of bytes transmitted to the EPDH through the LBR I/F.

## CALIBRATION CURVE

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1062 | C CE_CMDCNTR | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This field contains a counter indicating the number of CEHKSEND commands accepted in the EPCE.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1063 | CErrSIF MasterST | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

EPCE SIF Master Error Status (Ready/Not Ready). The TC CE\_RESERR will reset this counter. This monitor is available also in Debug mode.

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Ready     |
| 1         | Not Ready |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1064 | CErr EPCE ADC ST | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

EPCE ADC Error Status (Ready/Not Ready). The TC CE\_RESERR will reset this counter. This monitor is available also in Debug mode.

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Ready     |
| 1         | Not Ready |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1065 | CErr UART InpuST | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

EPCE UART input character error status (overrun). The TC CE\_RESERR will reset this counter. This monitor is available also in Debug mode.

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | No Overrun |
| 1         | Overrun    |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1066 | CErr EPVC ADC ST | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

EPVC ADC error status (Ready / Not Ready). The TC CE\_RESERR will reset this counter. This monitor is available also in Debug mode.

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Ready     |
| 1         | Not Ready |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1067 | CErrIlCPUInterr | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

CPU error status (illegal interrupt received). The TC CE\_RESERR will reset this counter. This monitor is available also in Debug mode.

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Received |
| 1         | Received     |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1068 | C Err RAM Check | V   | n/a  | 2   | 1   | 1 | F0179 | 0       | 0       | 1       | none     | none     |

RAM check error status (not occurred/occured). The TC CE\_RESERR will reset this counter. This monitor is available also in Debug mode.

| RAW VALUE | MEANING     |
|-----------|-------------|
| 0         | Not Occured |
| 1         | Occured     |

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1069 | C CE_TEMP CPU | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This field indicates the CPU board temperature in the EPCE.

**CALIBRATION CURVE** ENG (°C) = RAW\*1.73-270

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1070 | C CE_TEMP BOX | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This field indicates the EPCE box temperature.

**CALIBRATION CURVE** ENG (°C) = RAW\*1.73-270

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1071 | C CE_WBOOTS | V   | n/a  | 3   | 4   | 8 | F0078 |         | 0       | 255     | none     | none     |

Number of times the microprocessor warm boot has been performed on the EPCE. The TC CE\_RESERR (F0078) will reset this counter.

**CALIBRATION CURVE**

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1072 | C CE_INT CNT | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This field contains a counter indicating the number of interrupts detected in the EPCE.

**CALIBRATION CURVE**

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1073 | C CE_WDOGCNT | V   | n/a  | 3   | 4   | 8 | F0078 |         | 0       | 255     | none     | none     |

This field contains a counter indicating the number of times the watch-dog of the EPCE is expired. The TC CE\_RESERR will reset this counter.

**CALIBRATION CURVE**

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1074 | C CE_QUADSEL #3 | V   | n/a  | 2   | 1   | 1 | F0092 | 1       | 0       | 1       | none     | none     |

This parameter indicates the current EPEA/EPCH Quadrant 3 selection status. All the TCs related to quadrant operation will be automatically broadcasted, by EPCE, to the selected quadrants. After power-on all the quadrants are automatically selected.

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Selected |
| 1         | Selected     |

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| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1075 | C CE_QUADSEL #2 | V   | n/a  | 2   | 1   | 1 | F0092 | 1       | 0       | 1       | none     | none     |

This parameter indicates the current EPEA/EPCH Quadrant 2 selection status. All the TCs related to quadrant operation will be automatically broadcasted, by EPCE, to the selected quadrants. After power-on all the quadrants are automatically selected.

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Selected |
| 1         | Selected     |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1076 | C CE_QUADSEL #1 | V   | n/a  | 2   | 1   | 1 | F0092 | 1       | 0       | 1       | none     | none     |

This parameter indicates the current EPEA/EPCH Quadrant 1 selection status. All the TCs related to quadrant operation will be automatically broadcasted, by EPCE, to the selected quadrants. After power-on all the quadrants are automatically selected.

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Selected |
| 1         | Selected     |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1077 | C CE_QUADSEL #0 | V   | n/a  | 2   | 1   | 1 | F0092 | 1       | 0       | 1       | none     | none     |

This parameter indicates the current EPEA/EPCH Quadrant 0 selection status. All the TCs related to quadrant operation will be automatically broadcasted, by EPCE, to the selected quadrants. After power-on all the quadrants are automatically selected.

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Selected |
| 1         | Selected     |

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1078 | C EPCE Active | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

Nominal/Redundant EPCE Active. This monitor is available also in Debug mode.

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Nominal   |
| 1         | Redundant |

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1079 | C EPCE Mode | V   | n/a  | 2   | 1   | 1 | F0083 | 0       | 0       | 1       | none     | none     |

Normal/Debug EPCE Mode. This monitor is available also in Debug mode.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Nominal |
| 1         | Debug   |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1080 | C EPCEMemoModify | V   | n/a  | 2   | 1   | 1 | F0091 |         | 0       | 1       | none     | none     |

This parameter contains the memory modify mode of the EPCE. It is available also in Debug mode.

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | One time     |
| 1         | Continuously |

| PREF  | NAME | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1081 | C    | V   | n/a  | 2   | 1   | 1 | F0091 |         | 0       | 1       | none     | none     |

This parameter contains information about the memory modify with autoincrement on/off. It is available also in Debug mode.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1082 | CCEB/CEWPUT | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

Result of the CEBPUT/CEWPUT verify. This monitor is available also in Debug mode.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1083 | CCEB/CEWPUT VeSt | V   | n/a  | 2   | 1   | 1 | F0091 |         | 0       | 1       | none     | none     |

Status of the CEBPUT/CEWPUT verify. This monitor is available also in Debug mode.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Enabled  |
| 1         | Disabled |

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| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1084 | C FWGOTO Status | V   | n/a  | 2   | 1   | 1 | F0129 |         | 0       | 1       | none     | none     |

Activation status of the FWGOTO. This monitor is available also in Debug mode.

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1085 | C FWCAL Status | V   | n/a  | 2   | 1   | 1 | F0130 |         | 0       | 1       | none     | none     |

Activation status of the FWCAL. This monitor is available also in Debug mode.

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1086 | CCERAMCHK Status | V   | n/a  | 2   | 1   | 1 | F0179 |         | 0       | 1       | none     | none     |

Status of the EPCE RAM check. This monitor is available also in Debug mode.

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME              | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1087 | C MemUplinkStatus | V   | n/a  | 2   | 1   | 1 | F0082 |         | 0       | 1       | none     | none     |

Activation status of the EPCE memory uplink.  
This monitor is available also in Debug mode.

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1088 | CCEIntVecMemTest | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the result of the EPCE interrupt vector memory selftest. This monitor is available also in Debug mode.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1089 | C CEMemBank2Test | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

Result of the EPCE memory bank 2 selftest. This monitor is available also in Debug mode.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1090 | C CEMemBank1Test | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

Result of the EPCE memory bank 1 selftest. This monitor is available also in Debug mode.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1091 | C CEMemBank0Test | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

Result of the EPCE memory bank 0 selftest. This monitor is available also in Debug mode.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1092 | C CE_MSG | V   | n/a  | 3   | 12  | 16 | F0079 |         | 0       | 65535   | none     | none     |

This parameter contains, after the power-on, the S/W version of the EPCE program. Then it can be modified by the CESETMSG TC.

## CALIBRATION CURVE

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1093 | C CE_ADDRS | V   | n/a  | 3   | 12  | 16 | F0088 | 65535   | 0       | 65535   | none     | none     |

Last EPCE segment address loaded using CEASET TC for data modification This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1094 | C CE_ADDRO | V   | n/a  | 3   | 12  | 16 | F0088 | 0       | 0       | 65535   | none     | none     |

Last EPCE offset address loaded using CEASET TC for data modification, or last value generated by autoincrement option of Debug mode  
This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1095 | C CE_DATA | V   | n/a  | 3   | 12  | 16 | F0088 |         | 0       | 65535   | none     | none     |

Data content of the EPCE selected address This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1096 | C CE_MEMCHKSS | V   | n/a  | 3   | 12  | 16 | F0065 |         | 0       | 65535   | none     | none     |

Start address (segment) for the EPCE memory checksum This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1097 | C CE_MEMCHKSO | V   | n/a  | 3   | 12  | 16 | F0065 |         | 0       | 65535   | none     | none     |

Start address (offset) for the EPCE memory checksum This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1098 | C CE_MEMCHKLEN | V   | n/a  | 3   | 12  | 16 | F0065 |         | 0       | 65535   | none     | none     |

Length for the EPCE memory checksum This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1099 | C CE_MEMCHKSUM | V   | n/a  | 3   | 12  | 16 | F0065 |         | 0       | 65535   | none     | none     |

Result of the EPCE memory checksum This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1100 | C CE_RAMCHKSS | V   | n/a  | 3   | 12  | 16 | F0179 |         |         |         | none     | none     |

Start address (segment) for EPCE RAM checksum (or first error address, if an error is found) This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1101 | C CE_RAMCHKSO | V   | n/a  | 3   | 12  | 16 | F0179 |         | 0       | 65535   | none     | none     |

Start address (offset) for RAM checksum (or first error address, if an error is found) This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1102 | C CE_RAMCHKLEN | V   | n/a  | 3   | 12  | 16 | F0179 |         | 0       | 65535   | none     | none     |

Length for the EPCE RAM memory checksum (or 0, if an error is found) This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1103 | C CE_DCREG slave | V   | n/a  | 3   | 0   | 4 | F0194 |         | 0       | 7       | none     | none     |

This parameter contains the last slave address loaded by the EPCE CEDC command This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1104 | C CE_DCCMD | V   | n/a  | 3   | 12  | 16 | F0194 |         | 0       | 65535   | none     | none     |

This parameter contains the last command data loaded by the CEDC command This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1105 | C CE_DCSTAT | V   | n/a  | 3   | 4   | 8 | F0194 |         | 0       | 65535   | none     | none     |

This parameter contains the status read from the last selected EPCE slave/register by the CEDC TC This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1106 | C CE_DCDDATA | V   | n/a  | 3   | 12  | 16 | F0194 |         | 0       | 65535   | none     | none     |

This parameter contains the data read from the last selected EPCE slave/register by the CEDC TC This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1107 | C CE_LASTCMD | V   | n/a  | 2   | 8   | 8 | none |         | 0       | 255     | none     | none     |

This parameter contains the command Identifier of the last accepted command (except CEHKSEND) This monitor is available also in Debug mode.

## RAW VALUE MEANING

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1108 | C CE_MUPL_S | V   | n/a  | 3   | 12  | 16 | F0082 |         | 0       | 65535   | none     | none     |

This parameter contains the EPCE memory upload start address (segment)

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1109 | C CE_MUPL_O | V   | n/a  | 3   | 12  | 16 | F0082 |         | 0       | 65535   | none     | none     |

This parameter contains the EPCE memory upload start address (offset)

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1110 | C CE_MUPL_L | V   | n/a  | 3   | 4   | 8 | F0082 |         | 0       | 232     | none     | none     |

This parameter contains the EPCE memory upload length (bytes)

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1111 | H FW Moving Mode | V   | n/a  | 2   | 1   | 1 | F0126 | 1       | 0       | 1       | none     | none     |

This parameter describes the FW moving mode (emergency/normal)

## RAW VALUE MEANING

|   |           |
|---|-----------|
| 0 | Emergency |
| 1 | Normal    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1112 | HFW Moving Direc | V   | n/a  | 2   | 1   | 1 | F0125 |         | 0       | 1       | none     | none     |

This parameter describes the FW moving direction (forward/reverse)

## RAW VALUE MEANING

|   |      |
|---|------|
| 0 | Up   |
| 1 | Down |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1113 | H FW Stop Sensor | V   | n/a  | 2   | 1   | 1 | F0190 | 0       | 0       | 1       | none     | none     |

This parameter describes if the FW stop sensor is enabled or disabled

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Enabled  |
| 1         | Disabled |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1114 | HFW TimeOut Step | V   | n/a  | 3   | 7   | 11 | F0123 |         | 0       | 1599    | none     | none     |

This parameter reports the FW timeout in steps

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1115 | HFW Moving Speed | V   | n/a  | 2   | 1   | 1 | F0188 |         | 0       | 1       | none     | none     |

This parameter reports the FW moving speed (slow/fast)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Slow    |
| 1         | Fast    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1116 | H FW TimeOutStop | V   | n/a  | 2   | 1   | 1 | F0189 |         | 0       | 1       | none     | none     |

This parameter reports the status of the FW Timeout Stop (disabled/enabled)

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Disabled |
| 1         | Enabled  |

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1117 | H FW PW | V   | n/a  | 2   | 1   | 1 | F0127 |         | 0       | 1       | none     | none     |

This parameter reports the status of the FW PW position and temperature sensor (off/on) When this parameter is Off, the following HK parameters are meaningless: F1118, F1122-24.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1118 | H FW PosSensorST | V   | n/a  | 2   | 3   | 3 | F0129 |         | 0       | 7       | none     | none     |

This parameter reports the position status of the FW Hall sensor

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Open         |
| 1         | Filter D     |
| 2         | Filter C     |
| 3         | Filter B     |
| 4         | Filter A     |
| 5         | Close        |
| 7         | No Stop Pos. |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1119 | HFW Motor Status | V   | n/a  | 2   | 1   | 1 | F0124 | 0       | 0       | 1       | none     | none     |

This parameter reports the status of the FW motor (stopped/running)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Stopped |
| 1         | Running |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1120 | HFW StopPosition | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the status of the FW stop position (active/not active)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1121 | H FW Stop Active | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

## RAW VALUE MEANING

|   |            |
|---|------------|
| 0 | Active     |
| 1 | Not Active |

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1122 | H CE_FWSPOT | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 359,9   | none     | none     |

This parameter reports the FW absolute position, in degrees, measured by the potentiometer

**CALIBRATION CURVE**  $ENG (^{\circ}C) = RAW * (-0.8547) + 417.094$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1123 | H CE_FWTEMP1 | V   | degC | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the temperature of the FW Motor Driver Electronics in the EPCH

**CALIBRATION CURVE**  $ENG (^{\circ}C) = RAW * (-0.8967) + 186.088$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1124 | H CE_FWTEMP2 | V   | degC | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the temperature of the FW motor in the EPCH

**CALIBRATION CURVE**  $ENG (^{\circ}C) = RAW * (-0.8967) + 186.088$

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1125 | HFW DecontHeaLtc | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the status of the decontamination heater latch (on/off)

## RAW VALUE MEANING

|   |     |
|---|-----|
| 0 | ON  |
| 1 | OFF |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1127 | H CE_TTMPFPC | V   | degC | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the coarse resolution of the focal plane thermal control temperature

**CALIBRATION CURVE**  $ENG (^{\circ}C) = RAW * (-0.7303) + 129.6629$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1128 | H CE_TTMPFPF | V   | degC | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the fine resolution of the focal plane thermal control temperature

**CALIBRATION CURVE**  $ENG (^{\circ}C) = RAW * (-0.07421) - 91.2987$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1129 | H CE_TTMPS | V   | degC | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the shield thermal control temperature

**CALIBRATION CURVE**  $ENG (^{\circ}C) = RAW * (-0.7303) + 129.6629$

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| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1130 | H HOP PW Sensor | V   | n/a  | 2   | 1   | 1 | F0191 |         | 0       | 1       | none     | none     |

This parameter reports the PW status of the bellow Hall sensor (off/on)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1131 | H HOP Retracted | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameters reports the bellow status (retracted/not retracted)

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Retracted    |
| 1         | NotRetracted |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1132 | HHOP Door Status | V   | n/a  | 2   | 1   | 1 | F0044 |         | 0       | 1       | none     | none     |

This parameter reports the status of the Door HOP (open/closed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Open    |
| 1         | Closed  |

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1133 | C CE_U+5D | V   | V    | 3   | 4   | 8 | none |         | 4,7     | 5,3     | none     | none     |

This parameter reports the EPCE + 5 V digital voltage

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.045$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1134 | C CE_U+5A | V   | V    | 3   | 4   | 8 | none |         | 4,7     | 5,3     | none     | none     |

This parameter reports the EPCE + 5 V analogue voltage

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.044$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1135 | C CE_U-15A | V   | V    | 3   | 4   | 8 | none |         | -15,5   | -14,5   | none     | none     |

This parameter reports the EPCE - 15 V analogue voltage

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.13)$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1136 | C CE_UDGND | V   | V    | 3   | 4   | 8 | none |         | -0,5    | 0,5     | none     | none     |

This parameter reports the EPCE digital ground voltage

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.01954 - 2.5$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1137 | C CE_CU+5A | V   | V    | 3   | 4   | 8 | none |         | 4,7     | 5,3     | none     | none     |

This parameter reports the FW + 5 V analogue voltage used in the Filter Wheel & Thermal Control electronics of the EPCH

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.036$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1138 | C CE_CU-15A | V   | V    | 3   | 4   | 8 | none |         | -15,5   | -14,5   | none     | none     |

This parameter reports the FW - 15 V analogue voltage used in the Filter Wheel & Thermal Control electronics of the EPCH

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.0711)$

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1139 | C ErA0 ADC QuaST | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the status of the ADC quadrant 0 electronics (ready / not ready). This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Ready     |
| 1         | Not Ready |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1140 | CErA0 RecDataCks | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the status of the data checksum received from EPEA Quadrant 0 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1141 | C ErA0 Transmit | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the transmission status from EPEA Quadrant 0 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1142 | CErA0 ACKTimO ST | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the Acknowledge timeout error status of the EPEA Quadrant 0 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1143 | CErA0 ACK Status | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the Acknowledge error status of the EPEA Quadrant 0 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1144 | C ErA0 NegACKCod | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

This parameter reports the negative acknowledge error code from EPEA Quadrant 0 The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1145 | C ErA1 ADC QuaST | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the status of the ADC quadrant 1 electronics (ready / not ready) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Ready     |
| 1         | Not Ready |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1146 | CErA1 RecDataCks | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the status of the data checksum received from EPEA Quadrant 1 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1147 | C ErA1 Transmit | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the transmission status from EPEA Quadrant 1 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1148 | CErA1 ACKTimO ST | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the Acknowledge timeout error status of the EPEA Quadrant 1 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1149 | CErA1 ACK Status | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the status of the ADC quadrant 2 electronics (ready / not ready) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1150 | C ErA1 NegACKCod | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

This parameter reports the negative acknowledge error code from EPEA Quadrant The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1151 | C ErA2 ADC QuaST | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the status of the ADC quadrant 2 electronics (ready / not ready) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Ready     |
| 1         | Not Ready |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1152 | CErA2 RecDataCks | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the status of the data checksum received from EPEA Quadrant 2 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1153 | C ErA2 Transmit | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the transmission status from EPEA Quadrant 2 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1154 | CErA2 ACKTimO ST | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the Acknowledge timeout error status of the EPEA Quadrant 2 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1155 | CErA2 ACK Status | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the Acknowledge error status of the EPEA Quadrant 2 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1156 | C ErA2 NegACKCod | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

This parameter reports the negative acknowledge error code from EPEA Quadrant 2 The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1157 | C ErA3 ADC QuaST | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the status of the ADC quadrant 3 electronics (ready / not ready) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Ready     |
| 1         | Not Ready |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1158 | CErA3 RecDataCks | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the transmission status from EPEA Quadrant 3 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1159 | C ErA3 Transmit | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the transmission status from EPEA Quadrant 3 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1160 | CErA3 ACKTimO ST | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the Acknowledge timeout error status of the EPEA Quadrant 3 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1161 | CErA3 ACK Status | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

This parameter reports the Acknowledge error status of the EPEA Quadrant 3 (no error / error) This information is updated during command distribution to EPEA. The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1162 | C ErA3 NegACKCod | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

This parameter reports the negative acknowledge error code from EPEA Quadrant 3 The TC CE\_RESERR (F0078) will reset this parameter.

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1163 | C CE_IOADDR | V   | n/a  | 3   | 12  | 16 | F0088 | 65535   | 0       | 65535   | none     | none     |

This parameter reports the last EPCE I/O address loading using CEASET TC for data modification This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1164 | C CE_IODATA | V   | n/a  | 3   | 12  | 16 | F0088 |         | 0       | 65535   | none     | none     |

This parameter reports the data content of the port/register addressed by CE\_IOADDR This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1165 | C RecTabDataShow | V   | n/a  | 2   | 1   | 1 | F0083 |         | 0       | 1       | none     | none     |

This parameter reports if the Hex Table Data received at EPCE from EPEA are shown

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Selected |
| 1         | Selected     |

# EPCS TM PARAMETER DETAILED LIST

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Appendix F

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1166 | C CE_SSEG | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This parameter reports the current stack segment address used by the EPCE microprocessor

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1167 | C CE_DSEG | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This parameter reports the current EPCE data segment address used by the EPCE microprocessor

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1168 | VCurrentMeasCoSw | V   | n/a  | 2   | 1   | 1 | F0142 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPVC current measurement switch control

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Enabled  |
| 1         | Disabled |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1169 | VConvSync Switch | V   | n/a  | 2   | 1   | 1 | F0143 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPVC converter synchronizer switch control

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Enabled  |
| 1         | Disabled |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1170 | VAcSTSwitchThPW2 | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the actual status of the EPVC switch thermal power 2 This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1171 | VAcSTSwitchThPW1 | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the actual status of the EPVC switch thermal power 1 This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1172 | V AcSTSwitchFW | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the actual status of the EPVC filter wheel switch This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1173 | V AcSTSwitchHT | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the actual status of the EPVC Operating Heater switch This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1174 | V AcSTSwitchQua3 | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the actual status of the EPVC quadrant 3 switch This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1175 | V AcSTSwitchQua2 | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the actual status of the EPVC quadrant 2 switch This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1176 | V AcSTSwitchQua1 | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the actual status of the EPVC quadrant 1 switch This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1177 | V AcSTSwitchQua0 | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the actual status of the EPVC quadrant 0 switch This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1178 | V SwitchThermPW2 | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the last commanded status of the EPVC thermal power 2 switch This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1179 | V SwitchThermPW1 | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the last commanded status of the EPVC thermal power 1 switch This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1180 | V Switch FW | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the last commanded status of the EPVC filter wheel switch This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1181 | V Switch HT | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the last commanded status of the EPVC Operating Heater switch This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1182 | V Switch Qua3 | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the last commanded status of the EPVC quadrant 3 switch This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1183 | V Switch Qua2 | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the last commanded status of the EPVC quadrant 2 switch This parameter can be modified by both TCs F0139 & F0140.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

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| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1184 | V Switch Qua1 | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the last commanded status of the EPVC quadrant 1 switch This parameter can be modified by both TCs F0139 & F0140.

## RAW VALUE MEANING

|   |     |
|---|-----|
| 0 | Off |
| 1 | On  |

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1185 | V Switch Qua0 | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the last commanded status of the EPVC quadrant 0 switch This parameter can be modified by both TCs F0139 & F0140.

## RAW VALUE MEANING

|   |     |
|---|-----|
| 0 | Off |
| 1 | On  |

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1186 | V VC_TEMP1 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPVC switch case temperature

**CALIBRATION CURVE** ENG (°C) = RAW\*1.73-270

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1187 | V VC_TEMP2 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPVC box temperature

**CALIBRATION CURVE** ENG (°C) = RAW\*1.73-270

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1188 | V VC_IMAIN | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the current measurement on the primary side of the EPCE dedicated converters in the EPVC.

**CALIBRATION CURVE** ENG (mA) = RAW\*3.617

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1189 | V VC_IQ0 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the current measurement on the primary side of the EPEA quadrant 0 dedicated converters in the EPVC

**CALIBRATION CURVE** ENG (mA) = RAW\*4.0

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1190 | V VC_IQ1 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the current measurement on the primary side of the EPEA quadrant 1 dedicated converters in the EPVC

**CALIBRATION CURVE** ENG (mA) = RAW\*3.777

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1191 | V VC_IQ2 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the current measurement on the primary side of the EPEA quadrant 2 dedicated converters in the EPVC

**CALIBRATION CURVE** ENG (mA) = RAW\*3.273

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1192 | V VC_IQ3 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the current measurement on the primary side of the EPEA quadrant 3 dedicated converters in the EPVC

**CALIBRATION CURVE** ENG (mA) = RAW\*3.491

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1193 | V VC_IHT | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the current measurement on the primary side of the Operating Heater dedicated converters in the EPVC

**CALIBRATION CURVE** ENG (mA) = RAW\*5.74+42.778

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| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1194 | V VC_HV0CTRL | V   | n/a  | 2   | 8   | 8 | F0141 |         | 0       | 255     | none     | none     |

This parameter reports the EPVC HV0 converter digital setting

## RAW VALUE MEANING

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1195 | V VC_HV1CTRL | V   | n/a  | 2   | 8   | 8 | F0141 |         | 0       | 255     | none     | none     |

This parameter reports the EPVC HV1 converter digital setting

## RAW VALUE MEANING

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1196 | V VC_HV2CTRL | V   | n/a  | 2   | 8   | 8 | F0141 |         | 0       | 255     | none     | none     |

This parameter reports the EPVC HV2 converter digital setting

## RAW VALUE MEANING

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1197 | V VC_HV3CTRL | V   | n/a  | 2   | 8   | 8 | F0141 |         | 0       | 255     | none     | none     |

This parameter reports the EPVC HV3 converter digital setting

## RAW VALUE MEANING

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1198 | V VC_UHV0 | V   | V    | 3   | 12  | 16 | F0141 |         | -300    | 10      | none     | none     |

This parameter reports the measured EPVC HV0 voltage

**CALIBRATION CURVE**  $ENG(V) = RAW * (-1.01333) + 513.76$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1199 | V VC_UHV1 | V   | V    | 3   | 12  | 16 | F0141 |         | -300    | 10      | none     | none     |

This parameter reports the measured EPVC HV1 voltage

**CALIBRATION CURVE**  $ENG(V) = RAW * (-1.01333) + 513.76$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1200 | V VC_UHV2 | V   | V    | 3   | 12  | 16 | F0141 |         | -300    | 10      | none     | none     |

This parameter reports the measured EPVC HV2 voltage

**CALIBRATION CURVE**  $ENG(V) = RAW * (-1.01333) + 513.76$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1201 | V VC_UHV3 | V   | V    | 3   | 12  | 16 | F0141 |         | -300    | 10      | none     | none     |

This parameter reports the measured EPVC HV3 voltage

**CALIBRATION CURVE**  $ENG(V) = RAW * (-1.01333) + 513.76$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1202 | V VC_HTCTRL | V   | n/a  | 3   | 4   | 8 | F0141 |         | 0       | 255     | none     | none     |

This parameter reports the EPVC operating heater converter digital setting

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1203 | V VC_UHT | V   | V    | 3   | 12  | 16 | F0141 |         | 0       | 40      | none     | none     |

This parameter reports the measured EPVC operating heater voltage

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.10756) + 54.532$

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1204 | C CE_DCREGmaster | V   | n/a  | 3   | 0   | 4 | F0194 |         | 0       | 7       | none     | none     |

This parameter contains the last register address loaded by the EPCE CEDC command This monitor is available also in Debug mode.

## CALIBRATION CURVE

| PREF  | NAME              | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1205 | EUQUCH0 UVAR Offs | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 0 UVAR offset status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1206 | E QUCH0 CCD FFDR | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 0 CCD FFDR status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1207 | E QUCH0 CCD BIAS | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 0 CCD bias status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME              | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1208 | EUQUCH0 CCD Power | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 0 CCD power status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME              | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1209 | EUQUCH1 UVAR Offs | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 1 UVAR offset status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1210 | E QUCH1 CCD FFDR | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 1 CCD FFDR status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1211 | E QUCH1 CCD BIAS | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 1 CCD bias status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME              | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1212 | EUQUCH1 CCD Power | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 1 CCD power status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1213 | EQUCH2 UVAR Offs | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 2 UVAR offset status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1214 | E QUCH2 CCD FFDR | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 2 CCD FFDR status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1215 | E QUCH2 CCD BIAS | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 2 CCD bias status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1216 | EQUCH2 CCD Power | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 2 CCD power status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1217 | EQUCH3 UVAR Offs | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 3 UVAR offset status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1218 | E QUCH3 CCD FFDR | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 3 CCD FFDR status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1219 | E QUCH3 CCD BIAS | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 3 CCD bias status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1220 | EQUCH3 CCD Power | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the quadrant 3 CCD power status This parameters can be modified by TCs F0159, F0160 and F0161.

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1221 | E CACH0 TstPulse | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test pulse status of the quadrant 0

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Disabled |
| 1         | Enabled  |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1222 | ECACH0 TstSwitc3 | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test switch 3 status of the quadrant 0

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1223 | ECACH0 TstSwitc2 | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test switch 2 status of the quadrant 0

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1224 | ECACH0 TstSwitc1 | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test switch 1 status of the quadrant 0

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1225 | ECACH0 GainCame2 | V   | n/a  | 2   | 1   | 1 | F0163 |         | 0       | 1       | none     | none     |

This parameter reports the gain camex 2 status of quadrant 0

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Low     |
| 1         | High    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1226 | ECACH0 GainCame1 | V   | n/a  | 2   | 1   | 1 | F0163 |         | 0       | 1       | none     | none     |

This parameter reports the gain camex 1 status of quadrant 0

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Low     |
| 1         | High    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1227 | ECACH0 GainCame0 | V   | n/a  | 2   | 1   | 1 | F0163 |         | 0       | 1       | none     | none     |

This parameter reports the gain camex 0 status of quadrant 0

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Low     |
| 1         | High    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1228 | E CACH1 TstPulse | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test pulse status of the quadrant 1

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Disabled |
| 1         | Enabled  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1229 | ECACH1 TstSwitc3 | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test switch 3 status of the quadrant 1

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1230 | ECACH1 TstSwitc2 | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test switch 2 status of the quadrant 1

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1231 | ECACH1 TstSwitc1 | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test switch 1 status of the quadrant 1

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1232 | ECACH1 GainCame2 | V   | n/a  | 2   | 1   | 1 | F0163 |         | 0       | 1       | none     | none     |

This parameter reports the gain camex 2 status of quadrant 1

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Low     |
| 1         | High    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1233 | ECACH1 GainCame1 | V   | n/a  | 2   | 1   | 1 | F0163 |         | 0       | 1       | none     | none     |

This parameter reports the gain camex 1 status of quadrant 1

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Low     |
| 1         | High    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1234 | ECACH1 GainCame0 | V   | n/a  | 2   | 1   | 1 | F0163 |         | 0       | 1       | none     | none     |

This parameter reports the gain camex 0 status of quadrant 1

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Low     |
| 1         | High    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1235 | E CACH2 TstPulse | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test pulse status of the quadrant 2

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Disabled |
| 1         | Enabled  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1236 | ECACH2 TstSwitc3 | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test switch 3 status of the quadrant 2

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1237 | ECACH2 TstSwitc2 | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test switch 2 status of the quadrant 2

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1238 | ECACH2 TstSwitc1 | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test switch 1 status of the quadrant 2

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1239 | ECACH2 GainCame2 | V   | n/a  | 2   | 1   | 1 | F0163 |         | 0       | 1       | none     | none     |

This parameter reports the gain camex 2 status of quadrant 2

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Low     |
| 1         | High    |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1240 | ECACH2 GainCame1 | V   | n/a  | 2   | 1   | 1 | F0163 |         | 0       | 1       | none     | none     |

This parameter reports the gain camex 1 status of quadrant 2

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Low     |
| 1         | High    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1241 | ECACH2 GainCame0 | V   | n/a  | 2   | 1   | 1 | F0163 |         | 0       | 1       | none     | none     |

This parameter reports the gain camex 0 status of quadrant 2

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Low     |
| 1         | High    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1242 | E CACH3 TstPulse | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test pulse status of the quadrant 3

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Disabled |
| 1         | Enabled  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1243 | ECACH3 TstSwitc3 | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test switch 3 status of the quadrant 3

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1244 | ECACH3 TstSwitc2 | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test switch 2 status of the quadrant 3

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1245 | ECACH3 TstSwitc1 | V   | n/a  | 2   | 1   | 1 | F0162 |         | 0       | 1       | none     | none     |

This parameter reports the test switch 1 status of the quadrant 3

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1246 | ECACH3 GainCame2 | V   | n/a  | 2   | 1   | 1 | F0163 |         | 0       | 1       | none     | none     |

This parameter reports the gain camex 2 status of quadrant 3

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Low     |
| 1         | High    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1247 | ECACH3 GainCame1 | V   | n/a  | 2   | 1   | 1 | F0163 |         | 0       | 1       | none     | none     |

This parameter reports the gain camex 1 status of quadrant 3

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Low     |
| 1         | High    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1248 | ECACH3 GainCame0 | V   | n/a  | 2   | 1   | 1 | F0163 |         | 0       | 1       | none     | none     |

This parameter reports the gain camex 0 status of quadrant 3

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Low     |
| 1         | High    |

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1249 | E C0_UVBST | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the VBST voltage of quadrant 0

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.05869)$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1250 | E C1_UVBST | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the VBST voltage of quadrant 1

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.05869)$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1251 | E C2_UVBST | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the VBST voltage of quadrant 2

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.05825)$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1252 | E C3_UVBST | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the VBST voltage of quadrant 3

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.05869)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1253 | E C0_TEMPCCD | V   | mV   | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the CCD temperature of quadrant 0, measured by a diode.

**CALIBRATION CURVE**     $ENG(mV) = RAW * (-1.74292)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1254 | E C1_TEMPCCD | V   | mV   | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the CCD temperature of quadrant 1, measured by a diode.

**CALIBRATION CURVE**     $ENG(mV) = RAW * (-1.74292)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1255 | E C2_TEMPCCD | V   | mV   | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the CCD temperature of quadrant 2, measured by a diode.

**CALIBRATION CURVE**     $ENG(mV) = RAW * (-1.74292)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1256 | E C3_TEMPCCD | V   | mV   | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the CCD temperature of quadrant 3, measured by a diode.

**CALIBRATION CURVE**     $ENG(mV) = RAW * (-1.74292)$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1257 | E C0_IVSSA | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant 0 VSSA current

**CALIBRATION CURVE**     $ENG(mA) = RAW * 0.29851$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1258 | E C1_IVSSA | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant 1 VSSA current

**CALIBRATION CURVE**     $ENG(mA) = RAW * 0.29851$

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1259 | E C2_IVSSA | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant 2 VSSA current

**CALIBRATION CURVE**     $ENG\ (mA) = RAW * 0.298214$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1260 | E C3_IVSSA | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant 3 VSSA current

**CALIBRATION CURVE**     $ENG\ (mA) = RAW * 0.29851$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1261 | E C0_IVSSSA | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant 0 VSSSA current

**CALIBRATION CURVE**     $ENG\ (mA) = RAW * 0.29851$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1262 | E C1_IVSSSA | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant 1 VSSSA current

**CALIBRATION CURVE**     $ENG\ (mA) = RAW * 0.29851$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1263 | E C2_IVSSSA | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant 2 VSSSA current

**CALIBRATION CURVE**     $ENG\ (mA) = RAW * 0.298214$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1264 | E C3_IVSSSA | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant 3 VSSSA current

**CALIBRATION CURVE**     $ENG\ (mA) = RAW * 0.29851$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1265 | H OH_CTRL | V   | n/a  | 3   | 12  | 16 | F0132 |         |         |         | none     | none     |

This parameter reports the current Operating Heater thermal control algorithm setting set by TOHCTRL TC.

**CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1266 | H OH_STAT | V   | n/a  | 3   | 12  | 16 | F0133 |         |         |         | none     | none     |

This parameter reports the current Operating Heater algorithm status

**CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1267 | H OH_TEMP | V   | n/a  | 3   | 12  | 16 | F0131 |         |         |         | none     | none     |

This parameter reports the current Operating Heater thermal control temperature setting set by TOHTEMP TC

**CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1268 | H DH_CTRL | V   | n/a  | 3   | 12  | 16 | F0135 |         |         |         | none     | none     |

This parameter reports the current Decontamination Heater thermal control algorithm setting set by TDHCTRL TC.

**CALIBRATION CURVE**

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| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1269 | H DH_STAT | V   | n/a  | 3   | 12  | 16 | F0136 |         |         |         | none     | none     |

This parameter reports the current Decontamination Heater thermal control algorithm status

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1270 | H DH_TEMP | V   | n/a  | 3   | 12  | 16 | F0134 |         |         |         | none     | none     |

This parameter reports the current Decontamination Heater thermal control temperature setting set by TDHTEMP TC.

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1271 | V VC_IFW | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the primary power current measurement of the filter wheel dedicated line in the EPVC.

**CALIBRATION CURVE**     $ENG\ (mA) = RAW * 4.082$

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1272 | V VC_IT | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the primary power current measurement of the Decontamination Heater dedicated line in the EPVC.

**CALIBRATION CURVE**     $ENG\ (mA) = RAW * 6.818$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1273 | C CE_ERR1 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078).

When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1274 | C CE_ERR2 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078).

When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1275 | C CE_ERR3 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078).

When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1276 | C CE_ERR4 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078).

When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1277 | C CE_ERR5 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078).

When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1278 | C CE_ERR6 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078).

When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1279 | C CE_ERR7 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078). When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1280 | C CE_ERR8 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078). When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1281 | C CE_ERR9 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078). When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1282 | C CE_ERR10 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078). When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1283 | C CE_ERR11 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078). When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1284 | C CE_ERR12 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078). When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1285 | C CE_ERR13 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078). When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1286 | C CE_ERR14 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078). When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1287 | C CE_ERR15 | V   | n/a  | 2   | 8   | 8 | F0078 |         |         |         | none     | none     |

Parameter from CE\_ERR1 to CE\_ERR15 contain the history of the errors detected in the EPCE; they are reset by TC CERESERR (F0078). When an error occurs, its code is stored in the CE\_LASTERR field. The previous one is shifted in the CE\_ERR1 field and so on. Therefore the field CE\_ERR 15 will contain the code of the oldest error occurred.

**RAW VALUE      MEANING**

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1288 | C MasterSeqClock | V   | n/a  | 2   | 1   | 1 | F0093 |         | 0       | 1       | none     | none     |

This parameter reports the status of the Master Sequencer clock (enabled/disabled)

**RAW VALUE      MEANING**

|   |          |
|---|----------|
| 0 | Disabled |
| 1 | Enabled  |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1289 | C Select ReadQua | V   | n/a  | 2   | 1   | 1 | F0093 |         | 0       | 1       | none     | none     |

This parameter reports the selected readout of quadrants (parallel/sequential)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Parallel   |
| 1         | Sequential |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1290 | CMS QuaSelected3 | V   | n/a  | 2   | 1   | 1 | F0093 |         | 0       | 1       | none     | none     |

This parameter reports the selection status of quadrant 3

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1291 | CMS QuaSelected2 | V   | n/a  | 2   | 1   | 1 | F0093 |         | 0       | 1       | none     | none     |

This parameter reports the selection status of quadrant 2

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1292 | CMS QuaSelected1 | V   | n/a  | 2   | 1   | 1 | F0093 |         | 0       | 1       | none     | none     |

This parameter reports the selection status of quadrant 1

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1293 | CMS QuaSelected0 | V   | n/a  | 2   | 1   | 1 | F0093 |         | 0       | 1       | none     | none     |

This parameter reports the selection status of quadrant 0

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1294 | CMS TimIntReaQua | V   | n/a  | 3   | 0   | 4 | F0093 |         |         |         | none     | none     |

This parameter reports the time interval between readout of quadrants

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1295 | A0 CPU MedianCor | V   | n/a  | 2   | 1   | 1 | F0122 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 0 CPU median correction (on/off)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | ON      |
| 1         | OFF     |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1296 | A0 CPU PMODE | V   | n/a  | 2   | 1   | 1 | F0105 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 0 CPU PMODE (idle/send)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Idle    |
| 1         | Send    |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1297 | A0 EPEA mode | V   | n/a  | 2   | 1   | 1 | F0105 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 0 mode (nominal/debug)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Nominal |
| 1         | Debug   |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1298 | A0 Memory Modify | V   | n/a  | 2   | 1   | 1 | F0183 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 0 memory modify (one time / continuously)

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | One time     |
| 1         | Continuously |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1299 | A0 Memo Mod Auto | V   | n/a  | 2   | 1   | 1 | F0183 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 0 memory modify autoincrement (off / on)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1300 | A0   | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 0 EABPUT/EAWPUT verify (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1301 | A0   | V   | n/a  | 2   | 1   | 1 | F0183 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 0 EABPUT/EAWPUT verify (enabled/disabled)

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Enabled  |
| 1         | Disabled |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1302 | A0 EARAMCHK Stat | V   | n/a  | 2   | 1   | 1 | F0175 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 0 EARAMCHK (not active / active)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1303 | A0 MemUplinkStat | V   | n/a  | 2   | 1   | 1 | F0094 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 0 Memory Uplink (not active / active)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1304 | A0 IntVecMemTest | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 0 interrupt vector memory selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1305 | A0 MemBank2Test | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 0 memory bank 2 selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1306 | A0 MemBank1Test | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 0 memory bank 1 selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1307 | A0_MemBank0Test | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 0 memory bank 0 selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1308 | A0_CMOTAB | V   | n/a  | 2   | 8   | 8 | none | 0       | 0       | 255     | none     | none     |

This parameter reports the calculation status of the Offset/Noise map relevant to the quadrant 0 CCDs

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1309 | A0_ERRCNT | V   | n/a  | 3   | 4   | 8 | F0103 |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 0 error counter. The last error code is in A0\_LASTERR. TC EARESERR will reset this counter.

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1310 | A0_LASTERR | V   | n/a  | 2   | 8   | 8 | F0103 |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 0 last error. TC EARESERR will reset this counter.

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1311 | A0_CMDCNT | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 0 accepted command counter (without HK request). Last accepted TC is reported in A0\_LASTCMD

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1312 | A0_CMDCNTR | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 0 accepted command counter (with HK request only)

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1313 | A0_CMDREJ | V   | n/a  | 3   | 4   | 8 | F0103 |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 0 rejected command counter (without HK request). It is reset by TC EARESERR (F0103)

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1314 | A0_LASTCMD | V   | n/a  | 2   | 8   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 0 last received command

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1315 | A0_BYTEREC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This parameter reports the last byte received from EPCE by EPEA quadrant 0

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1316 | A0_ADDRS | V   | n/a  | 3   | 12  | 16 | F0099 | 65535   | 0       | 65535   | none     | none     |

This parameter reports the segment address where a byte or a word can be read/written (by Debug set commands) in the EPEA quadrant 0

## CALIBRATION CURVE

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| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1317 | A0_ADDRO | V   | n/a  | 3   | 12  | 16 | F0099 | 0       | 0       | 65535   | none     | none     |

This parameter reports the offset address where a byte or a word can be read/written (by Debug set commands) in the EPEA quadrant 0

## CALIBRATION CURVE

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1318 | A0_DATA | V   | n/a  | 3   | 12  | 16 | F0099 |         | 0       | 65535   | none     | none     |

This parameter reports the data read/written (by Debug set commands) in the EPEA quadrant 0 memory

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1319 | A0 CCD 0 SwiStat | V   | n/a  | 2   | 1   | 1 | F0113 |         | 0       | 1       | none     | none     |

This parameter reports the switching status of CCD 0 in the EPEA quadrant 0

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1320 | A0_SECCNT | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 0 second counter

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1321 | A0 IllgCPUInterr | V   | n/a  | 2   | 1   | 1 | F0103 | 0       | 0       | 1       | none     | none     |

This parameter indicates if an illegal CPU interrupt has been received: it is reset by TC EARESERR.

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Received |
| 1         | Received     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1322 | A0 RAM Check Err | V   | n/a  | 2   | 1   | 1 | F0175 | 0       | 0       | 1       | none     | none     |

This parameter indicates if a RAM check error has occurred in the EPEA quadrant 0

| RAW VALUE | MEANING     |
|-----------|-------------|
| 0         | Not Occured |
| 1         | Occured     |

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1323 | A0_PMODE | V   | n/a  | 2   | 8   | 8 | F0105 |         | 0       | 2       | none     | none     |

This parameter reports the PMODE of the EPEA quadrant 0

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Idle    |
| 1         | Send    |
| 2         | Debug   |

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1324 | A0_MUPLS | V   | n/a  | 3   | 12  | 16 | F0094 |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 0 memory uplink segment

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1325 | A0_MUPLO | V   | n/a  | 3   | 12  | 16 | F0094 |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 0 memory uplink offset

## CALIBRATION CURVE

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| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1326 | A0_MUPLL | V   | n/a  | 3   | 4   | 8 | F0094 |         | 0       | 232     | none     | none     |

This parameter reports the EPEA quadrant 0 memory uplink length

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1327 | A0_ATHRC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of scientific events above low threshold acquired by EPEA quadrant 0 in the period between the last 2 Count Infos.

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1328 | A0_FIFRC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of scientific events read from FIFO of EPEA quadrant 0 in the period between the last 2 Count Infos.

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1329 | A0_EPDHC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of scientific events sent from EPEA quadrant 0 to EPDH in the period between the last 2 Count Infos.

## **CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1330 | A0_DSLINC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of CCD readout lines or frames (depending on MIPs rejection mode) discarded by EPEA quadrant 0 between the last 2 Count Info.

## **CALIBRATION CURVE**

| PREF  | NAME   | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1331 | A0_MCM | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 4095    | none     | none     |

This parameter reports the EPEA quadrant 0 mean common mode calculated in the period between the last 2 Count Infos.

## **CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1332 | A0_IOADDR | V   | n/a  | 3   | 12  | 16 | F0099 | 65535   | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 0 I/O address for data modification

## **CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1333 | A0_IODATA | V   | n/a  | 3   | 12  | 16 | F0099 |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 0 data content of the I/O address

## **CALIBRATION CURVE**

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1334 | A0 MEMCHK active | V   | n/a  | 2   | 1   | 1 | F0068 |         | 0       | 1       | none     | none     |

Activation status of the EPEA quadrant 0 memory checksum

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1335 | A0H Rec Data Cks | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 0 receive data checksum error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

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| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1336 | A0H Transmit ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 0 transmit error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1337 | A0H AckTimeOutSt | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 0 acknowledge timeout error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1338 | A0H ACK Status | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 0 acknowledge error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1339 | A0H NegACKErCod | V   | n/a  | 2   | 8   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 0 acknowledge error code

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1340 | A1 CPU MedianCor | V   | n/a  | 2   | 1   | 1 | F0122 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 1 CPU median correction (on/off)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | ON      |
| 1         | OFF     |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1341 | A1 CPU PMODE | V   | n/a  | 2   | 1   | 1 | F0105 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 1 CPU PMODE (idle/send)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Idle    |
| 1         | Send    |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1342 | A1 EPEA mode | V   | n/a  | 2   | 1   | 1 | F0105 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 1 mode (nominal/debug)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Nominal |
| 1         | Debug   |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1343 | A1 Memory Modify | V   | n/a  | 2   | 1   | 1 | F0183 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 1 memory modify (one time / continuously)

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | One time     |
| 1         | Continuously |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1344 | A1 Memo Mod Auto | V   | n/a  | 2   | 1   | 1 | F0183 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 1 memory modify autoincrement (off / on)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

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| PREF  | NAME | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1345 | A1   | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 1 EABPUT/EAWPUT verify (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1346 | A1   | V   | n/a  | 2   | 1   | 1 | F0183 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 1 EABPUT/EAWPUT verify (enabled/disabled)

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Enabled  |
| 1         | Disabled |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1347 | A1 EARAMCHK Stat | V   | n/a  | 2   | 1   | 1 | F0175 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 1 EARAMCHK (not active / active)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1348 | A1 MemUplinkStat | V   | n/a  | 2   | 1   | 1 | F0094 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 1 Memory Uplink (not active / active)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1349 | A1 IntVecMemTest | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 1 interrupt vector memory selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1350 | A1 MemBank2Test | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 1 memory bank 2 selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1351 | A1 MemBank1Test | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 1 memory bank 1 selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1352 | A1 MemBank0Test | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 1 memory bank 0 selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1353 | A1_CMOTAB | V   | n/a  | 2   | 8   | 8 | none |         | 0       | 255     | none     | none     |

This parameter reports the calculation status of the Offset/Noise map relevant to the quadrant 1 CCDs

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1354 | A1_ERRCNT | V   | n/a  | 3   | 4   | 8 | F0103 |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 1 error counter. The last error code is in A1\_LASTERR. TC EARESERR will reset this counter.

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1355 | A1_LASTERR | V   | n/a  | 2   | 8   | 8 | F0103 |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 1 last error. TC EARESERR will reset this parameter.

## RAW VALUE      MEANING

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1356 | A1_CMDCNT | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 1 accepted command counter (without HK request). Last accepted TC is reported in A1\_LASTCMD

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1357 | A1_CMDCNTR | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 1 accepted command counter (with HK request only)

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1358 | A1_CMDREJ | V   | n/a  | 3   | 4   | 8 | F0103 |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 1 rejected command counter (without HK request). It is reset by TC EARESERR (F0103)

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1359 | A1_LASTCMD | V   | n/a  | 2   | 8   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 1 last received command

## RAW VALUE      MEANING

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1360 | A1_BYTEREC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This parameter reports the last byte received from EPCE by EPEA quadrant 1

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1361 | A1_ADDR5 | V   | n/a  | 3   | 12  | 16 | F0099 | 65535   | 0       | 65535   | none     | none     |

This parameter reports the segment address where a byte or a word can be read/written (by Debug set commands) in the EPEA quadrant 1

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1362 | A1_ADDRO | V   | n/a  | 3   | 12  | 16 | F0099 | 0       | 0       | 65535   | none     | none     |

This parameter reports the offset address where a byte or a word can be read/written (by Debug set commands) in the EPEA quadrant 1

## CALIBRATION CURVE

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1363 | A1_DATA | V   | n/a  | 3   | 12  | 16 | F0099 |         | 0       | 65535   | none     | none     |

This parameter reports the data read/written (by Debug set commands) in the EPEA quadrant 1 memory

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1364 | A1 CCD 0 SwiStat | V   | n/a  | 2   | 1   | 1 | F0113 |         | 0       | 1       | none     | none     |

This parameter reports the switching status of CCD 0 in the EPEA quadrant 1

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1365 | A1_SECCNT | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 1 second counter

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1366 | A1 IllgCPUInterr | V   | n/a  | 2   | 1   | 1 | F0103 | 0       | 0       | 1       | none     | none     |

This parameter indicates if an illegal CPU interrupt has been received: it is reset by TC EARESERR.

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Received |
| 1         | Received     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1367 | A1 RAM Check Err | V   | n/a  | 2   | 1   | 1 | F0175 | 0       | 0       | 1       | none     | none     |

This parameter indicates if a RAM check error has occurred in the EPEA quadrant 1

| RAW VALUE | MEANING     |
|-----------|-------------|
| 0         | Not Occured |
| 1         | Occured     |

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1368 | A1_PMODE | V   | n/a  | 2   | 8   | 8 | F0105 |         | 0       | 2       | none     | none     |

This parameter reports the PMODE of the EPEA quadrant 1

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Idle    |
| 1         | Send    |
| 2         | Debug   |

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1369 | A1_MUPLS | V   | n/a  | 3   | 12  | 16 | F0094 |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 1 memory uplink segment

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1370 | A1_MUPLO | V   | n/a  | 3   | 12  | 16 | F0094 |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 1 memory uplink offset

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1371 | A1_MUPLL | V   | n/a  | 3   | 4   | 8 | F0094 |         | 0       | 232     | none     | none     |

This parameter reports the EPEA quadrant 1 memory uplink length

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1372 | A1_ATHRC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of scientific events above low threshold acquired by EPEA quadrant 1 in the period between the last 2 Count Infos.

## CALIBRATION CURVE

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| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1373 | A1_FIFRC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of scientific events read from FIFO of EPEA quadrant 1 in the period between the last 2 Count Infos.

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1374 | A1_EPDPHC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of scientific events sent from EPEA quadrant 1 to EPDH in the period between the last 2 Count Infos.

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1375 | A1_DSLINC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of CCD readout lines or frames (depending on MIPs rejection mode) discarded by EPEA quadrant 1 between the last 2 Count Info.

## CALIBRATION CURVE

| PREF  | NAME   | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1376 | A1_MCM | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 4095    | none     | none     |

This parameter reports the EPEA quadrant 1 mean common mode calculated in the period between the last 2 Count Infos.

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1377 | A1_IOADDR | V   | n/a  | 3   | 12  | 16 | F0099 | 65535   | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 1 I/O address for data modification

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1378 | A1_IODATA | V   | n/a  | 3   | 12  | 16 | F0099 |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 1 data content of the I/O address

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1379 | A1 MEMCHK active | V   | n/a  | 2   | 1   | 1 | F0170 |         | 0       | 1       | none     | none     |

Activation status of the EPEA quadrant 0 memory checksum

## RAW VALUE MEANING

|   |            |
|---|------------|
| 0 | Not Active |
| 1 | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1380 | A1H Rec Data Cks | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 1 receive data checksum error status

## RAW VALUE MEANING

|   |          |
|---|----------|
| 0 | No Error |
| 1 | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1381 | A1H Transmit ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 1 transmit error status

## RAW VALUE MEANING

|   |          |
|---|----------|
| 0 | No Error |
| 1 | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1382 | A1H AckTimeOutSt | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 1 acknowledge timeout error status

## RAW VALUE MEANING

|   |          |
|---|----------|
| 0 | No Error |
| 1 | Error    |

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| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1383 | A1H ACK Status | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 1 acknowledge error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1384 | A1H NegACKErCod | V   | n/a  | 2   | 8   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 1 acknowledge error code

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1385 | A2 CPU MedianCor | V   | n/a  | 2   | 1   | 1 | F0122 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 2 CPU median correction (on/off)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | ON      |
| 1         | OFF     |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1386 | A2 CPU PMODE | V   | n/a  | 2   | 1   | 1 | F0105 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 2 CPU PMODE (idle/send)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Idle    |
| 1         | Send    |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1387 | A2 EPEA mode | V   | n/a  | 2   | 1   | 1 | F0105 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 2 mode (nominal/debug)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Nominal |
| 1         | Debug   |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1388 | A2 Memory Modify | V   | n/a  | 2   | 1   | 1 | F0183 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 2 memory modify (one time / continuously)

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | One time     |
| 1         | Continuously |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1389 | A2 Memo Mod Auto | V   | n/a  | 2   | 1   | 1 | F0183 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 2 memory modify autoincrement (off / on)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1390 | A2   | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 2 EABPUT/EAWPUT verify (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1391 | A2   | V   | n/a  | 2   | 1   | 1 | F0183 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 2 EABPUT/EAWPUT verify (enabled/disabled)

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Enabled  |
| 1         | Disabled |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1392 | A2 EARAMCHK Stat | V   | n/a  | 2   | 1   | 1 | F0175 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 2 EARAMCHK (not active / active)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1393 | A2 MemUplinkStat | V   | n/a  | 2   | 1   | 1 | F0094 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 2 Memory Uplink (not active / active)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1394 | A2 IntVecMemTest | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 2 interrupt vector memory selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1395 | A2 MemBank2Test | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 2 memory bank 2 selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1396 | A2 MemBank1Test | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 2 memory bank 1 selftest

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1397 | A2 MemBank0Test | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 2 memory bank 0 selftest

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1398 | A2_CMOTAB | V   | n/a  | 2   | 8   | 8 | none |         | 0       | 255     | none     | none     |

This parameter reports the calculation status of the Offset/Noise map relevant to the quadrant 2 CCDs

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1399 | A2_ERRCNT | V   | n/a  | 3   | 4   | 8 | F0103 |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 2 error counter. The last error code is in A2\_LASTERR. TC EARESERR will reset this counter.

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1400 | A2_LASTERR | V   | n/a  | 2   | 8   | 8 | F0103 |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 2 last error. TC EARESERR will reset this parameter.

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1401 | A2_CMDCNT | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 2 accepted command counter (without HK request). Last accepted TC is reported in A2\_LASTCMD

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1402 | A2_CMDCNTR | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 2 accepted command counter (with HK request only)

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1403 | A2_CMDREJ | V   | n/a  | 3   | 4   | 8 | F0103 |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 2 rejected command counter (without HK request). It is reset by TC EARESERR (F0103)

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1404 | A2_LASTCMD | V   | n/a  | 2   | 8   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 2 last received command

## RAW VALUE MEANING

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1405 | A2_BYTEREC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This parameter reports the last byte received from EPCE by EPEA quadrant 2

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1406 | A2_ADDRS | V   | n/a  | 3   | 12  | 16 | F0099 | 65535   | 0       | 65535   | none     | none     |

This parameter reports the segment address where a byte or a word can be read/written (by Debug set commands) in the EPEA quadrant 2

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1407 | A2_ADDRO | V   | n/a  | 3   | 12  | 16 | F0099 | 0       | 0       | 65535   | none     | none     |

This parameter reports the offset address where a byte or a word can be read/written (by Debug set commands) in the EPEA quadrant 2

## CALIBRATION CURVE

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1408 | A2_DATA | V   | n/a  | 3   | 12  | 16 | F0099 |         | 0       | 65535   | none     | none     |

This parameter reports the data read/written (by Debug set commands) in the EPEA quadrant 2 memory

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1409 | A2 CCD 0 SwiStat | V   | n/a  | 2   | 1   | 1 | F0113 |         | 0       | 1       | none     | none     |

This parameter reports the switching status of CCD 0 in the EPEA quadrant 2

## RAW VALUE MEANING

|   |     |
|---|-----|
| 0 | Off |
| 1 | On  |

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1410 | A2_SECCNT | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 2 second counter

## CALIBRATION CURVE

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1411 | A2_IllgCPUInterr | V   | n/a  | 2   | 1   | 1 | F0103 | 0       | 0       | 1       | none     | none     |

This parameter indicates if an illegal CPU interrupt has been received: it is reset by TC EARESERR.

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Received |
| 1         | Received     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1412 | A2 RAM Check Err | V   | n/a  | 2   | 1   | 1 | F0175 | 0       | 0       | 1       | none     | none     |

This parameter indicates if a RAM check error has occurred in the EPEA quadrant 2

| RAW VALUE | MEANING     |
|-----------|-------------|
| 0         | Not Occured |
| 1         | Occured     |

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1413 | A2_PMODE | V   | n/a  | 2   | 8   | 8 | F0105 |         | 0       | 2       | none     | none     |

This parameter reports the PMODE of the EPEA quadrant 2

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Idle    |
| 1         | Send    |
| 2         | Debug   |

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1414 | A2_MUPLS | V   | n/a  | 3   | 12  | 16 | F0094 |         | 0       | 65536   | none     | none     |

This parameter reports the EPEA quadrant 2 memory uplink segment

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1415 | A2_MUPL0 | V   | n/a  | 3   | 12  | 16 | F0094 |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 2 memory uplink offset

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1416 | A2_MUPLL | V   | n/a  | 3   | 4   | 8 | F0094 |         | 0       | 232     | none     | none     |

This parameter reports the EPEA quadrant 2 memory uplink length

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1417 | A2_ATHRC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of scientific events above low threshold acquired by EPEA quadrant 2 in the period between the last 2 Count Infos.

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1418 | A2_FIFRC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of scientific events read from FIFO of EPEA quadrant 2 in the period between the last 2 Count Infos.

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1419 | A2_EPDHC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of scientific events sent from EPEA quadrant 2 to EPDH in the period between the last 2 Count Infos.

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1420 | A2_DSLINC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of CCD readout lines or frames (depending on MIPs rejection mode) discarded by EPEA quadrant 2 between the last 2 Count Info.

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| PREF  | NAME   | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1421 | A2_MCM | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 4095    | none     | none     |

This parameter reports the EPEA quadrant 2 mean common mode calculated in the period between the last 2 Count Infos.

## **CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1422 | A2_IOADDR | V   | n/a  | 3   | 12  | 16 | F0099 | 65535   | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 2 I/O address for data modification

## **CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1423 | A2_IODATA | V   | n/a  | 3   | 12  | 16 | F0099 |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 2 data content of the I/O address

## **CALIBRATION CURVE**

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1424 | A2 MEMCHK active | V   | n/a  | 2   | 1   | 1 | F0172 |         | 0       | 1       | none     | none     |

Activation status of the EPEA quadrant 0 memory checksum

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1425 | A2H Rec Data Cks | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 2 receive data checksum error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1426 | A2H Transmit ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 2 transmit error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1427 | A2H AckTimeOutSt | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 2 acknowledge timeout error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1428 | A2H ACK Status | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 2 acknowledge error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1429 | A2H NegACKErCod | V   | n/a  | 2   | 8   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 2 acknowledge error code

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1430 | A3 CPU MedianCor | V   | n/a  | 2   | 1   | 1 | F0122 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 3 CPU median correction (on/off)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | ON      |
| 1         | OFF     |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1431 | A3 CPU PMODE | V   | n/a  | 2   | 1   | 1 | F0105 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 3 CPU PMODE (idle/send)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Idle    |
| 1         | Send    |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1432 | A3 EPEA mode | V   | n/a  | 2   | 1   | 1 | F0105 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 3 mode (nominal/debug)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Nominal |
| 1         | Debug   |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1433 | A3 Memory Modify | V   | n/a  | 2   | 1   | 1 | F0183 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 3 memory modify (one time / continuously)

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | One time     |
| 1         | Continuously |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1434 | A3 Memo Mod Auto | V   | n/a  | 2   | 1   | 1 | F0183 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 3 memory modify autoincrement (off / on)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1435 | A3   | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 3 EABPUT/EAWPUT verify (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1436 | A3   | V   | n/a  | 2   | 1   | 1 | F0183 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 3 EABPUT/EAWPUT verify (enabled/disabled)

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | Enabled  |
| 1         | Disabled |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1437 | A3 EARAMCHK Sta | V   | n/a  | 2   | 1   | 1 | F0175 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 3 EARAMCHK (not active / active)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1438 | A3 MemUplink St | V   | n/a  | 2   | 1   | 1 | F0094 |         | 0       | 1       | none     | none     |

This parameter reports the status of the EPEA quadrant 3 Memory Uplink (not active / active)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1439 | A3 IntVecMemTest | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 3 interrupt vector memory selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1440 | A3 MemBank2Test | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 3 memory bank 2 selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1441 | A3 MemBank1Test | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 3 memory bank 1 selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1442 | A3 MemBank0Test | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter reports the result of the EPEA quadrant 3 memory bank 0 selftest (passed / failed)

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Passed  |
| 1         | Failed  |

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1443 | A3_CMOTAB | V   | n/a  | 2   | 8   | 8 | none |         | 0       | 255     | none     | none     |

This parameter reports the calculation status of the Offset/Noise map relevant to the quadrant 3 CCDs

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1444 | A3_ERRCNT | V   | n/a  | 3   | 4   | 8 | F0103 |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 3 error counter. The last error code is in A3\_LASTERR. TC EARESERR will reset this counter.

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1445 | A3_LASTERR | V   | n/a  | 2   | 8   | 8 | F0103 |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 3 last error. TC EARESERR will reset this parameter.

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1446 | A3_CMDCNT | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 3 accepted command counter (without HK request). Last accepted TC is reported in A3\_LASTCMD

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1447 | A3_CMDCNTR | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 3 accepted command counter (with HK request only)

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1448 | A3_CMDREJ | V   | n/a  | 3   | 4   | 8 | F0103 |         | 0       | 255     | none     | none     |

This parameter reports the EPEA quadrant 3 rejected command counter (without HK request). It is reset by TC EARESERR (F0103)

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1449 | A3_LASTCMD | V   | n/a  | 2   | 8   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 3 last received command

## **RAW VALUE      MEANING**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1450 | A3_BYTEREC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This parameter reports the last byte received from EPCE by EPEA quadrant 3

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1451 | A3_ADDRS | V   | n/a  | 3   | 12  | 16 | F0099 | 65535   | 0       | 65535   | none     | none     |

This parameter reports the segment address where a byte or a word can be read/written (by Debug set commands) in the EPEA quadrant 3

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1452 | A3_ADDRO | V   | n/a  | 3   | 12  | 16 | F0099 | 0       | 0       | 65535   | none     | none     |

This parameter reports the offset address where a byte or a word can be read/written (by Debug set commands) in the EPEA quadrant 3

## **CALIBRATION CURVE**

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1453 | A3_DATA | V   | n/a  | 3   | 12  | 16 | F0099 |         | 0       | 65535   | none     | none     |

This parameter reports the data read/written (by Debug set commands) in the EPEA quadrant 3 memory

## **CALIBRATION CURVE**

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1454 | A3 CCD 0 SwiStat | V   | n/a  | 2   | 1   | 1 | F0113 |         | 0       | 1       | none     | none     |

This parameter reports the switching status of CCD 0 in the EPEA quadrant 3

## **RAW VALUE      MEANING**

0      Off  
1      On

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1455 | A3_SECCNT | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 3 second counter

## **CALIBRATION CURVE**

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1456 | A3 IllgCPUInterr | V   | n/a  | 2   | 1   | 1 | F0103 | 0       | 0       | 1       | none     | none     |

This parameter indicates if an illegal CPU interrupt has been received: it is reset by TC EARESERR.

## **RAW VALUE      MEANING**

0      Not Received  
1      Received

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1457 | A3 RAM Check Err | V   | n/a  | 2   | 1   | 1 | F0175 | 0       | 0       | 1       | none     | none     |

This parameter indicates if a RAM check error has occurred in the EPEA quadrant 3

## **RAW VALUE      MEANING**

0      Not Occured  
1      Occured

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1458 | A3_PMODE | V   | n/a  | 2   | 8   | 8 | F0105 |         | 0       | 2       | none     | none     |

This parameter reports the PMODE of the EPEA quadrant 3

## **RAW VALUE      MEANING**

0      Idle  
1      Send

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| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1459 | A3_MUPLS | V   | n/a  | 3   | 12  | 16 | F0094 |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 3 memory uplink segment

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1460 | A3_MUPLO | V   | n/a  | 3   | 12  | 16 | F0094 |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 3 memory uplink offset

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1461 | A3_MUPLL | V   | n/a  | 3   | 4   | 8 | F0094 |         | 0       | 232     | none     | none     |

This parameter reports the EPEA quadrant 3 memory uplink length

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1462 | A3_ATHRC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of scientific events above low threshold acquired by EPEA quadrant 3 in the period between the last 2 Count Infos.

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1463 | A3_FIFRC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of scientific events read from FIFO of EPEA quadrant 3 in the period between the last 2 Count Infos.

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1464 | A3_EPDHC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of scientific events sent from EPEA quadrant 3 to EPDH in the period between the last 2 Count Infos.

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1465 | A3_DSLINC | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

Number of CCD readout lines or frames (depending on MIPs rejection mode) discarded by EPEA quadrant 3 between the last 2 Count Info.

## CALIBRATION CURVE

| PREF  | NAME   | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1466 | A3_MCM | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 4095    | none     | none     |

This parameter reports the EPEA quadrant 3 mean common mode calculated in the period between the last 2 Count Infos.

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1467 | A3_IOADDR | V   | n/a  | 3   | 12  | 16 | F0099 | 65535   | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 3 I/O address for data modification

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1468 | A3_IODATA | V   | n/a  | 3   | 12  | 16 | F0099 |         | 0       | 65535   | none     | none     |

This parameter reports the EPEA quadrant 3 data content of the I/O address

## CALIBRATION CURVE

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1469 | A3 MEMCHK active | V   | n/a  | 2   | 1   | 1 | F0174 |         | 0       | 1       | none     | none     |

Activation status of the EPEA quadrant 0 memory checksum

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1470 | A3H Rec Data Cks | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 3 receive data checksum error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1471 | A3H Transmit ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 3 transmit error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1472 | A3H AckTimeOutSt | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 3 acknowledge timeout error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1473 | A3H ACK Status | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 3 acknowledge error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1474 | A3H NegACKErCod | V   | n/a  | 2   | 8   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 3 acknowledge error code

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1475 | C TimSignMissing | V   | n/a  | 2   | 1   | 1 | F0078 | 0       | 0       | 1       | none     | none     |

Flag for the EPCE Time Signal Missing. TC CERESERR (F0078) will reset this field.

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | No Missing |
| 1         | Missing    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1476 | CEMEMCHK active | V   | n/a  | 2   | 1   | 1 | F0065 |         | 0       | 1       | none     | none     |

Activation status of the EPCE memory checksum

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1477 | C RecHKDataShow | V   | n/a  | 2   | 1   | 1 | F0083 |         | 0       | 1       | none     | none     |

This parameter reports if the Hex HK Data received at EPCE input from EPEA are shown

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Selected |
| 1         | Selected     |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1478 | C TransComShowin | V   | n/a  | 2   | 1   | 1 | F0083 |         | 0       | 1       | none     | none     |

This parameter sets if the High Level Form Commands transmitted from EPCE to EPEA are shown

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Selected |
| 1         | Selected     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1479 | C TraTabDataShow | V   | n/a  | 2   | 1   | 1 | F0083 |         | 0       | 1       | none     | none     |

This parameter reports if the Hex Table Data transmitted from EPCE are shown

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Selected |
| 1         | Selected     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1480 | C TranHKDataShow | V   | n/a  | 2   | 1   | 1 | F0083 |         | 0       | 1       | none     | none     |

This parameter reports if the Hex HK Data transmitted from EPCE are shown

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Selected |
| 1         | Selected     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1481 | C ReceivCommShow | V   | n/a  | 2   | 1   | 1 | F0083 |         | 0       | 1       | none     | none     |

This parameter reports if High Level Form Command received at EPCE input are shown with Acknowledge

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Selected |
| 1         | Selected     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1482 | C HexComDataShow | V   | n/a  | 2   | 1   | 1 | F0083 |         | 0       | 1       | none     | none     |

This parameter reports if Hexadecimal Command Data received at EPCE input are shown with Acknowledge

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Not Selected |
| 1         | Selected     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1483 | A0 CCD 1 SwiStat | V   | n/a  | 2   | 1   | 1 | F0113 |         | 0       | 1       | none     | none     |

This parameter reports the switching status of CCD 1 in the EPEA quadrant 0

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1484 | A0 CCD 2 SwiStat | V   | n/a  | 2   | 1   | 1 | F0113 |         | 0       | 1       | none     | none     |

This parameter reports the switching status of CCD 2 in the EPEA quadrant 0

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1485 | A1 CCD 1 SwiStat | V   | n/a  | 2   | 1   | 1 | F0113 |         | 0       | 1       | none     | none     |

This parameter reports the switching status of CCD 1 in the EPEA quadrant 1

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1486 | A1 CCD 2 SwiStat | V   | n/a  | 2   | 1   | 1 | F0113 |         | 0       | 1       | none     | none     |

This parameter reports the switching status of CCD 2 in the EPEA quadrant 1

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1487 | A2 CCD 1 SwiStat | V   | n/a  | 2   | 1   | 1 | F0113 |         | 0       | 1       | none     | none     |

This parameter reports the switching status of CCD 1 in the EPEA quadrant 2

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1488 | A2 CCD 2 SwiStat | V   | n/a  | 2   | 1   | 1 | F0113 |         | 0       | 1       | none     | none     |

This parameter reports the switching status of CCD 2 in the EPEA quadrant 2

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1489 | A3 CCD 1 SwiStat | V   | n/a  | 2   | 1   | 1 | F0113 |         | 0       | 1       | none     | none     |

This parameter reports the switching status of CCD 1 in the EPEA quadrant 3

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1490 | A3 CCD 2 SwiStat | V   | n/a  | 2   | 1   | 1 | F0113 |         | 0       | 1       | none     | none     |

This parameter reports the switching status of CCD 2 in the EPEA quadrant 3

| RAW VALUE | MEANING |
|-----------|---------|
| 0         | Off     |
| 1         | On      |

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1501 | A0_CMOFFSS | V   | n/a  | 3   | 4   | 8 | F0005 |         | 0       | 199     | none     | none     |

Startline for EPEA quadrant 0 table calculation

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1502 | A0_CMOFFSE | V   | n/a  | 3   | 4   | 8 | F0005 |         | 0       | 199     | none     | none     |

Endline for EPEA quadrant 0 table calculation.

## CALIBRATION CURVE

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1503 | A0_CMADDO1 CCD | V   | n/a  | 3   | 4   | 8 | F0180 |         | 0       | 2       | none     | none     |

This parameter reports the EPEA quadrant 0 CCD in which a constant value is added to one column.

## CALIBRATION CURVE

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1504 | A0_CMADDO1 COL | V   | n/a  | 3   | 4   | 8 | F0180 |         | 0       | 63      | none     | none     |

This parameter reports the column to which a constant value is added in the EPEA quadrant 0

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1505 | A0_CMADDO2 | V   | n/a  | 3   | 12  | 16 | F0180 |         |         |         | none     | none     |

This parameter reports the value to be added to the selected pixel column in the EPEA quadrant 0

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1506 | A0_WBOOTS | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 0 warm boot counter

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1507 | A0_WDOGCNT | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 0 watchdog counter

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1508 | A0_MEMCHKSS | V   | n/a  | 3   | 12  | 16 | F0068 |         |         |         | none     | none     |

This parameter reports the segment start address of the EPEA quadrant 0 memory area for the CRC calculation

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1509 | A0_MEMCHKSO | V   | n/a  | 3   | 12  | 16 | F0068 |         |         |         | none     | none     |

This parameter reports the offset start address of the EPEA quadrant 0 memory area for the CRC calculation

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1510 | A0_MEMCHKL | V   | n/a  | 3   | 12  | 16 | F0068 |         |         |         | none     | none     |

This parameter reports the length of the EPEA quadrant 0 memory area for the CRC calculation

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1511 | A0_MEMCHK | V   | n/a  | 3   | 12  | 16 | F0068 |         |         |         | none     | none     |

This parameter reports the CRC calculated on the EPEA quadrant 0 specific memory area

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1512 | A0_RAMCHKSS | V   | n/a  | 3   | 12  | 16 | F0175 |         |         |         | none     | none     |

This parameter reports the segment start address of the EPEA quadrant 0 memory area considered for the RAM check verification

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1513 | A0_RAMCHKSO | V   | n/a  | 3   | 12  | 16 | F0175 |         |         |         | none     | none     |

This parameter reports the offset start address of the EPEA quadrant 0 memory area considered for the RAM check verification

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1514 | A0_RAMCHKL | V   | n/a  | 3   | 12  | 16 | F0175 |         |         |         | none     | none     |

This parameter reports the length of the EPEA quadrant 0 memory area considered for the RAM check verification

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1515 | A0_CMLOTH0 | V   | n/a  | 3   | 12  | 16 | F0109 |         |         |         | none     | none     |

This parameter reports the CCD 0 lower threshold of the EPEA quadrant 0

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1516 | A0_CMLOTH1 | V   | n/a  | 3   | 12  | 16 | F0109 |         |         |         | none     | none     |

This parameter reports the CCD 1 lower threshold of the EPEA quadrant 0

## CALIBRATION CURVE

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1517 | A0_CMLOTH2 | V   | n/a  | 3   | 12  | 16 | F0109 |         |         |         | none     | none     |

This parameter reports the CCD 2 lower threshold of the EPEA quadrant 0

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1518 | A0_MIPREJ0 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the number of rejected events of CCD 0 of EPEA quadrant 0 due to MIP correction

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1519 | A0_MIPREJ1 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the number of rejected events of CCD 1 of EPEA quadrant 0 due to MIP correction

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1520 | A0_MIPREJ2 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the number of rejected events of CCD 2 of EPEA quadrant 0 due to MIP correction

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1521 | A0_LCHIP | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 2       | none     | none     |

This parameter reports the EPEA quadrant 0 lower left CCD

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1522 | A0_LLINE | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 199     | none     | none     |

This parameter reports the EPEA quadrant 0 lower left line

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1523 | A0_UCHIP | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 2       | none     | none     |

This parameter reports the EPEA quadrant 0 upper right CCD

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1524 | A0_ULINE | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 199     | none     | none     |

This parameter reports the EPEA quadrant 0 upper right line

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1525 | A0_CMCCORR | V   | n/a  | 3   | 12  | 16 | F0108 |         |         |         | none     | none     |

This parameter reports the corrective value to avoid negative energies in EPEA quadrant 0

## **CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1526 | A0_CMDEVL | V   | n/a  | 3   | 12  | 16 | F0110 |         |         |         | none     | none     |

This parameter reports the lower threshold used in EPEA quadrant 0 to separate dead pixels

## **CALIBRATION CURVE**

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| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1527 | A0_CMDEVH | V   | n/a  | 3   | 12  | 16 | F0110 |         |         |         | none     | none     |

This parameter reports the upper threshold used in EPEA quadrant 0 to separate flickering pixels

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1528 | A0_CMLINEPixSet | V   | n/a  | 2   | 4   | 4 | F0120 |         | 0       | 1       | none     | none     |

This parameter reports the pixel status set by the last EACMLINE command in EPEA quadrant 0

## RAW VALUE MEANING

|   |      |
|---|------|
| 0 | Good |
| 1 | Bad  |

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1529 | A0_CMLINE CCD | V   | n/a  | 3   | 0   | 4 | F0120 |         | 0       | 2       | none     | none     |

This parameter reports the selected CCD in the EPEA quadrant 0 with the last EACMLINE command

## CALIBRATION CURVE

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1530 | A0_CMLINE Numb | V   | n/a  | 3   | 4   | 8 | F0120 |         | 0       | 199     | none     | none     |

This parameter reports the line selected by the last EACMLINE command in the EPEA quadrant 0

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1531 | A0_CMCOL PixSet | V   | n/a  | 2   | 4   | 4 | F0121 |         | 0       | 1       | none     | none     |

This parameter reports the pixel status set by the last EACMCOL command in EPEA quadrant 0

## RAW VALUE MEANING

|   |      |
|---|------|
| 0 | Good |
| 1 | Bad  |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1532 | A0_CMCOL CCD | V   | n/a  | 3   | 0   | 4 | F0121 |         | 0       | 2       | none     | none     |

This parameter reports the selected CCD in the EPEA quadrant 0 with the last EACMCOL command

## CALIBRATION CURVE

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1533 | A0_CMCOL Numb | V   | n/a  | 3   | 4   | 8 | F0121 |         | 0       | 63      | none     | none     |

This parameter reports the column selected by the last EACMCOL command in the EPEA quadrant 0

## CALIBRATION CURVE

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1534 | A0_CHOP | V   | n/a  | 3   | 4   | 8 | F0111 |         | 0       | 31      | none     | none     |

This parameter reports the EPEA quadrant 0 chopper set with the EACHOP command

## CALIBRATION CURVE

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1535 | A0_SENDDMODE | V   | n/a  | 2   | 8   | 8 | F0116 |         | 16      | 18      | none     | none     |

This parameter reports the EPEA quadrant 0 active sendmode

## RAW VALUE MEANING

|    |              |
|----|--------------|
| 16 | MIP correc.1 |
| 17 | MIP correc.2 |
| 18 | No MIP corr. |

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1536 | A0_EAMIPSEL | V   | n/a  | 3   | 4   | 8 | F0117 |         | 0       | 100     | none     | none     |

Number of lines which should be rejected if they are above or below a saturated pixel (MIP) in EPEA quadrant 0 (EAMIPSEL command)

## CALIBRATION CURVE

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| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1537 | A0_COUNT | V   | n/a  | 3   | 12  | 16 | F0074 |         |         |         | none     | none     |

This parameter reports the number of times a no-operation loop has to be executed before the next data are sent to the HBR

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1538 | A0_MAXFRC | V   | n/a  | 3   | 4   | 8 | F0176 |         |         |         | none     | none     |

This parameter reports the maximum frame counter in EPEA quadrant 0

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1539 | A0_RDMODE | V   | n/a  | 2   | 8   | 8 | F0114 | 32      | 32      | 36      | none     | none     |

This parameter reports the active readout mode in EPEA quadrant 0

## RAW VALUE MEANING

|    |              |
|----|--------------|
| 32 | Full Frame   |
| 33 | Small Window |
| 34 | Large Window |
| 35 | Timing       |
| 36 | Burst        |

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1540 | A0_SSEG | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 0 stack segment address

## CALIBRATION CURVE

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1541 | A0_DSEG | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 0 data segment address

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1542 | A0L RecData Cks | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 0 receive data checksum error status

## RAW VALUE MEANING

|   |          |
|---|----------|
| 0 | No Error |
| 1 | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1543 | A0L Transmit ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 0 transmit error status

## RAW VALUE MEANING

|   |          |
|---|----------|
| 0 | No Error |
| 1 | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1544 | A0L ACKTimeO ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 0 acknowledge timeout error status

## RAW VALUE MEANING

|   |          |
|---|----------|
| 0 | No Error |
| 1 | Error    |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1545 | A0L ACK Status | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 0 acknowledge error status

## RAW VALUE MEANING

|   |          |
|---|----------|
| 0 | No Error |
| 1 | Error    |

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| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1546 | A0L NegACKErCod | V   | n/a  | 2   | 8   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 0 acknowledge error code

## RAW VALUE MEANING

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1547 | E C0_UAMOS_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the AMOS high voltage in EPCH quadrant 0

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.14315)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1548 | E C0_UAMOS_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the AMOS low voltage in EPCH quadrant 0

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.14315)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1549 | E C0_UPHI_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the PHI high voltage in EPCH quadrant 0

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.14342)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1550 | E C0_UPHI_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the PHI low voltage in EPCH quadrant 0

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.14262)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1551 | E C0_UFLSH_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the UFLSH high voltage in EPCH quadrant 0

**CALIBRATION CURVE**  $ENG(V) = RAW * 0.06827$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1552 | E C0_UFLSH_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the UFLSH low voltage in EPCH quadrant 0

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.10271)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1553 | E C0_RFGA_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the RFGA high voltage in EPCH quadrant 0

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.06684)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1554 | E C0_RFGA_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the RFGA low voltage in EPCH quadrant 0

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.0667)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1555 | E C0_U+BIAS | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the +BIAS voltage in EPCH quadrant 0

**CALIBRATION CURVE**  $ENG(V) = RAW * (0.06683)$

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| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1556 | E C0_U-BIAS | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the -BIAS voltage in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.12831)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1557 | E C0_UCMXVDD | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the camex VDD voltage in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.03229$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1558 | E C0_UCMXVSS | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the camex VSS voltage in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.03221)$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1559 | E C0_U+15 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the + 15 V voltage in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.10667$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1560 | E C0_U-15 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 15 V voltage in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.10667)$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1561 | E C0_U-35 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 35 V voltage in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.23567)$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1562 | E C0_UVDD | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDD voltage in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.03548$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1563 | E C0_UVDDA | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDDA voltage in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.04281$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1564 | E C0_UVSSA | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VSSA voltage in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.04281)$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1565 | E C0_UDGND | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the digital ground voltage in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.01954 - 2.5$

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1566 | E C0_IVDDA | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDD analogue current in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.29851$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1567 | E C0_I+15 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the + 15 V current in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.24242 - 4.3$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1568 | E C0_I-15 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 15 V current in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.23256 - 4.651$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1569 | E C0_IVDD_D | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDD digital current in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.03067$

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1570 | E C0_IIS | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the IS current in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 0.34843 - 44.5993$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1571 | E C0_IGRA0 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the GRA0 current in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 1.16279 - 151.163$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1572 | E C0_IGRA1 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the GRA1 current in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 1.15607 - 150.289$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1573 | E C0_IGRA2 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the GRA2 current in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 1.15942 - 150.145$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1574 | E C0_TEMPEA1 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the CPU card temperature in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (^\circ C) = RAW * 1.63934 - 273$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1575 | E C0_TEMPEA2 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the box temperature in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (^\circ C) = RAW * 1.63934 - 273$

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| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1576 | E C0_TEMPQB1 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant box temperature 1 in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (^{\circ}C) = RAW * 1.62162 - 273$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1577 | E C0_TEMPQB2 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant box temperature 2 in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (^{\circ}C) = RAW * 1.63043 - 273$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1578 | E C0_I-35 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 35 V current in EPCH quadrant 0

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.23809 - 11.547$

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1579 | A0 MIP Threshold | V   | n/a  | 3   | 12  | 16 | F0195 |         |         |         | none     | none     |

MIP threshold of the EPEA quadrant 0

**CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1601 | A1_CMOFFSS | V   | n/a  | 3   | 4   | 8 | F0005 |         | 0       | 199     | none     | none     |

Startline for EPEA quadrant 1 table calculation

**CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1602 | A1_CMOFFSE | V   | n/a  | 3   | 4   | 8 | F0005 |         | 0       | 199     | none     | none     |

Endline for EPEA quadrant 1 table calculation.

**CALIBRATION CURVE**

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1603 | A1_CMADDO1 CCD | V   | n/a  | 3   | 4   | 8 | F0180 |         | 0       | 2       | none     | none     |

This parameter reports the EPEA quadrant 1 CCD in which a constant value is added to one column.

**CALIBRATION CURVE**

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1604 | A1_CMADDO1 COL | V   | n/a  | 3   | 4   | 8 | F0180 |         | 0       | 63      | none     | none     |

This parameter reports the column to which a constant value is added in the EPEA quadrant 1

**CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1605 | A1_CMADDO2 | V   | n/a  | 3   | 12  | 16 | F0180 |         |         |         | none     | none     |

This parameter reports the value to be added to the selected pixel column in the EPEA quadrant 1

**CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1606 | A1_WBOOTS | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 1 warm boot counter

**CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1607 | A1_WDOGCNT | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 1 watchdog counter

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1608 | A1_MEMCHKSS | V   | n/a  | 3   | 12  | 16 | F0170 |         |         |         | none     | none     |

This parameter reports the segment start address of the EPEA quadrant 1 memory area for the CRC calculation

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1609 | A1_MEMCHKSO | V   | n/a  | 3   | 12  | 16 | F0170 |         |         |         | none     | none     |

This parameter reports the offset start address of the EPEA quadrant 1 memory area for the CRC calculation

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1610 | A1_MEMCHKL | V   | n/a  | 3   | 12  | 16 | F0170 |         |         |         | none     | none     |

This parameter reports the length of the EPEA quadrant 1 memory area for the CRC calculation

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1611 | A1_MEMCHK | V   | n/a  | 3   | 12  | 16 | F0170 |         |         |         | none     | none     |

This parameter reports the CRC calculated on the EPEA quadrant 1 specific memory area

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1612 | A1_RAMCHKSS | V   | n/a  | 3   | 12  | 16 | F0175 |         |         |         | none     | none     |

This parameter reports the segment start address of the EPEA quadrant 1 memory area considered for the RAM check verification

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1613 | A1_RAMCHKSO | V   | n/a  | 3   | 12  | 16 | F0175 |         |         |         | none     | none     |

This parameter reports the offset start address of the EPEA quadrant 1 memory area considered for the RAM check verification

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1614 | A1_RAMCHKL | V   | n/a  | 3   | 12  | 16 | F0175 |         |         |         | none     | none     |

This parameter reports the length of the EPEA quadrant 1 memory area considered for the RAM check verification

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1615 | A1_CMLOTH0 | V   | n/a  | 3   | 12  | 16 | F0109 |         |         |         | none     | none     |

This parameter reports the CCD 0 lower threshold of the EPEA quadrant 1

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1616 | A1_CMLOTH1 | V   | n/a  | 3   | 12  | 16 | F0109 |         |         |         | none     | none     |

This parameter reports the CCD 1 lower threshold of the EPEA quadrant 1

## CALIBRATION CURVE

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1617 | A1_CMLOTH2 | V   | n/a  | 3   | 12  | 16 | F0109 |         |         |         | none     | none     |

This parameter reports the CCD 2 lower threshold of the EPEA quadrant 1

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1618 | A1_MIPREJ0 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the number of rejected events of CCD 0 of EPEA quadrant 1 due to MIP correction

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1619 | A1_MIPREJ1 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the number of rejected events of CCD 1 of EPEA quadrant 1 due to MIP correction

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1620 | A1_MIPREJ2 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the number of rejected events of CCD 2 of EPEA quadrant 1 due to MIP correction

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1621 | A1_LCHIP | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 2       | none     | none     |

This parameter reports the EPEA quadrant 1 lower left CCD

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1622 | A1_LLINE | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 199     | none     | none     |

This parameter reports the EPEA quadrant 1 lower left line

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1623 | A1_UCHIP | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 2       | none     | none     |

This parameter reports the EPEA quadrant 1 upper right CCD

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1624 | A1_ULINE | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 199     | none     | none     |

This parameter reports the EPEA quadrant 1 upper right line

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1625 | A1_CMCCORR | V   | n/a  | 3   | 12  | 16 | F0108 |         |         |         | none     | none     |

This parameter reports the corrective value to avoid negative energies in EPEA quadrant 1

## **CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1626 | A1_CMDEVL | V   | n/a  | 3   | 12  | 16 | F0110 |         |         |         | none     | none     |

This parameter reports the lower threshold used in EPEA quadrant 1 to separate dead pixels

## **CALIBRATION CURVE**

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| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1627 | A1_CMDEVH | V   | n/a  | 3   | 12  | 16 | F0110 |         |         |         | none     | none     |

This parameter reports the upper threshold used in EPEA quadrant 1 to separate flickering pixels

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1628 | A1_CMLINEPixSet | V   | n/a  | 2   | 4   | 4 | F0120 |         | 0       | 1       | none     | none     |

This parameter reports the pixel status set by the last EACMLINE command in EPEA quadrant 1

## RAW VALUE MEANING

|   |      |
|---|------|
| 0 | Good |
| 1 | Bad  |

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1629 | A1_CMLINE CCD | V   | n/a  | 3   | 0   | 4 | F0120 |         | 0       | 2       | none     | none     |

This parameter reports the selected CCD in the EPEA quadrant 1 with the last EACMLINE command

## CALIBRATION CURVE

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1630 | A1_CMLINE Numb | V   | n/a  | 3   | 4   | 8 | F0120 |         | 0       | 199     | none     | none     |

This parameter reports the line selected by the last EACMLINE command in the EPEA quadrant 1

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1631 | A1_CMCOL PixSet | V   | n/a  | 2   | 4   | 4 | F0121 |         | 0       | 1       | none     | none     |

This parameter reports the pixel status set by the last EACMCOL command in EPEA quadrant 1

## RAW VALUE MEANING

|   |      |
|---|------|
| 0 | Good |
| 1 | Bad  |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1632 | A1_CMCOL CCD | V   | n/a  | 3   | 0   | 4 | F0121 |         | 0       | 2       | none     | none     |

This parameter reports the selected CCD in the EPEA quadrant 1 with the last EACMCOL command

## CALIBRATION CURVE

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1633 | A1_CMCOL Numb | V   | n/a  | 3   | 4   | 8 | F0121 |         | 0       | 63      | none     | none     |

This parameter reports the column selected by the last EACMCOL command in the EPEA quadrant 1

## CALIBRATION CURVE

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1634 | A1_CHOP | V   | n/a  | 3   | 4   | 8 | F0111 |         | 0       | 31      | none     | none     |

This parameter reports the EPEA quadrant 1 chopper set with the EACHOP command

## CALIBRATION CURVE

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1635 | A1_SENDDMODE | V   | n/a  | 2   | 8   | 8 | F0116 |         | 16      | 18      | none     | none     |

This parameter reports the EPEA quadrant 1 active sendmode

## RAW VALUE MEANING

|    |              |
|----|--------------|
| 16 | MIP correc.1 |
| 17 | MIP correc.2 |
| 18 | No MIP corr. |

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1636 | A1_EAMIPSEL | V   | n/a  | 3   | 4   | 8 | F0117 |         | 0       | 100     | none     | none     |

Number of lines which should be rejected if they are above or below a saturated pixel (MIP) in EPEA quadrant 1 (EAMIPSEL command)

## CALIBRATION CURVE

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| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1637 | A1_COUNT | V   | n/a  | 3   | 12  | 16 | F0074 |         |         |         | none     | none     |

This parameter reports the number of times a no-operation loop has to be executed before the next data are sent to the HBR

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1638 | A1_MAXFRC | V   | n/a  | 3   | 4   | 8 | F0176 |         |         |         | none     | none     |

This parameter reports the maximum frame counter in EPEA quadrant 1

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1639 | A1_RDMODE | V   | n/a  | 2   | 8   | 8 | F0114 | 32      | 32      | 36      | none     | none     |

This parameter reports the active readout mode in EPEA quadrant 1

## RAW VALUE MEANING

|    |              |
|----|--------------|
| 32 | Full Frame   |
| 33 | Small Window |
| 34 | Large Window |
| 35 | Timing       |
| 36 | Burst        |

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1640 | A1_SSEG | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 1 stack segment address

## CALIBRATION CURVE

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1641 | A1_DSEG | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 1 data segment address

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1642 | A1L RecData Cks | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 1 receive data checksum error status

## RAW VALUE MEANING

|   |          |
|---|----------|
| 0 | No Error |
| 1 | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1643 | A1L Transmit ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 1 transmit error status

## RAW VALUE MEANING

|   |          |
|---|----------|
| 0 | No Error |
| 1 | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1644 | A1L ACKTimeO ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 1 acknowledge timeout error status

## RAW VALUE MEANING

|   |          |
|---|----------|
| 0 | No Error |
| 1 | Error    |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1645 | A1L ACK Status | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 1 acknowledge error status

## RAW VALUE MEANING

|   |          |
|---|----------|
| 0 | No Error |
| 1 | Error    |

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| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1646 | A1L NegACKErCod | V   | n/a  | 2   | 8   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 1 acknowledge error code

## RAW VALUE MEANING

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1647 | E C1_UAMOS_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the AMOS high voltage in EPCH quadrant 1

## CALIBRATION CURVE ENG (V) = RAW\*(-0.14315)

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1648 | E C1_UAMOS_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the AMOS low voltage in EPCH quadrant 1

## CALIBRATION CURVE ENG (V) = RAW\*(-0.14315)

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1649 | E C1_UPHI_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the PHI high voltage in EPCH quadrant 1

## CALIBRATION CURVE ENG (V) = RAW\*(-0.14342)

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1650 | E C1_UPHI_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the PHI low voltage in EPCH quadrant 1

## CALIBRATION CURVE ENG (V) = RAW\*(-0.14262)

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1651 | E C1_UFLSH_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the UFLSH high voltage in EPCH quadrant 1

## CALIBRATION CURVE ENG (V) = RAW\*0.06827

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1652 | E C1_UFLSH_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the UFLSH low voltage in EPCH quadrant 1

## CALIBRATION CURVE ENG (V) = RAW\*(-0.10271)

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1653 | E C1_RFGA_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the RFGA high voltage in EPCH quadrant 1

## CALIBRATION CURVE ENG (V) = RAW\*(-0.06684)

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1654 | E C1_RFGA_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the RFGA low voltage in EPCH quadrant 1

## CALIBRATION CURVE ENG (V) = RAW\*(-0.0667)

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1655 | E C1_U+BIAS | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the +BIAS voltage in EPCH quadrant 1

## CALIBRATION CURVE ENG (V) = RAW\*(0.06683)

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| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1656 | E C1_U-BIAS | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the -BIAS voltage in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.12831)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1657 | E C1_UCMXVDD | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the camex VDD voltage in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.03229$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1658 | E C1_UCMXVSS | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the camex VSS voltage in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.03221)$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1659 | E C1_U+15 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the + 15 V voltage in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.10667$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1660 | E C1_U-15 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 15 V voltage in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.10667)$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1661 | E C1_U-35 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 35 V voltage in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.23567)$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1662 | E C1_UVDD | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDD voltage in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.03548$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1663 | E C1_UVDDA | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDDA voltage in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.04281$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1664 | E C1_UVSSA | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VSSA voltage in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.04281)$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1665 | E C1_UDGND | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the digital ground voltage in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.01954 - 2.5$

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1666 | E C1_IVDDA | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDD analogue current in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.29851$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1667 | E C1_I+15 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the + 15 V current in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.24242 - 4.3$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1668 | E C1_I-15 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 15 V current in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.23256 - 4.651$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1669 | E C1_IVDD_D | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDD digital current in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.03067$

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1670 | E C1_IIS | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the IS current in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 0.34843 - 44.5993$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1671 | E C1_IGRA0 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the GRA0 current in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 1.16279 - 151.163$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1672 | E C1_IGRA1 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the GRA1 current in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 1.15607 - 150.289$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1673 | E C1_IGRA2 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the GRA2 current in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 1.15942 - 150.145$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1674 | E C1_TEMPEA1 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the CPU card temperature in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (^\circ C) = RAW * 1.63934 - 273$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1675 | E C1_TEMPEA2 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the box temperature in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (^\circ C) = RAW * 1.63934 - 273$

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| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1676 | E C1_TEMPQB1 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant box temperature 1 in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (^{\circ}C) = RAW * 1.62162 - 273$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1677 | E C1_TEMPQB2 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant box temperature 2 in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (^{\circ}C) = RAW * 1.63043 - 273$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1678 | E C1_I-35 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 35 V current in EPCH quadrant 1

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.23809 - 11.547$

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1679 | A1 MIP Threshold | V   | n/a  | 3   | 12  | 16 | F0195 |         |         |         | none     | none     |

MIP threshold of the EPEA quadrant 1

**CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1701 | A2_CMOFFSS | V   | n/a  | 3   | 4   | 8 | F0005 |         | 0       | 199     | none     | none     |

Startline for EPEA quadrant 2 table calculation

**CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1702 | A2_CMOFFSE | V   | n/a  | 3   | 4   | 8 | F0005 |         | 0       | 199     | none     | none     |

Endline for EPEA quadrant 2 table calculation.

**CALIBRATION CURVE**

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1703 | A2_CMADDO1 CCD | V   | n/a  | 3   | 4   | 8 | F0180 |         | 0       | 2       | none     | none     |

This parameter reports the EPEA quadrant 2 CCD in which a constant value is added to one column.

**CALIBRATION CURVE**

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1704 | A2_CMADDO1 COL | V   | n/a  | 3   | 4   | 8 | F0180 |         | 0       | 63      | none     | none     |

This parameter reports the column to which a constant value is added in the EPEA quadrant 2

**CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1705 | A2_CMADDO2 | V   | n/a  | 3   | 12  | 16 | F0180 |         |         |         | none     | none     |

This parameter reports the value to be added to the selected pixel column in the EPEA quadrant 2

**CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1706 | A2_WBOOTS | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 2 warm boot counter

**CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1707 | A2_WDOGCNT | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 2 watchdog counter

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1708 | A2_MEMCHKSS | V   | n/a  | 3   | 12  | 16 | F0172 |         |         |         | none     | none     |

This parameter reports the segment start address of the EPEA quadrant 2 memory area for the CRC calculation

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1709 | A2_MEMCHKSO | V   | n/a  | 3   | 12  | 16 | F0172 |         |         |         | none     | none     |

This parameter reports the offset start address of the EPEA quadrant 2 memory area for the CRC calculation

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1710 | A2_MEMCHKL | V   | n/a  | 3   | 12  | 16 | F0172 |         |         |         | none     | none     |

This parameter reports the length of the EPEA quadrant 2 memory area for the CRC calculation

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1711 | A2_MEMCHK | V   | n/a  | 3   | 12  | 16 | F0172 |         |         |         | none     | none     |

This parameter reports the CRC calculated on the EPEA quadrant 2 specific memory area

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1712 | A2_RAMCHKSS | V   | n/a  | 3   | 12  | 16 | F0175 |         |         |         | none     | none     |

This parameter reports the segment start address of the EPEA quadrant 2 memory area considered for the RAM check verification

## CALIBRATION CURVE

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1713 | A2_RAMCHKSO | V   | n/a  | 3   | 12  | 16 | F0175 |         |         |         | none     | none     |

This parameter reports the offset start address of the EPEA quadrant 2 memory area considered for the RAM check verification

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1714 | A2_RAMCHKL | V   | n/a  | 3   | 12  | 16 | F0175 |         |         |         | none     | none     |

This parameter reports the length of the EPEA quadrant 2 memory area considered for the RAM check verification

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1715 | A2_CMLOTH0 | V   | n/a  | 3   | 12  | 16 | F0109 |         |         |         | none     | none     |

This parameter reports the CCD 0 lower threshold of the EPEA quadrant 2

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1716 | A2_CMLOTH1 | V   | n/a  | 3   | 12  | 16 | F0109 |         |         |         | none     | none     |

This parameter reports the CCD 1 lower threshold of the EPEA quadrant 2

## CALIBRATION CURVE

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1717 | A2_CMLOTH2 | V   | n/a  | 3   | 12  | 16 | F0109 |         |         |         | none     | none     |

This parameter reports the CCD 2 lower threshold of the EPEA quadrant 2

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1718 | A2_MIPREJ0 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the number of rejected events of CCD 0 of EPEA quadrant 2 due to MIP correction

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1719 | A2_MIPREJ1 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the number of rejected events of CCD 1 of EPEA quadrant 2 due to MIP correction

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1720 | A2_MIPREJ2 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the number of rejected events of CCD 2 of EPEA quadrant 2 due to MIP correction

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1721 | A2_LCHIP | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 2       | none     | none     |

This parameter reports the EPEA quadrant 2 lower left CCD

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1722 | A2_LLINE | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 199     | none     | none     |

This parameter reports the EPEA quadrant 2 lower left line

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1723 | A2_UCHIP | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 2       | none     | none     |

This parameter reports the EPEA quadrant 2 upper right CCD

## **CALIBRATION CURVE**

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1724 | A2_ULINE | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 199     | none     | none     |

This parameter reports the EPEA quadrant 2 upper right line

## **CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1725 | A2_CMCORR | V   | n/a  | 3   | 12  | 16 | F0108 |         |         |         | none     | none     |

This parameter reports the corrective value to avoid negative energies in EPEA quadrant 2

## **CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1726 | A2_CMDEVL | V   | n/a  | 3   | 12  | 16 | F0110 |         |         |         | none     | none     |

This parameter reports the lower threshold used in EPEA quadrant 2 to separate dead pixels

## **CALIBRATION CURVE**

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| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1727 | A2_CMDEVH | V   | n/a  | 3   | 12  | 16 | F0110 |         |         |         | none     | none     |

This parameter reports the upper threshold used in EPEA quadrant 2 to separate flickering pixels

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1728 | A2_CMLINEPixSet | V   | n/a  | 2   | 4   | 4 | F0120 |         | 0       | 1       | none     | none     |

This parameter reports the pixel status set by the last EACMLINE command in EPEA quadrant 2

## RAW VALUE MEANING

|   |      |
|---|------|
| 0 | Good |
| 1 | Bad  |

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1729 | A2_CMLINE CCD | V   | n/a  | 3   | 0   | 4 | F0120 |         | 0       | 2       | none     | none     |

This parameter reports the selected CCD in the EPEA quadrant 2 with the last EACMLINE command

## CALIBRATION CURVE

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1730 | A2_CMLINE Numb | V   | n/a  | 3   | 4   | 8 | F0120 |         | 0       | 199     | none     | none     |

This parameter reports the line selected by the last EACMLINE command in the EPEA quadrant 2

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1731 | A2_CMCOL PixSet | V   | n/a  | 2   | 4   | 4 | F0121 |         | 0       | 1       | none     | none     |

This parameter reports the pixel status set by the last EACMCOL command in EPEA quadrant 2

## RAW VALUE MEANING

|   |      |
|---|------|
| 0 | Good |
| 1 | Bad  |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1732 | A2_CMCOL CCD | V   | n/a  | 3   | 0   | 4 | F0121 |         | 0       | 2       | none     | none     |

This parameter reports the selected CCD in the EPEA quadrant 2 with the last EACMCOL command

## CALIBRATION CURVE

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1733 | A2_CMCOL Numb | V   | n/a  | 3   | 4   | 8 | F0121 |         | 0       | 63      | none     | none     |

This parameter reports the column selected by the last EACMCOL command in the EPEA quadrant 2

## CALIBRATION CURVE

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1734 | A2_CHOP | V   | n/a  | 3   | 4   | 8 | F0111 |         | 0       | 31      | none     | none     |

This parameter reports the EPEA quadrant 2 chopper set with the EACHOP command

## CALIBRATION CURVE

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1735 | A2_SENDDMODE | V   | n/a  | 2   | 8   | 8 | F0116 |         | 16      | 18      | none     | none     |

This parameter reports the EPEA quadrant 2 active sendmode

## RAW VALUE MEANING

|    |              |
|----|--------------|
| 16 | MIP correc.1 |
| 17 | MIP correc.2 |
| 18 | No MIP corr. |

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1736 | A2_EAMIPSEL | V   | n/a  | 3   | 4   | 8 | F0117 |         | 0       | 100     | none     | none     |

Number of lines which should be rejected if they are above or below a saturated pixel (MIP) in EPEA quadrant 2 (EAMIPSEL command)

## CALIBRATION CURVE

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| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1737 | A2_COUNT | V   | n/a  | 3   | 12  | 16 | F0074 |         |         |         | none     | none     |

This parameter reports the number of times a no-operation loop has to be executed before the next data are sent to the HBR

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1738 | A2_MAXFRC | V   | n/a  | 3   | 4   | 8 | F0176 |         |         |         | none     | none     |

This parameter reports the maximum frame counter in EPEA quadrant 2

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1739 | A2_RDMODE | V   | n/a  | 2   | 8   | 8 | F0114 | 32      | 32      | 36      | none     | none     |

This parameter reports the active readout mode in EPEA quadrant 2

| RAW VALUE | MEANING      |
|-----------|--------------|
| 32        | Full Frame   |
| 33        | Small Window |
| 34        | Large Window |
| 35        | Timing       |
| 36        | Burst        |

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1740 | A2_SSEG | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 2 stack segment address

## CALIBRATION CURVE

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1741 | A2_DSEG | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 2 data segment address

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1742 | A2L RecData Cks | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 2 receive data checksum error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1743 | A2L Transmit ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 2 transmit error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1744 | A2L ACKTimeO ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 2 acknowledge timeout error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1745 | A2L ACK Status | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 2 acknowledge error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

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| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1746 | A2L NegACKErCod | V   | n/a  | 2   | 8   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 2 acknowledge error code

## RAW VALUE MEANING

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1747 | E C2_UAMOS_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the AMOS high voltage in EPCH quadrant 2

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.14427)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1748 | E C2_UAMOS_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the AMOS low voltage in EPCH quadrant 2

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.1433)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1749 | E C2_UPHI_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the PHI high voltage in EPCH quadrant 2

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.14286)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1750 | E C2_UPHI_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the PHI low voltage in EPCH quadrant 2

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.14206)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1751 | E C2_UFLSH_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the UFLSH high voltage in EPCH quadrant 2

**CALIBRATION CURVE**  $ENG(V) = RAW * 0.06818$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1752 | E C2_UFLSH_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the UFLSH low voltage in EPCH quadrant 2

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.10289)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1753 | E C2_RFGA_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the RFGA high voltage in EPCH quadrant 2

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.06663)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1754 | E C2_RFGA_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the RFGA low voltage in EPCH quadrant 2

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.06628)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1755 | E C2_U+BIAS | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the +BIAS voltage in EPCH quadrant 2

**CALIBRATION CURVE**  $ENG(V) = RAW * 0.066817$

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| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1756 | E C2_U-BIAS | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the -BIAS voltage in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.12798)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1757 | E C2_UCMXVDD | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the camex VDD voltage in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.032285$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1758 | E C2_UCMXVSS | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the camex VSS voltage in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.03226)$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1759 | E C2_U+15 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the + 15 V voltage in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.106762$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1760 | E C2_U-15 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 15 V voltage in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.10714)$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1761 | E C2_U-35 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 35 V voltage in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.23411)$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1762 | E C2_UVDD | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDD voltage in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.035587$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1763 | E C2_UVDDA | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDDA voltage in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.042705$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1764 | E C2_UVSSA | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VSSA voltage in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.04271)$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1765 | E C2_UDGND | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the digital ground voltage in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.01954 - 2.5$

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1766 | E C2_IVDDA | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDD analogue current in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.297619$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1767 | E C2_I+15 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the + 15 V current in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.242424 - 3.333$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1768 | E C2_I-15 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 15 V current in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.235294 - 5.2941$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1769 | E C2_IVDD_D | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDD digital current in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.030488$

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1770 | E C2_IIS | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the IS current in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 0.34662 - 44.3674$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1771 | E C2_IGRA0 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the GRA0 current in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 1.186944 - 152.522$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1772 | E C2_IGRA1 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the GRA1 current in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 1.166181 - 152.186$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1773 | E C2_IGRA2 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the GRA2 current in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 1.194030 - 174.925$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1774 | E C2_TEMPEA1 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the CPU card temperature in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (^\circ C) = RAW * 1.652893 - 273$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1775 | E C2_TEMPEA2 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the box temperature in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (^\circ C) = RAW * 1.652893 - 273$

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| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1776 | E C2_TEMPQB1 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant box temperature 1 in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (^{\circ}C) = RAW * 1.627027 - 273$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1777 | E C2_TEMPQB2 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant box temperature 2 in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (^{\circ}C) = RAW * 1.643836 - 273$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1778 | E C2_I-35 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 35 V current in EPCH quadrant 2

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.238095 - 11.3095$

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1779 | A2 MIP Threshold | V   | n/a  | 3   | 12  | 16 | F0195 |         |         |         | none     | none     |

MIP threshold of the EPEA quadrant 2

**CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1801 | A3_CMOFFSS | V   | n/a  | 3   | 4   | 8 | F0005 |         | 0       | 199     | none     | none     |

Startline for EPEA quadrant 3 table calculation

**CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1802 | A3_CMOFFSE | V   | n/a  | 3   | 4   | 8 | F0005 |         | 0       | 199     | none     | none     |

Endline for EPEA quadrant 3 table calculation.

**CALIBRATION CURVE**

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1803 | A3_CMADDO1 CCD | V   | n/a  | 3   | 4   | 8 | F0180 |         | 0       | 2       | none     | none     |

This parameter reports the EPEA quadrant 3 CCD in which a constant value is added to one column.

**CALIBRATION CURVE**

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1804 | A3_CMADDO1 COL | V   | n/a  | 3   | 4   | 8 | F0180 |         | 0       | 63      | none     | none     |

This parameter reports the column to which a constant value is added in the EPEA quadrant 3

**CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1805 | A3_CMADDO2 | V   | n/a  | 3   | 12  | 16 | F0180 |         |         |         | none     | none     |

This parameter reports the value to be added to the selected pixel column in the EPEA quadrant 3

**CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1806 | A3_WBOOTS | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 3 warm boot counter

**CALIBRATION CURVE**

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1807 | A3_WDOGCNT | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 3 watchdog counter

## **CALIBRATION CURVE**

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1808 | A3_MEMCHKSS | V   | n/a  | 3   | 12  | 16 | F0174 |         |         |         | none     | none     |

This parameter reports the segment start address of the EPEA quadrant 3 memory area for the CRC calculation

## **CALIBRATION CURVE**

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1809 | A3_MEMCHKSO | V   | n/a  | 3   | 12  | 16 | F0174 |         |         |         | none     | none     |

This parameter reports the offset start address of the EPEA quadrant 3 memory area for the CRC calculation

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1810 | A3_MEMCHKL | V   | n/a  | 3   | 12  | 16 | F0174 |         |         |         | none     | none     |

This parameter reports the length of the EPEA quadrant 3 memory area for the CRC calculation

## **CALIBRATION CURVE**

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1811 | A3_MEMCHK | V   | n/a  | 3   | 12  | 16 | F0174 |         |         |         | none     | none     |

This parameter reports the CRC calculated on the EPEA quadrant 3 specific memory area

## **CALIBRATION CURVE**

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1812 | A3_RAMCHKSS | V   | n/a  | 3   | 12  | 16 | F0175 |         |         |         | none     | none     |

This parameter reports the segment start address of the EPEA quadrant 3 memory area considered for the RAM check verification

## **CALIBRATION CURVE**

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1813 | A3_RAMCHKSO | V   | n/a  | 3   | 12  | 16 | F0175 |         |         |         | none     | none     |

This parameter reports the offset start address of the EPEA quadrant 3 memory area considered for the RAM check verification

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1814 | A3_RAMCHKL | V   | n/a  | 3   | 12  | 16 | F0175 |         |         |         | none     | none     |

This parameter reports the length of the EPEA quadrant 3 memory area considered for the RAM check verification

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1815 | A3_CMLOTH0 | V   | n/a  | 3   | 12  | 16 | F0109 |         |         |         | none     | none     |

This parameter reports the CCD 0 lower threshold of the EPEA quadrant 3

## **CALIBRATION CURVE**

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1816 | A3_CMLOTH1 | V   | n/a  | 3   | 12  | 16 | F0109 |         |         |         | none     | none     |

This parameter reports the CCD 1 lower threshold of the EPEA quadrant 3

## **CALIBRATION CURVE**

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1817 | A3_CMLOTH2 | V   | n/a  | 3   | 12  | 16 | F0109 |         |         |         | none     | none     |

This parameter reports the CCD 2 lower threshold of the EPEA quadrant 3

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1818 | A3_MIPREJ0 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the number of rejected events of CCD 0 of EPEA quadrant 3 due to MIP correction

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1819 | A3_MIPREJ1 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the number of rejected events of CCD 1 of EPEA quadrant 3 due to MIP correction

## CALIBRATION CURVE

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1820 | A3_MIPREJ2 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the number of rejected events of CCD 2 of EPEA quadrant 3 due to MIP correction

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1821 | A3_LCHIP | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 2       | none     | none     |

This parameter reports the EPEA quadrant 3 lower left CCD

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1822 | A3_LLINE | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 199     | none     | none     |

This parameter reports the EPEA quadrant 3 lower left line

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1823 | A3_UCHIP | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 2       | none     | none     |

This parameter reports the EPEA quadrant 3 upper right CCD

## CALIBRATION CURVE

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1824 | A3_ULINE | V   | n/a  | 3   | 4   | 8 | F0118 |         | 0       | 199     | none     | none     |

This parameter reports the EPEA quadrant 3 upper right line

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1825 | A3_CMCORR | V   | n/a  | 3   | 12  | 16 | F0108 |         |         |         | none     | none     |

This parameter reports the corrective value to avoid negative energies in EPEA quadrant 3

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1826 | A3_CMDEVL | V   | n/a  | 3   | 12  | 16 | F0110 |         |         |         | none     | none     |

This parameter reports the lower threshold used in EPEA quadrant 3 to separate dead pixels

## CALIBRATION CURVE

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| PREF  | NAME      | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1827 | A3_CMDEVH | V   | n/a  | 3   | 12  | 16 | F0110 |         |         |         | none     | none     |

This parameter reports the upper threshold used in EPEA quadrant 3 to separate flickering pixels

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1828 | A3_CMLINEPixSet | V   | n/a  | 2   | 4   | 4 | F0120 |         | 0       | 1       | none     | none     |

This parameter reports the pixel status set by the last EACMLINE command in EPEA quadrant 3

## RAW VALUE MEANING

|   |      |
|---|------|
| 0 | Good |
| 1 | Bad  |

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1829 | A3_CMLINE CCD | V   | n/a  | 3   | 0   | 4 | F0120 |         | 0       | 2       | none     | none     |

This parameter reports the selected CCD in the EPEA quadrant 3 with the last EACMLINE command

## CALIBRATION CURVE

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1830 | A3_CMLINE Numb | V   | n/a  | 3   | 4   | 8 | F0120 |         | 0       | 199     | none     | none     |

This parameter reports the line selected by the last EACMLINE command in the EPEA quadrant 3

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1831 | A3_CMCOL PixSet | V   | n/a  | 2   | 4   | 4 | F0121 |         | 0       | 1       | none     | none     |

This parameter reports the pixel status set by the last EACMCOL command in EPEA quadrant 3

## RAW VALUE MEANING

|   |      |
|---|------|
| 0 | Good |
| 1 | Bad  |

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1832 | A3_CMCOL CCD | V   | n/a  | 3   | 0   | 4 | F0121 |         | 0       | 2       | none     | none     |

This parameter reports the selected CCD in the EPEA quadrant 3 with the last EACMCOL command

## CALIBRATION CURVE

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1833 | A3_CMCOL Numb | V   | n/a  | 3   | 4   | 8 | F0121 |         | 0       | 63      | none     | none     |

This parameter reports the column selected by the last EACMCOL command in the EPEA quadrant 3

## CALIBRATION CURVE

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1834 | A3_CHOP | V   | n/a  | 3   | 4   | 8 | F0111 |         | 0       | 31      | none     | none     |

This parameter reports the EPEA quadrant 3 chopper set with the EACHOP command

## CALIBRATION CURVE

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1835 | A3_SENDDMODE | V   | n/a  | 2   | 8   | 8 | F0116 |         | 16      | 18      | none     | none     |

This parameter reports the EPEA quadrant 3 active sendmode

## RAW VALUE MEANING

|    |              |
|----|--------------|
| 16 | MIP correc.1 |
| 17 | MIP correc.2 |
| 18 | No MIP corr. |

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1836 | A3_EAMIPSEL | V   | n/a  | 3   | 4   | 8 | F0117 |         | 0       | 100     | none     | none     |

Number of lines which should be rejected if they are above or below a saturated pixel (MIP) in EPEA quadrant 3 (EAMIPSEL command)

## CALIBRATION CURVE

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| PREF  | NAME     | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1837 | A3_COUNT | V   | n/a  | 3   | 12  | 16 | F0074 |         |         |         | none     | none     |

This parameter reports the number of times a no-operation loop has to be executed before the next data are sent to the HBR

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1838 | A3_MAXFRC | V   | n/a  | 3   | 4   | 8 | F0176 |         |         |         | none     | none     |

This parameter reports the maximum frame counter in EPEA quadrant 3

## CALIBRATION CURVE

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1839 | A3_RDMODE | V   | n/a  | 2   | 8   | 8 | F0114 | 32      | 32      | 36      | none     | none     |

This parameter reports the active readout mode in EPEA quadrant 3

| RAW VALUE | MEANING      |
|-----------|--------------|
| 32        | Full Frame   |
| 33        | Small Window |
| 34        | Large Window |
| 35        | Timing       |
| 36        | Burst        |

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1840 | A3_SSEG | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 3 stack segment address

## CALIBRATION CURVE

| PREF  | NAME    | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1841 | A3_DSEG | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 3 data segment address

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1842 | A3L RecData Cks | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 3 receive data checksum error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1843 | A3L Transmit ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 3 transmit error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1844 | A3L ACKTimeO ST | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 3 acknowledge timeout error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1845 | A3L ACK Status | V   | n/a  | 2   | 1   | 1 | none | 0       | 0       | 1       | none     | none     |

This parameter reports the EPEA quadrant 3 acknowledge error status

| RAW VALUE | MEANING  |
|-----------|----------|
| 0         | No Error |
| 1         | Error    |

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| PREF  | NAME            | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1846 | A3L NegACKErCod | V   | n/a  | 2   | 8   | 8 | none |         |         |         | none     | none     |

This parameter reports the EPEA quadrant 3 acknowledge error code

## RAW VALUE MEANING

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1847 | E C3_UAMOS_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the AMOS high voltage in EPCH quadrant 3

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.14315)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1848 | E C3_UAMOS_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the AMOS low voltage in EPCH quadrant 3

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.14315)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1849 | E C3_UPHI_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the PHI high voltage in EPCH quadrant 3

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.14342)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1850 | E C3_UPHI_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the PHI low voltage in EPCH quadrant 3

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.14262)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1851 | E C3_UFLSH_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the UFLSH high voltage in EPCH quadrant 3

**CALIBRATION CURVE**  $ENG(V) = RAW * 0.06827$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1852 | E C3_UFLSH_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the UFLSH low voltage in EPCH quadrant 3

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.10271)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1853 | E C3_RFGA_H | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the RFGA high voltage in EPCH quadrant 3

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.06684)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F1854 | E C3_RFGA_L | V   | V    | 3   | 4   | 8 | F0158 |         |         |         | none     | none     |

This parameter reports the RFGA low voltage in EPCH quadrant 3

**CALIBRATION CURVE**  $ENG(V) = RAW * (-0.0667)$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1855 | E C3_U+BIAS | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the +BIAS voltage in EPCH quadrant 3

**CALIBRATION CURVE**  $ENG(V) = RAW * (0.06683)$

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| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1856 | E C3_U-BIAS | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the -BIAS voltage in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.12831)$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1857 | E C3_UCMXVDD | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the camex VDD voltage in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.03229$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1858 | E C3_UCMXVSS | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the camex VSS voltage in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.03221)$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1859 | E C3_U+15 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the + 15 V voltage in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.10667$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1860 | E C3_U-15 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 15 V voltage in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.10667)$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1861 | E C3_U-35 | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 35 V voltage in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.23567)$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1862 | E C3_UVDD | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDD voltage in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.03548$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1863 | E C3_UVDDA | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDDA voltage in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.04281$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1864 | E C3_UVSSA | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VSSA voltage in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG(V) = RAW * (-0.04281)$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1865 | E C3_UDGND | V   | V    | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the digital ground voltage in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG(V) = RAW * 0.01954 - 2.5$

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| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1866 | E C3_IVDDA | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDD analogue current in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.29851$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1867 | E C3_I+15 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the + 15 V current in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.24242 - 4.3$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1868 | E C3_I-15 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 15 V current in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.23256 - 4.651$

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1869 | E C3_IVDD_D | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the VDD digital current in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.03067$

| PREF  | NAME     | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1870 | E C3_IIS | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the IS current in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 0.34843 - 44.5993$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1871 | E C3_IGRA0 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the GRA0 current in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 1.16279 - 151.163$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1872 | E C3_IGRA1 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the GRA1 current in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 1.15607 - 150.289$

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1873 | E C3_IGRA2 | V   | n/a  | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the GRA2 current in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (\mu A) = RAW * 1.15942 - 150.145$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1874 | E C3_TEMPEA1 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the CPU card temperature in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (^\circ C) = RAW * 1.63934 - 273$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1875 | E C3_TEMPEA2 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the box temperature in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (^\circ C) = RAW * 1.63934 - 273$

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| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1876 | E C3_TEMPQB1 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant box temperature 1 in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (^{\circ}C) = RAW * 1.62162 - 273$

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1877 | E C3_TEMPQB2 | V   | degC | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the quadrant box temperature 2 in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (^{\circ}C) = RAW * 1.63043 - 273$

| PREF  | NAME      | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1878 | E C3_I-35 | V   | mA   | 3   | 4   | 8 | none |         |         |         | none     | none     |

This parameter reports the - 35 V current in EPCH quadrant 3

**CALIBRATION CURVE**     $ENG (mA) = RAW * 0.23809 - 11.547$

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F1879 | A3 MIP Threshold | V   | n/a  | 3   | 12  | 16 | F0195 |         |         |         | none     | none     |

MIP threshold of the EPEA quadrant 3

**CALIBRATION CURVE**

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1902 | Spare 1 bit | V   | n/a  | 2   | 1   | 1 | none |         | 0       | 1       | none     | none     |

This parameter is used just as spare bit in the TM data fields: its value is meaningless.

**RAW VALUE      MEANING**

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1903 | Spare 2 bits | V   | n/a  | 2   | 2   | 2 | none |         | 0       | 3       | none     | none     |

This parameter is used just as spare in the TM data fields: its value is meaningless.

**RAW VALUE      MEANING**

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM    | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|----|------|---------|---------|------------|----------|----------|
| F1904 | Spare 4 bytes | V   | n/a  | 3   | 14  | 32 | none |         | 0       | 4294967295 | none     | none     |

This parameter is used just as spare in the TM data fields: its value is meaningless.

**CALIBRATION CURVE**

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F1905 | Spare 2 bytes | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This parameter is used just as spare in the TM data fields: its value is meaningless.

**CALIBRATION CURVE**

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1906 | Spare 1 byte | V   | n/a  | 3   | 4   | 8 | none |         | 0       | 255     | none     | none     |

This parameter is used just as spare byte in the TM data fields: its value is meaningless.

**CALIBRATION CURVE**

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1907 | Spare 4 bits | V   | n/a  | 3   | 0   | 4 | none |         | 0       | 15      | none     | none     |

This parameter is used just as spare in the TM data fields: its value is meaningless.

**CALIBRATION CURVE**

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| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1908 | Spare 3 bits | V   | n/a  | 2   | 3   | 3 | none |         | 0       | 7       | none     | none     |

This parameter is used just as spare in the TM data fields: its value is meaningless.

## RAW VALUE MEANING

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1909 | Spare 6 bits | V   | n/a  | 3   | 2   | 6 | none |         | 0       | 63      | none     | none     |

This parameter is used just as spare in the TM data fields: its value is meaningless.

## CALIBRATION CURVE

| PREF  | NAME         | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|--------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F1910 | Spare 5 bits | V   | n/a  | 3   | 1   | 5 | none |         | 0       | 31      | none     | none     |

This parameter is used just as spare in the TM data fields: its value is meaningless.

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2001 | TC SequenceCount | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

Identifier of a correctly executed TC

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2002 | TaskProcessIdent | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

Process Identifier of EPDH Task

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F2003 | LBRProtocolError | V   | n/a  | 2   | 8   | 8 | none |         | 1       | 250     | none     | none     |

This parameter indicates the type of LBR protocol error.

## RAW VALUE MEANING

|     |              |
|-----|--------------|
| 1   | BeginIDnotFF |
| 2   | WrongLength  |
| 3   | UARTRecError |
| 4   | WrongParaNu  |
| 5   | WrongParamet |
| 6   | DiffEPEAAckn |
| 8   | FailedLCVeri |
| 17  | WrongFramCH  |
| 34  | Unknown LC   |
| 51  | Timeout      |
| 68  | LC rejected  |
| 113 | EA 0 failed  |
| 114 | EA 1 failed  |
| 115 | EA0,1 failed |
| 116 | EA 2 failed  |
| 117 | EA2,0 failed |
| 118 | EA2,1 failed |
| 119 | EA2,1,0faile |
| 120 | EA 3 failed  |
| 121 | EA3,0 failed |
| 122 | EA3,1 failed |
| 123 | EA3,1,0faile |
| 124 | EA3,2 failed |
| 125 | EA3,2,0faile |
| 126 | EA3,2,1faile |
| 127 | EA3,2,1,0fai |
| 250 | EMDHresponse |

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| <b>PREF</b>                                         | <b>NAME</b>    | <b>F/V</b> | <b>UNIT</b> | <b>PTC</b> | <b>PFC</b> | <b>W</b> | <b>TC</b> | <b>DEFAULT</b> | <b>MINIMUM</b> | <b>MAXIMUM</b> | <b>ALT_PARA</b> | <b>RED_PARA</b> |
|-----------------------------------------------------|----------------|------------|-------------|------------|------------|----------|-----------|----------------|----------------|----------------|-----------------|-----------------|
| <b>F2004</b>                                        | HBR Identifier | V          | n/a         | 3          | 12         | 16       | none      |                | 1              | 4              | none            | none            |
| Identifier number of the HBR Channel with full FIFO |                |            |             |            |            |          |           |                |                |                |                 |                 |

## **CALIBRATION CURVE**

| <b>PREF</b>                   | <b>NAME</b>      | <b>F/V</b> | <b>UNIT</b> | <b>PTC</b> | <b>PFC</b> | <b>W</b> | <b>TC</b> | <b>DEFAULT</b> | <b>MINIMUM</b> | <b>MAXIMUM</b> | <b>ALT_PARA</b> | <b>RED_PARA</b> |
|-------------------------------|------------------|------------|-------------|------------|------------|----------|-----------|----------------|----------------|----------------|-----------------|-----------------|
| <b>F2005</b>                  | HBR1 BufferStart | V          | n/a         | 3          | 14         | 32       | F0032     |                | 0              | 1048575        | none            | none            |
| Start address of HBR 1 buffer |                  |            |             |            |            |          |           |                |                |                |                 |                 |

## **CALIBRATION CURVE**

| <b>PREF</b>                 | <b>NAME</b>      | <b>F/V</b> | <b>UNIT</b> | <b>PTC</b> | <b>PFC</b> | <b>W</b> | <b>TC</b> | <b>DEFAULT</b> | <b>MINIMUM</b> | <b>MAXIMUM</b> | <b>ALT_PARA</b> | <b>RED_PARA</b> |
|-----------------------------|------------------|------------|-------------|------------|------------|----------|-----------|----------------|----------------|----------------|-----------------|-----------------|
| <b>F2006</b>                | HBR 1 Buffer End | V          | n/a         | 3          | 14         | 32       | F0032     |                | 0              | 1048575        | none            | none            |
| End address of HBR 1 buffer |                  |            |             |            |            |          |           |                |                |                |                 |                 |

## **CALIBRATION CURVE**

| <b>PREF</b>                   | <b>NAME</b>      | <b>F/V</b> | <b>UNIT</b> | <b>PTC</b> | <b>PFC</b> | <b>W</b> | <b>TC</b> | <b>DEFAULT</b> | <b>MINIMUM</b> | <b>MAXIMUM</b> | <b>ALT_PARA</b> | <b>RED_PARA</b> |
|-------------------------------|------------------|------------|-------------|------------|------------|----------|-----------|----------------|----------------|----------------|-----------------|-----------------|
| <b>F2007</b>                  | HBR2 BufferStart | V          | n/a         | 3          | 14         | 32       | F0032     |                | 0              | 1048575        | none            | none            |
| Start address of HBR 2 buffer |                  |            |             |            |            |          |           |                |                |                |                 |                 |

## **CALIBRATION CURVE**

| <b>PREF</b>                 | <b>NAME</b>      | <b>F/V</b> | <b>UNIT</b> | <b>PTC</b> | <b>PFC</b> | <b>W</b> | <b>TC</b> | <b>DEFAULT</b> | <b>MINIMUM</b> | <b>MAXIMUM</b> | <b>ALT_PARA</b> | <b>RED_PARA</b> |
|-----------------------------|------------------|------------|-------------|------------|------------|----------|-----------|----------------|----------------|----------------|-----------------|-----------------|
| <b>F2008</b>                | HBR 2 Buffer End | V          | n/a         | 3          | 14         | 32       | F0032     |                | 0              | 1048575        | none            | none            |
| End address of HBR 2 buffer |                  |            |             |            |            |          |           |                |                |                |                 |                 |

## **CALIBRATION CURVE**

| <b>PREF</b>                   | <b>NAME</b>      | <b>F/V</b> | <b>UNIT</b> | <b>PTC</b> | <b>PFC</b> | <b>W</b> | <b>TC</b> | <b>DEFAULT</b> | <b>MINIMUM</b> | <b>MAXIMUM</b> | <b>ALT_PARA</b> | <b>RED_PARA</b> |
|-------------------------------|------------------|------------|-------------|------------|------------|----------|-----------|----------------|----------------|----------------|-----------------|-----------------|
| <b>F2009</b>                  | HBR3 BufferStart | V          | n/a         | 3          | 14         | 32       | F0032     |                | 0              | 1048575        | none            | none            |
| Start address of HBR 3 buffer |                  |            |             |            |            |          |           |                |                |                |                 |                 |

## **CALIBRATION CURVE**

| <b>PREF</b>                 | <b>NAME</b>      | <b>F/V</b> | <b>UNIT</b> | <b>PTC</b> | <b>PFC</b> | <b>W</b> | <b>TC</b> | <b>DEFAULT</b> | <b>MINIMUM</b> | <b>MAXIMUM</b> | <b>ALT_PARA</b> | <b>RED_PARA</b> |
|-----------------------------|------------------|------------|-------------|------------|------------|----------|-----------|----------------|----------------|----------------|-----------------|-----------------|
| <b>F2010</b>                | HBR 3 Buffer End | V          | n/a         | 3          | 14         | 32       | F0032     |                | 0              | 1048575        | none            | none            |
| End address of HBR 3 buffer |                  |            |             |            |            |          |           |                |                |                |                 |                 |

## **CALIBRATION CURVE**

| <b>PREF</b>                   | <b>NAME</b>      | <b>F/V</b> | <b>UNIT</b> | <b>PTC</b> | <b>PFC</b> | <b>W</b> | <b>TC</b> | <b>DEFAULT</b> | <b>MINIMUM</b> | <b>MAXIMUM</b> | <b>ALT_PARA</b> | <b>RED_PARA</b> |
|-------------------------------|------------------|------------|-------------|------------|------------|----------|-----------|----------------|----------------|----------------|-----------------|-----------------|
| <b>F2011</b>                  | HBR4 BufferStart | V          | n/a         | 3          | 14         | 32       | F0032     |                | 0              | 1048575        | none            | none            |
| Start address of HBR 4 buffer |                  |            |             |            |            |          |           |                |                |                |                 |                 |

## **CALIBRATION CURVE**

| <b>PREF</b>                 | <b>NAME</b>      | <b>F/V</b> | <b>UNIT</b> | <b>PTC</b> | <b>PFC</b> | <b>W</b> | <b>TC</b> | <b>DEFAULT</b> | <b>MINIMUM</b> | <b>MAXIMUM</b> | <b>ALT_PARA</b> | <b>RED_PARA</b> |
|-----------------------------|------------------|------------|-------------|------------|------------|----------|-----------|----------------|----------------|----------------|-----------------|-----------------|
| <b>F2012</b>                | HBR 4 Buffer End | V          | n/a         | 3          | 14         | 32       | F0032     |                | 0              | 1048575        | none            | none            |
| End address of HBR 4 buffer |                  |            |             |            |            |          |           |                |                |                |                 |                 |

## **CALIBRATION CURVE**

| <b>PREF</b>                                                                            | <b>NAME</b> | <b>F/V</b> | <b>UNIT</b> | <b>PTC</b> | <b>PFC</b> | <b>W</b> | <b>TC</b> | <b>DEFAULT</b> | <b>MINIMUM</b> | <b>MAXIMUM</b> | <b>ALT_PARA</b> | <b>RED_PARA</b> |
|----------------------------------------------------------------------------------------|-------------|------------|-------------|------------|------------|----------|-----------|----------------|----------------|----------------|-----------------|-----------------|
| <b>F2013</b>                                                                           | D           | V          | degC        | 3          | 4          | 8        | F0036     |                |                |                | none            | none            |
| Temperature upper limit during the normal operating thermal control of the focal plane |             |            |             |            |            |          |           |                |                |                |                 |                 |

## **CALIBRATION CURVE**

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| PREF  | NAME | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2014 | D    | V   | degC | 3   | 4   | 8 | F0036 |         |         |         | none     | none     |

Temperature lower limit during the normal operating thermal control of the focal plane

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2015 | D HBR1 CCD0 Mode | V   | n/a  | 2   | 4   | 4 | F0031 |         | 0       | 5       | none     | none     |

Operating mode of CCD0 in HBR 1 (Quadrant 0)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Imaging FF |
| 2         | Imaging LW |
| 3         | Imaging SW |
| 4         | Timing     |
| 5         | Burst      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2016 | D HBR1 CCD1 Mode | V   | n/a  | 2   | 4   | 4 | F0031 |         | 0       | 5       | none     | none     |

Operating mode of CCD1 in HBR 1 (Quadrant 0)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Imaging FF |
| 2         | Imaging LW |
| 3         | Imaging SW |
| 4         | Timing     |
| 5         | Burst      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2017 | D HBR1 CCD2 Mode | V   | n/a  | 2   | 4   | 4 | F0031 |         | 0       | 5       | none     | none     |

Operating mode of CCD2 in HBR 1 (Quadrant 0)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Imaging FF |
| 2         | Imaging LW |
| 3         | Imaging SW |
| 4         | Timing     |
| 5         | Burst      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2018 | D HBR2 CCD0 Mode | V   | n/a  | 2   | 4   | 4 | F0031 |         | 0       | 5       | none     | none     |

Operating mode of CCD0 in HBR 2 (Quadrant 1)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Imaging FF |
| 2         | Imaging LW |
| 3         | Imaging SW |
| 4         | Timing     |
| 5         | Burst      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2019 | D HBR2 CCD1 Mode | V   | n/a  | 2   | 4   | 4 | F0031 |         | 0       | 5       | none     | none     |

Operating mode of CCD1 in HBR 2 (Quadrant 1)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Imaging FF |
| 2         | Imaging LW |
| 3         | Imaging SW |
| 4         | Timing     |
| 5         | Burst      |

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| PREF                                         | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|----------------------------------------------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2020                                        | D HBR2 CCD2 Mode | V   | n/a  | 2   | 4   | 4 | F0031 |         | 0       | 5       | none     | none     |
| Operating mode of CCD2 in HBR 2 (Quadrant 1) |                  |     |      |     |     |   |       |         |         |         |          |          |

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Imaging FF |
| 2         | Imaging LW |
| 3         | Imaging SW |
| 4         | Timing     |
| 5         | Burst      |

| PREF                                         | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|----------------------------------------------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2021                                        | D HBR3 CCD0 Mode | V   | n/a  | 2   | 4   | 4 | F0031 |         | 0       | 5       | none     | none     |
| Operating mode of CCD0 in HBR 3 (Quadrant 2) |                  |     |      |     |     |   |       |         |         |         |          |          |

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Imaging FF |
| 2         | Imaging LW |
| 3         | Imaging SW |
| 4         | Timing     |
| 5         | Burst      |

| PREF                                         | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|----------------------------------------------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2022                                        | D HBR3 CCD1 Mode | V   | n/a  | 2   | 4   | 4 | F0031 |         | 0       | 5       | none     | none     |
| Operating mode of CCD1 in HBR 3 (Quadrant 2) |                  |     |      |     |     |   |       |         |         |         |          |          |

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Imaging FF |
| 2         | Imaging LW |
| 3         | Imaging SW |
| 4         | Timing     |
| 5         | Burst      |

| PREF                                         | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|----------------------------------------------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2023                                        | D HBR3 CCD2 Mode | V   | n/a  | 2   | 4   | 4 | F0031 |         | 0       | 5       | none     | none     |
| Operating mode of CCD2 in HBR 3 (Quadrant 2) |                  |     |      |     |     |   |       |         |         |         |          |          |

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Imaging FF |
| 2         | Imaging LW |
| 3         | Imaging SW |
| 4         | Timing     |
| 5         | Burst      |

| PREF                                         | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|----------------------------------------------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2024                                        | D HBR4 CCD0 Mode | V   | n/a  | 2   | 4   | 4 | F0031 |         | 0       | 5       | none     | none     |
| Operating mode of CCD0 in HBR 4 (Quadrant 3) |                  |     |      |     |     |   |       |         |         |         |          |          |

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Imaging FF |
| 2         | Imaging LW |
| 3         | Imaging SW |
| 4         | Timing     |
| 5         | Burst      |

| PREF                                         | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|----------------------------------------------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2025                                        | D HBR4 CCD1 Mode | V   | n/a  | 2   | 4   | 4 | F0031 |         | 0       | 5       | none     | none     |
| Operating mode of CCD1 in HBR 4 (Quadrant 3) |                  |     |      |     |     |   |       |         |         |         |          |          |

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Imaging FF |
| 2         | Imaging LW |
| 3         | Imaging SW |
| 4         | Timing     |

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5 Burst

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2026 | D HBR4 CCD2 Mode | V   | n/a  | 2   | 4   | 4 | F0031 |         | 0       | 5       | none     | none     |

Operating mode of CCD2 in HBR 4 (Quadrant 3)

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Imaging FF |
| 2         | Imaging LW |
| 3         | Imaging SW |
| 4         | Timing     |
| 5         | Burst      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F2027 | HBR 1 Processing | V   | n/a  | 2   | 0   | 16 | F0031 |         | 0       | 6       | none     | none     |

Processing configuration of HBR 1

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Disabled     |
| 1         | ImaFullFrame |
| 2         | ImaLargeWind |
| 3         | ImaSmallWind |
| 4         | Timing       |
| 5         | Burst        |
| 6         | Transparent  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F2028 | HBR 2 Processing | V   | n/a  | 2   | 0   | 16 | F0031 |         | 0       | 6       | none     | none     |

Processing configuration of HBR 2

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Disabled     |
| 1         | ImaFullFrame |
| 2         | ImaLargeWind |
| 3         | ImaSmallWind |
| 4         | Timing       |
| 5         | Burst        |
| 6         | Transparent  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F2029 | HBR 3 Processing | V   | n/a  | 2   | 0   | 16 | F0031 |         | 0       | 6       | none     | none     |

Processing configuration of HBR 3

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Disabled     |
| 1         | ImaFullFrame |
| 2         | ImaLargeWind |
| 3         | ImaSmallWind |
| 4         | Timing       |
| 5         | Burst        |
| 6         | Transparent  |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|-------|---------|---------|---------|----------|----------|
| F2030 | HBR 4 Processing | V   | n/a  | 2   | 0   | 16 | F0031 |         | 0       | 6       | none     | none     |

Processing configuration of HBR 4

| RAW VALUE | MEANING      |
|-----------|--------------|
| 0         | Disabled     |
| 1         | ImaFullFrame |
| 2         | ImaLargeWind |
| 3         | ImaSmallWind |
| 4         | Timing       |
| 5         | Burst        |
| 6         | Transparent  |

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| PREF                              | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-----------------------------------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2031                             | NumRejReadCycles | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |
| Number of rejected readout cycles |                  |     |      |     |     |    |      |         |         |         |          |          |

## **CALIBRATION CURVE**

| PREF                    | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------------------------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2032                   | Cum ATHR Counter | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |
| Cumulative ATHR counter |                  |     |      |     |     |    |      |         |         |         |          |          |

## **CALIBRATION CURVE**

| PREF                    | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------------------------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2033                   | Cum DEFA Counter | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |
| Cumulative DEFA Counter |                  |     |      |     |     |    |      |         |         |         |          |          |

## **CALIBRATION CURVE**

| PREF                    | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------------------------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2034                   | Cum EPDH Counter | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |
| Cumulative EPDH Counter |                  |     |      |     |     |    |      |         |         |         |          |          |

## **CALIBRATION CURVE**

| PREF                     | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|--------------------------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2035                    | CumDSLIN Counter | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |
| Cumulative DSLIN Counter |                  |     |      |     |     |    |      |         |         |         |          |          |

## **CALIBRATION CURVE**

| PREF                                 | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|--------------------------------------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2036                                | CntModeStartTime | V   | n/a  | 3   | 14  | 32 | none |         |         |         | none     | none     |
| Start time of the EPDH Counting Mode |                  |     |      |     |     |    |      |         |         |         |          |          |

## **CALIBRATION CURVE**

| PREF                                | NAME            | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------------------------------------|-----------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2037                               | CntModeStopTime | V   | n/a  | 3   | 14  | 32 | none |         |         |         | none     | none     |
| Stop time of the EPDH Counting Mode |                 |     |      |     |     |    |      |         |         |         |          |          |

## **CALIBRATION CURVE**

| PREF                       | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|----------------------------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2038                      | HBR1 Active Chan | V   | n/a  | 2   | 1   | 1 | F0031 |         | 0       | 1       | none     | none     |
| Activation status of HBR 1 |                  |     |      |     |     |   |       |         |         |         |          |          |

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF                       | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|----------------------------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2039                      | HBR2 Active Chan | V   | n/a  | 2   | 1   | 1 | F0031 |         | 0       | 1       | none     | none     |
| Activation status of HBR 2 |                  |     |      |     |     |   |       |         |         |         |          |          |

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF                       | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|----------------------------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2040                      | HBR3 Active Chan | V   | n/a  | 2   | 1   | 1 | F0031 |         | 0       | 1       | none     | none     |
| Activation status of HBR 3 |                  |     |      |     |     |   |       |         |         |         |          |          |

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2041 | HBR4 Active Chan | V   | n/a  | 2   | 1   | 1 | F0031 |         | 0       | 1       | none     | none     |

Activation status of HBR 4

| RAW VALUE | MEANING    |
|-----------|------------|
| 0         | Not Active |
| 1         | Active     |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2042 | HBR1 Quadrant ID | F   | n/a  | 2   | 2   | 2 | F0031 | 0       | 0       | 0       | none     | none     |

This number identifies the selected quadrant in HBR 1

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2043 | HBR2 Quadrant ID | F   | n/a  | 2   | 2   | 2 | F0031 | 1       | 1       | 1       | none     | none     |

This number identifies the selected quadrant in HBR 2

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2044 | HBR3 Quadrant ID | F   | n/a  | 2   | 2   | 2 | F0031 | 2       | 2       | 2       | none     | none     |

This number identifies the selected quadrant in HBR 3

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2045 | HBR4 Quadrant ID | F   | n/a  | 2   | 2   | 2 | F0031 | 3       | 3       | 3       | none     | none     |

This number identifies the selected quadrant in HBR 4

| RAW VALUE | MEANING |
|-----------|---------|
|-----------|---------|

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2046 | HBR1QuadrantMode | V   | n/a  | 2   | 2   | 2 | F0031 |         | 0       | 3       | none     | none     |

Selected quadrant mode for HBR 1

| RAW VALUE | MEANING     |
|-----------|-------------|
| 0         | Normal      |
| 3         | Transparent |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2047 | HBR2QuadrantMode | V   | n/a  | 2   | 2   | 2 | F0031 |         | 0       | 3       | none     | none     |

Selected quadrant mode for HBR 2

| RAW VALUE | MEANING     |
|-----------|-------------|
| 0         | Normal      |
| 3         | Transparent |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2048 | HBR3QuadrantMode | V   | n/a  | 2   | 2   | 2 | F0031 |         | 0       | 3       | none     | none     |

Selected quadrant mode for HBR 3

| RAW VALUE | MEANING     |
|-----------|-------------|
| 0         | Normal      |
| 3         | Transparent |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W | TC    | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|---|-------|---------|---------|---------|----------|----------|
| F2049 | HBR4QuadrantMode | V   | n/a  | 2   | 2   | 2 | F0031 |         | 0       | 3       | none     | none     |

Selected quadrant mode for HBR 4

| RAW VALUE | MEANING     |
|-----------|-------------|
| 0         | Normal      |
| 3         | Transparent |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2050 | SwitchIdentifier | V   | n/a  | 2   | 0   | 16 | none |         | 2560    | 3328    | none     | none     |

This parameter identifies the EPDH switch affected by a current limiter intervention

## RAW VALUE MEANING

| PREF  | NAME        | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F2051 | Quadrant ID | V   | n/a  | 2   | 2   | 2 | none |         | 0       | 3       | none     | none     |

Quadrant identifier in the Counting Cycle Report

## RAW VALUE MEANING

| PREF  | NAME          | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|---------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F2052 | Quadrant Mode | V   | n/a  | 2   | 2   | 2 | none | 0       | 0       | 3       | none     | none     |

Quadrant Mode in the Counting Cycle report

## RAW VALUE MEANING

|   |             |
|---|-------------|
| 0 | Normal      |
| 3 | Transparent |

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F2053 | CCD 0 Mode | V   | n/a  | 2   | 4   | 4 | none |         | 0       | 5       | none     | none     |

Readout mode of CCD 0 in the Counting Cycle report

## RAW VALUE MEANING

|   |            |
|---|------------|
| 0 | Not Active |
| 1 | Imaging FF |
| 2 | Imaging LW |
| 3 | Imaging SW |
| 4 | Timing     |
| 5 | Burst      |

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F2054 | CCD 1 Mode | V   | n/a  | 2   | 4   | 4 | none |         | 0       | 5       | none     | none     |

Readout mode of CCD 1 in the Counting Cycle report

## RAW VALUE MEANING

|   |            |
|---|------------|
| 0 | Not Active |
| 1 | Imaging FF |
| 2 | Imaging LW |
| 3 | Imaging SW |
| 4 | Timing     |
| 5 | Burst      |

| PREF  | NAME       | F/V | UNIT | PTC | PFC | W | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------|-----|------|-----|-----|---|------|---------|---------|---------|----------|----------|
| F2055 | CCD 2 Mode | V   | n/a  | 2   | 4   | 4 | none |         | 0       | 5       | none     | none     |

Readout mode of CCD 2 in the Counting Cycle report

## RAW VALUE MEANING

|   |            |
|---|------------|
| 0 | Not Active |
| 1 | Imaging FF |
| 2 | Imaging LW |
| 3 | Imaging SW |
| 4 | Timing     |
| 5 | Burst      |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2056 | Mean Common Mode | V   | n/a  | 3   | 12  | 16 | none |         | 0       | 65535   | none     | none     |

This parameter reports the Mean Common Mode in the Counting Cycle Report

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2057 | MasterInitRepBit | V   | n/a  | 2   | 0   | 16 | none | 0       | 0       | 1       | none     | none     |

## RAW VALUE MEANING

|   |           |
|---|-----------|
| 0 | Valid     |
| 1 | Not Valid |

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| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2058 | MasInRepSPROMcrc | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

## CALIBRATION CURVE

| PREF  | NAME           | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|----------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2059 | MasInRepPROCrc | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2060 | MasInRepRAMrslt | V   | n/a  | 2   | 0   | 16 | none | 0       | 0       | 1       | none     | none     |

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Valid     |
| 1         | Not Valid |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2061 | MasInReFaultPGnm | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2062 | MasInReFaultPGof | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

## CALIBRATION CURVE

| PREF  | NAME            | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|-----------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2063 | MasInitReRAMcrc | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

## CALIBRATION CURVE

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2064 | ResPerProcLoadin | V   | n/a  | 2   | 0   | 16 | none | 0       | 0       | 1       | none     | none     |

Loading of resident periodic process into APEX table

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Valid     |
| 1         | Not Valid |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2065 | InitprFirstssbUn | V   | n/a  | 2   | 0   | 16 | none | 0       | 0       | 1       | none     | none     |

Unloading of periodic initproc\_firstssb process

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Valid     |
| 1         | Not Valid |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2066 | EPCE HK DataFlag | V   | n/a  | 2   | 0   | 16 | none | 0       | 0       | 1       | none     | none     |

This parameter indicates if the EPCE HK data are valid.

| RAW VALUE | MEANING   |
|-----------|-----------|
| 0         | Valid     |
| 1         | Not Valid |

| PREF  | NAME             | F/V | UNIT | PTC | PFC | W  | TC   | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|-------|------------------|-----|------|-----|-----|----|------|---------|---------|---------|----------|----------|
| F2067 | EACCMODEStartLin | V   | n/a  | 3   | 12  | 16 | none |         |         |         | none     | none     |

Start Line stored in the failed LC EACCMODE

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***EPCS TM PARAMETER DETAILED LIST***

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Appendix F

| PREF | NAME   | F/V | UNIT | PTC | PFC | W  | TC | DEFAULT | MINIMUM | MAXIMUM | ALT_PARA | RED_PARA |
|------|--------|-----|------|-----|-----|----|----|---------|---------|---------|----------|----------|
| FIX  | Filler | F   | n/a  | 0   | 0   | 99 |    |         |         |         |          |          |

For this para no other definitions necessary.

**RAW VALUE      MEANING**