

# XRT Timeline to be uploaded on 2018/11/17

Period: 2018/11/17 11:29:00 - 2018/11/27 10:49:00

\* \* \* \* \*

**Normal mode**

\* \* \* \* \*

**XOB #1BF: AR - Standard Core - (Filter-Ratio with Al/poly and thin-Be long/short pairs) with PFB, 384x384 at 1064 1048, thin-Be, and Al/poly context, with**

| Term                            | Pointing (x, y)                        | Comment                    |
|---------------------------------|--|----------------------------|
| 11/17 11:42:00 - 11/17 17:33:00 | Track ( 552.7, -59.7) @ 11/17 11:39:00 | # OP start + 10min AR obs. |
| 11/17 18:10:30 - 11/17 23:59:54 | Track ( 621.0, -23.6) @ 11/17 18:07:30 | AR obs.                    |
| 11/18 03:22:00 - 11/18 05:41:54 | Track ( 663.0, -54.5) @ 11/18 03:00:00 | AR obs.                    |
| 11/18 05:55:00 - 11/18 16:19:54 | Track ( 682.0, -53.5) @ 11/18 05:52:00 | AR obs.                    |
| 11/18 16:55:30 - 11/18 16:59:54 | Track ( 747.4, -49.7) @ 11/18 16:30:00 | AR obs.                    |
| 11/19 12:13:00 - 11/19 17:59:54 | Track ( 846.4, -42.2) @ 11/19 12:10:00 | AR obs.                    |
| 11/19 18:13:00 - 11/19 23:59:54 | Track ( 870.5, -39.9) @ 11/19 18:10:00 | AR Obs.                    |
| 11/20 03:03:00 - 11/20 06:17:54 | Track ( 900.3, -36.5) @ 11/20 03:00:00 | AR obs.                    |
| 11/20 06:31:00 - 11/20 10:36:00 | Track ( 910.2, -35.2) @ 11/20 06:28:00 | AR Obs.                    |

**PROG= 06 Inf.-time(s)**

| Subr= 1      | 1-time(s)           | 2.0sec          |         |                      |      |   |   |         |  |  |  |  |
|--------------|---------------------|-----------------|---------|----------------------|------|---|---|---------|--|--|--|--|
| Seqn= 92     | 1-time(s)           | 2.0sec          |         |                      |      |   |   |         |  |  |  |  |
| Open/G-band  | Open/G-band open    | Safe Norm 1ms   | Obs 1x1 | 384x384 (1064, 1048) | DPCM | 0 | 0 | 2.0sec  |  |  |  |  |
| Open/G-band  | Open/G-band close   | Safe Norm 1ms   | Obs 1x1 | 384x384 (1064, 1048) | DPCM | 0 | 0 | 2.0sec  |  |  |  |  |
| Open/Ti-poly | Open/thick-Al close | Safe Dark 16.0s | Obs 1x1 | 384x384 (1064, 1048) | Q=98 | 0 | 0 | 2.0sec  |  |  |  |  |
| Subr= 2      | 4-time(s)           | 2.0sec          |         |                      |      |   |   |         |  |  |  |  |
| Seqn= 75     | 1-time(s)           | 2.0sec          |         |                      |      |   |   |         |  |  |  |  |
| Al-poly/Open | thin-Be/Open close  | Safe Norm 250ms | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 2 | 0 | 2.0sec  |  |  |  |  |
| Al-poly/Open | thin-Be/Open close  | Safe Norm 250ms | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 3 | 0 | 2.0sec  |  |  |  |  |
| thin-Be/Open | med-Be/Open close   | Safe Norm 500ms | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 2 | 0 | 2.0sec  |  |  |  |  |
| thin-Be/Open | med-Be/Open close   | Safe Norm 500ms | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 3 | 0 | 2.0sec  |  |  |  |  |
| Seqn= 93     | 4-time(s)           | 300.0sec        |         |                      |      |   |   |         |  |  |  |  |
| Al-poly/Open | thin-Be/Open close  | Safe Norm 250ms | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 1 | 0 | 2.0sec  |  |  |  |  |
| thin-Be/Open | med-Be/Open close   | Safe Norm 500ms | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 1 | 0 | 95.0sec |  |  |  |  |
| Al-poly/Open | thin-Be/Open close  | Safe Norm 250ms | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 1 | 1 | 2.0sec  |  |  |  |  |
| thin-Be/Open | med-Be/Open close   | Safe Norm 500ms | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 1 | 1 | 95.0sec |  |  |  |  |
| Al-poly/Open | thin-Be/Open close  | Safe Norm 250ms | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 1 | 2 | 2.0sec  |  |  |  |  |
| thin-Be/Open | med-Be/Open close   | Safe Norm 500ms | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 1 | 2 | 2.0sec  |  |  |  |  |

| Default Filter | Thicker Filter | VLS | mode | image | Exp. | CCD | Bin | ROI: size (center) | Comp. | AEC Buffer | Interval |
|----------------|----------------|-----|------|-------|------|-----|-----|--------------------|-------|------------|----------|
|----------------|----------------|-----|------|-------|------|-----|-----|--------------------|-------|------------|----------|

**XOB #1C13: Synoptic 7 Filter w/ Al-mesh(512/2048/4096), Al-poly(512/4096/8192), Thin-Be(3897/16384/32768) - Thick-Be(65536), Al-poly+Ti-poly(4096/23142)**

| Term                            | Pointing (x, y)   | Comment                    |
|---------------------------------|-------------------|----------------------------|
| 11/17 18:00:30 - 11/17 18:07:24 | Fixed ( 0.0, 0.0) | synoptic, shifted -2.5 min |

**PROG= 10 1-time(s)**

| Subr= 1         | 1-time(s)              | 2.0sec          |         |                        |      |   |   |        |  |  |  |  |
|-----------------|------------------------|-----------------|---------|------------------------|------|---|---|--------|--|--|--|--|
| Seqn= 5         | 1-time(s)              | 2.0sec          |         |                        |      |   |   |        |  |  |  |  |
| Open/Ti-poly    | Open/thick-Al close    | Safe Dark 500ms | Obs 2x2 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Ti-poly    | Open/thick-Al close    | Safe Dark 500ms | Obs 4x4 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Ti-poly    | Open/thick-Al close    | Safe Dark 500ms | Obs 8x8 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Ti-poly    | Open/thick-Al close    | Safe Dark 500ms | Obs 1x1 | 2048x512 (1024, 1024)  | DPCM | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Ti-poly    | Open/thick-Al close    | Safe Dark 500ms | Obs 1x1 | 512x2048 (1024, 1024)  | DPCM | 0 | 0 | 2.0sec |  |  |  |  |
| Seqn= 12        | 1-time(s)              | 2.0sec          |         |                        |      |   |   |        |  |  |  |  |
| Open/Al-mesh    | Open/Al-mesh close     | Safe Norm 500ms | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Al-mesh    | Open/Al-mesh close     | Safe Norm 2.00s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Al-mesh    | Open/Al-mesh close     | Safe Norm 4.00s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| Seqn= 82        | 1-time(s)              | 2.0sec          |         |                        |      |   |   |        |  |  |  |  |
| Al-poly/Open    | Al-poly/Open close     | Safe Norm 500ms | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| Al-poly/Open    | Al-poly/thick-Al close | Safe Norm 4.00s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| Al-poly/Open    | Al-poly/Open close     | Safe Norm 8.00s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| Seqn= 52        | 1-time(s)              | 2.0sec          |         |                        |      |   |   |        |  |  |  |  |
| thin-Be/Open    | thin-Be/Open close     | Safe Norm 2.83s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| thin-Be/Open    | thin-Be/Open close     | Safe Norm 16.0s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| thin-Be/Open    | thin-Be/Open close     | Safe Norm 32.0s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| Seqn= 23        | 1-time(s)              | 4.0sec          |         |                        |      |   |   |        |  |  |  |  |
| Open/G-band     | Open/G-band open       | Safe Norm 1ms   | Obs 1x1 | 2048x2048 (1024, 1024) | Q=90 | 0 | 0 | 2.0sec |  |  |  |  |
| Open/G-band     | Open/G-band close      | Safe Norm 1ms   | Obs 1x1 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| Subr= 2         | 1-time(s)              | 2.0sec          |         |                        |      |   |   |        |  |  |  |  |
| Seqn= 46        | 1-time(s)              | 2.0sec          |         |                        |      |   |   |        |  |  |  |  |
| Open/thick-Be   | Open/thick-Be close    | Safe Norm 64.0s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| Seqn= 17        | 1-time(s)              | 2.0sec          |         |                        |      |   |   |        |  |  |  |  |
| med-Al/Open     | med-Al/Open close      | Safe Norm 5.66s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| med-Al/Open     | med-Al/Open close      | Safe Norm 64.0s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| Seqn= 97        | 1-time(s)              | 2.0sec          |         |                        |      |   |   |        |  |  |  |  |
| Al-poly/Ti-poly | Al-poly/thick-Al close | Safe Norm 4.00s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| Al-poly/Ti-poly | Al-poly/thick-Al close | Safe Norm 22.6s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |

| Default Filter | Thicker Filter | VLS | mode | image | Exp. | CCD | Bin | ROI: size (center) | Comp. | AEC Buffer | Interval |
|----------------|----------------|-----|------|-------|------|-----|-----|--------------------|-------|------------|----------|
|----------------|----------------|-----|------|-------|------|-----|-----|--------------------|-------|------------|----------|

**XOB #1C00: HOP349 - 3-filter Synoptics (Al-mesh[512/2048/4096], Al-poly[512/4096/8192], thin-Be[3897/16384/32768] with 512x512 G-band+Leak - 90 min c**

| Term                            | Pointing (x, y)   | Comment                   |
|---------------------------------|-------------------|---------------------------|
| 11/18 00:15:00 - 11/18 02:59:54 | Fixed ( 0.0, 0.0) | HOP349 XRT Full Sun Image |

11/19 03:03:00 - 11/19 05:59:54 Fixed ( 0.0, 0.0) HOP349 XRT Full Sun Image  
 11/20 00:03:00 - 11/20 02:59:54 Fixed ( 0.0, 0.0) HOP349 XRT Full Sun Image

**PROG= 04 Inf.-time(s)**

| Subr= 1        |                  | 1-time(s)  |      | 300.0sec |       |     |     |                    |              |       |            |          |        |  |  |
|----------------|------------------|------------|------|----------|-------|-----|-----|--------------------|--------------|-------|------------|----------|--------|--|--|
| Seqn= 12       |                  | 1-time(s)  |      | 2.0sec   |       |     |     |                    |              |       |            |          |        |  |  |
| Open/Al-mesh   | Open/Al-mesh     | close      | Safe | Norm     | 500ms | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Open/Al-mesh   | Open/Al-mesh     | close      | Safe | Norm     | 2.00s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Open/Al-mesh   | Open/Al-mesh     | close      | Safe | Norm     | 4.00s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Seqn= 82       |                  | 1-time(s)  |      | 2.0sec   |       |     |     |                    |              |       |            |          |        |  |  |
| Al-poly/Open   | Al-poly/Open     | close      | Safe | Norm     | 500ms | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Al-poly/Open   | Al-poly/thick-Al | close      | Safe | Norm     | 4.00s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Al-poly/Open   | Al-poly/Open     | close      | Safe | Norm     | 8.00s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Seqn= 52       |                  | 1-time(s)  |      | 2.0sec   |       |     |     |                    |              |       |            |          |        |  |  |
| thin-Be/Open   | thin-Be/Open     | close      | Safe | Norm     | 2.83s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| thin-Be/Open   | thin-Be/Open     | close      | Safe | Norm     | 16.0s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| thin-Be/Open   | thin-Be/Open     | close      | Safe | Norm     | 32.0s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Seqn= 30       |                  | 1-time(s)  |      | 2.0sec   |       |     |     |                    |              |       |            |          |        |  |  |
| Open/G-band    | Open/G-band      | open       | Safe | Norm     | 1ms   | Obs | 1x1 | 512x512            | (1024, 1024) | Q=90  | 0          | 0        | 2.0sec |  |  |
| Open/G-band    | Open/G-band      | close      | Safe | Norm     | 1ms   | Obs | 1x1 | 512x512            | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Subr= 2        |                  | 18-time(s) |      | 300.0sec |       |     |     |                    |              |       |            |          |        |  |  |
| Seqn= 8        |                  | 1-time(s)  |      | 2.0sec   |       |     |     |                    |              |       |            |          |        |  |  |
| thin-Be/Open   | med-Be/Open      | close      | Safe | Norm     | 1.00s | Obs | 4x4 | 2048x2048          | (1024, 1024) | Q=98  | 3          | 0        | 2.0sec |  |  |
| thin-Be/Open   | med-Be/Open      | close      | Safe | Norm     | 1.41s | Obs | 4x4 | 2048x2048          | (1024, 1024) | DPCM  | 2          | 0        | 2.0sec |  |  |
| Seqn= 6        |                  | 1-time(s)  |      | 2.0sec   |       |     |     |                    |              |       |            |          |        |  |  |
| Al-poly/Open   | Al-poly/Open     | close      | Safe | Norm     | 125ms | Obs | 4x4 | 2048x2048          | (1024, 1024) | Q=98  | 3          | 0        | 2.0sec |  |  |
| Al-poly/Open   | Al-poly/Open     | close      | Safe | Norm     | 1.00s | Obs | 4x4 | 2048x2048          | (1024, 1024) | DPCM  | 2          | 0        | 2.0sec |  |  |
| Seqn= 29       |                  | 1-time(s)  |      | 2.0sec   |       |     |     |                    |              |       |            |          |        |  |  |
| Open/Al-mesh   | Open/Al-mesh     | close      | Safe | Norm     | 125ms | Obs | 4x4 | 2048x2048          | (1024, 1024) | Q=98  | 3          | 0        | 2.0sec |  |  |
| Open/Al-mesh   | Open/Al-mesh     | close      | Safe | Norm     | 250ms | Obs | 4x4 | 2048x2048          | (1024, 1024) | Q=98  | 2          | 0        | 2.0sec |  |  |
| Default Filter | Thicker Filter   | VLS        | mode | image    | Exp.  | CCD | Bin | ROI: size (center) |              | Comp. | AEC Buffer | Interval |        |  |  |

**XOB #1C0C: Synoptic Q95 2x2 - Al/mesh(512/2048/4096) + Dark cal(2x2 4x4 8x8 512 Q98) + Dark cal(1x1 512x2048 - 1x1 2048x512) + Al-poly(512/4096/8192)**

| Term                            | Pointing (x, y)   | Comment                     |
|---------------------------------|-------------------|-----------------------------|
| 11/18 05:45:00 - 11/18 05:51:54 | Fixed ( 0.0, 0.0) | synoptic, shifted -18.0 min |
| 11/18 16:23:00 - 11/18 16:29:54 | Fixed ( 0.0, 0.0) | synoptic, shifted manually  |
| 11/19 06:03:00 - 11/19 06:09:54 | Fixed ( 0.0, 0.0) | synoptic                    |
| 11/19 18:03:00 - 11/19 18:09:54 | Fixed ( 0.0, 0.0) | synoptic                    |
| 11/20 06:21:00 - 11/20 06:27:54 | Fixed ( 0.0, 0.0) | synoptic, shifted 18.0 min  |

**PROG= 20 1-time(s)**

| Subr= 1        |                  | 1-time(s) |      | 2.0sec |       |     |     |                    |              |       |            |          |        |  |  |
|----------------|------------------|-----------|------|--------|-------|-----|-----|--------------------|--------------|-------|------------|----------|--------|--|--|
| Seqn= 5        |                  | 1-time(s) |      | 2.0sec |       |     |     |                    |              |       |            |          |        |  |  |
| Open/Ti-poly   | Open/thick-Al    | close     | Safe | Dark   | 500ms | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=98  | 0          | 0        | 2.0sec |  |  |
| Open/Ti-poly   | Open/thick-Al    | close     | Safe | Dark   | 500ms | Obs | 4x4 | 2048x2048          | (1024, 1024) | Q=98  | 0          | 0        | 2.0sec |  |  |
| Open/Ti-poly   | Open/thick-Al    | close     | Safe | Dark   | 500ms | Obs | 8x8 | 2048x2048          | (1024, 1024) | Q=98  | 0          | 0        | 2.0sec |  |  |
| Open/Ti-poly   | Open/thick-Al    | close     | Safe | Dark   | 500ms | Obs | 1x1 | 2048x512           | (1024, 1024) | DPCM  | 0          | 0        | 2.0sec |  |  |
| Open/Ti-poly   | Open/thick-Al    | close     | Safe | Dark   | 500ms | Obs | 1x1 | 512x2048           | (1024, 1024) | DPCM  | 0          | 0        | 2.0sec |  |  |
| Seqn= 12       |                  | 1-time(s) |      | 2.0sec |       |     |     |                    |              |       |            |          |        |  |  |
| Open/Al-mesh   | Open/Al-mesh     | close     | Safe | Norm   | 500ms | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Open/Al-mesh   | Open/Al-mesh     | close     | Safe | Norm   | 2.00s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Open/Al-mesh   | Open/Al-mesh     | close     | Safe | Norm   | 4.00s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Seqn= 82       |                  | 1-time(s) |      | 2.0sec |       |     |     |                    |              |       |            |          |        |  |  |
| Al-poly/Open   | Al-poly/Open     | close     | Safe | Norm   | 500ms | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Al-poly/Open   | Al-poly/thick-Al | close     | Safe | Norm   | 4.00s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Al-poly/Open   | Al-poly/Open     | close     | Safe | Norm   | 8.00s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Seqn= 52       |                  | 1-time(s) |      | 2.0sec |       |     |     |                    |              |       |            |          |        |  |  |
| thin-Be/Open   | thin-Be/Open     | close     | Safe | Norm   | 2.83s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| thin-Be/Open   | thin-Be/Open     | close     | Safe | Norm   | 16.0s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| thin-Be/Open   | thin-Be/Open     | close     | Safe | Norm   | 32.0s | Obs | 2x2 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Seqn= 23       |                  | 1-time(s) |      | 2.0sec |       |     |     |                    |              |       |            |          |        |  |  |
| Open/G-band    | Open/G-band      | open      | Safe | Norm   | 1ms   | Obs | 1x1 | 2048x2048          | (1024, 1024) | Q=90  | 0          | 0        | 2.0sec |  |  |
| Open/G-band    | Open/G-band      | close     | Safe | Norm   | 1ms   | Obs | 1x1 | 2048x2048          | (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |  |
| Default Filter | Thicker Filter   | VLS       | mode | image  | Exp.  | CCD | Bin | ROI: size (center) |              | Comp. | AEC Buffer | Interval |        |  |  |

**XOB #1BA4: AR Standard-A(Filter-Ratio with Al/poly and thin-Be) with PFB, 384x384 at 1064 1048, thin-Be, thick-Al, Al/Poly context, with G-band (1ms/1ms)**

| Term                            | Pointing (x, y)                        | Comment                |
|---------------------------------|--|------------------------|
| 11/18 17:03:00 - 11/18 20:59:54 | Track ( 750.3, -49.5) @ 11/18 17:00:00 | HOP297 VLA observation |

**PROG= 05 Inf.-time(s)**

| Subr= 1       |               | 1-time(s)  |      | 2.0sec |       |     |     |         |              |      |   |   |        |  |  |
|---------------|---------------|------------|------|--------|-------|-----|-----|---------|--------------|------|---|---|--------|--|--|
| Seqn= 92      |               | 1-time(s)  |      | 2.0sec |       |     |     |         |              |      |   |   |        |  |  |
| Open/G-band   | Open/G-band   | open       | Safe | Norm   | 1ms   | Obs | 1x1 | 384x384 | (1064, 1048) | DPCM | 0 | 0 | 2.0sec |  |  |
| Open/G-band   | Open/G-band   | close      | Safe | Norm   | 1ms   | Obs | 1x1 | 384x384 | (1064, 1048) | DPCM | 0 | 0 | 2.0sec |  |  |
| Open/Ti-poly  | Open/thick-Al | close      | Safe | Dark   | 16.0s | Obs | 1x1 | 384x384 | (1064, 1048) | Q=98 | 0 | 0 | 2.0sec |  |  |
| Seqn= 42      |               | 1-time(s)  |      | 2.0sec |       |     |     |         |              |      |   |   |        |  |  |
| Al-poly/Open  | thin-Be/Open  | close      | Safe | Norm   | 500ms | Obs | 1x1 | 384x384 | (1064, 1048) | Q=95 | 3 | 0 | 2.0sec |  |  |
| thin-Be/Open  | med-Be/Open   | close      | Safe | Norm   | 5.66s | Obs | 1x1 | 512x512 | (1064, 1048) | Q=95 | 3 | 0 | 2.0sec |  |  |
| Open/thick-Al | Open/thick-Al | close      | Safe | Norm   | 16.0s | Obs | 1x1 | 384x384 | (1064, 1048) | Q=95 | 3 | 0 | 2.0sec |  |  |
| Seqn= 96      |               | 40-time(s) |      | 2.0sec |       |     |     |         |              |      |   |   |        |  |  |
| Al-poly/Open  | thin-Be/Open  | close      | Safe | Norm   | 250ms | Obs | 1x1 | 384x384 | (1064, 1048) | Q=95 | 1 | 0 | 2.0sec |  |  |

|                |                |       |      |       |       |     |     |                      |       |            |          |        |
|----------------|----------------|-------|------|-------|-------|-----|-----|----------------------|-------|------------|----------|--------|
| thin-Be/Open   | med-Be/Open    | close | Safe | Norm  | 500ms | Obs | 1x1 | 384x384 (1064, 1048) | Q=95  | 1          | 0        | 2.0sec |
| Al-poly/Open   | thin-Be/Open   | close | Safe | Norm  | 250ms | Obs | 1x1 | 384x384 (1064, 1048) | Q=95  | 1          | 1        | 2.0sec |
| thin-Be/Open   | med-Be/Open    | close | Safe | Norm  | 500ms | Obs | 1x1 | 384x384 (1064, 1048) | Q=95  | 1          | 1        | 2.0sec |
| Al-poly/Open   | thin-Be/Open   | close | Safe | Norm  | 250ms | Obs | 1x1 | 384x384 (1064, 1048) | Q=95  | 1          | 2        | 2.0sec |
| thin-Be/Open   | med-Be/Open    | close | Safe | Norm  | 500ms | Obs | 1x1 | 384x384 (1064, 1048) | Q=95  | 1          | 2        | 2.0sec |
| Default Filter | Thicker Filter | VLS   | mode | image | Exp.  | CCD | Bin | ROI: size (center)   | Comp. | AEC Buffer | Interval |        |

**XOB #1BE9: HOP81/206 2-filter - Al/poly 16s, Al/mesh 12s 30s cadence, G-band - 384x384 1ms**

| Term                            | Pointing (x, y)       | Comment  |
|---------------------------------|-----------------------|--|
| 11/18 21:03:00 - 11/19 02:59:54 | Fixed ( -20.0, 906.0) | North Polar Obs.   |
| <b>PROG= 17 Inf.-time(s)</b>    |                       |  |
| Subr= 1 1-time(s) 2.0sec        |                       |  |
| Seqn= 16 2-time(s) 2.0sec       |                       |  |
| Open/G-band                     | Open/G-band close     | Safe Norm 1ms Obs 1x1 384x384 (1064, 1048) DPCM 0 0 2.0sec               |
| Subr= 2 1-time(s) 2.0sec        |                       |  |
| Seqn= 90 1-time(s) 30.0sec      |                       |  |
| Open/G-band                     | Open/G-band open      | Safe Norm 1ms Obs 1x1 384x384 (1064, 1048) Q=90 0 0 2.0sec               |
| Subr= 3 60-time(s) 2.0sec       |                       |  |
| Seqn= 39 1-time(s) 30.0sec      |                       |  |
| Open/Al-mesh                    | Open/Al-mesh close    | Safe Norm 11.3s Obs 1x1 384x384 (1064, 1048) Q=90 0 0 2.0sec             |
| Al-poly/Open                    | Al-poly/Open close    | Safe Norm 16.0s Obs 1x1 384x384 (1064, 1048) Q=90 0 0 2.0sec             |
| Default Filter                  | Thicker Filter        | VLS mode image Exp. CCD Bin ROI: size (center) Comp. AEC Buffer Interval |

**XOB #1C10: CME watch - 4x4 - AEC 2 - Al-poly - G-band (1x1,512x512,1ms) - Leak (1x1,512x512,1ms) - 60s cad**

| Term                            | Pointing (x, y)                        | Comment  |
|---------------------------------|--|--|
| 11/19 06:13:00 - 11/19 09:09:54 | Track ( -9.9, 592.4) @ 11/19 06:10:00  | HOP336 Cy25 Bp North   |
| 11/19 09:13:00 - 11/19 12:09:54 | Track ( -8.9, -713.8) @ 11/19 09:10:00 | HOP336 Cy25 BP South   |
| <b>PROG= 11 Inf.-time(s)</b>    |  |  |
| Subr= 1 60-time(s) 60.0sec      |  |  |
| Seqn= 31 1-time(s) 4.0sec       |  |  |
| Al-poly/Open                    | thin-Be/Open close                     | Safe Norm 500ms Obs 4x4 2048x2048 (1024, 1024) Q=98 2 0 2.0sec           |
| Subr= 2 1-time(s) 2.0sec        |  |  |
| Seqn= 30 1-time(s) 2.0sec       |  |  |
| Open/G-band                     | Open/G-band open                       | Safe Norm 1ms Obs 1x1 512x512 (1024, 1024) Q=90 0 0 2.0sec               |
| Open/G-band                     | Open/G-band close                      | Safe Norm 1ms Obs 1x1 512x512 (1024, 1024) Q=95 0 0 2.0sec               |
| Default Filter                  | Thicker Filter                         | VLS mode image Exp. CCD Bin ROI: size (center) Comp. AEC Buffer Interval |

\* \* \* \* \*

**Flare mode**

\* \* \* \* \*

**XOB #1B8E: Flare - multifilter 26 sec cadence (Be/thin, Be/med, Al/thick), AEC 3(thin-Be AEC2), 384x384 + context (med-Al,thick-Be -384x384 + Al-poly 512**

| Term                            | Pointing (x, y)                        | Comment                    |
|---------------------------------|--|----------------------------|
| 11/17 11:42:00 - 11/17 17:33:00 | Track ( 552.7, -59.7) @ 11/17 11:39:00 | # OP start + 10min AR obs. |
| 11/17 18:10:30 - 11/17 23:59:54 | Track ( 621.0, -23.6) @ 11/17 18:07:30 | AR obs.                    |
| 11/18 00:15:00 - 11/18 02:59:54 | Fixed ( 0.0, 0.0)                      | HOP349 XRT Full Sun Image  |
| 11/18 03:22:00 - 11/18 05:41:54 | Track ( 663.0, -54.5) @ 11/18 03:00:00 | AR obs.                    |
| 11/18 05:55:00 - 11/18 16:19:54 | Track ( 682.0, -53.5) @ 11/18 05:52:00 | AR obs.                    |
| 11/18 16:55:30 - 11/18 16:59:54 | Track ( 747.4, -49.7) @ 11/18 16:30:00 | AR obs.                    |
| 11/18 17:03:00 - 11/18 20:59:54 | Track ( 750.3, -49.5) @ 11/18 17:00:00 | HOP297 VLA observation     |
| 11/18 21:03:00 - 11/19 02:59:54 | Fixed ( -20.0, 906.0)                  | North Polar Obs.           |
| 11/19 03:03:00 - 11/19 05:59:54 | Fixed ( 0.0, 0.0)                      | HOP349 XRT Full Sun Image  |
| 11/19 06:13:00 - 11/19 09:09:54 | Track ( -9.9, 592.4) @ 11/19 06:10:00  | HOP336 Cy25 Bp North       |
| 11/19 09:13:00 - 11/19 12:09:54 | Track ( -8.9, -713.8) @ 11/19 09:10:00 | HOP336 Cy25 BP South       |
| 11/19 12:13:00 - 11/19 17:59:54 | Track ( 846.4, -42.2) @ 11/19 12:10:00 | AR obs.                    |
| 11/19 18:13:00 - 11/19 23:59:54 | Track ( 870.5, -39.9) @ 11/19 18:10:00 | AR Obs.                    |
| 11/20 00:03:00 - 11/20 02:59:54 | Fixed ( 0.0, 0.0)                      | HOP349 XRT Full Sun Image  |
| 11/20 03:03:00 - 11/20 06:17:54 | Track ( 900.3, -36.5) @ 11/20 03:00:00 | AR obs.                    |
| 11/20 06:31:00 - 11/20 10:36:00 | Track ( 910.2, -35.2) @ 11/20 06:28:00 | AR Obs.                    |

**PROG= 13 30-time(s)**

|                            |                        |  |
|----------------------------|------------------------|--|
| Subr= 1 20-time(s) 2.0sec  |                        |  |
| Seqn= 11 1-time(s) 2.0sec  |                        |  |
| Al-poly/Open               | Al-poly/thick-Al close | Safe Norm 125ms Obs 2x2 512x512 (1024, 1024) Q=95 2 0 2.0sec             |
| Seqn=100 1-time(s) 10.0sec |                        |  |
| thin-Be/Open               | med-Be/Open close      | Safe Norm 125ms Obs 1x1 384x384 (1024, 1024) Q=95 2 0 2.0sec             |
| med-Be/Open                | Open/thick-Al close    | Safe Norm 250ms Obs 1x1 384x384 (1024, 1024) Q=95 3 0 2.0sec             |
| Open/thick-Al              | Open/thick-Be close    | Safe Norm 1.00s Obs 1x1 384x384 (1024, 1024) Q=95 3 0 2.0sec             |
| Subr= 2 1-time(s) 2.0sec   |                        |  |
| Seqn= 10 1-time(s) 2.0sec  |                        |  |
| med-Al/Open                | med-Al/thick-Al close  | Safe Norm 500ms Obs 1x1 384x384 (1024, 1024) Q=95 3 0 2.0sec             |
| Open/thick-Be              | Open/thick-Be close    | Safe Norm 2.00s Obs 1x1 384x384 (1024, 1024) Q=95 3 0 2.0sec             |
| Seqn= 11 1-time(s) 2.0sec  |                        |  |
| Al-poly/Open               | Al-poly/thick-Al close | Safe Norm 125ms Obs 2x2 512x512 (1024, 1024) Q=95 2 0 2.0sec             |
| Seqn= 87 1-time(s) 2.0sec  |                        |  |
| Open/G-band                | Open/G-band open       | Safe Norm 1ms Obs 1x1 384x384 (1024, 1024) Q=98 0 0 2.0sec               |
| Open/G-band                | Open/G-band close      | Safe Norm 1ms Obs 1x1 384x384 (1024, 1024) Q=98 0 0 2.0sec               |
| Open/thick-Al              | Open/thick-Al close    | Safe Dark 1.00s Obs 1x1 384x384 (1024, 1024) Q=98 0 0 2.0sec             |
| Open/thick-Al              | Open/thick-Al close    | Safe Dark 1.00s Obs 2x2 512x512 (1024, 1024) Q=98 0 0 2.0sec             |
| Default Filter             | Thicker Filter         | VLS mode image Exp. CCD Bin ROI: size (center) Comp. AEC Buffer Interval |

\* \* \* \* \*

### Active Region Search

\* \* \* \* \*

NOT USED

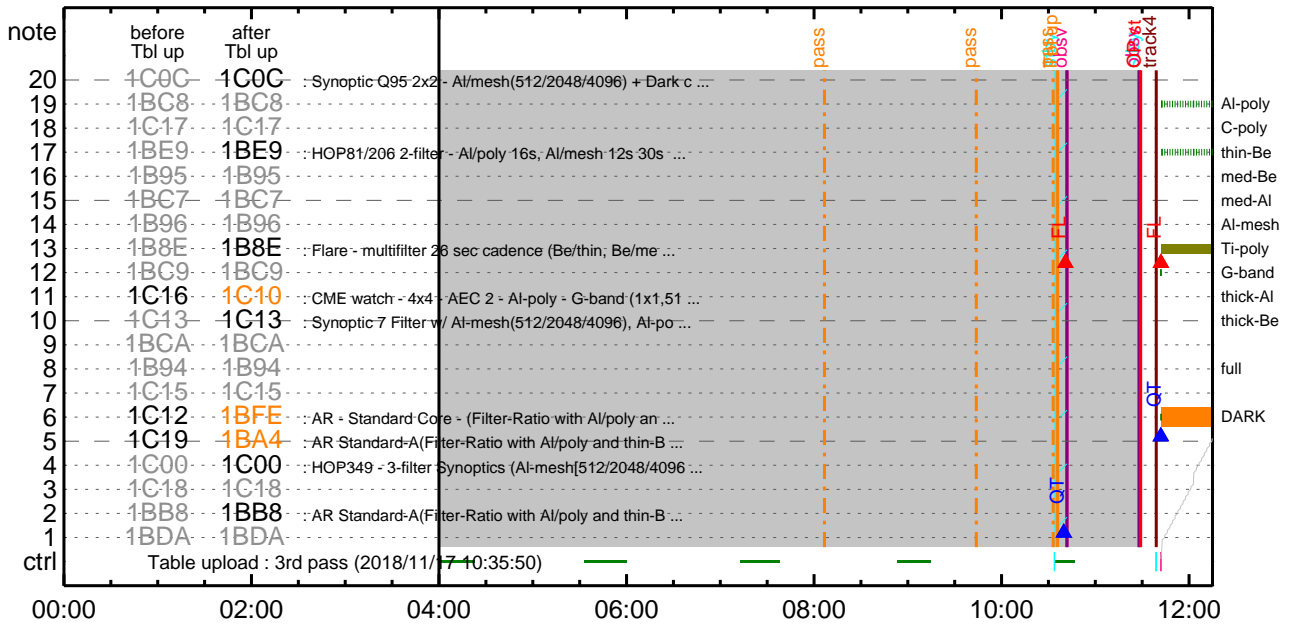
\* \* \* \* \*

### Flare Detection

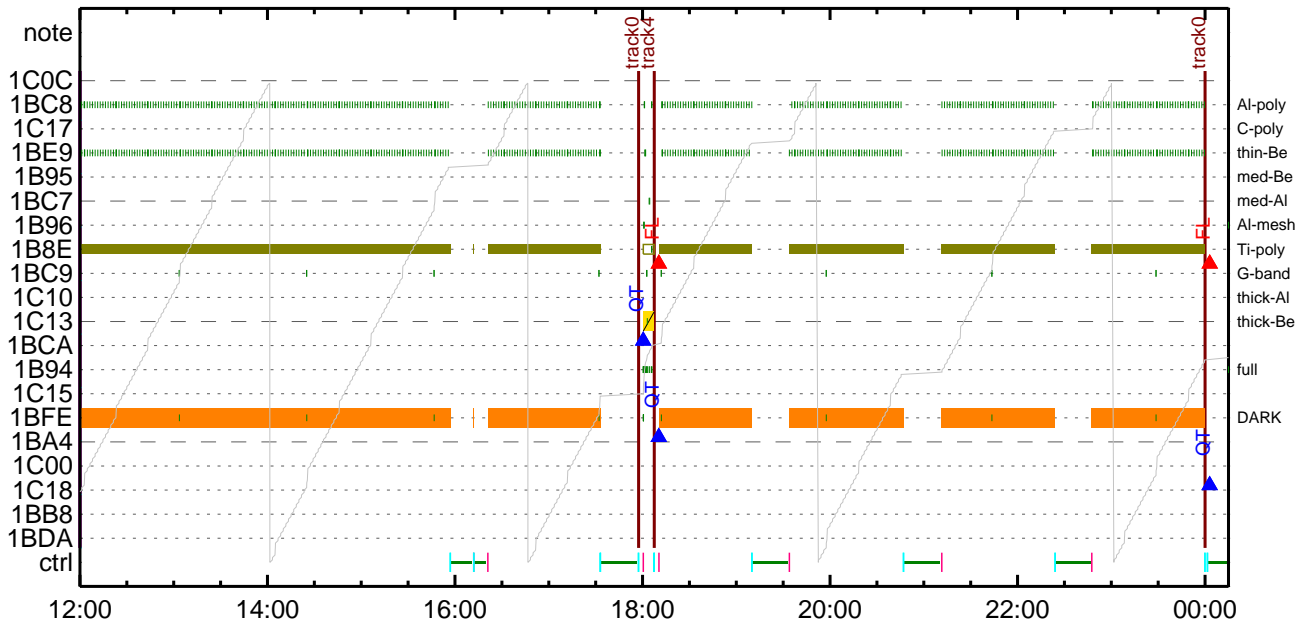
\* \* \* \* \*

| FLD Patrol                      |                |                       |      |                  |      |                      |     |                    |       |            |          |
|---------------------------------|----------------|-----------------------|------|------------------|------|----------------------|-----|--------------------|-------|------------|----------|
| Term                            |                | Pointing (x, y)       |      |                  |      |                      |     | Comment            |       |            |          |
| 11/17 18:07:48 - 11/18 05:42:18 |                | Track ( 621.0, -23.6) |      | ① 11/17 18:07:30 |      | AR obs.              |     |                    |       |            |          |
| 11/18 05:52:18 - 11/18 16:20:18 |                | Track ( 682.0, -53.5) |      | ① 11/18 05:52:00 |      | AR obs.              |     |                    |       |            |          |
| 11/18 16:30:18 - 11/19 06:00:18 |                | Track ( 747.4, -49.7) |      | ① 11/18 16:30:00 |      | AR obs.              |     |                    |       |            |          |
| 11/19 06:10:18 - 11/19 18:00:18 |                | Track ( -9.9, 592.4)  |      | ① 11/19 06:10:00 |      | HOP336 Cy25 Bp North |     |                    |       |            |          |
| 11/19 18:10:18 - 11/20 06:18:18 |                | Track ( 870.5, -39.9) |      | ① 11/19 18:10:00 |      | AR Obs.              |     |                    |       |            |          |
| 11/20 06:28:18 - 11/27 10:49:00 |                | Track ( 910.2, -35.2) |      | ① 11/20 06:28:00 |      | AR Obs.              |     |                    |       |            |          |
| Al-poly/Open                    | Al-poly/Open   | close                 | Safe | Norm             | 8ms  | Obs                  | 8x8 | Q=50               | 30sec |            |          |
| Default Filter                  | Thicker Filter | VLS                   | mode | image            | Exp. | CCD                  | Bin | ROI: size (center) | Comp. | AEC Buffer | Interval |

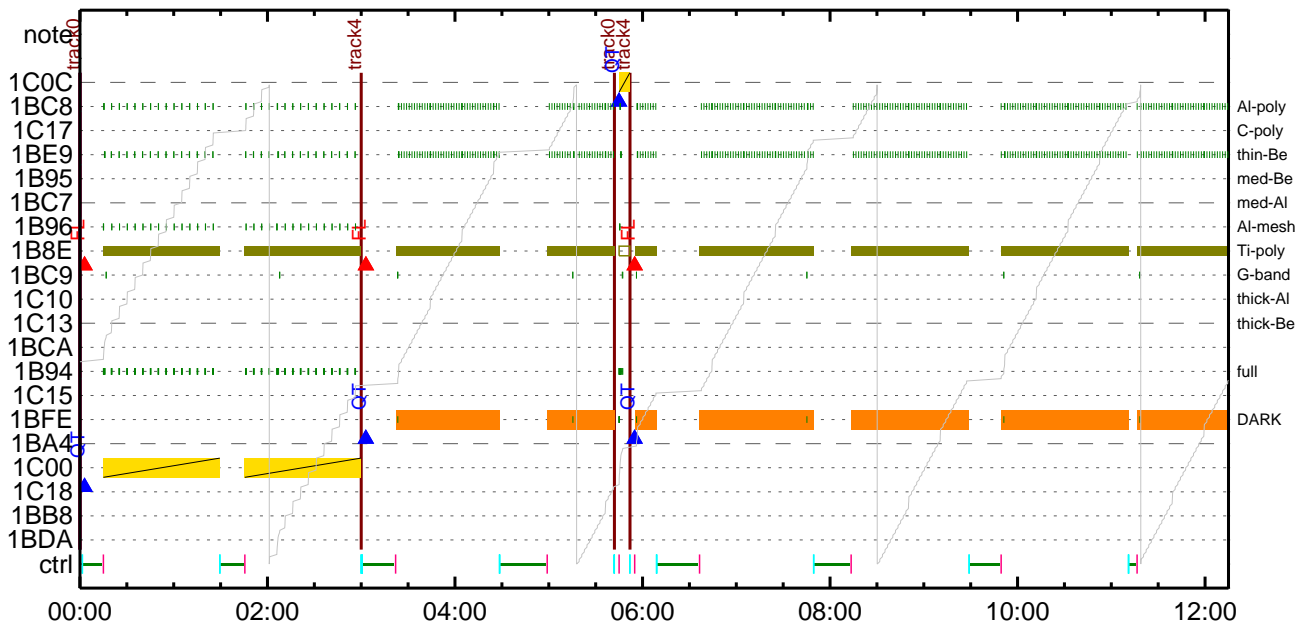
### CMDI #0903 2018/11/17



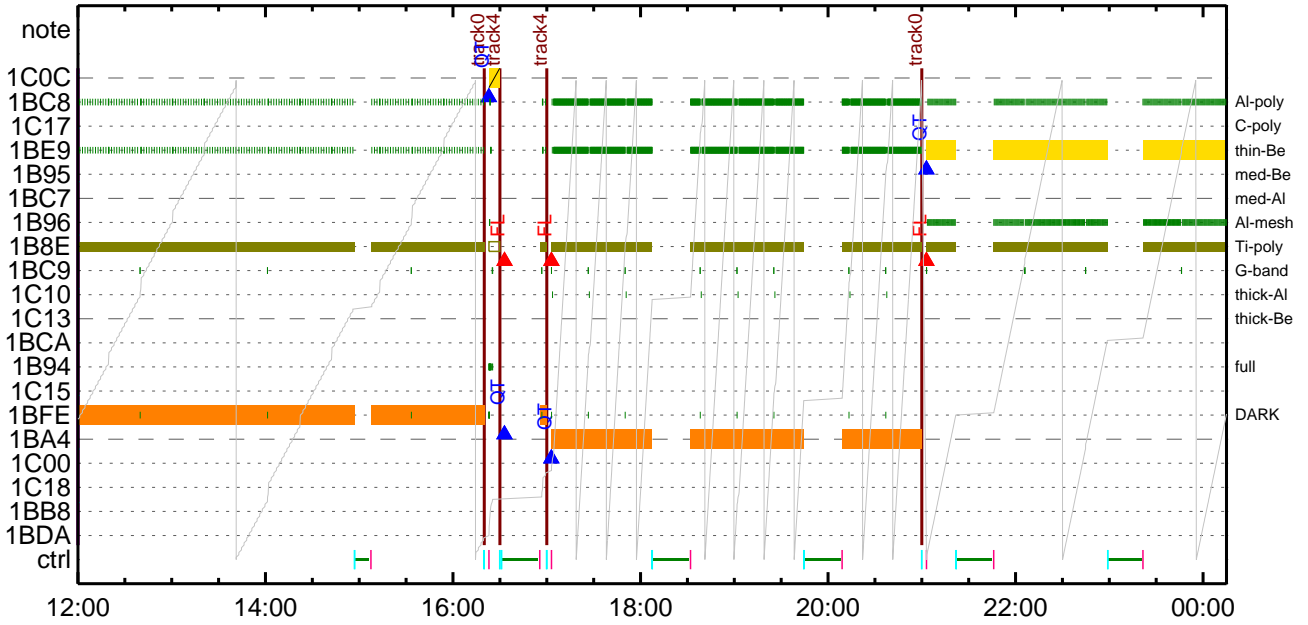
### CMDI #0903 2018/11/17



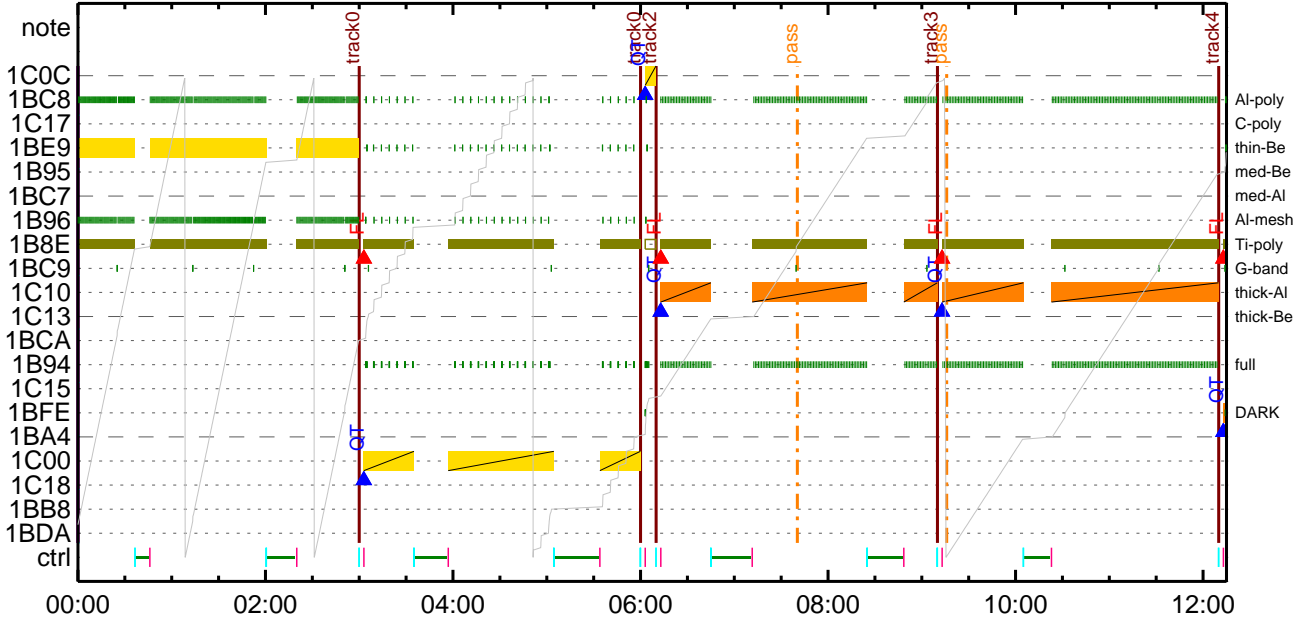
### CMDI #0903 2018/11/18



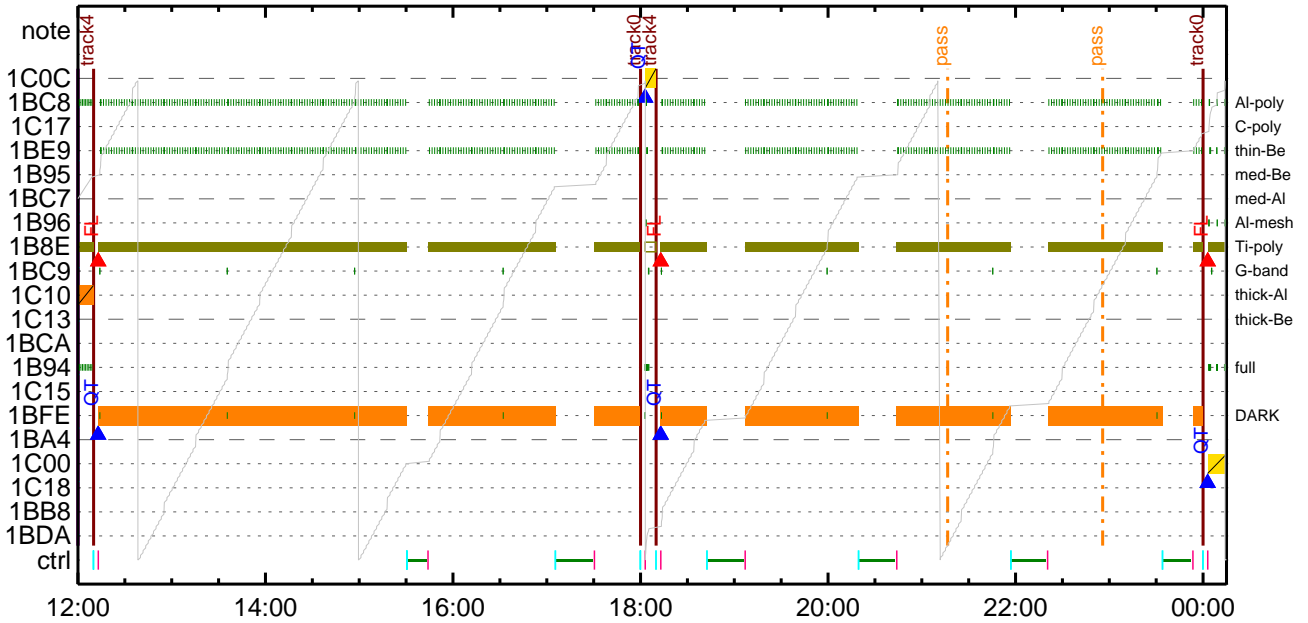
CMDI #0903 2018/11/18



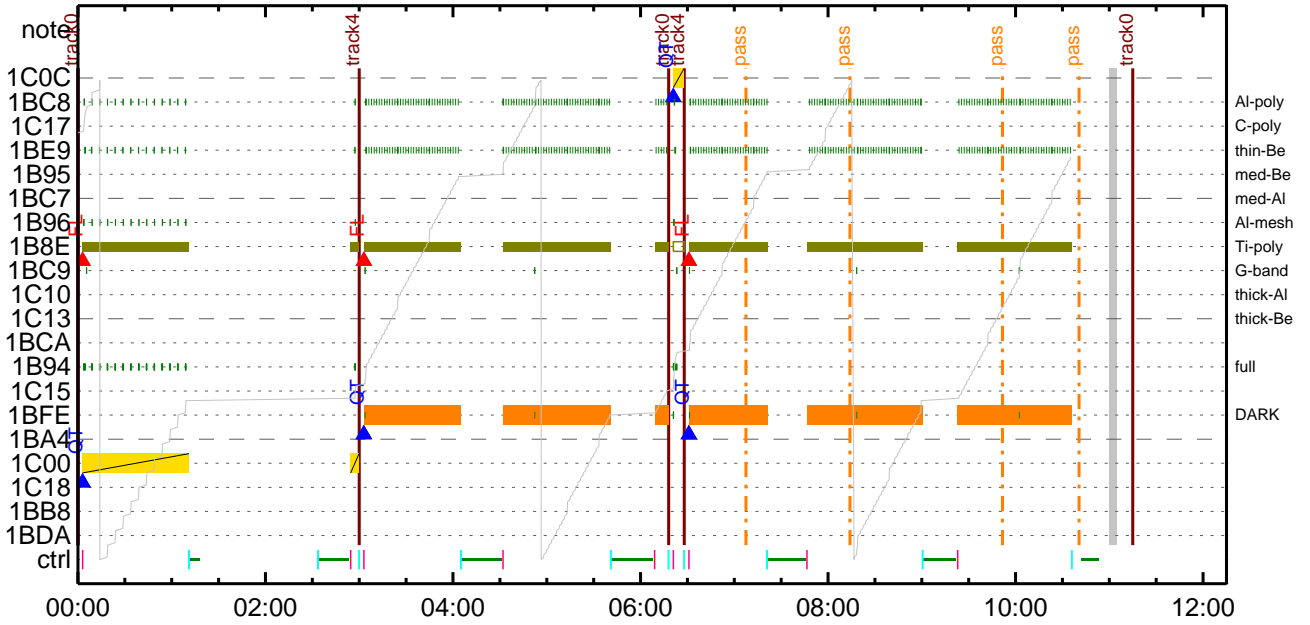
CMDI #0903 2018/11/19



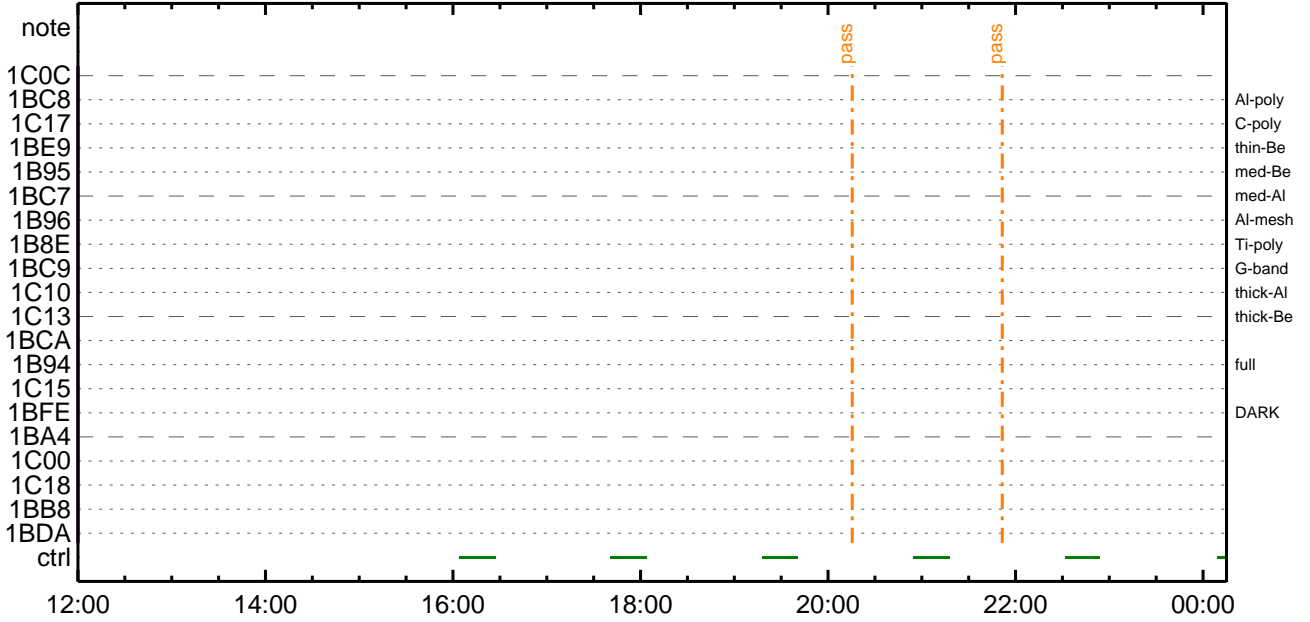
CMDI #0903 2018/11/19



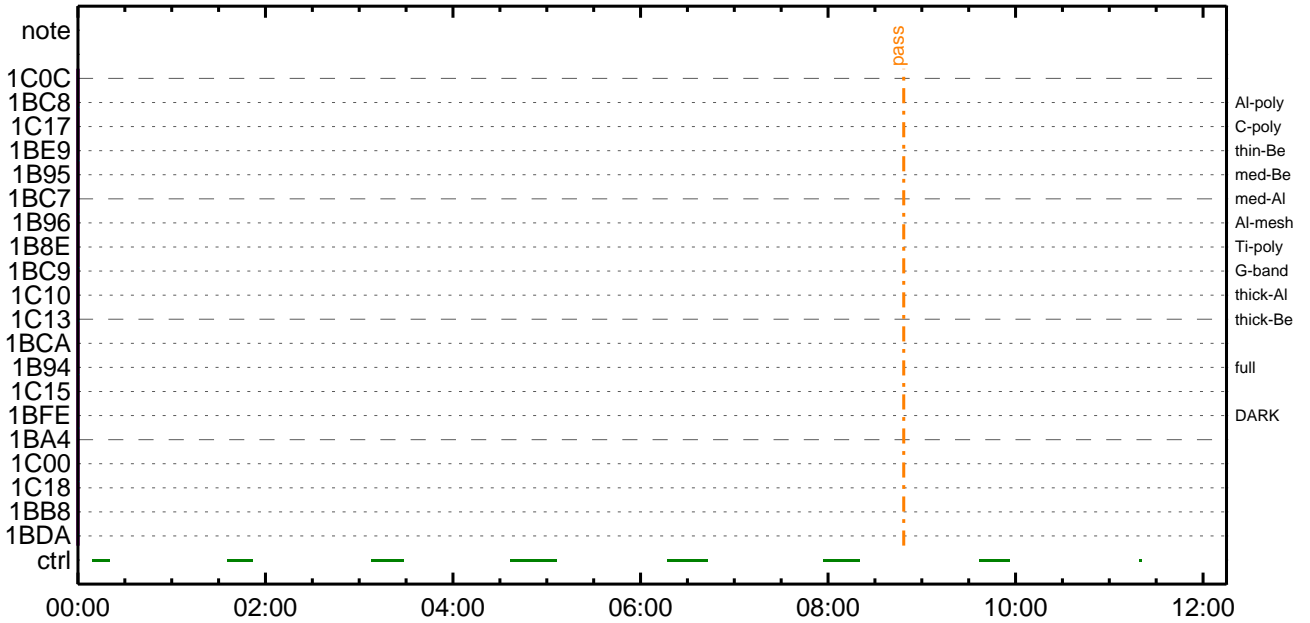
CMDI #0903 2018/11/20



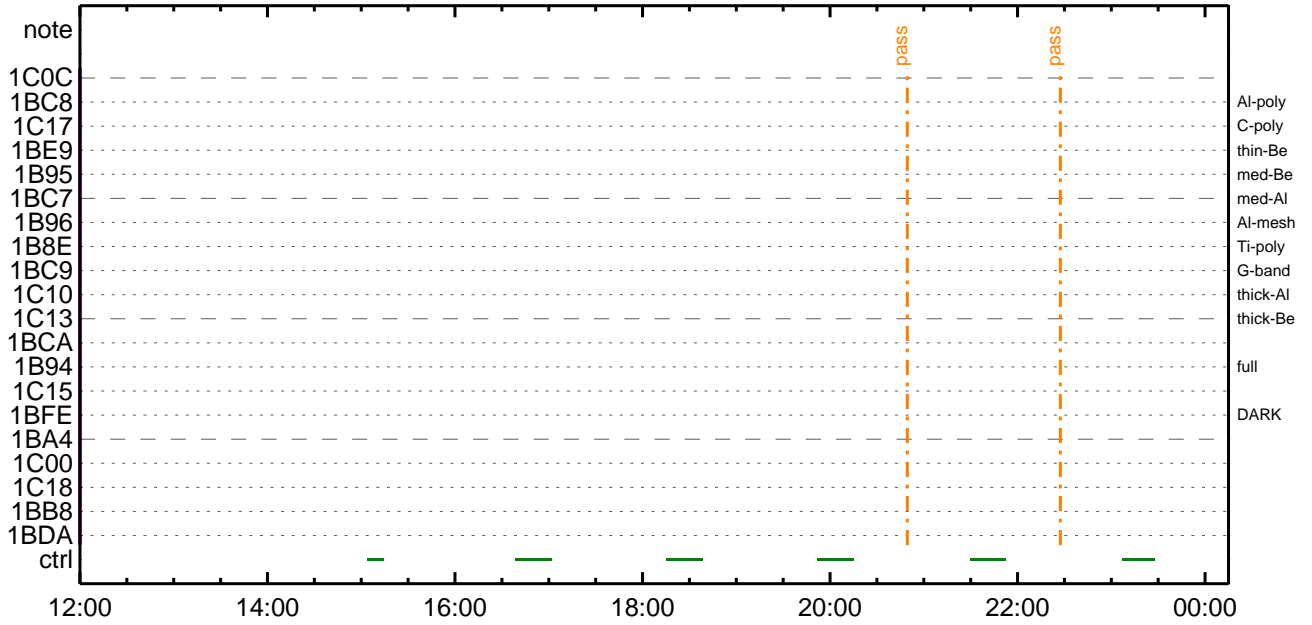
CMDI #0903 2018/11/20



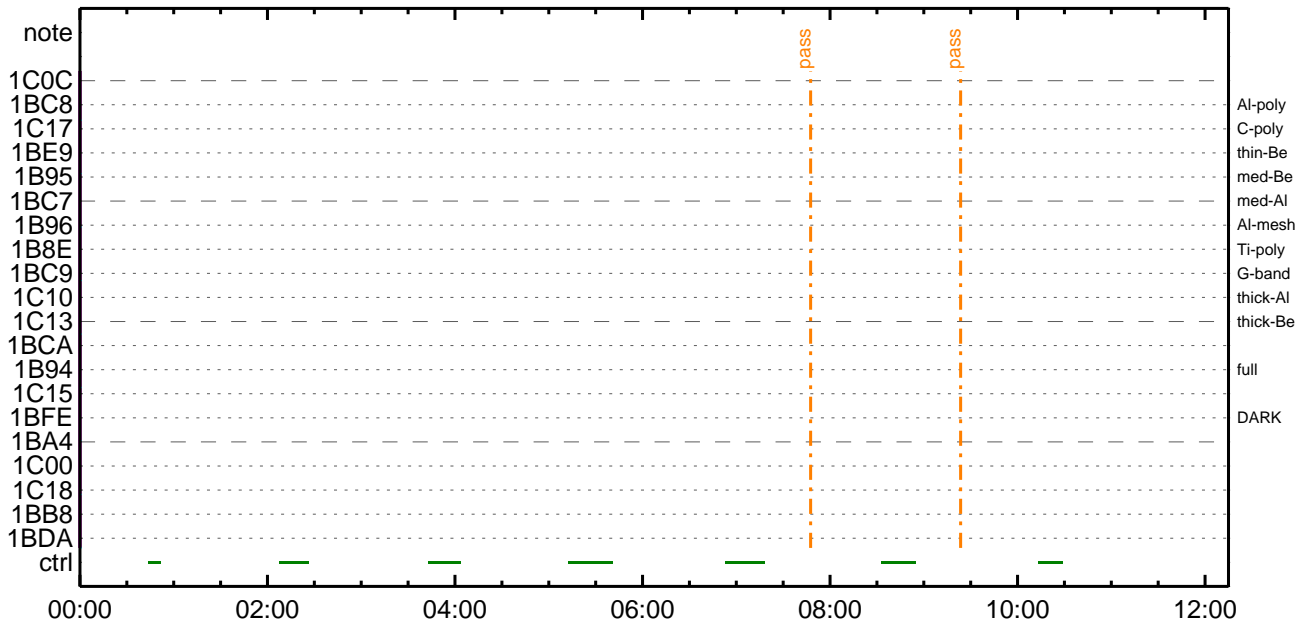
CMDI #0903 2018/11/21



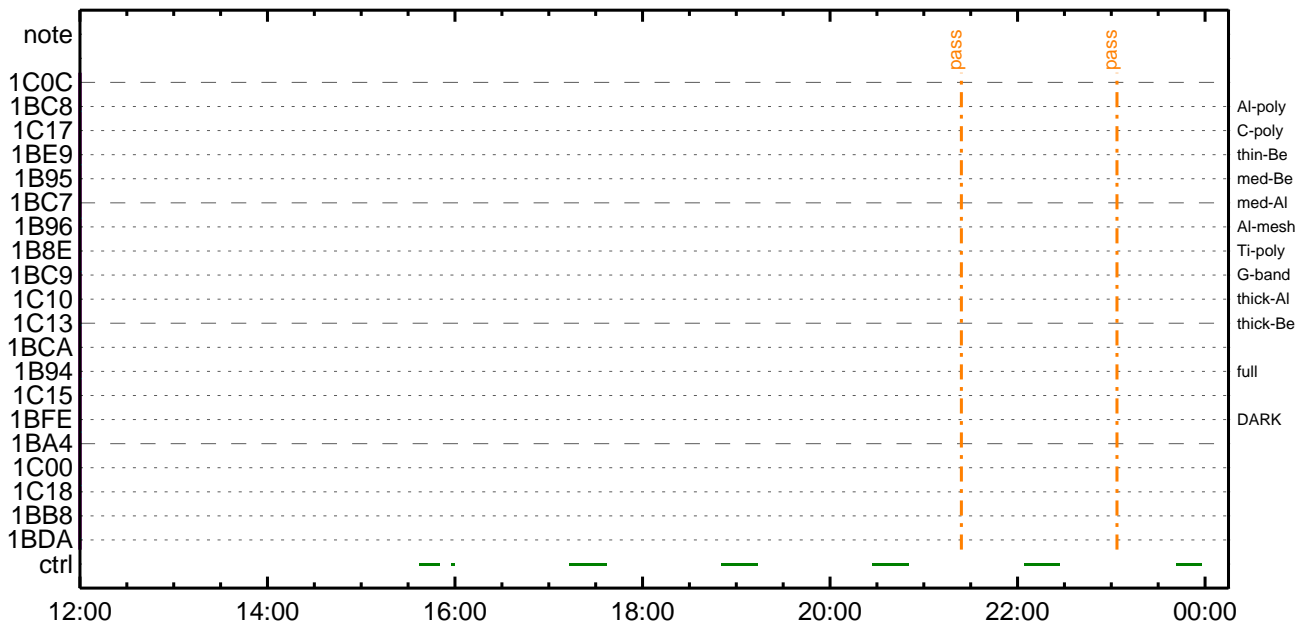
CMDI #0903 2018/11/21



CMDI #0903 2018/11/22

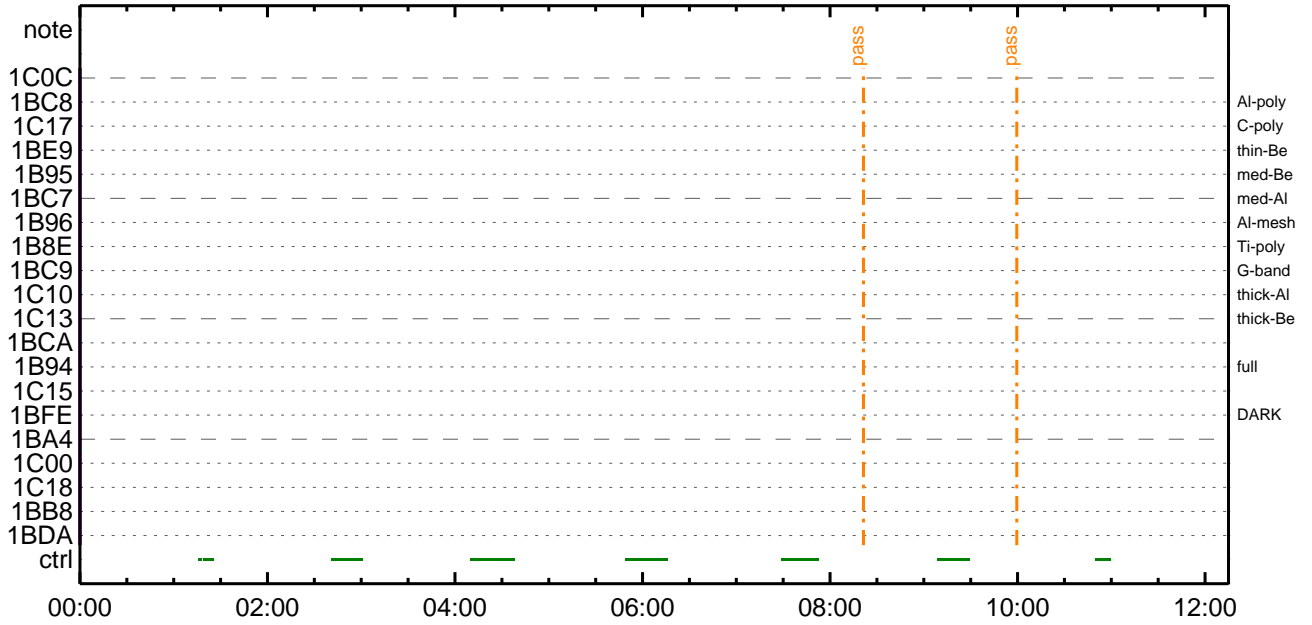


CMDI #0903 2018/11/22

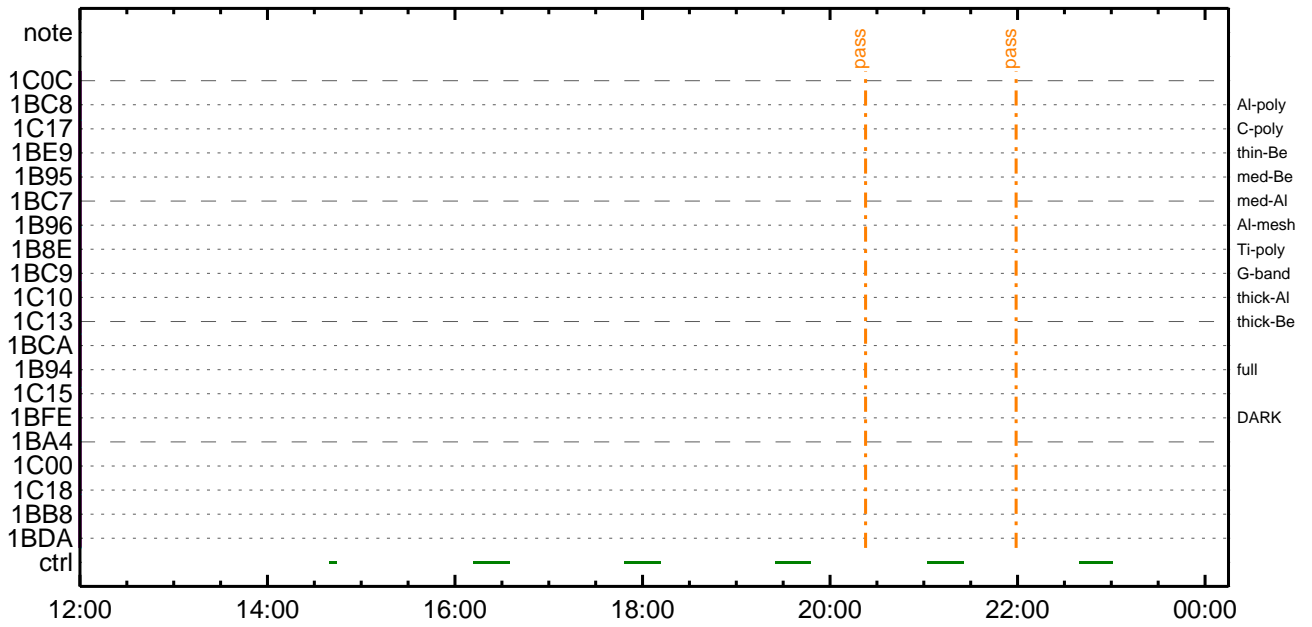




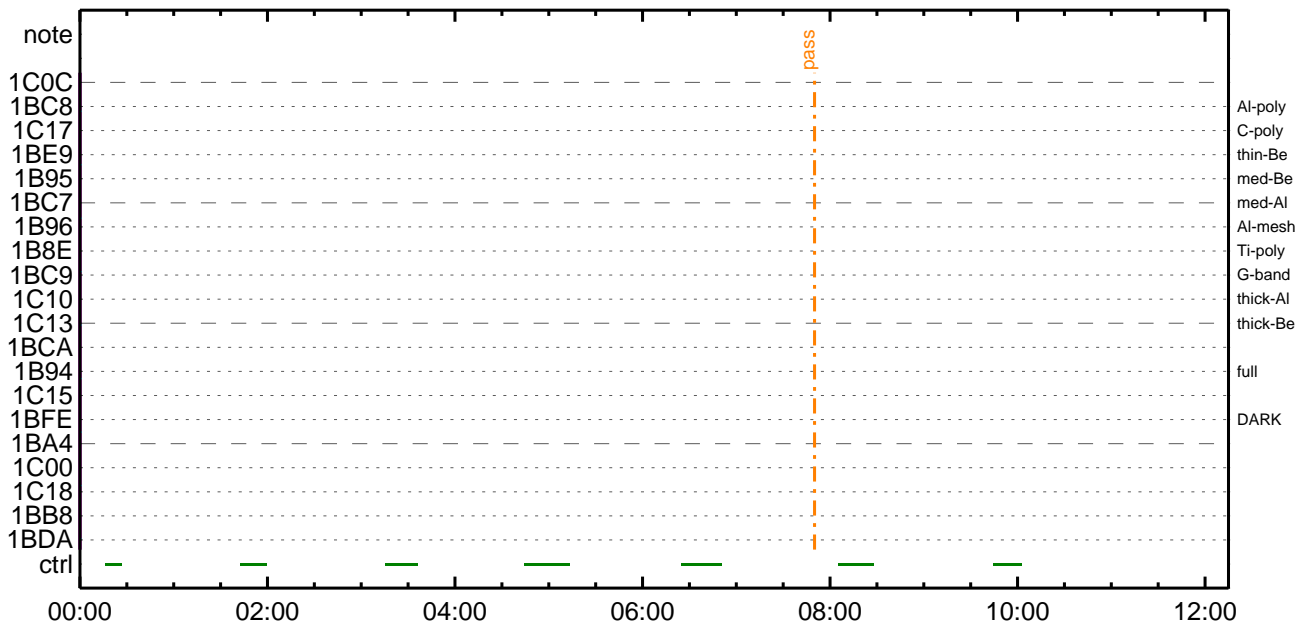
CMDI #0903 2018/11/23



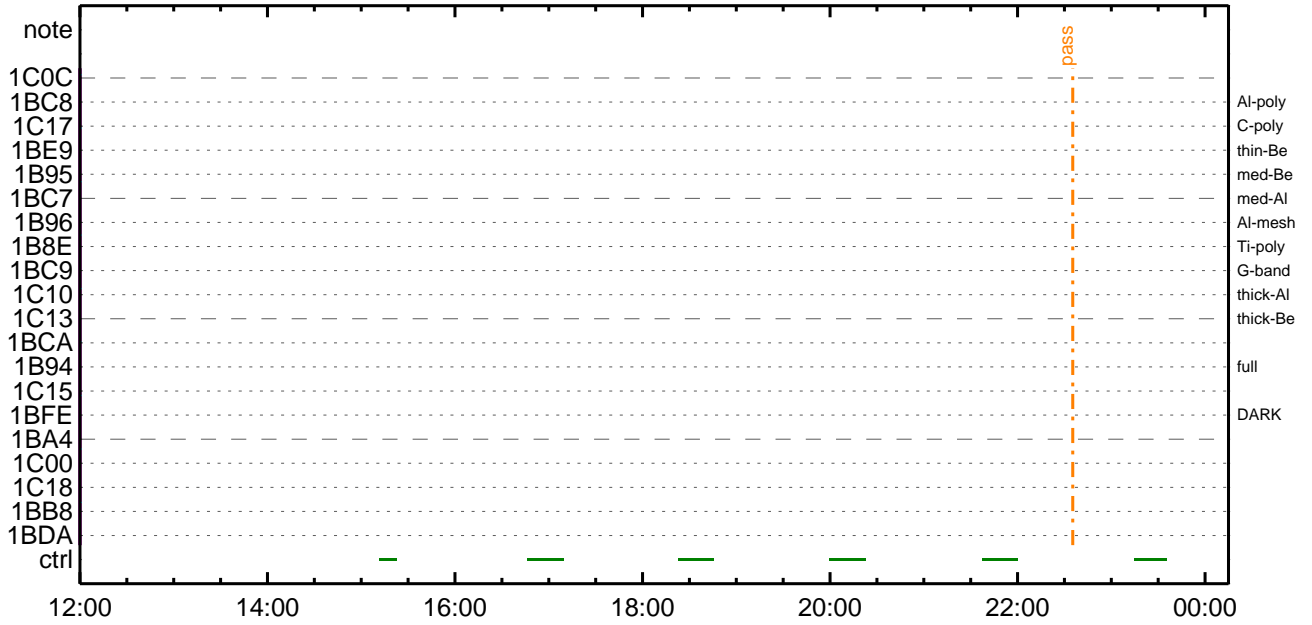
CMDI #0903 2018/11/23



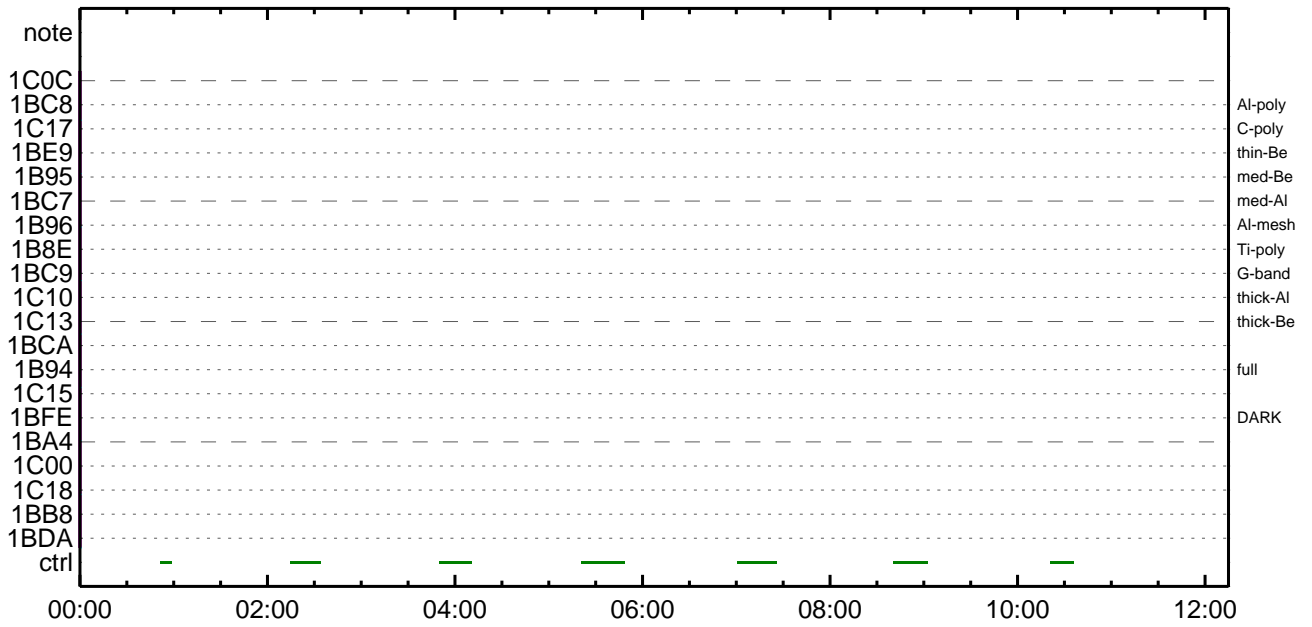
CMDI #0903 2018/11/24



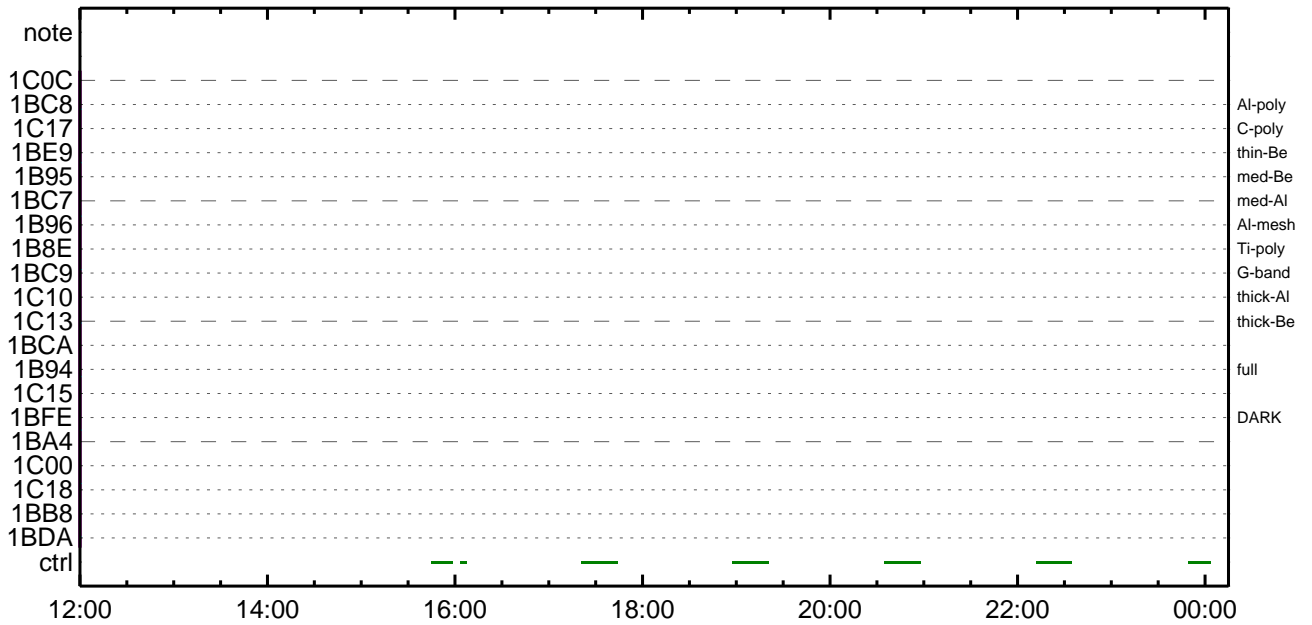
CMDI #0903 2018/11/24



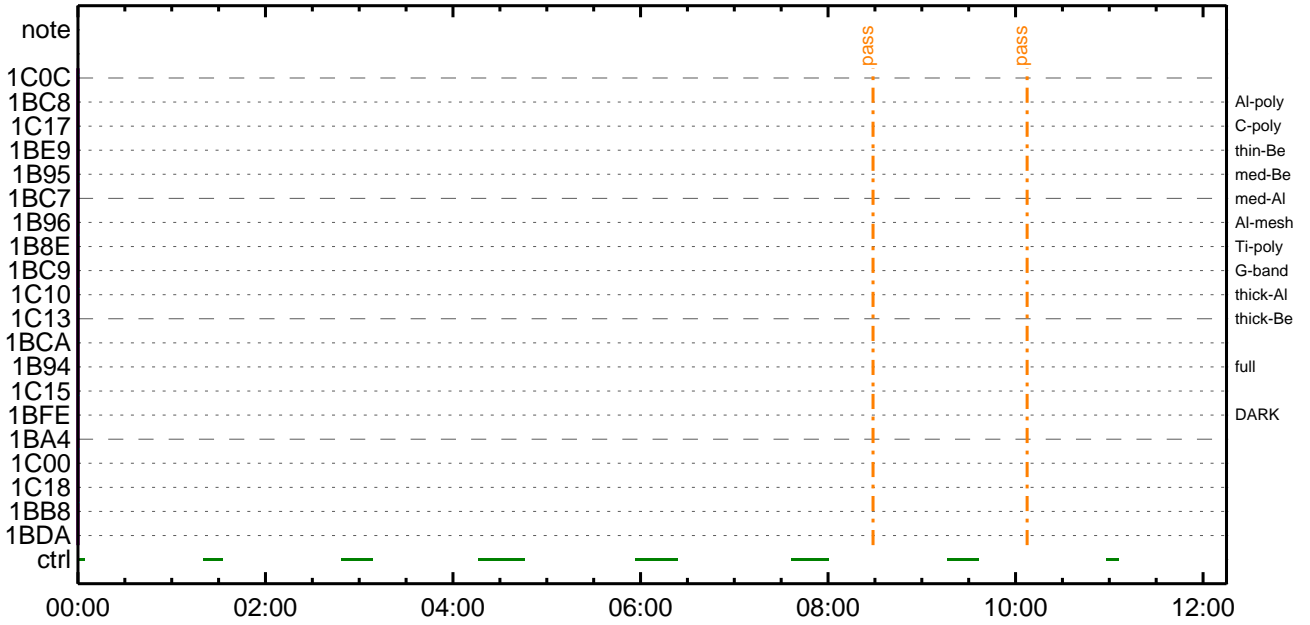
CMDI #0903 2018/11/25



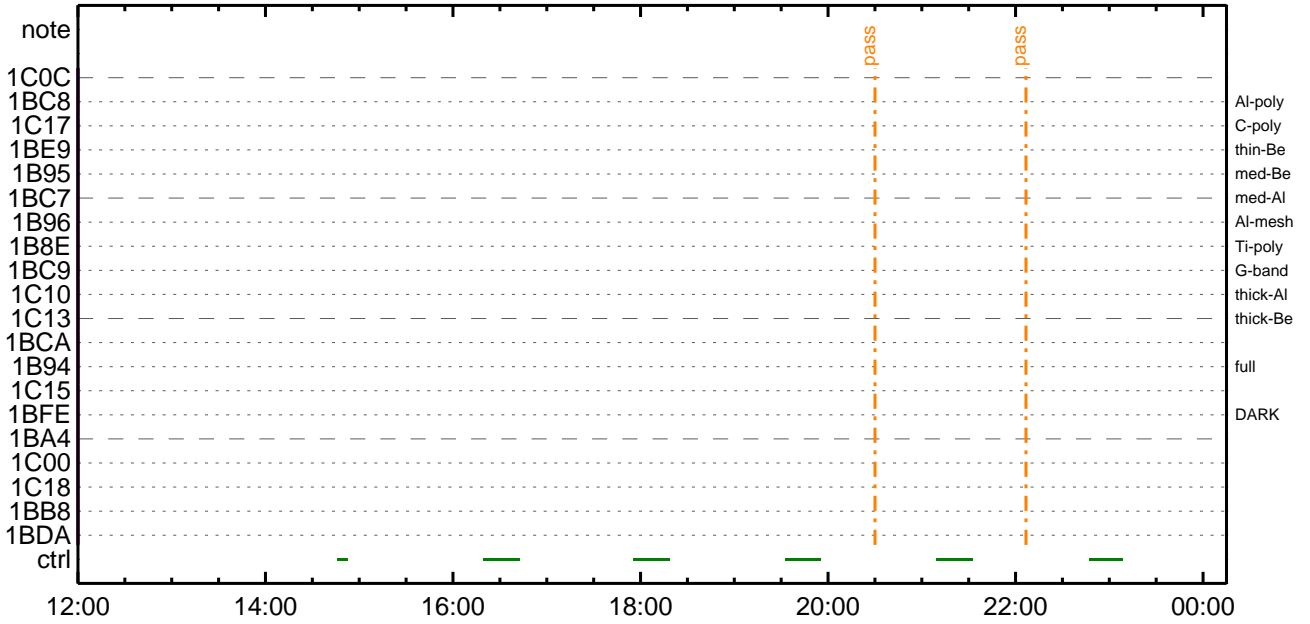
CMDI #0903 2018/11/25



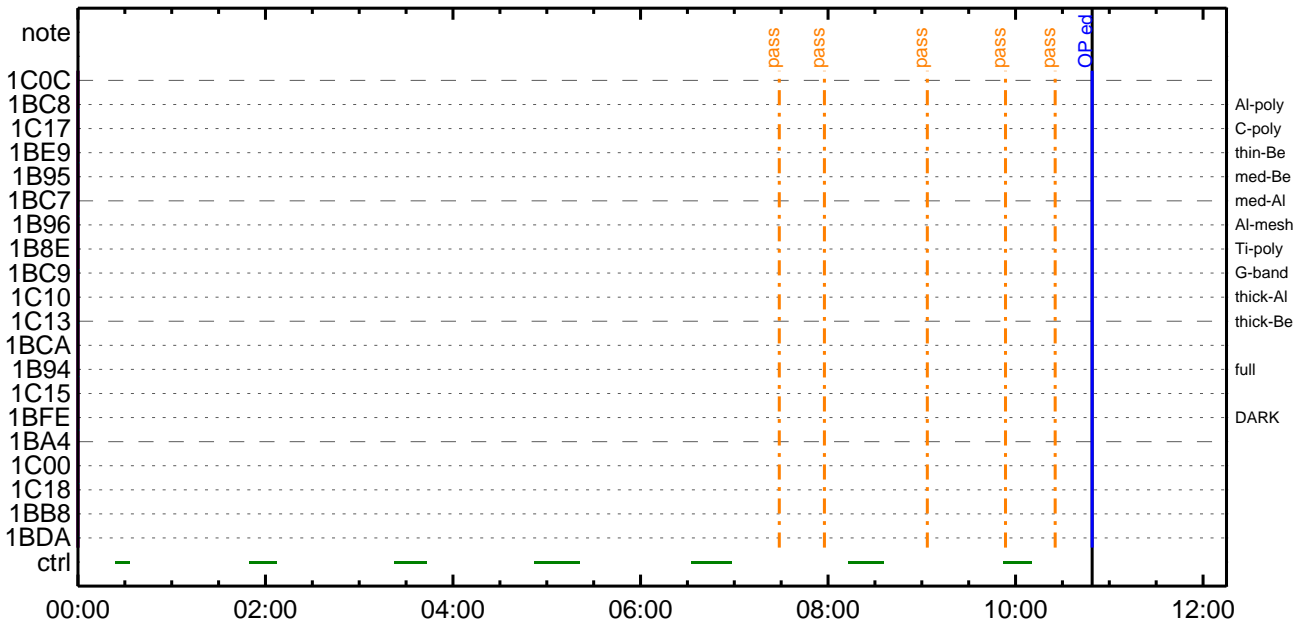
CMDI #0903 2018/11/26



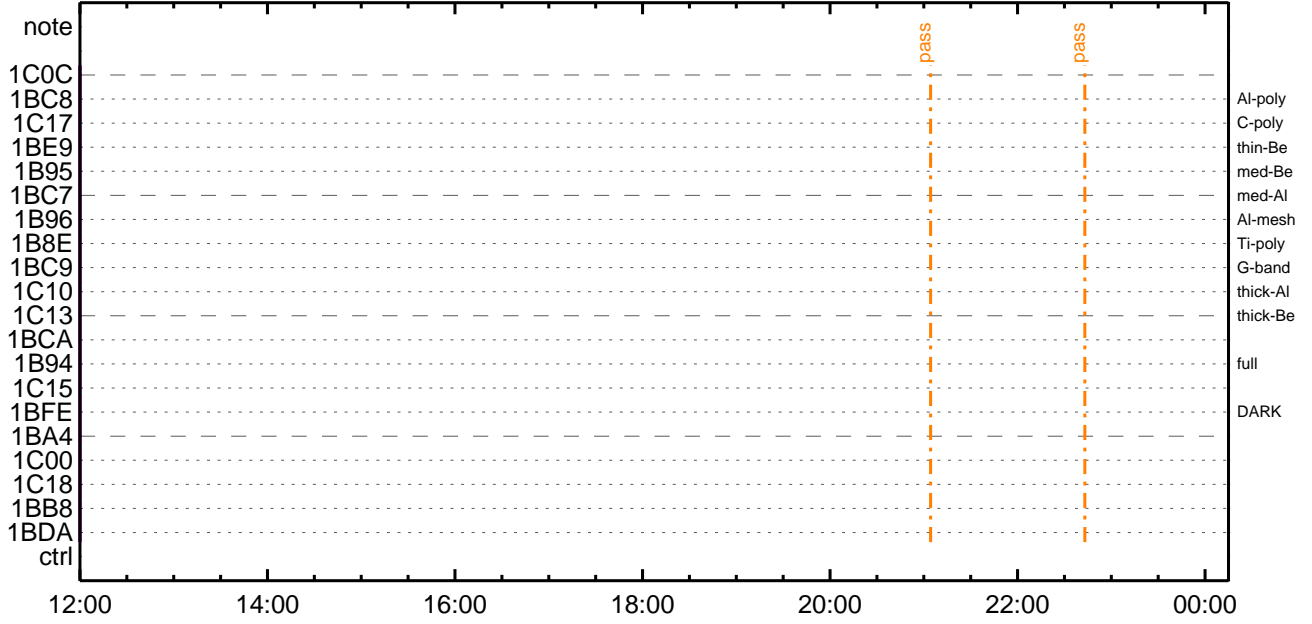
CMDI #0903 2018/11/26



CMDI #0903 2018/11/27



CMDI #0903 2018/11/27







```

0194 C.
0195 +. TI 2018-11-17 11:28:59.5
0196 DC 01-B2 DHU_OP_START
0197 C.          çç[HK1_TI_CMD_NUM]          EQ          1COUNTUP
0198 C.
0199 C. °Ê²¼αîÄë%îíñαîî¥Á¥§¥Á¥-¹àîü
0200 C.          çç[HK1_TI_CMD_ENA/DIS]        EQ          ENA
0201 C.          çç[HK1_TI_CMD_NUM]          EQ          4
0202 C.          çç[HK1_NEXT_EXEC_PIM]        EQ          DHU
0203 C.          çç[HK1_NEXT_EXEC_DC]        EQ          0xB3
0204 C.
0205 C. *****
0206 C. TIîî°è¥Á¥Ö¥×
0207 C. *****
0208 C.
0209 C. TI_TBL(0x03AB00-0x03AEFF;§ 1024byte)
0210 +. DC 01-23 DHU_DMA_DMP_PRM_SET
0211 BC          (03 ab 03 01 02)
0212 C.          çç[HK1_DMP_TOP_ADRS_1]      EQ          07
0213 C.          çç[HK1_DMP_TOP_ADRS_0]      EQ          2B
0214 C.          çç[HK1_DMP_BLOCK_NUM]       EQ          3
0215 C.          çç[HK1_DMP_REPEAT_NUM]     EQ          0
0216 C.          çç[HK1_DMA_DMP_PIM]        EQ          DHU
0217 +. DC 01-22 DHU_MODE_CHNG
0218 BC          (07 0b f8)
0219 C.          çç[HK1_PKT_FORM_NO]        EQ          7
0220 C.          çç[HK1_PKT_GEN_TIME]       EQ          0.25 s
0221 C.          çç[HK1_S_TLM_BIT_RATE]     EQ          32k
0222 C.          çç[HK1_X_TLM_BIT_RATE]     EQ          4M
0223 C.          çç[HK1_DMP_CHK_FLG]       EQ          EXEC
0224 C.
0225 C. ¥Á¥Ö¥×½ªî»αò³îç§
0226 C.          çç[HK1_DMP_CHK_FLG]       EQ          NON
0227 C.
0228 C. RAM ID=TI_TBLαîî¾È¹ç•è²îOKαò³îç§
0229 C.
0230 C. DHU¥â;¼¥É;È¼¥¼. ¥î;¼¥È;Èαòîáα¹
0231 +. DC 01-22 DHU_MODE_CHNG
0232 BC          (02 0a f8)
0233 C.          çç[HK1_PKT_FORM_NO]        EQ          2
0234 C.          çç[HK1_PKT_GEN_TIME]       EQ          0.5S
0235 C.          çç[HK1_S_TLM_BIT_RATE]     EQ          32K
0236 C.          çç[HK1_X_TLM_BIT_RATE]     EQ          4M
0237 C.
0238 C. *****
0239 C. SOT TI command set
0240 C. *****
0241 C. Execute, after the success of OP upload.
0242 +. TI 2018-11-17 11:28:16.0
0243 DC 07-F0 MDP_SOT_MODE_STBY
0244 BC          (41)
0245 C. -----
0246 C. HK1_TI_CMD_NUM          = 1 CNTUP [ ]
0247 C. -----
0248 C. ***** SOT END *****
0249 C. Stop EIS observation and temporarily disable EIS mode changes
0250 C.
0251 C.
0252 C. ***** Start EIS operation (TI set) *****
0253 C. Execute, after the success of OP upload.
0254 C. Set EIS TI-commands
0255 +. TI 2018-11-17 11:28:30.0
0256 DC 07-FC EIS_MODE_MANU
0257 BC          (21 02)
0258 +. TI 2018-11-17 11:28:40.0
0259 DC 07-FC EIS_MODE_CHG_DIS
0260 BC          (22)
0261 C.          [ ] [HK1_TI_CMD_NUM]      EQ          2 COUNTUP
0262 C. ***** End EIS operation (TI set) *****
0263 C.
0264 C.
0265 C.
0266 C. ***** XRT START *****
0267 C. Execute, after the success of OP upload.
0268 +. TI 2018-11-17 11:28:00.0
0269 DC 07-F0 MDP_XRT_MODE_STBY
0270 BC          (c3)
0271 C.          [ ] [HK1_TI_CMD_NUM]      EQ          1COUNTUP
0272 C.
0273 C. ***** XRT END *****
0274 C.
0275 C. ***** MDP ´ûÃîαî»ö¼ÝαÈÄα¹αèDCBC•x²è *****
0276 C. (¼á°îî¥Á¥È¥¥¥¥¥á¥ç¥èè%¼αα¼Á»Ûα¹αè)
0277 S. DC-BC dcbc-402:DCBC
0278 (MDP_known_event)
0279 C.
0280 C.
0281 C. ***** ¥Ð¥¹•î Daily±çîñèÈ´Øα¹αèDCBC•x²è *****
0282 S. DC-BC dcbc-153:DCBC
0283 (SPECIAL-CMD_DAILY_OPERATIN_DCB)
0284 C.
0285 C.
0286 C. ;ãLOS¥Á¥§¥Á¥-¼Á»Û;ã
0287 C.
0288 C. ***** LOS *****
0289 C.

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0096 + DC 07-F0 MDP_XRT_AEC_RESET
0097 BC (d0)
0098 + DC 07-F0 MDP_XRT_FLD_RESET
0099 BC (da)
0100 +. DC 07-F0 MDP_XRT_QT_PROG_SET
0101 BC (c4 02)
0102 +. DC 07-F0 MDP_XRT_FL_PROG_SET
0103 BC (c5 0d)
0104 . C. ----- Success Verify ? OK / NG ____
0105 C.
0106 C.
0107 . C. All OK? Yes--> Please Proceed. / No --> Stop here.
0108 C.
0109 +. DC 07-F0 MDP_XRT_MODE_OBSV
0110 BC (c2)
0111 +. TI 2018-11-17 11:28:02.0
0112 DC 07-F0 MDP_XRT_MODE_OBSV
0113 BC (c2)
0114 . C. ----- Success Verify ? OK / NG ____
0115 C.
0116 C. ***** XRT END *****
0117 C.
0118 . C. ***** MDP `ûÃîñî»ö¼ÿñÊÃðñ¹ñèDCBC•x²è *****
0119 C. (¼ã°îÿÓÿÃÿËÿPÿËÿãÿçÿèñ¼çñ¼Ã»Ûñ¹ñè)
0120 . S. DC-BC dcbc-402:DCBC
0121 (MDP_known_event)
0122 C.
0123 C.
0124 . C. ***** ÿDÿ¹•î Daily±;îññè'øñ¹ñèDCBC•x²è *****
0125 . S. DC-BC dcbc-153:DCBC
0126 (SPECIAL-CMD_DAILY_OPERATIN_DCB)
0127 C.
0128 C.
0129 . C. ;ãLOSÿÃÿSÿÿÃÿ-¼Ã»Û;ã
0130 C.
0131 . C. ***** LOS *****
0132 C.

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Nov 17, 18 11:46

XRT\_OGLIST\_0903.chk

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\*\*\* OP Sequence for XRT \*\*\*

|            |            |                                   |   |       |                |  |  |  |  |
|------------|------------|-----------------------------------|---|-------|----------------|--|--|--|--|
| 2018/11/17 | 11:38:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/17 | 11:38:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/17 | 11:38:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |  |
| 2018/11/17 | 11:39:00.0 | AOCS_Ore-point_Start_1_OG [0x097] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 04 03 02 01 ca |  |  |  |  |
| 2018/11/17 | 11:39:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |  |
| 2018/11/17 | 11:39:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |  |
| 2018/11/17 | 11:39:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |  |
| 2018/11/17 | 11:39:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |
| 2018/11/17 | 11:39:26.0 | XRT_FLD_RESET_432_OG [0x1b0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/17 | 11:41:56.0 | XRT_QT_PROG_SET_428_OG [0x1ac]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 06          |  |  |  |  |
| 2018/11/17 | 11:41:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |  |  |  |  |
| 2018/11/17 | 11:42:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/17 | 15:57:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/17 | 15:57:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/17 | 15:57:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/17 | 15:57:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/17 | 16:00:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/17 | 16:11:00.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/17 | 16:12:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/17 | 16:12:00.5 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/17 | 16:12:02.5 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/17 | 16:12:04.5 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/17 | 16:12:06.5 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/17 | 16:15:14.5 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/17 | 16:20:00.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/17 | 16:21:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/17 | 17:33:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/17 | 17:33:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/17 | 17:33:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/17 | 17:33:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/17 | 17:36:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/17 | 17:57:24.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/17 | 17:57:26.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/17 | 17:57:28.0 | XRT_FOCUS_POSITION_406_OG [0x196] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 ff aa 00    |  |  |  |  |
| 2018/11/17 | 17:57:30.0 | AOCS_Ore-point_Start_2_OG [0x098] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 00 00 00 00 00 |  |  |  |  |
| 2018/11/17 | 17:57:48.0 | XRT_FLD_DIS_409_OG [0x199]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_DIS                   | 1 | 07-F0 | d9             |  |  |  |  |
| 2018/11/17 | 17:57:50.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_DIS               | 1 | 07-F0 | c9             |  |  |  |  |
| 2018/11/17 | 17:57:52.0 | XRT_ARS_DIS_414_OG [0x19e]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |
| 2018/11/17 | 18:00:28.0 | XRT_QT_PROG_SET_434_OG [0x1b2]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 0a          |  |  |  |  |
| 2018/11/17 | 18:00:30.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/17 | 18:07:24.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/17 | 18:07:26.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/17 | 18:07:28.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |  |
| 2018/11/17 | 18:07:30.0 | AOCS_Ore-point_Start_3_OG [0x099] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 04 00 00 00 00 |  |  |  |  |
| 2018/11/17 | 18:07:48.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |  |
| 2018/11/17 | 18:07:50.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |  |
| 2018/11/17 | 18:07:52.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |  |

|            |            |                                   |                     |   |       |    |             |  |
|------------|------------|-----------------------------------|---------------------|---|-------|----|-------------|--|
| 2018/11/17 | 18:07:54.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |             |  |
|            |            |                                   | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |             |  |
| 2018/11/17 | 18:07:56.0 | XRT_FLD_RESET_432_OG [0x1b0]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |             |  |
| 2018/11/17 | 18:10:26.0 | XRT_QT_PROG_SET_428_OG [0x1ac]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 06          |  |
| 2018/11/17 | 18:10:28.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d          |  |
| 2018/11/17 | 18:10:30.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |             |  |
| 2018/11/17 | 19:10:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |  |
| 2018/11/17 | 19:10:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |  |
| 2018/11/17 | 19:10:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |             |  |
| 2018/11/17 | 19:10:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |             |  |
| 2018/11/17 | 19:13:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |             |  |
| 2018/11/17 | 19:33:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |    |             |  |
| 2018/11/17 | 19:34:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |             |  |
| 2018/11/17 | 20:47:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |  |
| 2018/11/17 | 20:47:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |  |
| 2018/11/17 | 20:47:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |             |  |
| 2018/11/17 | 20:47:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |             |  |
| 2018/11/17 | 20:50:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |             |  |
| 2018/11/17 | 21:10:30.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |    |             |  |
| 2018/11/17 | 21:11:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |             |  |
| 2018/11/17 | 22:24:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |  |
| 2018/11/17 | 22:24:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |  |
| 2018/11/17 | 22:24:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |             |  |
| 2018/11/17 | 22:24:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |             |  |
| 2018/11/17 | 22:27:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |             |  |
| 2018/11/17 | 22:46:30.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |    |             |  |
| 2018/11/17 | 22:47:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |             |  |
| 2018/11/17 | 23:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |  |
| 2018/11/17 | 23:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |  |
| 2018/11/17 | 23:59:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | ff aa 00    |  |
| 2018/11/18 | 00:00:00.0 | AOCS_Ore-point_Start_2_OG [0x098] | AOCU_NM             | 5 | 02-76 | 00 | 00 00 00 00 |  |
| 2018/11/18 | 00:00:18.0 | XRT_FLD_ENA_407_OG [0x197]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8 |             |  |
| 2018/11/18 | 00:01:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |  |
| 2018/11/18 | 00:01:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |  |
| 2018/11/18 | 00:01:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |             |  |
| 2018/11/18 | 00:01:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |             |  |
| 2018/11/18 | 00:02:48.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8 |             |  |
| 2018/11/18 | 00:02:50.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |             |  |
| 2018/11/18 | 00:02:52.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |             |  |
| 2018/11/18 | 00:02:54.0 | XRT_FLD_RESET_420_OG [0x1a4]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |             |  |
| 2018/11/18 | 00:02:56.0 | XRT_QT_PROG_SET_441_OG [0x1b9]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 04          |  |
| 2018/11/18 | 00:02:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d          |  |
| 2018/11/18 | 00:04:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |             |  |
| 2018/11/18 | 00:14:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |    |             |  |
| 2018/11/18 | 00:15:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |             |  |
| 2018/11/18 | 01:29:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |  |
| 2018/11/18 | 01:29:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |  |
| 2018/11/18 | 01:29:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |             |  |
| 2018/11/18 | 01:29:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |             |  |

|            |            |                                   |   |       |                |  |  |  |  |
|------------|------------|-----------------------------------|---|-------|----------------|--|--|--|--|
| 2018/11/18 | 01:32:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/18 | 01:44:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/18 | 01:45:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 02:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 02:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 02:59:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |  |
| 2018/11/18 | 03:00:00.0 | AOCS_Ore-point_Start_1_OG [0x097] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 04 03 02 01 ca |  |  |  |  |
| 2018/11/18 | 03:00:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |  |
| 2018/11/18 | 03:00:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |  |
| 2018/11/18 | 03:00:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |  |
| 2018/11/18 | 03:00:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |
| 2018/11/18 | 03:00:26.0 | XRT_FLD_RESET_432_OG [0x1b0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 03:00:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 03:00:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 03:00:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 03:00:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/18 | 03:02:56.0 | XRT_QT_PROG_SET_428_OG [0x1ac]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 06          |  |  |  |  |
| 2018/11/18 | 03:02:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |  |  |  |  |
| 2018/11/18 | 03:03:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/18 | 03:21:00.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/18 | 03:22:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 04:28:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 04:28:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 04:28:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 04:28:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/18 | 04:31:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/18 | 04:58:00.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/18 | 04:59:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 05:41:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 05:41:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 05:41:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 ff aa 00    |  |  |  |  |
| 2018/11/18 | 05:42:00.0 | AOCS_Ore-point_Start_2_OG [0x098] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 00 00 00 00 00 |  |  |  |  |
| 2018/11/18 | 05:42:18.0 | XRT_FLD_DIS_409_OG [0x199]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_DIS                   | 1 | 07-F0 | d9             |  |  |  |  |
| 2018/11/18 | 05:42:20.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_DIS               | 1 | 07-F0 | c9             |  |  |  |  |
| 2018/11/18 | 05:42:22.0 | XRT_ARS_DIS_414_OG [0x19e]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |
| 2018/11/18 | 05:44:58.0 | XRT_QT_PROG_SET_447_OG [0x1bf]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 14          |  |  |  |  |
| 2018/11/18 | 05:45:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 05:51:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 05:51:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 05:51:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |  |
| 2018/11/18 | 05:52:00.0 | AOCS_Ore-point_Start_1_OG [0x097] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 04 03 02 01 ca |  |  |  |  |
| 2018/11/18 | 05:52:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |  |
| 2018/11/18 | 05:52:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |  |
| 2018/11/18 | 05:52:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |  |
| 2018/11/18 | 05:52:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |
| 2018/11/18 | 05:52:26.0 | XRT_FLD_RESET_432_OG [0x1b0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 05:54:56.0 | XRT_QT_PROG_SET_428_OG [0x1ac]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 06          |  |  |  |  |
| 2018/11/18 | 05:54:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |  |  |  |  |

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|            |            |                                   |   |       |                |  |  |  |  |
|------------|------------|-----------------------------------|---|-------|----------------|--|--|--|--|
| 2018/11/18 | 05:55:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 06:09:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 06:09:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 06:09:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 06:09:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/18 | 06:12:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/18 | 06:35:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/18 | 06:36:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 07:49:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 07:49:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 07:49:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 07:49:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/18 | 07:52:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/18 | 08:12:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/18 | 08:13:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 09:29:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 09:29:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 09:29:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 09:29:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/18 | 09:32:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/18 | 09:48:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/18 | 09:49:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 11:11:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 11:11:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 11:11:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 11:11:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/18 | 11:14:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/18 | 11:15:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/18 | 11:16:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 14:57:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 14:57:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 14:57:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 14:57:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/18 | 15:00:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/18 | 15:06:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/18 | 15:07:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 16:19:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 16:19:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 16:19:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 ff aa 00    |  |  |  |  |
| 2018/11/18 | 16:20:00.0 | AOCS_ORe-point_Start_2_OG [0x098] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 00 00 00 00 00 |  |  |  |  |
| 2018/11/18 | 16:20:18.0 | XRT_FLD_DIS_409_OG [0x199]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_DIS                   | 1 | 07-F0 | d9             |  |  |  |  |
| 2018/11/18 | 16:20:20.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_DIS               | 1 | 07-F0 | c9             |  |  |  |  |
| 2018/11/18 | 16:20:22.0 | XRT_ARS_DIS_414_OG [0x19e]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |
| 2018/11/18 | 16:22:58.0 | XRT_QT_PROG_SET_447_OG [0x1bf]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 14          |  |  |  |  |
| 2018/11/18 | 16:23:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 16:29:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 16:29:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 16:29:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |  |
| 2018/11/18 | 16:30:00.0 | AOCS_ORe-point_Start_1_OG [0x097] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 04 03 02 01 ca |  |  |  |  |

|            |            |                                   |   |       |                |  |  |  |  |
|------------|------------|-----------------------------------|---|-------|----------------|--|--|--|--|
| 2018/11/18 | 16:30:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |  |
| 2018/11/18 | 16:30:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |  |
| 2018/11/18 | 16:30:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |  |
| 2018/11/18 | 16:30:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |
| 2018/11/18 | 16:30:26.0 | XRT_FLD_RESET_432_OG [0x1b0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 16:31:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 16:31:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 16:31:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 16:31:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/18 | 16:32:56.0 | XRT_QT_PROG_SET_428_OG [0x1ac]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 06          |  |  |  |  |
| 2018/11/18 | 16:32:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |  |  |  |  |
| 2018/11/18 | 16:34:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/18 | 16:54:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/18 | 16:55:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 16:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 16:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 16:59:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |  |
| 2018/11/18 | 17:00:00.0 | AOCS_Ore-point_Start_1_OG [0x097] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 04 03 02 01 ca |  |  |  |  |
| 2018/11/18 | 17:00:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |  |
| 2018/11/18 | 17:00:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |  |
| 2018/11/18 | 17:00:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |  |
| 2018/11/18 | 17:00:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |
| 2018/11/18 | 17:00:26.0 | XRT_FLD_RESET_432_OG [0x1b0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 17:02:56.0 | XRT_QT_PROG_SET_429_OG [0x1ad]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 05          |  |  |  |  |
| 2018/11/18 | 17:02:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |  |  |  |  |
| 2018/11/18 | 17:03:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 18:07:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 18:07:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 18:07:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 18:07:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/18 | 18:10:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/18 | 18:31:00.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/18 | 18:32:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 19:44:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 19:44:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 19:44:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/18 | 19:44:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/18 | 19:47:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/18 | 20:08:00.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/18 | 20:09:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/18 | 20:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 20:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/18 | 20:59:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |  |
| 2018/11/18 | 21:00:00.0 | AOCS_Ore-point_Start_4_OG [0x09a] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 00 af 75 01 ca |  |  |  |  |
| 2018/11/18 | 21:00:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |  |
| 2018/11/18 | 21:00:20.0 | XRT_FLRCTRL_ENA_438_OG [0x1b6]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |  |
| 2018/11/18 | 21:02:50.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |  |
| 2018/11/18 | 21:02:52.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |



|            |            |                                   |                     |   |       |             |       |
|------------|------------|-----------------------------------|---------------------|---|-------|-------------|-------|
| 2018/11/18 | 21:02:54.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da          |       |
| 2018/11/18 | 21:02:56.0 | XRT_QT_PROG_SET_442_OG [0x1ba]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4          | 11    |
| 2018/11/18 | 21:02:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5          | 0d    |
| 2018/11/18 | 21:03:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0          |       |
| 2018/11/18 | 21:22:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |       |
| 2018/11/18 | 21:22:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |       |
| 2018/11/18 | 21:22:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da          |       |
| 2018/11/18 | 21:22:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8          |       |
| 2018/11/18 | 21:25:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9          |       |
| 2018/11/18 | 21:45:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |             |       |
| 2018/11/18 | 21:46:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0          |       |
| 2018/11/18 | 22:59:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |       |
| 2018/11/18 | 22:59:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |       |
| 2018/11/18 | 22:59:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da          |       |
| 2018/11/18 | 22:59:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8          |       |
| 2018/11/18 | 23:02:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9          |       |
| 2018/11/18 | 23:20:30.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |             |       |
| 2018/11/18 | 23:21:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0          |       |
| 2018/11/19 | 00:36:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |       |
| 2018/11/19 | 00:36:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |       |
| 2018/11/19 | 00:36:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da          |       |
| 2018/11/19 | 00:36:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8          |       |
| 2018/11/19 | 00:39:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9          |       |
| 2018/11/19 | 00:45:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |             |       |
| 2018/11/19 | 00:46:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0          |       |
| 2018/11/19 | 02:00:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |       |
| 2018/11/19 | 02:00:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |       |
| 2018/11/19 | 02:00:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da          |       |
| 2018/11/19 | 02:00:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8          |       |
| 2018/11/19 | 02:03:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9          |       |
| 2018/11/19 | 02:19:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |             |       |
| 2018/11/19 | 02:20:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0          |       |
| 2018/11/19 | 02:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |       |
| 2018/11/19 | 02:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |       |
| 2018/11/19 | 02:59:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa    | 00    |
| 2018/11/19 | 03:00:00.0 | AOCS_Ore-point_Start_2_OG [0x098] | AOCU_NM             | 5 | 02-76 | 00 00 00 00 | 00 00 |
| 2018/11/19 | 03:00:18.0 | XRT_FLD_ENA_407_OG [0x197]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8          |       |
| 2018/11/19 | 03:02:48.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8          |       |
| 2018/11/19 | 03:02:50.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0          |       |
| 2018/11/19 | 03:02:52.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5          |       |
| 2018/11/19 | 03:02:54.0 | XRT_FLD_RESET_420_OG [0x1a4]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da          |       |
| 2018/11/19 | 03:02:56.0 | XRT_QT_PROG_SET_441_OG [0x1b9]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4          | 04    |
| 2018/11/19 | 03:02:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5          | 0d    |
| 2018/11/19 | 03:03:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0          |       |
| 2018/11/19 | 03:35:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |       |
| 2018/11/19 | 03:35:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |       |
| 2018/11/19 | 03:35:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da          |       |
| 2018/11/19 | 03:35:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8          |       |
| 2018/11/19 | 03:38:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |                     |   |       |             |       |

|            |            |                                   |                                   |   |       |                |  |
|------------|------------|-----------------------------------|-----------------------------------|---|-------|----------------|--|
| 2018/11/19 | 03:56:00.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |
| 2018/11/19 | 03:57:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |                                   |   |       |                |  |
| 2018/11/19 | 05:04:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |
| 2018/11/19 | 05:04:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |
| 2018/11/19 | 05:04:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |
| 2018/11/19 | 05:04:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |
| 2018/11/19 | 05:07:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |
| 2018/11/19 | 05:33:00.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |
| 2018/11/19 | 05:34:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |                                   |   |       |                |  |
| 2018/11/19 | 05:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |
| 2018/11/19 | 05:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |
| 2018/11/19 | 05:59:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |
| 2018/11/19 | 06:00:00.0 | AOCS_Ore-point_Start_2_OG [0x098] | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 ff aa 00    |  |
| 2018/11/19 | 06:00:18.0 | XRT_FLD_DIS_409_OG [0x199]        | AOCS_Ore-point_Start_2_OG [0x098] | 5 | 02-76 | 00 00 00 00 00 |  |
| 2018/11/19 | 06:00:20.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    | AOCU_NM                           |   |       |                |  |
| 2018/11/19 | 06:00:22.0 | XRT_ARS_DIS_414_OG [0x19e]        | MDP_XRT_FLD_DIS                   | 1 | 07-F0 | d9             |  |
| 2018/11/19 | 06:02:58.0 | XRT_QT_PROG_SET_447_OG [0x1bf]    | MDP_XRT_FLRCTRL_DIS               | 1 | 07-F0 | c9             |  |
| 2018/11/19 | 06:03:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |
| 2018/11/19 | 06:09:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | XRT_QT_PROG_SET_447_OG [0x1bf]    | 2 | 07-F0 | c4 14          |  |
| 2018/11/19 | 06:09:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 14          |  |
| 2018/11/19 | 06:09:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |
| 2018/11/19 | 06:10:00.0 | AOCS_Ore-point_Start_5_OG [0x09b] | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |
| 2018/11/19 | 06:10:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |
| 2018/11/19 | 06:10:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | XRT_FOCUS_POSITION_406_OG [0x196] | 4 | 07-F8 | 22 ff aa 00    |  |
| 2018/11/19 | 06:10:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 ff aa 00    |  |
| 2018/11/19 | 06:10:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | AOCS_Ore-point_Start_5_OG [0x09b] | 5 | 02-76 | 02 00 00 00 00 |  |
| 2018/11/19 | 06:10:26.0 | XRT_FLD_RESET_432_OG [0x1b0]      | AOCU_NM                           |   |       |                |  |
| 2018/11/19 | 06:12:56.0 | XRT_QT_PROG_SET_443_OG [0x1bb]    | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |
| 2018/11/19 | 06:12:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |
| 2018/11/19 | 06:13:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |
| 2018/11/19 | 06:45:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | XRT_ARS_DIS_423_OG [0x1a7]        | 1 | 07-F0 | d5             |  |
| 2018/11/19 | 06:45:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |
| 2018/11/19 | 06:45:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | XRT_FLD_RESET_432_OG [0x1b0]      | 1 | 07-F0 | da             |  |
| 2018/11/19 | 06:45:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |
| 2018/11/19 | 06:48:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | XRT_QT_PROG_SET_443_OG [0x1bb]    | 2 | 07-F0 | c4 0b          |  |
| 2018/11/19 | 07:10:30.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 0b          |  |
| 2018/11/19 | 07:11:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | XRT_FL_PROG_SET_440_OG [0x1b8]    | 2 | 07-F0 | c5 0d          |  |
| 2018/11/19 | 08:25:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |  |
| 2018/11/19 | 08:25:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |
| 2018/11/19 | 08:25:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |
| 2018/11/19 | 08:25:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |
| 2018/11/19 | 08:28:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |
| 2018/11/19 | 08:47:30.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |
| 2018/11/19 | 08:48:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |
| 2018/11/19 | 09:09:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | XRT_PREFLR_STOP_419_OG [0x1a3]    | 1 | 07-F0 | e9             |  |
| 2018/11/19 | 09:09:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |
| 2018/11/19 | 09:09:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_CUSTOM_430_OG [0x1ae]         |   |       |                |  |
| 2018/11/19 | 09:10:00.0 | AOCS_ORe-point_Start_6_OG [0x09c] | XRT_CTRL_AUTO_424_OG [0x1a8]      | 1 | 07-F0 | c0             |  |
|            |            |                                   | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |
|            |            |                                   | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |
|            |            |                                   | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |
|            |            |                                   | XRT_FOCUS_POSITION_406_OG [0x196] | 4 | 07-F8 | 22 ff aa 00    |  |
|            |            |                                   | AOCS_ORe-point_Start_6_OG [0x09c] | 5 | 02-76 | 03 00 00 00 00 |  |
|            |            |                                   | AOCU_NM                           |   |       |                |  |

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|            |            |                                   |   |       |                |  |  |  |  |
|------------|------------|-----------------------------------|---|-------|----------------|--|--|--|--|
| 2018/11/19 | 09:10:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |  |
| 2018/11/19 | 09:10:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |  |
| 2018/11/19 | 09:10:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |  |
| 2018/11/19 | 09:10:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |
| 2018/11/19 | 09:10:26.0 | XRT_FLD_RESET_432_OG [0x1b0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/19 | 09:12:56.0 | XRT_QT_PROG_SET_443_OG [0x1bb]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 0b          |  |  |  |  |
| 2018/11/19 | 09:12:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |  |  |  |  |
| 2018/11/19 | 09:13:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/19 | 10:05:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/19 | 10:05:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/19 | 10:05:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/19 | 10:05:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/19 | 10:08:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/19 | 10:22:00.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/19 | 10:23:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/19 | 12:09:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/19 | 12:09:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/19 | 12:09:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |  |
| 2018/11/19 | 12:10:00.0 | AOCS_Ore-point_Start_1_OG [0x097] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 04 03 02 01 ca |  |  |  |  |
| 2018/11/19 | 12:10:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |  |
| 2018/11/19 | 12:10:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |  |
| 2018/11/19 | 12:10:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |  |
| 2018/11/19 | 12:10:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |
| 2018/11/19 | 12:10:26.0 | XRT_FLD_RESET_432_OG [0x1b0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/19 | 12:12:56.0 | XRT_QT_PROG_SET_428_OG [0x1ac]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 06          |  |  |  |  |
| 2018/11/19 | 12:12:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |  |  |  |  |
| 2018/11/19 | 12:13:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/19 | 15:30:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/19 | 15:30:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/19 | 15:30:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/19 | 15:30:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/19 | 15:33:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/19 | 15:43:00.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/19 | 15:44:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/19 | 17:05:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/19 | 17:05:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/19 | 17:05:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2018/11/19 | 17:05:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2018/11/19 | 17:08:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2018/11/19 | 17:29:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2018/11/19 | 17:30:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2018/11/19 | 17:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/19 | 17:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2018/11/19 | 17:59:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 ff aa 00    |  |  |  |  |
| 2018/11/19 | 18:00:00.0 | AOCS_Ore-point_Start_2_OG [0x098] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 00 00 00 00 00 |  |  |  |  |
| 2018/11/19 | 18:00:18.0 | XRT_FLD_DIS_409_OG [0x199]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_DIS                   | 1 | 07-F0 | d9             |  |  |  |  |
| 2018/11/19 | 18:00:20.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_DIS               | 1 | 07-F0 | c9             |  |  |  |  |
| 2018/11/19 | 18:00:22.0 | XRT_ARS_DIS_414_OG [0x19e]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |

|            |            |                                   |   |       |    |    |    |    |    |
|------------|------------|-----------------------------------|---|-------|----|----|----|----|----|
| 2018/11/19 | 18:02:58.0 | XRT_QT_PROG_SET_447_OG [0x1bf]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 | 14 |    |    |    |
| 2018/11/19 | 18:03:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0 |    |    |    |    |
| 2018/11/19 | 18:09:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/19 | 18:09:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/19 | 18:09:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |    |    |    |    |    |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 | fe | 97 | 00 |    |
| 2018/11/19 | 18:10:00.0 | AOCS_ORe-point_Start_1_OG [0x097] |   |       |    |    |    |    |    |
|            |            | AOCU_NM                           | 5 | 02-76 | 04 | 03 | 02 | 01 | ca |
| 2018/11/19 | 18:10:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8 |    |    |    |    |
| 2018/11/19 | 18:10:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8 |    |    |    |    |
| 2018/11/19 | 18:10:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0 |    |    |    |    |
| 2018/11/19 | 18:10:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |    |    |    |    |    |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5 |    |    |    |    |
| 2018/11/19 | 18:10:26.0 | XRT_FLD_RESET_432_OG [0x1b0]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da |    |    |    |    |
| 2018/11/19 | 18:12:56.0 | XRT_QT_PROG_SET_428_OG [0x1ac]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 | 06 |    |    |    |
| 2018/11/19 | 18:12:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 | 0d |    |    |    |
| 2018/11/19 | 18:13:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0 |    |    |    |    |
| 2018/11/19 | 18:42:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/19 | 18:42:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/19 | 18:42:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da |    |    |    |    |
| 2018/11/19 | 18:42:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8 |    |    |    |    |
| 2018/11/19 | 18:45:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9 |    |    |    |    |
| 2018/11/19 | 19:06:00.0 | XRT_Custom_430_OG [0x1ae]         |   |       |    |    |    |    |    |
| 2018/11/19 | 19:07:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0 |    |    |    |    |
| 2018/11/19 | 20:19:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/19 | 20:19:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/19 | 20:19:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da |    |    |    |    |
| 2018/11/19 | 20:19:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8 |    |    |    |    |
| 2018/11/19 | 20:22:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9 |    |    |    |    |
| 2018/11/19 | 20:43:00.0 | XRT_Custom_430_OG [0x1ae]         |   |       |    |    |    |    |    |
| 2018/11/19 | 20:44:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0 |    |    |    |    |
| 2018/11/19 | 21:57:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/19 | 21:57:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/19 | 21:57:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da |    |    |    |    |
| 2018/11/19 | 21:57:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8 |    |    |    |    |
| 2018/11/19 | 22:00:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9 |    |    |    |    |
| 2018/11/19 | 22:19:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |    |    |    |    |    |
| 2018/11/19 | 22:20:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0 |    |    |    |    |
| 2018/11/19 | 23:34:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/19 | 23:34:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/19 | 23:34:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da |    |    |    |    |
| 2018/11/19 | 23:34:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8 |    |    |    |    |
| 2018/11/19 | 23:37:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9 |    |    |    |    |
| 2018/11/19 | 23:52:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |    |    |    |    |    |
| 2018/11/19 | 23:53:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0 |    |    |    |    |
| 2018/11/19 | 23:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/19 | 23:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/19 | 23:59:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] |   |       |    |    |    |    |    |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 | ff | aa | 00 |    |
| 2018/11/20 | 00:00:00.0 | AOCS_ORe-point_Start_2_OG [0x098] |   |       |    |    |    |    |    |
|            |            | AOCU_NM                           | 5 | 02-76 | 00 | 00 | 00 | 00 | 00 |
| 2018/11/20 | 00:00:18.0 | XRT_FLD_ENA_407_OG [0x197]        |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8 |    |    |    |    |
| 2018/11/20 | 00:02:48.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8 |    |    |    |    |
| 2018/11/20 | 00:02:50.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |    |    |    |    |    |

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|            |            |                                   |                     |   |       |    |    |    |    |    |
|------------|------------|-----------------------------------|---------------------|---|-------|----|----|----|----|----|
| 2018/11/20 | 00:02:52.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |    |    |    |    |
|            |            |                                   | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |    |    |    |    |
| 2018/11/20 | 00:02:54.0 | XRT_FLD_RESET_420_OG [0x1a4]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |    |    |    |
| 2018/11/20 | 00:02:56.0 | XRT_QT_PROG_SET_441_OG [0x1b9]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 04 |    |    |    |
| 2018/11/20 | 00:02:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d |    |    |    |
| 2018/11/20 | 00:03:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |    |    |    |    |
| 2018/11/20 | 01:11:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/20 | 01:11:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/20 | 01:11:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |    |    |    |
| 2018/11/20 | 01:11:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |    |    |    |    |
| 2018/11/20 | 01:14:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |    |    |    |    |
| 2018/11/20 | 02:33:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/20 | 02:33:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/20 | 02:33:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |    |    |    |
| 2018/11/20 | 02:33:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |    |    |    |    |
| 2018/11/20 | 02:36:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |    |    |    |    |
| 2018/11/20 | 02:53:30.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |    |    |    |    |    |
| 2018/11/20 | 02:54:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |    |    |    |    |
| 2018/11/20 | 02:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/20 | 02:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/20 | 02:59:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe | 97 | 00 |    |
| 2018/11/20 | 03:00:00.0 | AOCs_OrE-point_Start_1_OG [0x097] | AOCU_NM             | 5 | 02-76 | 04 | 03 | 02 | 01 | ca |
| 2018/11/20 | 03:00:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8 |    |    |    |    |
| 2018/11/20 | 03:00:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8 |    |    |    |    |
| 2018/11/20 | 03:00:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |    |    |    |    |
| 2018/11/20 | 03:00:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |    |    |    |    |
| 2018/11/20 | 03:00:26.0 | XRT_FLD_RESET_432_OG [0x1b0]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |    |    |    |
| 2018/11/20 | 03:02:56.0 | XRT_QT_PROG_SET_428_OG [0x1ac]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 06 |    |    |    |
| 2018/11/20 | 03:02:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d |    |    |    |
| 2018/11/20 | 03:03:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |    |    |    |    |
| 2018/11/20 | 04:05:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/20 | 04:05:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/20 | 04:05:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |    |    |    |
| 2018/11/20 | 04:05:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |    |    |    |    |
| 2018/11/20 | 04:08:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |    |    |    |    |
| 2018/11/20 | 04:31:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |    |    |    |    |    |
| 2018/11/20 | 04:32:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |    |    |    |    |
| 2018/11/20 | 05:41:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/20 | 05:41:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/20 | 05:41:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |    |    |    |
| 2018/11/20 | 05:41:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |    |    |    |    |
| 2018/11/20 | 05:44:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |    |    |    |    |
| 2018/11/20 | 06:08:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |    |    |    |    |    |
| 2018/11/20 | 06:09:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |    |    |    |    |
| 2018/11/20 | 06:17:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/20 | 06:17:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |    |    |
| 2018/11/20 | 06:17:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | ff | aa | 00 |    |
| 2018/11/20 | 06:18:00.0 | AOCs_OrE-point_Start_2_OG [0x098] | AOCU_NM             | 5 | 02-76 | 00 | 00 | 00 | 00 | 00 |
| 2018/11/20 | 06:18:18.0 | XRT_FLD_DIS_409_OG [0x199]        |                     |   |       |    |    |    |    |    |

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|            |            |                                   |                     |   |       |                |
|------------|------------|-----------------------------------|---------------------|---|-------|----------------|
| 2018/11/20 | 06:18:20.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    | MDP_XRT_FLD_DIS     | 1 | 07-F0 | d9             |
|            |            |                                   | MDP_XRT_FLRCTRL_DIS | 1 | 07-F0 | c9             |
| 2018/11/20 | 06:18:22.0 | XRT_ARS_DIS_414_OG [0x19e]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |
| 2018/11/20 | 06:20:58.0 | XRT_QT_PROG_SET_447_OG [0x1bf]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 14          |
| 2018/11/20 | 06:21:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |
| 2018/11/20 | 06:27:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2018/11/20 | 06:27:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2018/11/20 | 06:27:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 fe 97 00    |
| 2018/11/20 | 06:28:00.0 | AOCS_ORe-point_Start_1_OG [0x097] | AOCU_NM             | 5 | 02-76 | 04 03 02 01 ca |
| 2018/11/20 | 06:28:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |
| 2018/11/20 | 06:28:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |
| 2018/11/20 | 06:28:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |
| 2018/11/20 | 06:28:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |
| 2018/11/20 | 06:28:26.0 | XRT_FLD_RESET_432_OG [0x1b0]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |
| 2018/11/20 | 06:30:56.0 | XRT_QT_PROG_SET_428_OG [0x1ac]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 06          |
| 2018/11/20 | 06:30:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |
| 2018/11/20 | 06:31:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |
| 2018/11/20 | 07:21:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2018/11/20 | 07:21:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2018/11/20 | 07:21:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |
| 2018/11/20 | 07:21:06.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |
| 2018/11/20 | 07:24:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |
| 2018/11/20 | 07:45:30.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |
| 2018/11/20 | 07:46:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |
| 2018/11/20 | 09:00:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2018/11/20 | 09:00:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2018/11/20 | 09:00:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |
| 2018/11/20 | 09:00:36.0 | XRT_PREFLR_STRT_437_OG [0x1b5]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |
| 2018/11/20 | 09:03:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |
| 2018/11/20 | 09:22:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |
| 2018/11/20 | 09:23:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |
| 2018/11/20 | 10:36:00.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2018/11/20 | 10:36:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2018/11/20 | 11:15:00.0 | AOCS_ORe-point_Start_2_OG [0x098] | AOCU_NM             | 5 | 02-76 | 00 00 00 00 00 |