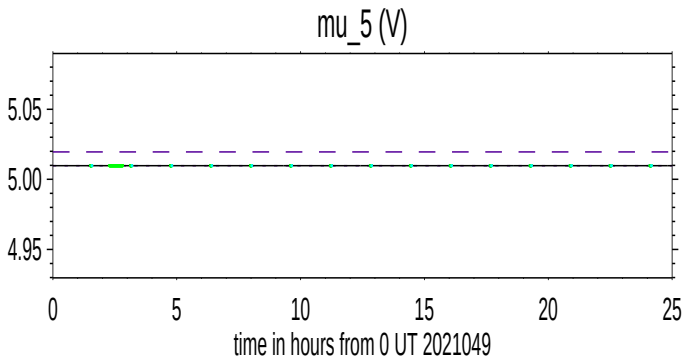
```
Information for      2021049
14:32:31.001: see_stat[1]: 12 internal error
```

/export/timed/data/science_dp/tlm_limit/outoflimit_2021049_012.txt
Sat Mar 20 06:15:38 2021 1

RH OutOfLimit 1297641629 1297731605 hk.mu_cmd_pkt_reject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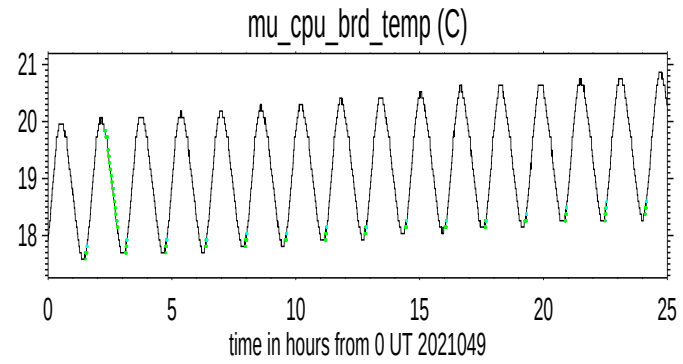
5.05
5.00
4.95
0
5
10
15
20
25
time in hours from 0 UT 2021049


mu_cpu_brd_temp (C)
21
20
19
18
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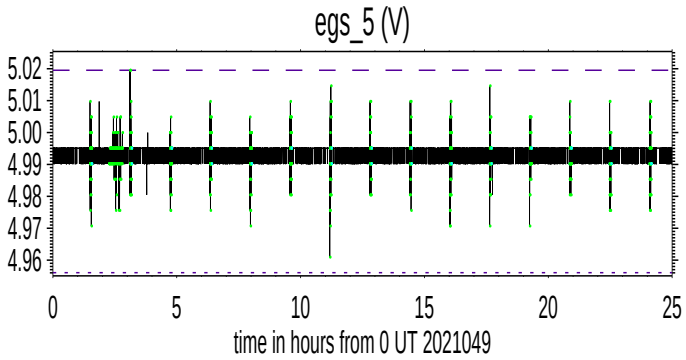
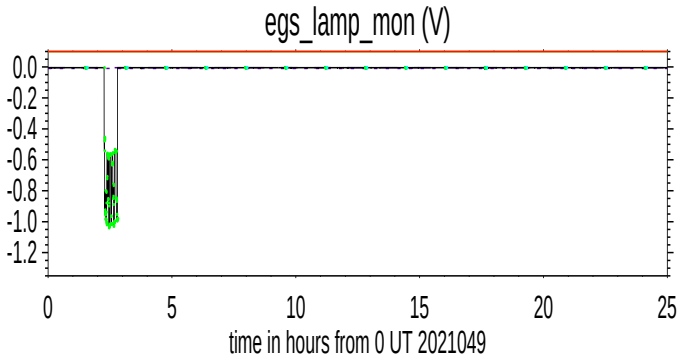
10
15
20
25
time in hours from 0 UT 2021049


egs_5 (V)
5.02
5.01
5.00
4.99
4.98
4.97
4.96
0
5
10
15
20
25
time in hours from 0 UT 2021049


egs_lamp_mon (V)
0.0
-0.2
-0.4
-0.6
-0.8
-1.0
-1.2
0
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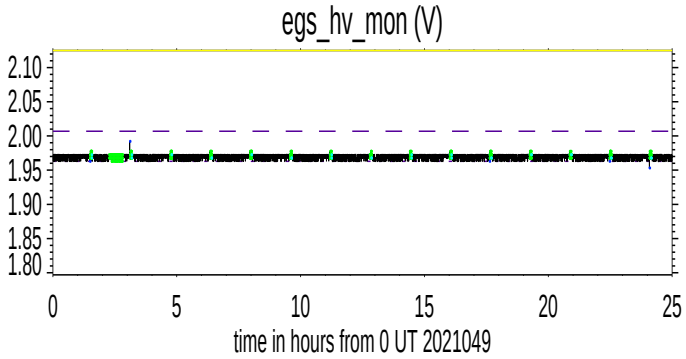
15
20
25
time in hours from 0 UT 2021049


egs_hv_mon (V)
2.10
2.05
2.00
1.95
1.90
1.85
1.80
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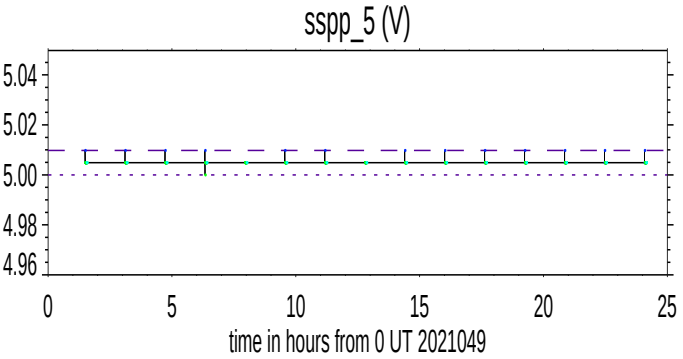
5
10
15
20
25
time in hours from 0 UT 2021049


sspp_5 (V)
5.04
5.02
5.00
4.98
4.96
0
5
10
15
20
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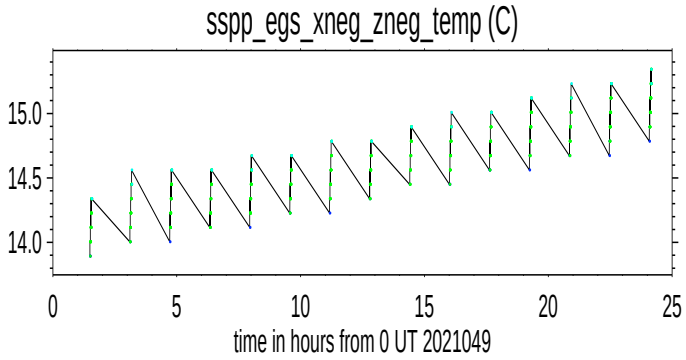
time in hours from 0 UT 2021049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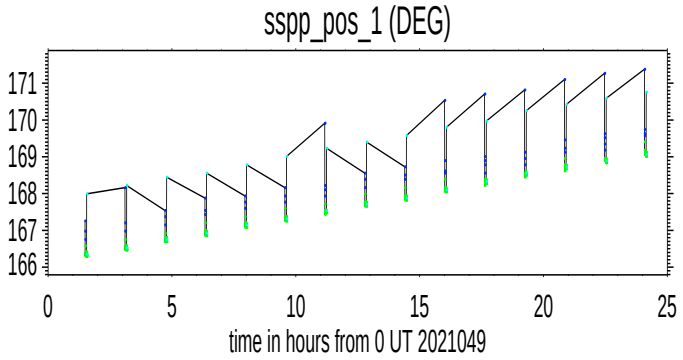
15
20
25
time in hours from 0 UT 2021049


sspp_pos_1 (DEG)
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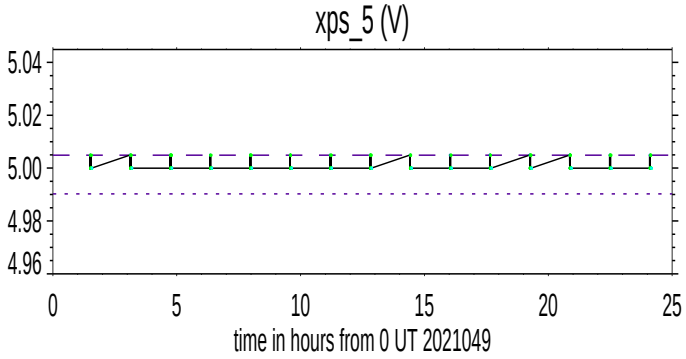
170
169
168
167
166
0
5
10
15
20
25
time in hours from 0 UT 2021049


xps_5 (V)
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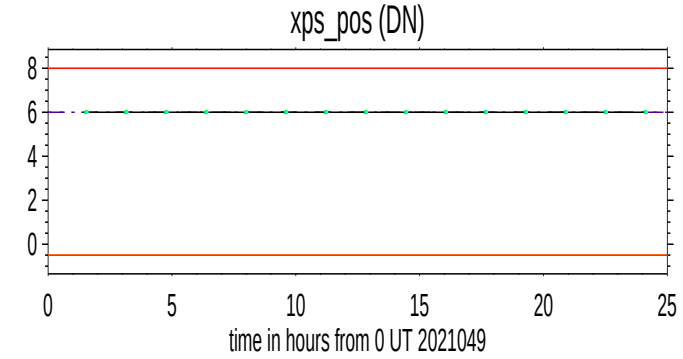
5.02
5.00
4.98
4.96
0
5
10
15
20
25
time in hours from 0 UT 2021049


xps_pos (DN)
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6
4
2
0
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10
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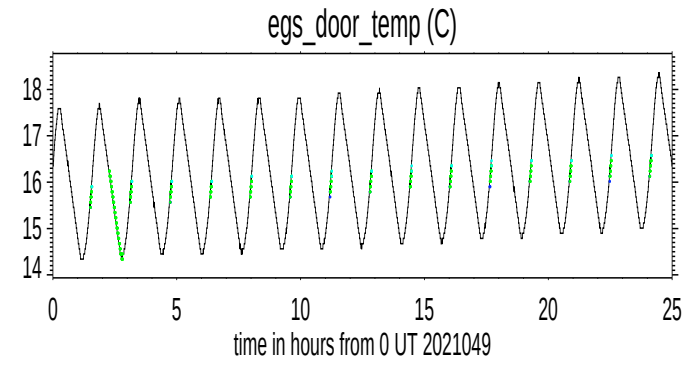
time in hours from 0 UT 2021049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17
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14
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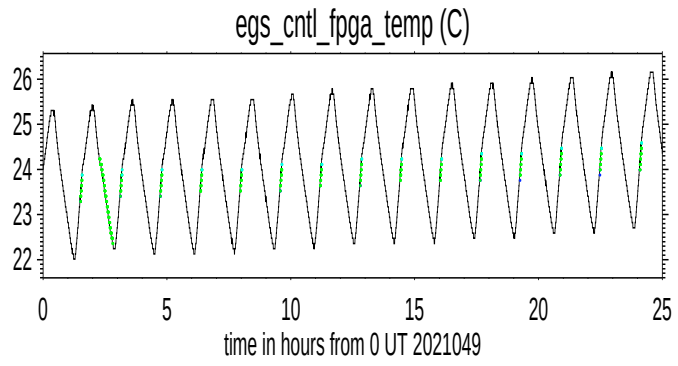
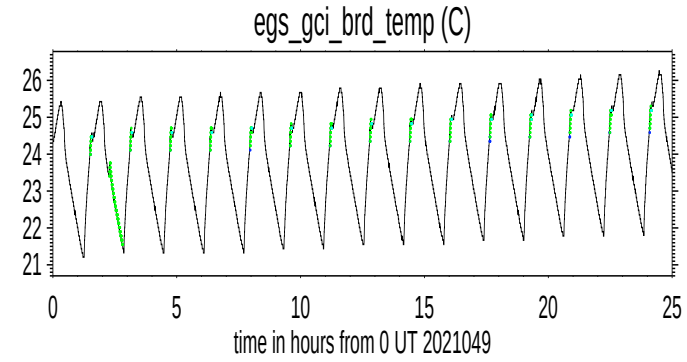
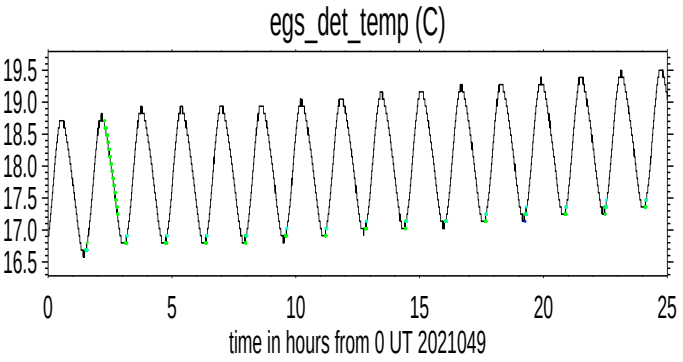
5
10
15
20
25
time in hours from 0 UT 2021049


egs_cntl_fpga_temp (C)
26
25
24
23
22
0
5
10
15
20
25
time in hours from 0 UT 2021049


egs_gci_brd_temp (C)
26
25
24
23
22
21
0
5
10
15
20
25
time in hours from 0 UT 2021049


egs_det_temp (C)
19.5
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18.0
17.5
17.0
16.5
0
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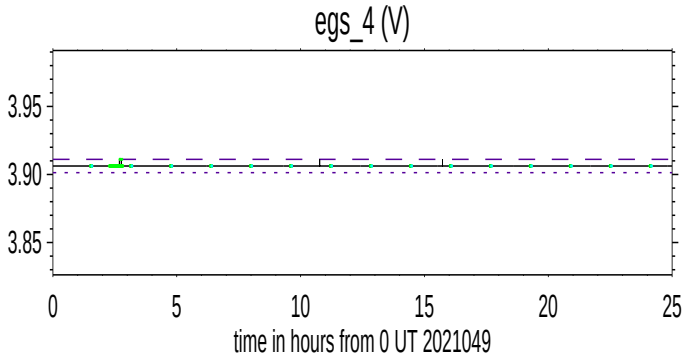
10
15
20
25
time in hours from 0 UT 2021049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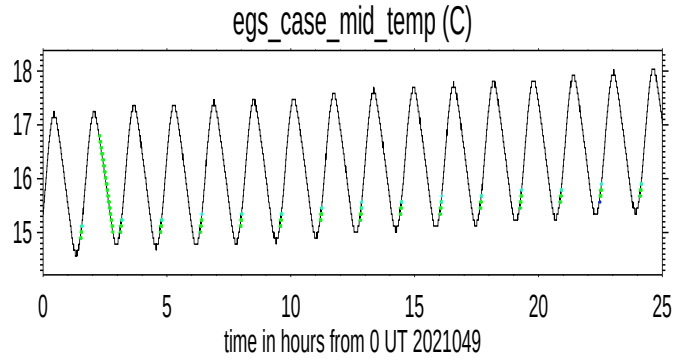
3.95
3.90
3.85
0
5
10
15
20
25
time in hours from 0 UT 2021049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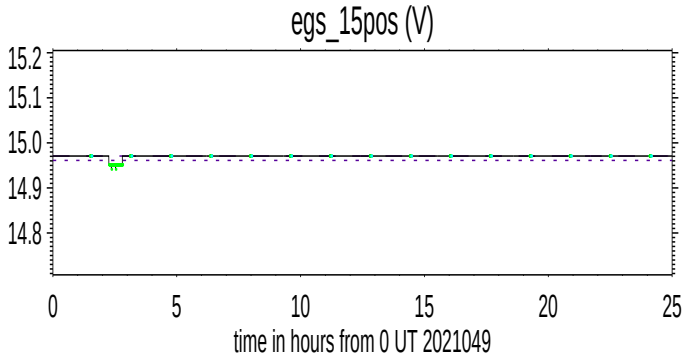
15
0
5
10
15
20
25
time in hours from 0 UT 2021049


egs_15pos (V)
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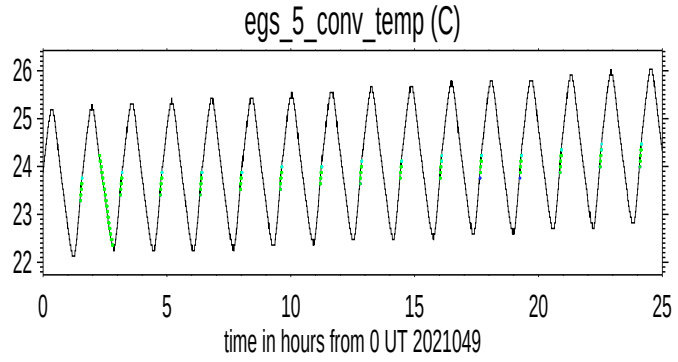
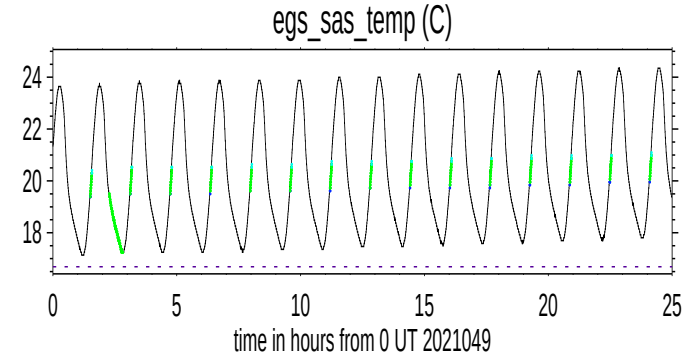
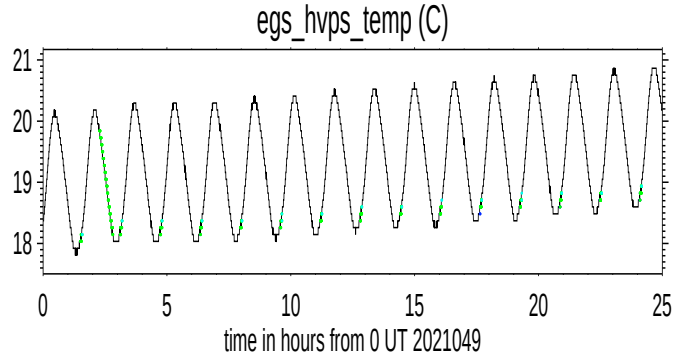
15.1
15.0
14.9
14.8
0
5
10
15
20
25
time in hours from 0 UT 2021049


egs_5_conv_temp (C)
26
25
24
23
22
0
5
10
15
20
25
time in hours from 0 UT 2021049


egs_sas_temp (C)
24
22
20
18
0
5
10
15
20
25
time in hours from 0 UT 2021049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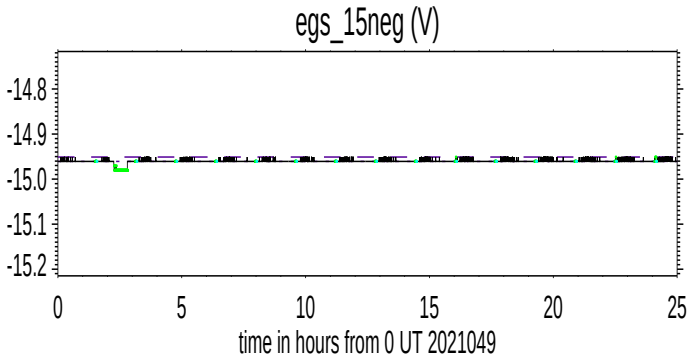
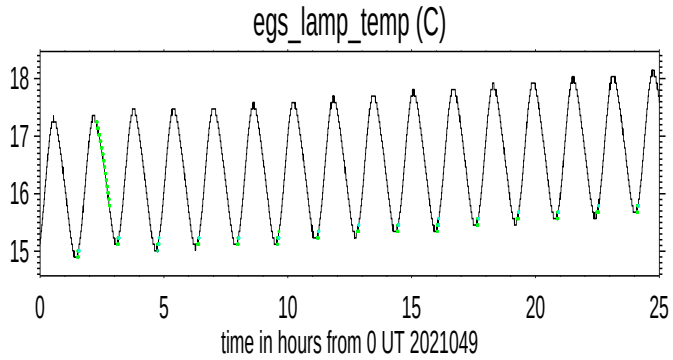
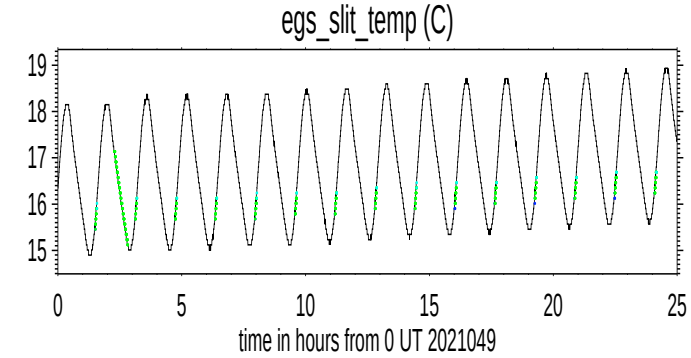
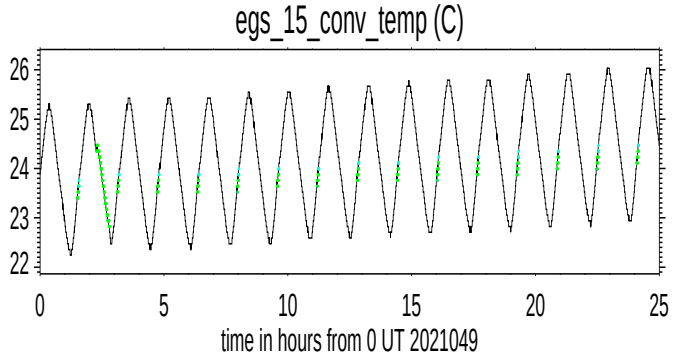
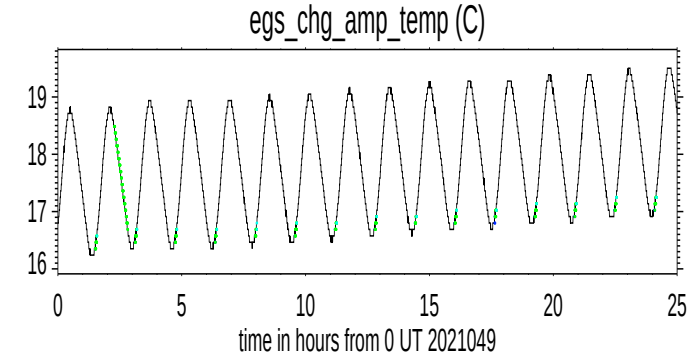
20
19
18
0
5
10
15
20
25
time in hours from 0 UT 2021049

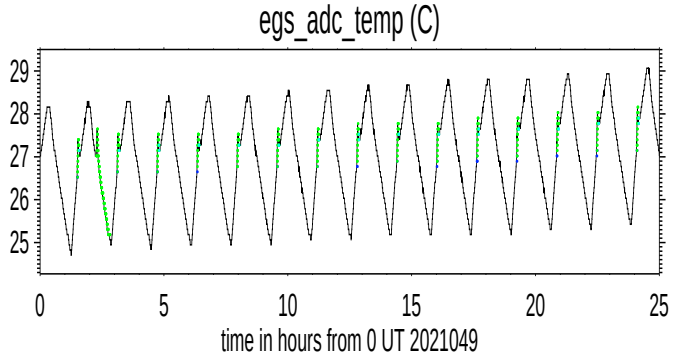

egs_15neg (V)
-14.8
-14.9
-15.0
-15.1
-15.2
0 5 10 15 20 25
time in hours from 0 UT 2021049

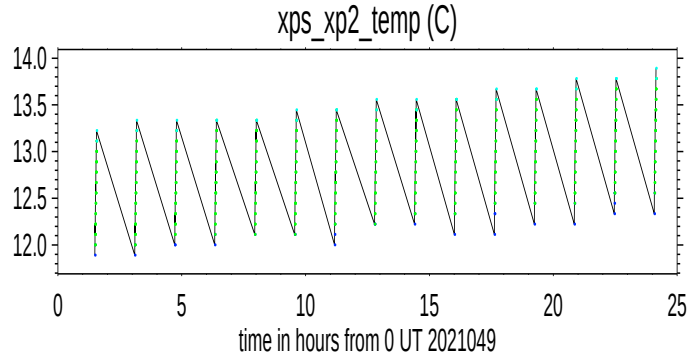

egs_lamp_temp (C)
18
17
16
15
0 5 10 15 20 25
time in hours from 0 UT 2021049


egs_slit_temp (C)
19
18
17
16
15
0 5 10 15 20 25
time in hours from 0 UT 2021049


egs_15_conv_temp (C)
26
25
24
23
22
0 5 10 15 20 25
time in hours from 0 UT 2021049


egs_chg_amp_temp (C)
19
18
17
16
0 5 10 15 20 25
time in hours from 0 UT 2021049


egs_adc_temp (C)
29
28
27
26
25
0 5 10 15 20 25
time in hours from 0 UT 2021049


xps_xp2_temp (C)
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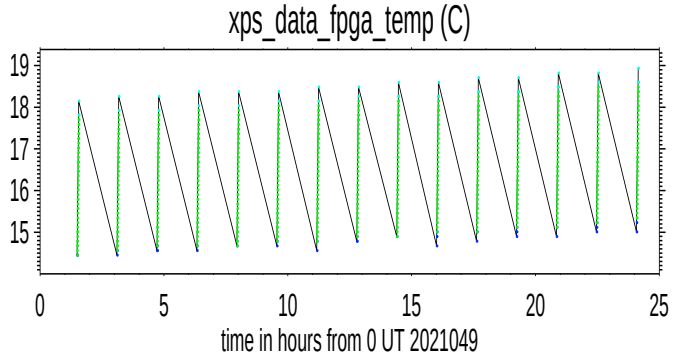
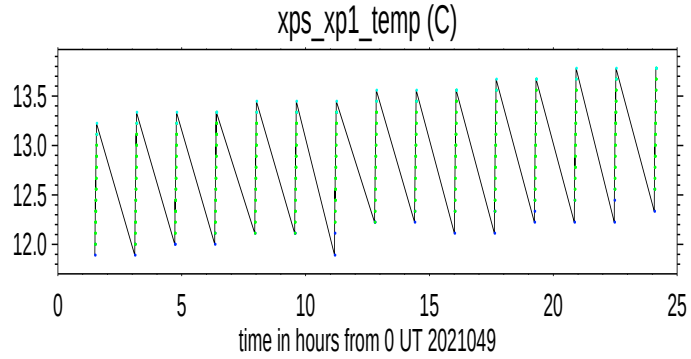
13.5
13.0
12.5
12.0
0 5 10 15 20 25
time in hours from 0 UT 2021049


xps_data_fpga_temp (C)
19
18
17
16
15
0 5 10 15 20 25
time in hours from 0 UT 2021049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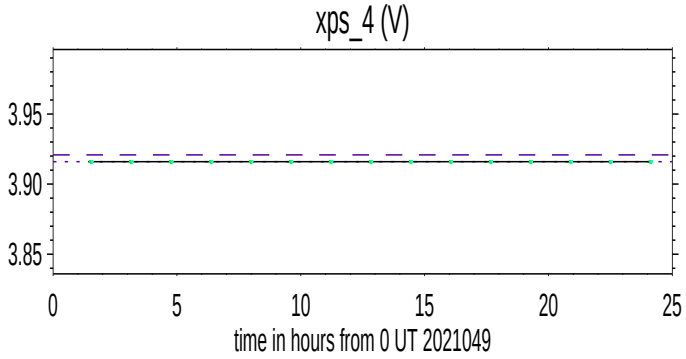
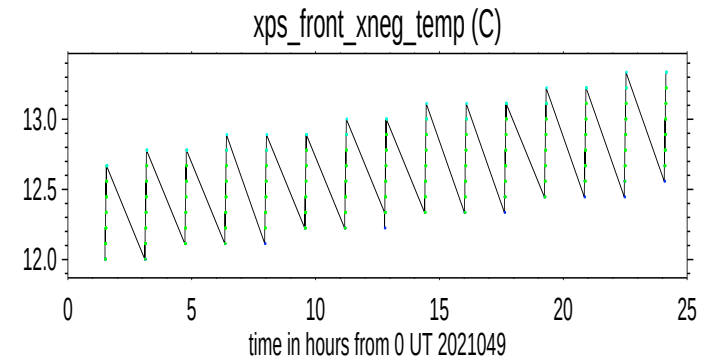
12.0
0 5 10 15 20 25
time in hours from 0 UT 2021049


xps_4 (V)
3.95
3.90
3.85
0 5 10 15 20 25
time in hours from 0 UT 2021049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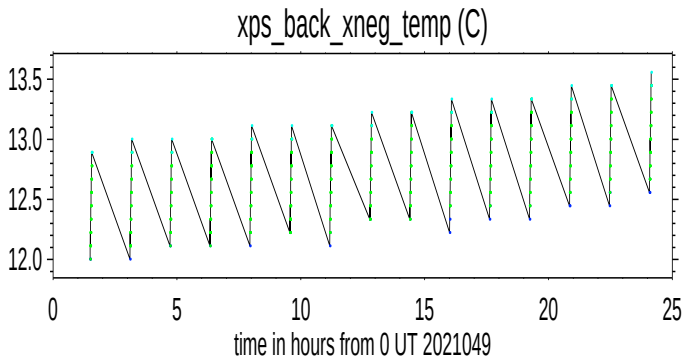
12.0
0
5
10
15
20
25
time in hours from 0 UT 2021049


xps_back_xneg_temp (C)
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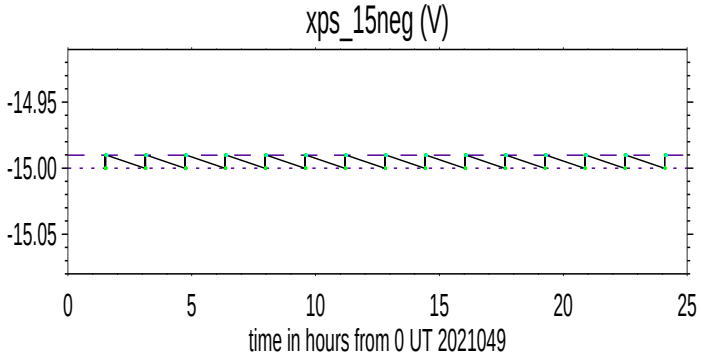
13.0
12.5
12.0
0
5
10
15
20
25
time in hours from 0 UT 2021049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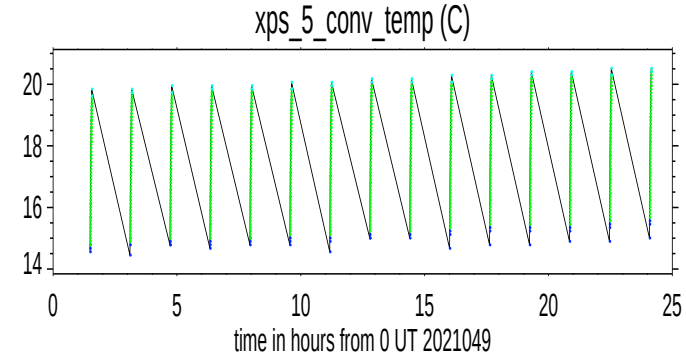
-15.00
-15.05
0
5
10
15
20
25
time in hours from 0 UT 2021049


xps_5_conv_temp (C)
20
18
16
14
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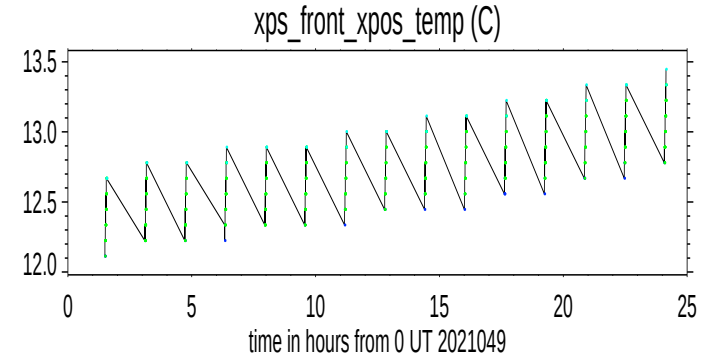
5
10
15
20
25
time in hours from 0 UT 2021049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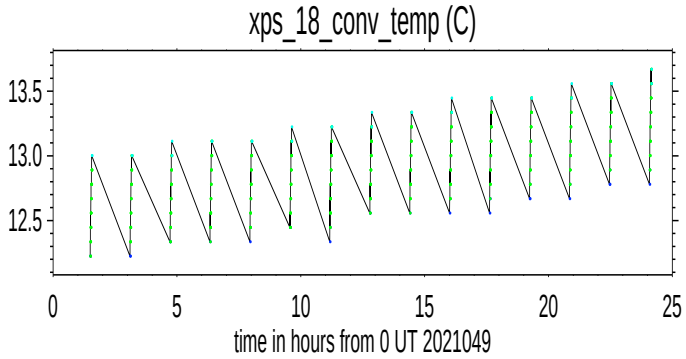
13.0
12.5
12.0
0
5
10
15
20
25
time in hours from 0 UT 2021049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12.5
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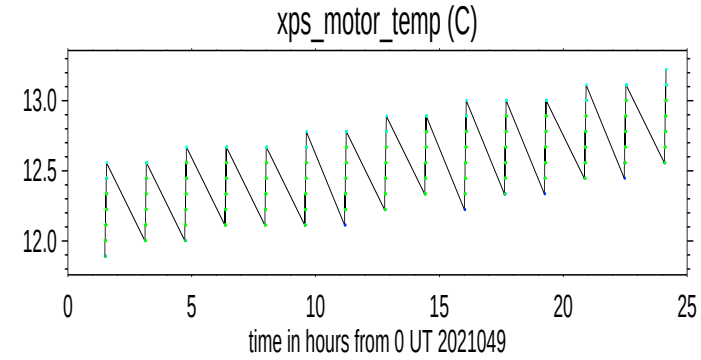
5
10
15
20
25
time in hours from 0 UT 2021049


xps_motor_temp (C)
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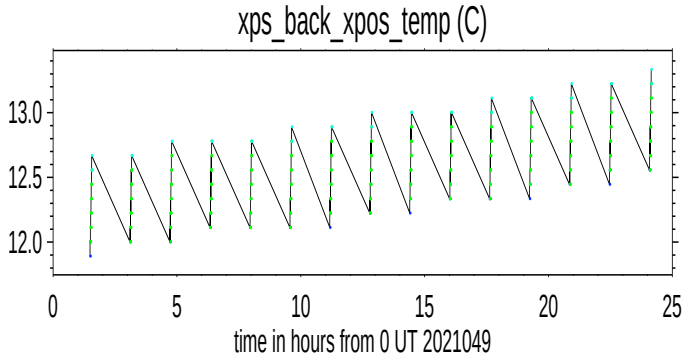
5
10
15
20
25
time in hours from 0 UT 2021049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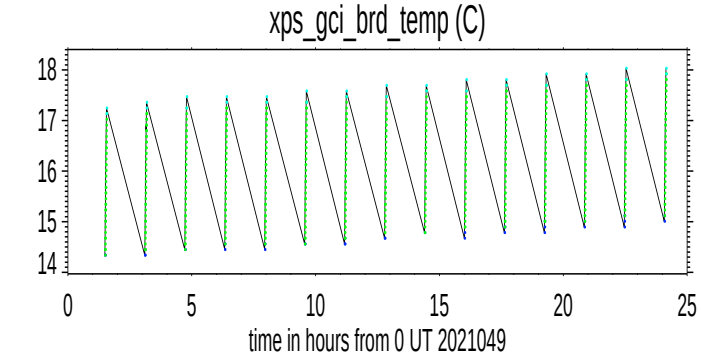
12.0
0
5
10
15
20
25
time in hours from 0 UT 2021049


xps_gci_brd_temp (C)
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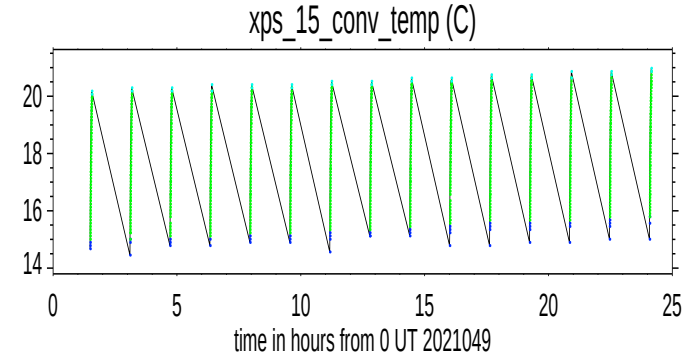
17
16
15
14
0
5
10
15
20
25
time in hours from 0 UT 2021049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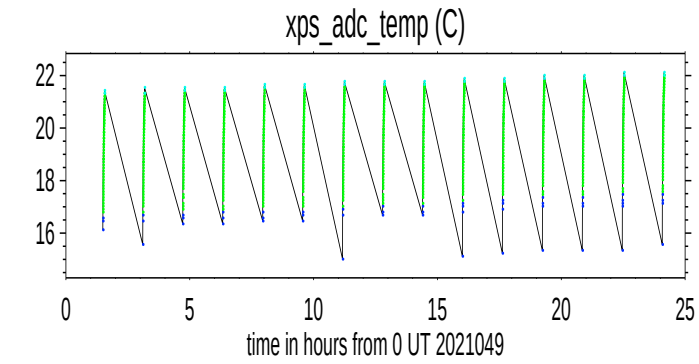
10
15
20
25
time in hours from 0 UT 2021049


xps_adc_temp (C)
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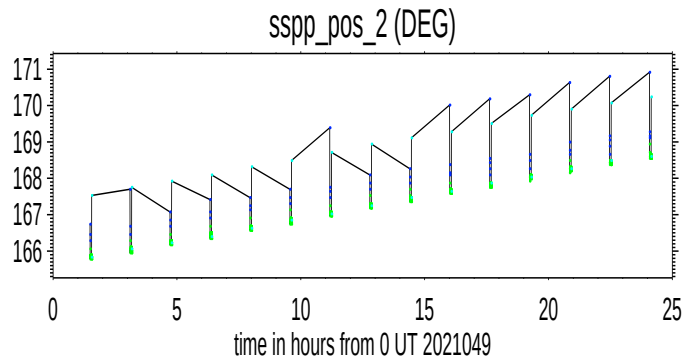
0
5
10
15
20
25
time in hours from 0 UT 2021049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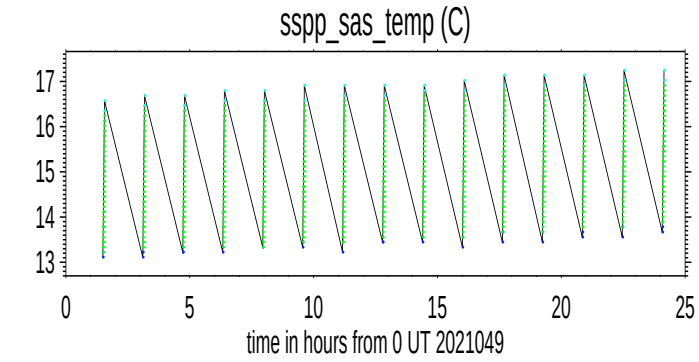
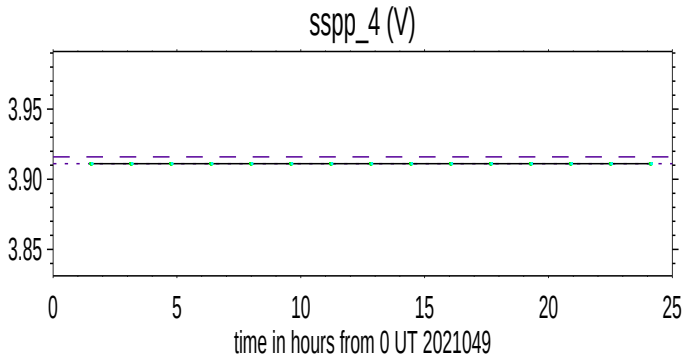
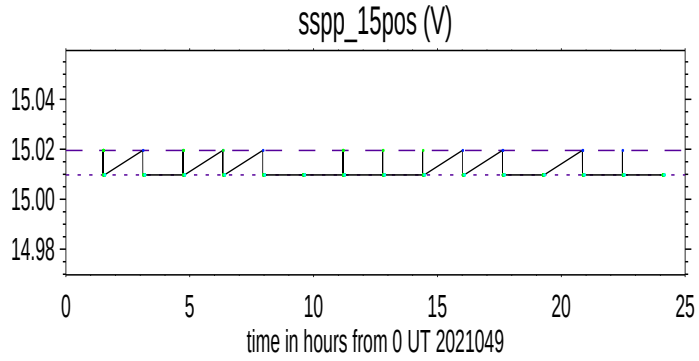
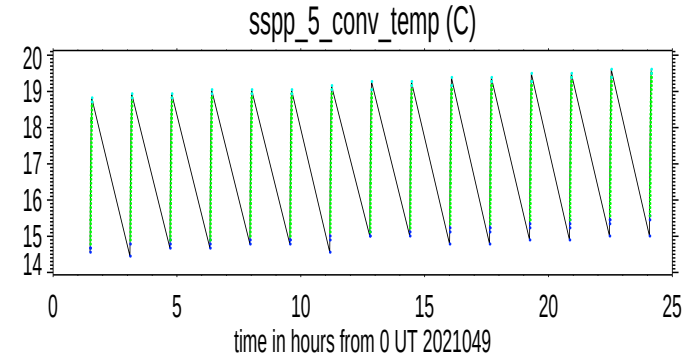
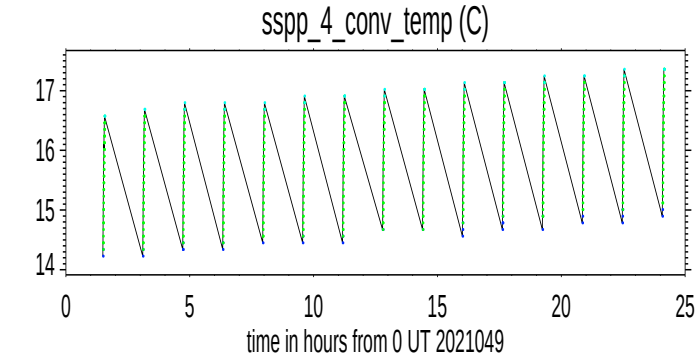
171
170
169
168
167
166
0
5
10
15
20
25
time in hours from 0 UT 2021049

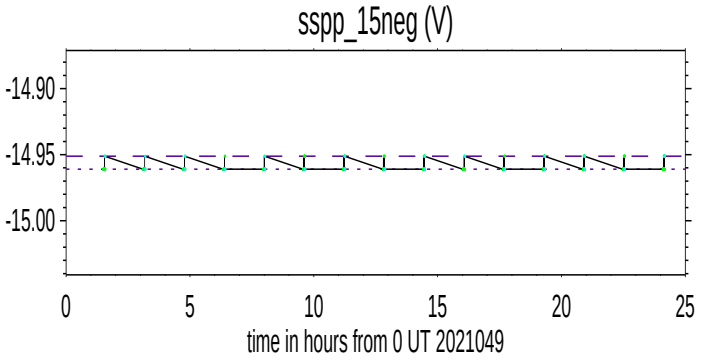

sspp_sas_temp (C)
17
16
15
14
13
0
5
10
15
20
25
time in hours from 0 UT 2021049

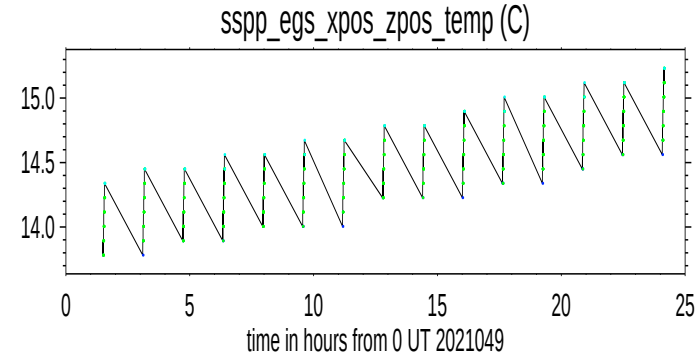

sspp_4 (V)
3.95
3.90
3.85
0
5
10
15
20
25
time in hours from 0 UT 2021049

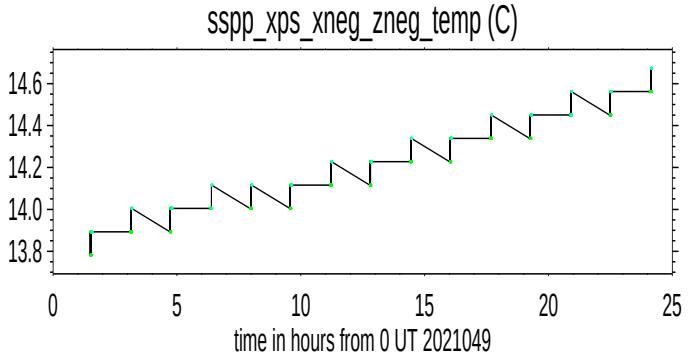

sspp_15pos (V)
15.04
15.02
15.00
14.98
0
5
10
15
20
25
time in hours from 0 UT 2021049

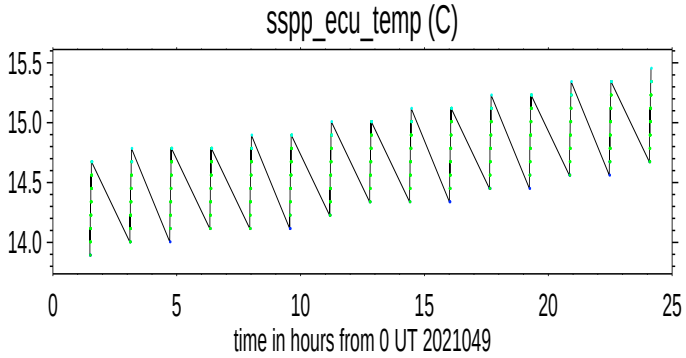

sspp_5_conv_temp (C)
20
19
18
17
16
15
14
0
5
10
15
20
25
time in hours from 0 UT 2021049

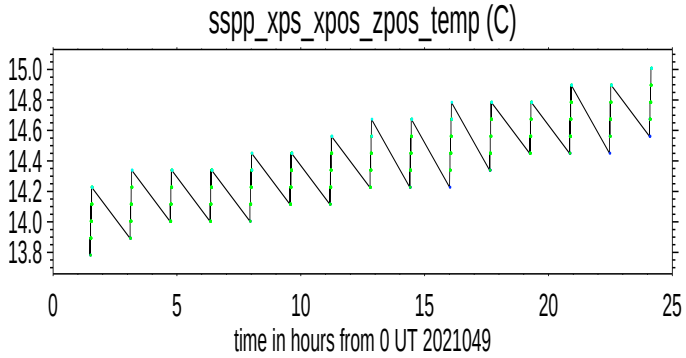

sspp_4_conv_temp (C)
17
16
15
14
0
5
10
15
20
25
time in hours from 0 UT 2021049


sspp_15neg (V)
-14.90
-14.95
-15.00
0
5
10
15
20
25
time in hours from 0 UT 2021049


sspp_egs_xpos_zpos_temp (C)
15.0
14.5
14.0
0
5
10
15
20
25
time in hours from 0 UT 2021049


sspp_xps_xneg_zneg_temp (C)
14.6
14.4
14.2
14.0
13.8
0
5
10
15
20
25
time in hours from 0 UT 2021049


sspp_ecu_temp (C)
15.5
15.0
14.5
14.0
0
5
10
15
20
25
time in hours from 0 UT 2021049


sspp_xps_xpos_zpos_temp (C)
15.0
14.8
14.6
14.4
14.2
14.0
13.8
0
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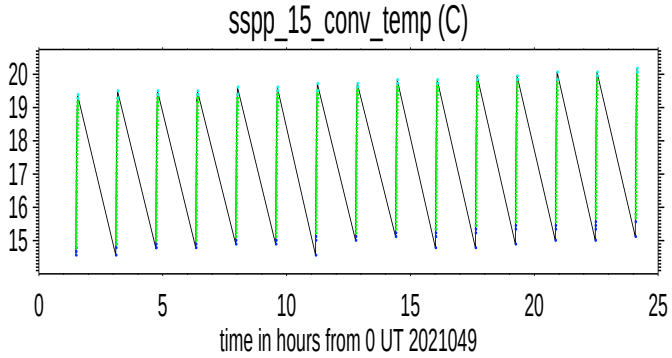
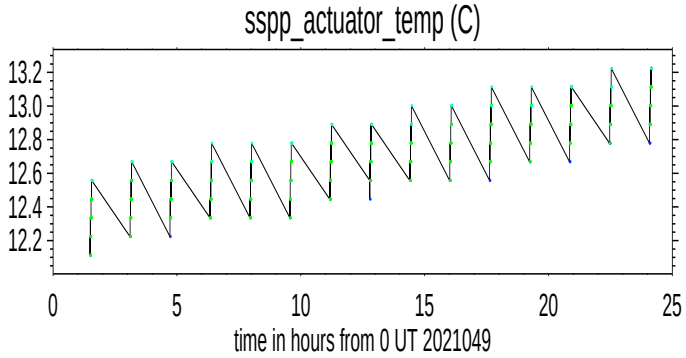
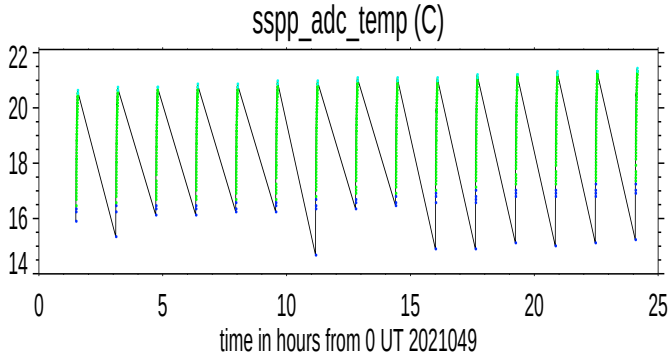
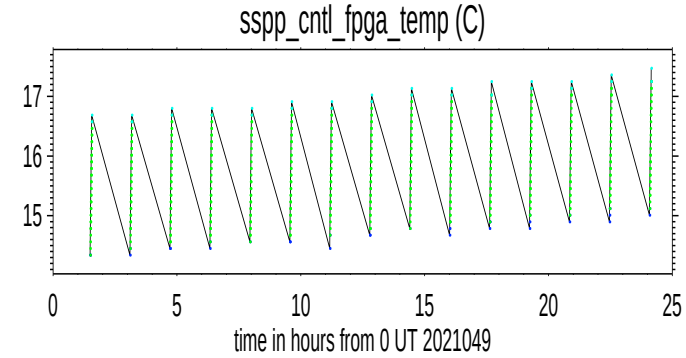
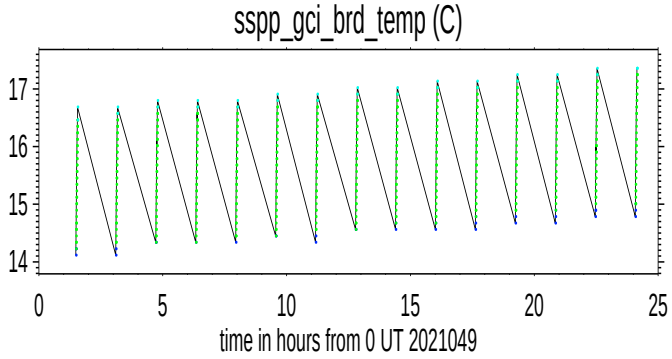
15
20
25
time in hours from 0 UT 2021049

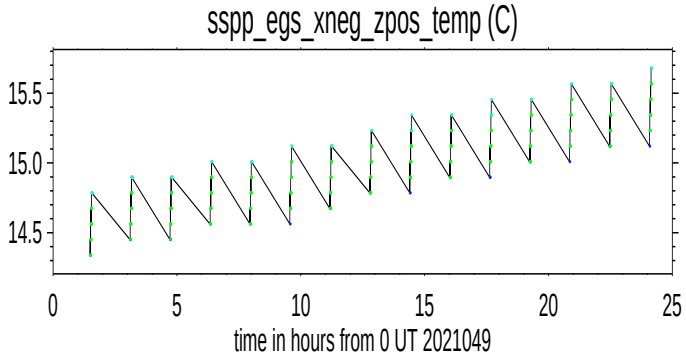

sspp_15_conv_temp (C)
20
19
18
17
16
15
0
5
10
15
20
25
time in hours from 0 UT 2021049

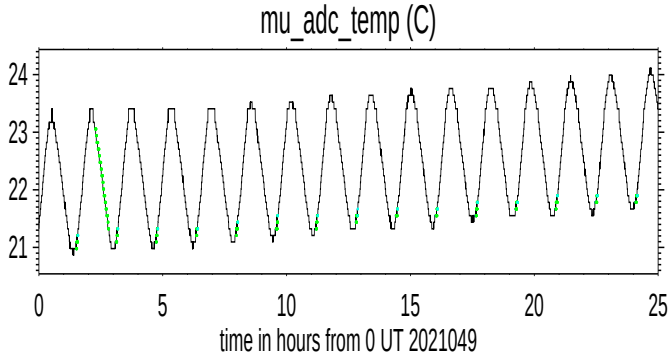

sspp_actuator_temp (C)
13.2
13.0
12.8
12.6
12.4
12.2
0
5
10
15
20
25
time in hours from 0 UT 2021049

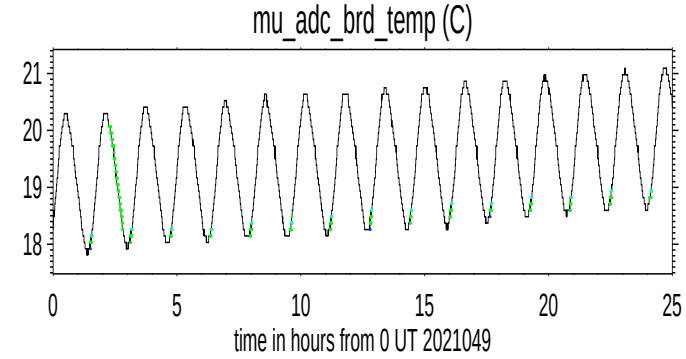

sspp_adc_temp (C)
22
20
18
16
14
0
5
10
15
20
25
time in hours from 0 UT 2021049

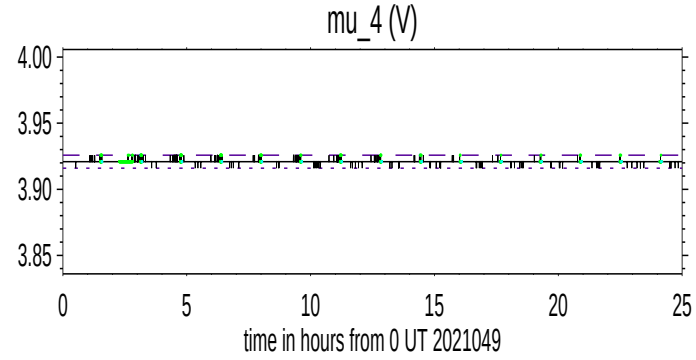

sspp_cntl_fpga_temp (C)
17
16
15
0
5
10
15
20
25
time in hours from 0 UT 2021049

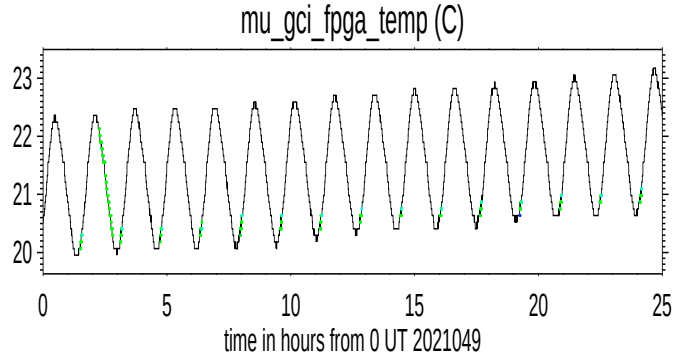

sspp_gci_brd_temp (C)
17
16
15
14
0
5
10
15
20
25
time in hours from 0 UT 2021049

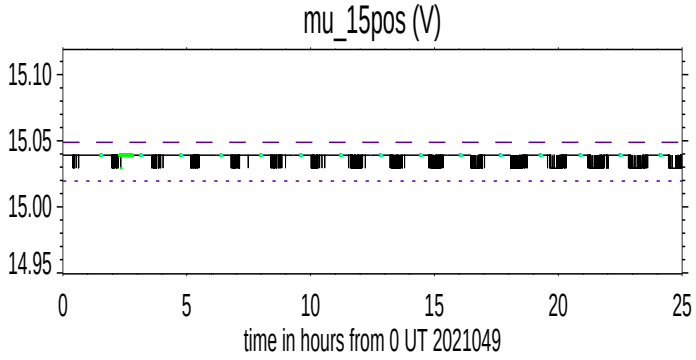

sspp_egs_xneg_zpos_temp (C)
15.5
15.0
14.5
0
5
10
15
20
25
time in hours from 0 UT 2021049

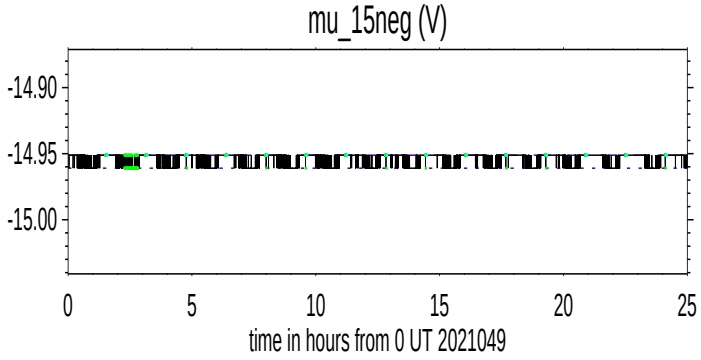

mu_adc_temp (C)
24
23
22
21
0
5
10
15
20
25
time in hours from 0 UT 2021049

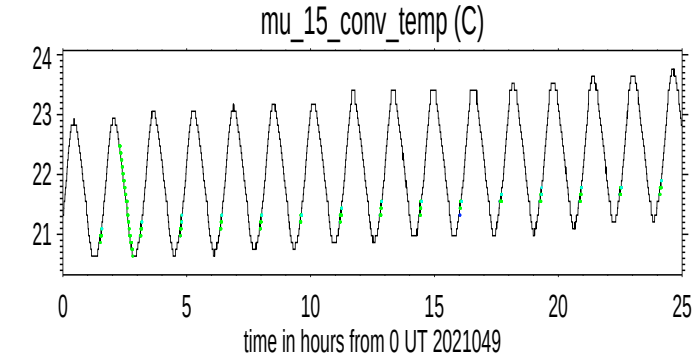

mu_adc_brd_temp (C)
21
20
19
18
0
5
10
15
20
25
time in hours from 0 UT 2021049

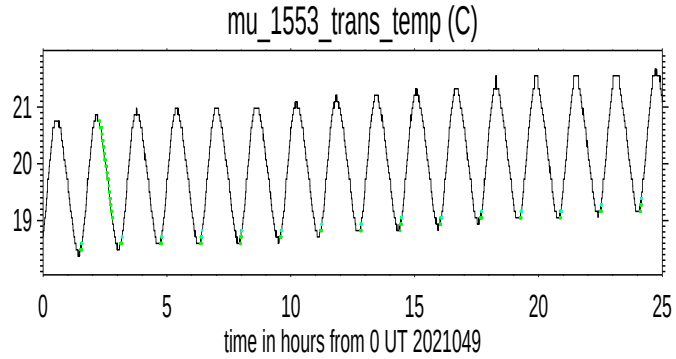

mu_4 (V)
4.00
3.95
3.90
3.85
0
5
10
15
20
25
time in hours from 0 UT 2021049

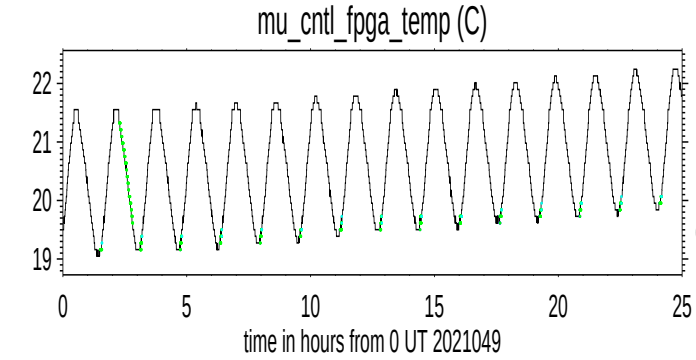

mu_gci_fpga_temp (C)
23
22
21
20
0
5
10
15
20
25
time in hours from 0 UT 2021049

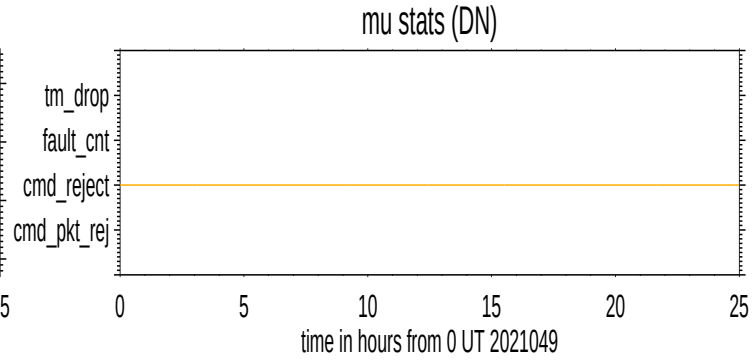

mu_15pos (V)
15.10
15.05
15.00
14.95
0
5
10
15
20
25
time in hours from 0 UT 2021049

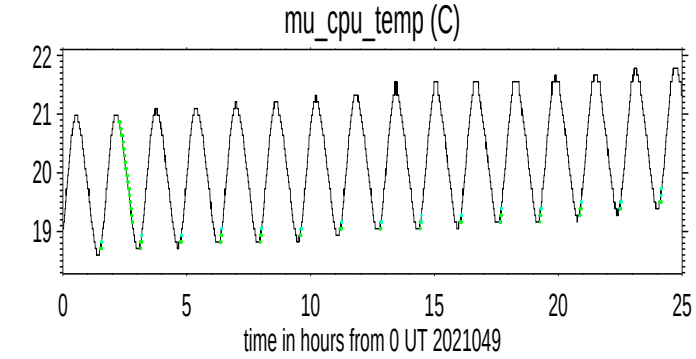

mu_15neg (V)
-14.90
-14.95
-15.00
0
5
10
15
20
25
time in hours from 0 UT 2021049

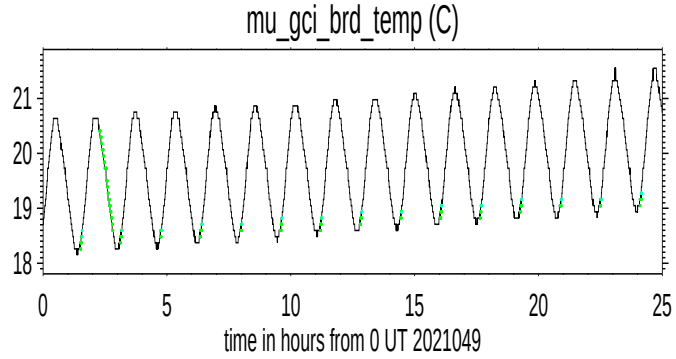

mu_15_conv_temp (C)
24
23
22
21
0
5
10
15
20
25
time in hours from 0 UT 2021049

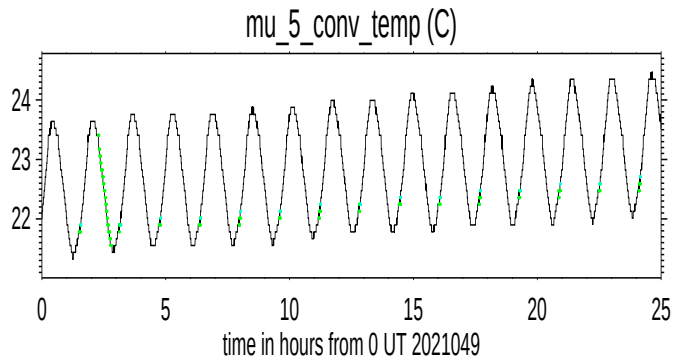

mu_1553_trans_temp (C)
21
20
19
0
5
10
15
20
25
time in hours from 0 UT 2021049

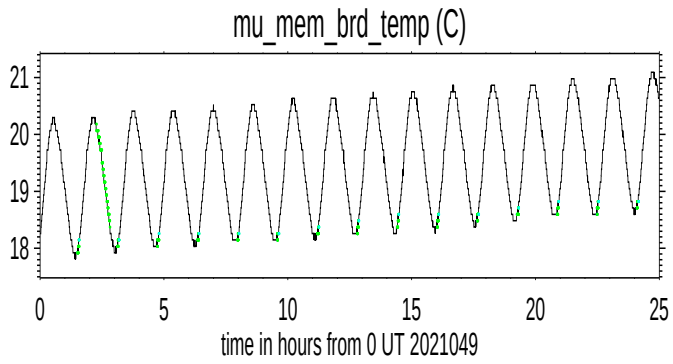

mu_cntl_fpga_temp (C)
22
21
20
19
0
5
10
15
20
25
time in hours from 0 UT 2021049

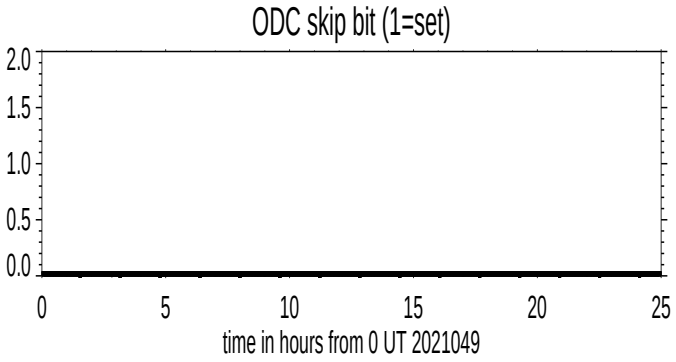

mu stats (DN)
tm_drop
fault_cnt
cmd_reject
cmd_pkt_rej
0
5
10
15
20
25
time in hours from 0 UT 2021049

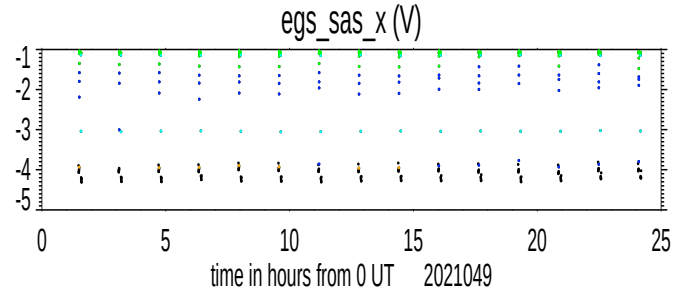

mu_cpu_temp (C)
22
21
20
19
0
5
10
15
20
25
time in hours from 0 UT 2021049

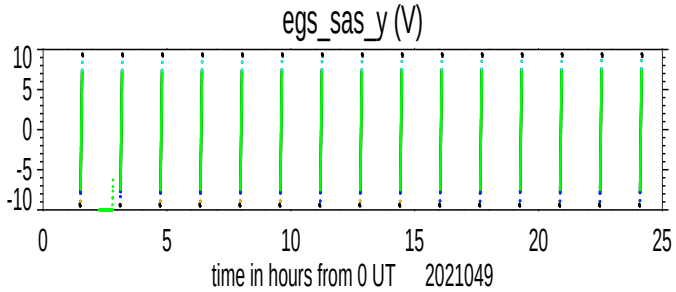

mu_gci_brd_temp (C)
21
20
19
18
0
5
10
15
20
25
time in hours from 0 UT 2021049

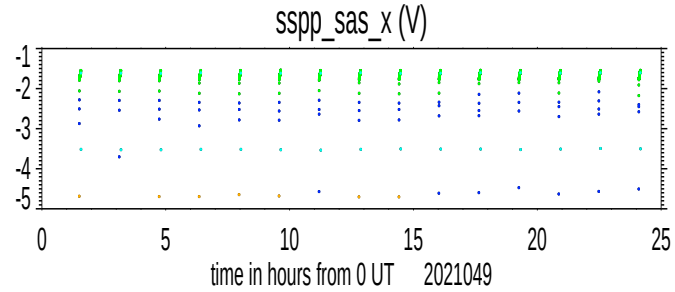

mu_5_conv_temp (C)
24
23
22
0
5
10
15
20
25
time in hours from 0 UT 2021049

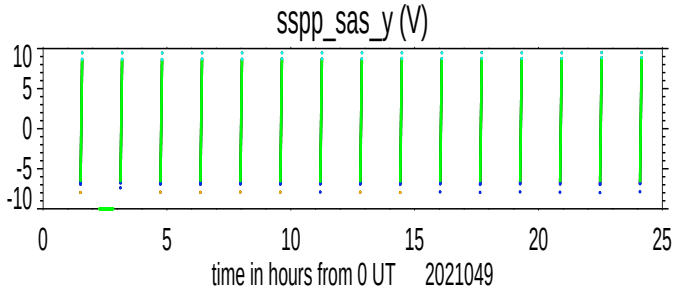

mu_mem_brd_temp (C)
21
20
19
18
0
5
10
15
20
25
time in hours from 0 UT 2021049

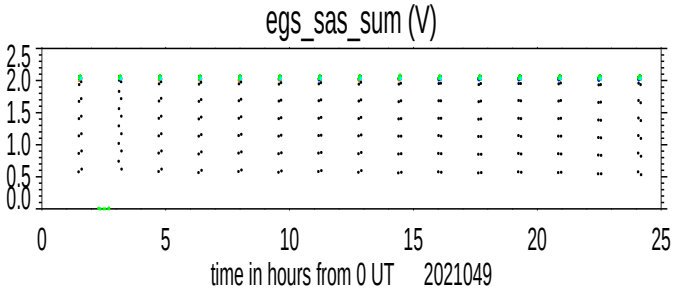

ODC skip bit (1=set)
2.0
1.5
1.0
0.5
0.0
0
5
10
15
20
25
time in hours from 0 UT 2021049

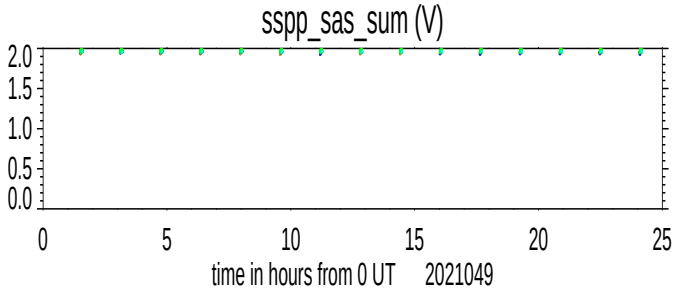

egs_sas_x (V)
time in hours from 0 UT 2021049

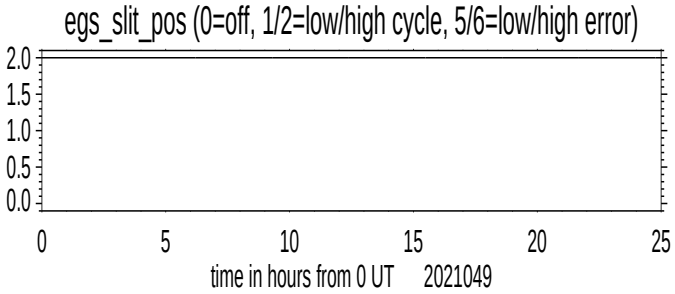

egs_sas_y (V)
time in hours from 0 UT 2021049

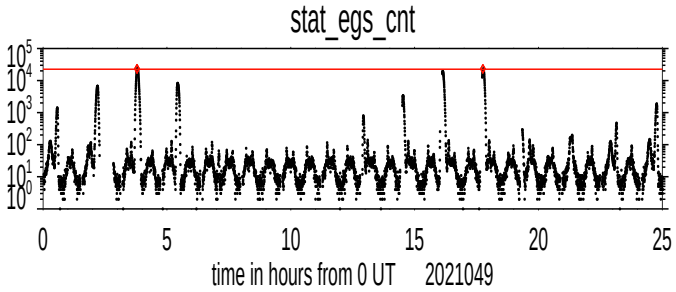

sspp_sas_x (V)
time in hours from 0 UT 2021049

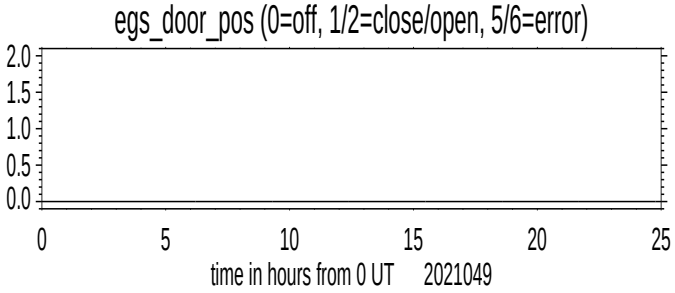

sspp_sas_y (V)
time in hours from 0 UT 2021049

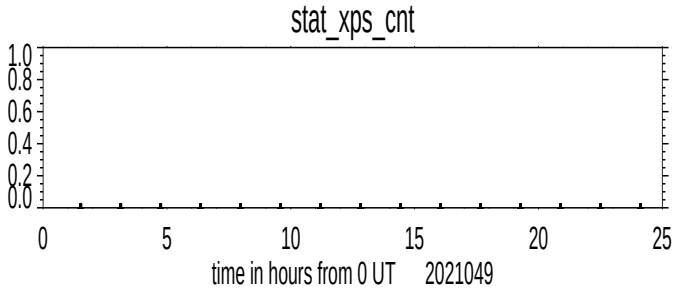

egs_sas_sum (V)
time in hours from 0 UT 2021049

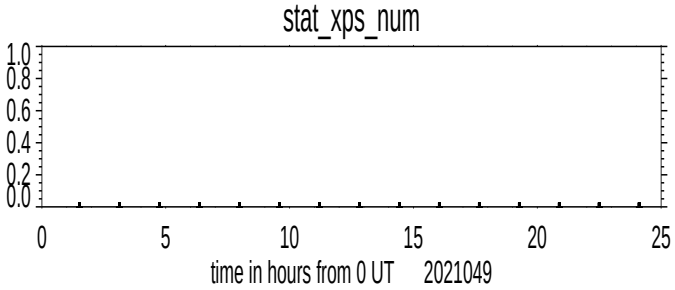

sspp_sas_sum (V)
time in hours from 0 UT 2021049

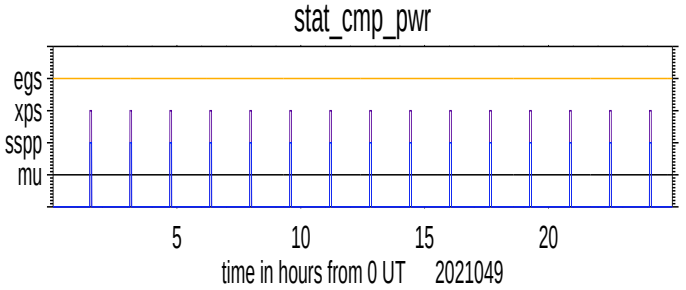

egs_slit_pos (0=off, 1/2=low/high cycle, 5/6=low/high error)
time in hours from 0 UT 2021049


stat_egs_cnt
time in hours from 0 UT 2021049

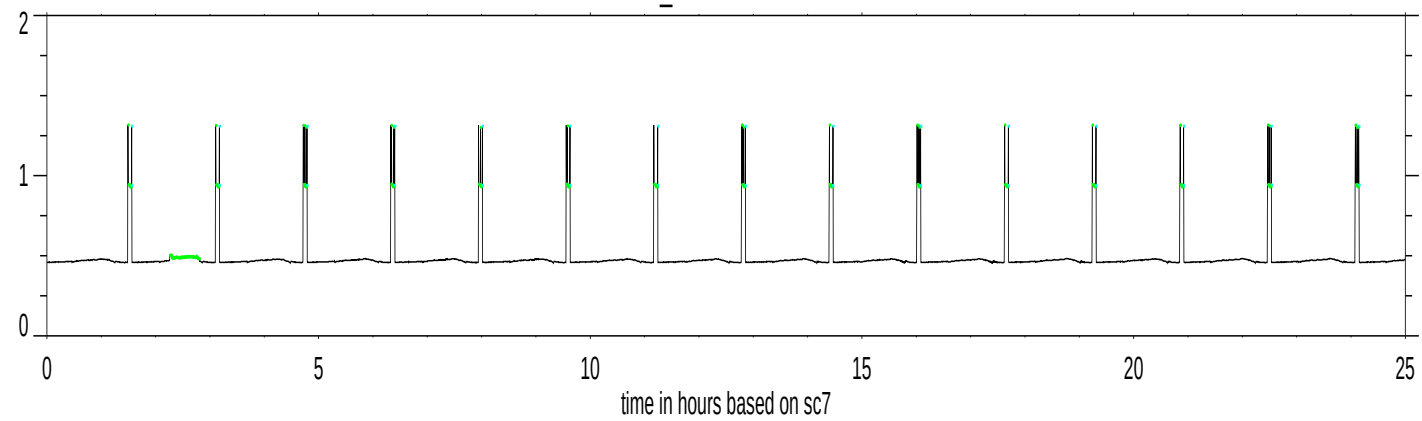

egs_door_pos (0=off, 1/2=close/open, 5/6=error)
time in hours from 0 UT 2021049


stat_xps_cnt
time in hours from 0 UT 2021049

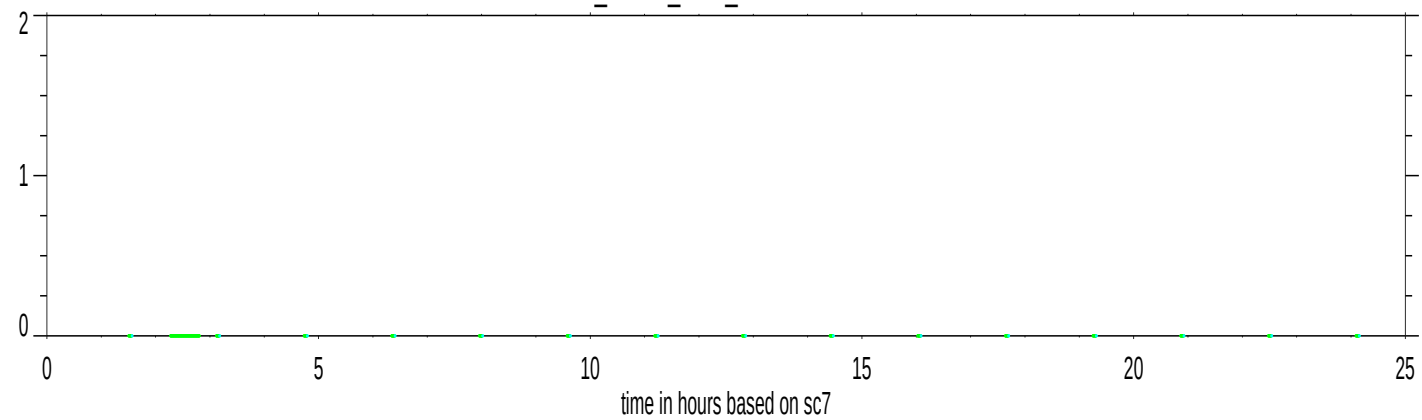

stat_xps_num
time in hours from 0 UT 2021049


stat_cmp_pwr
egs
xps
sspp
mu
time in hours from 0 UT 2021049

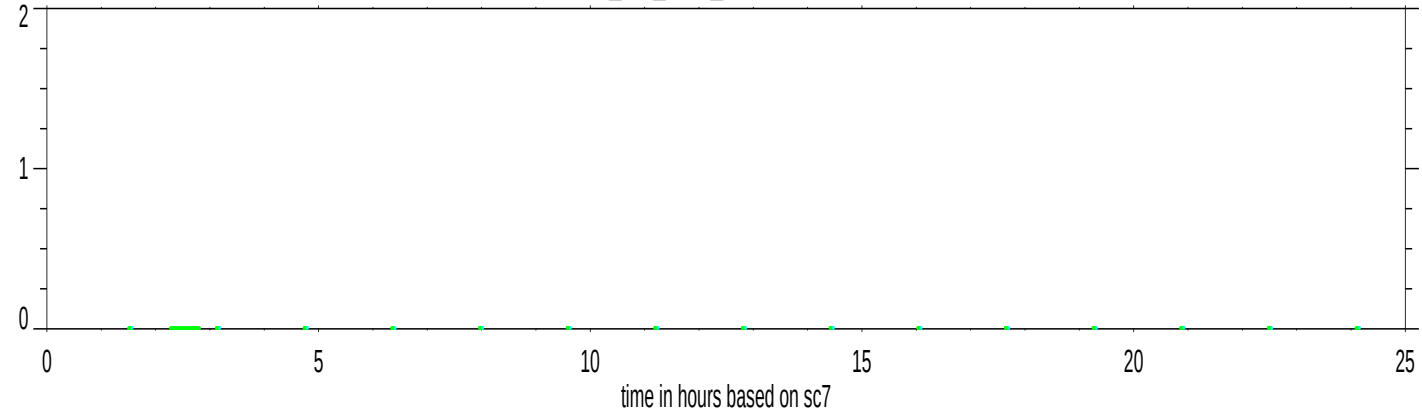
SEE_CUR 2021049



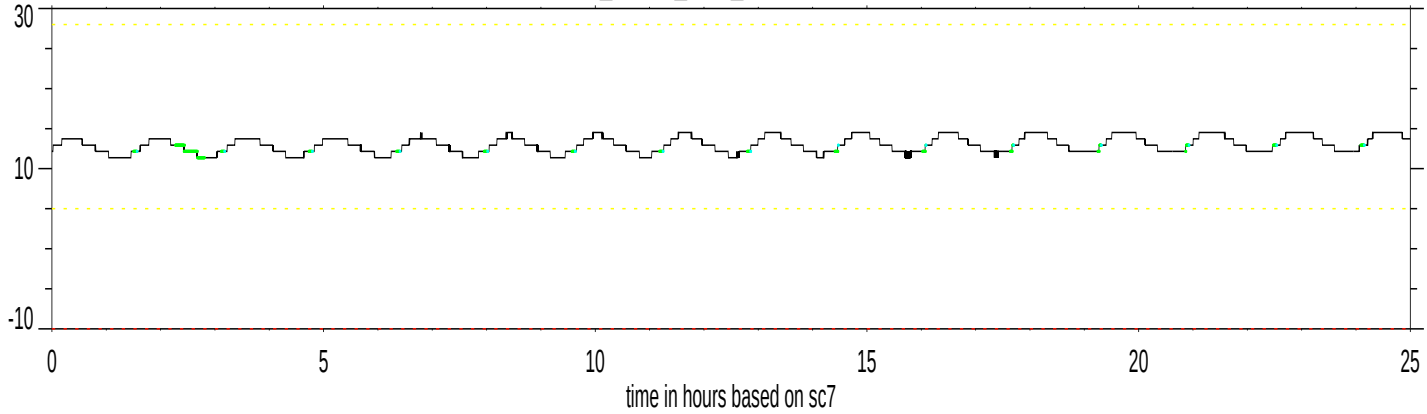
SEE_SURV_HTR_CUR 2021049



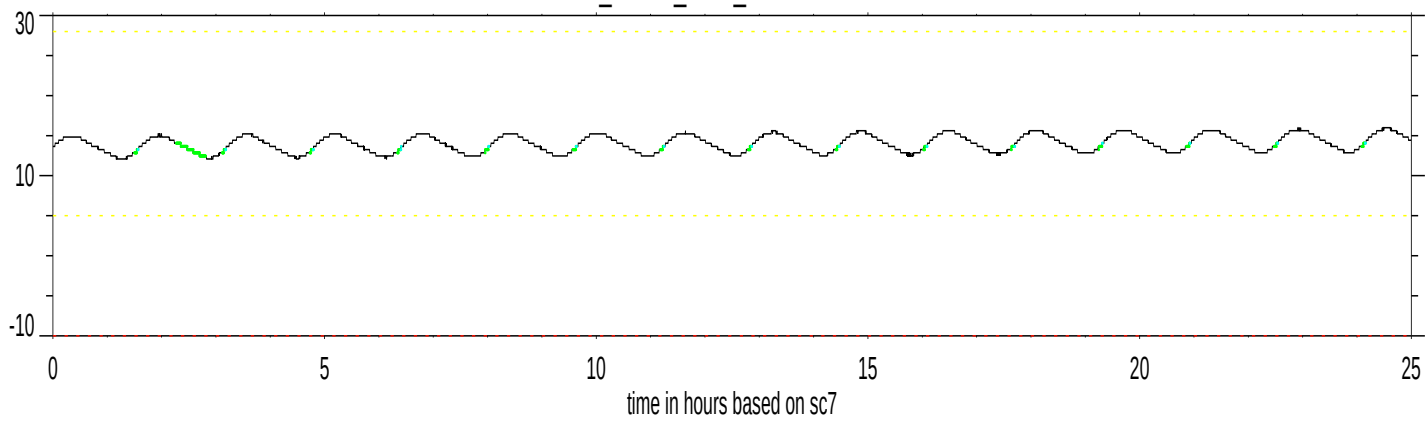
SEE_OP_HTR_CUR 2021049



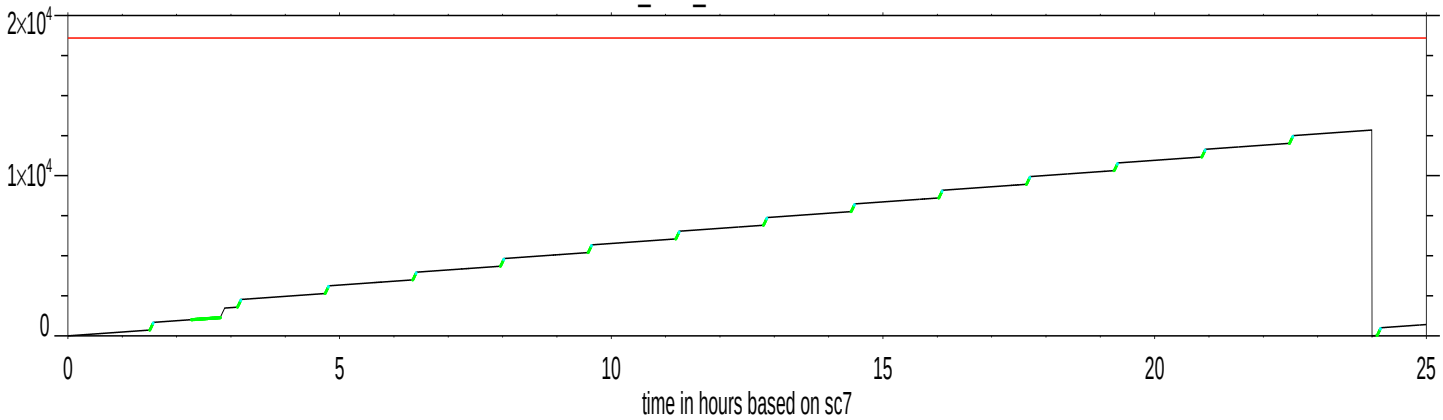
SSPP_BHND_XPS_TEMP 2021049



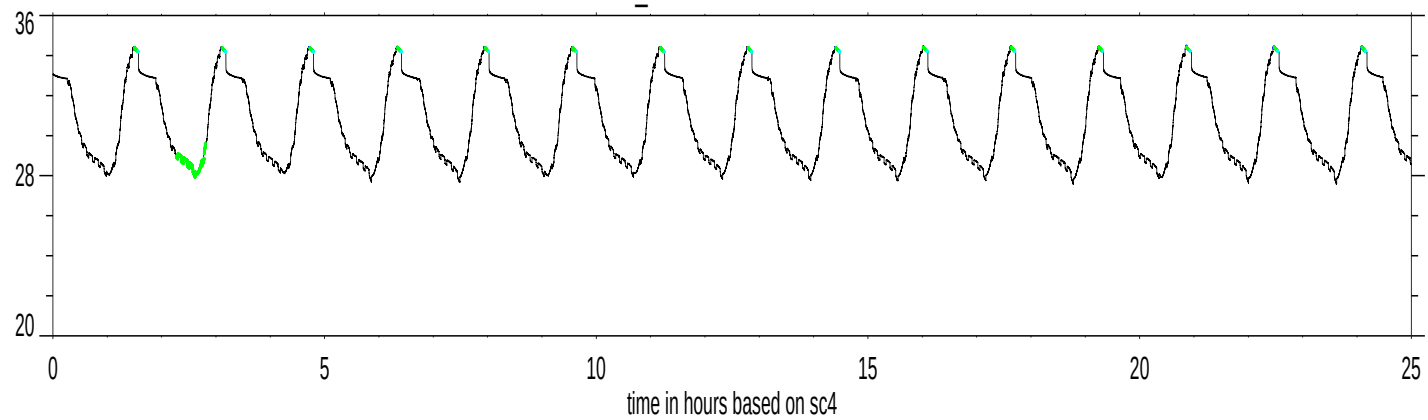
SSPP_BHND_MTR_TEMP 2021049



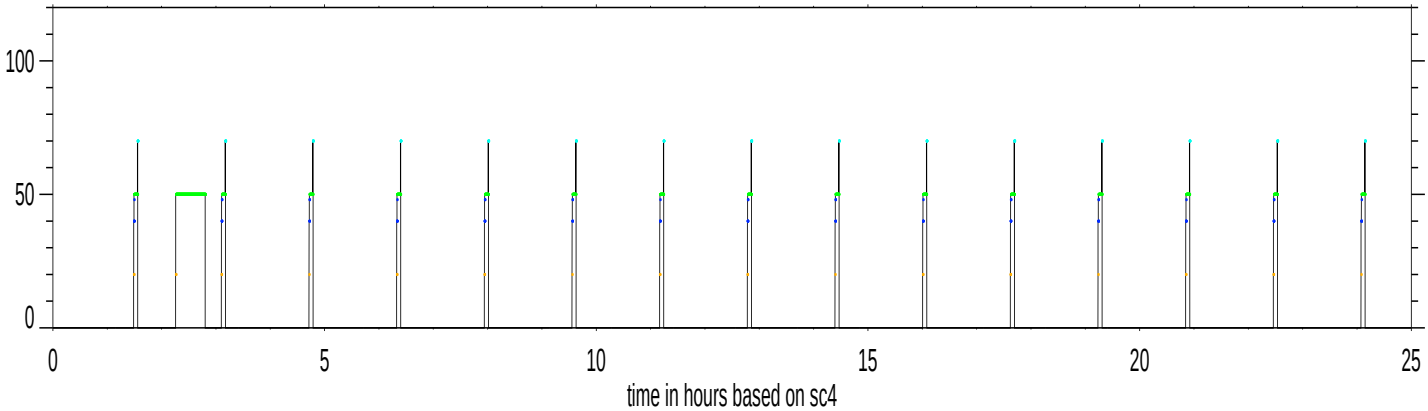
SEE_PKT_COUNT 2021049

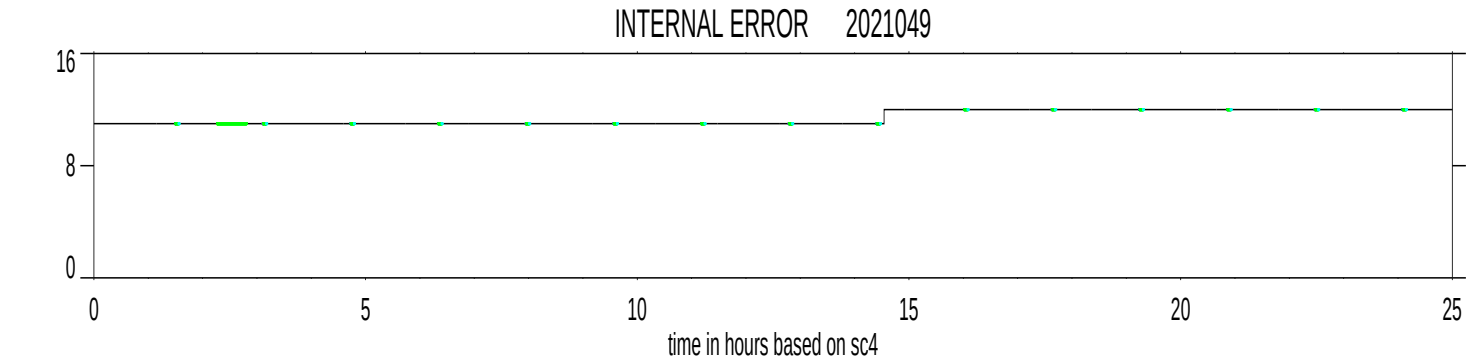


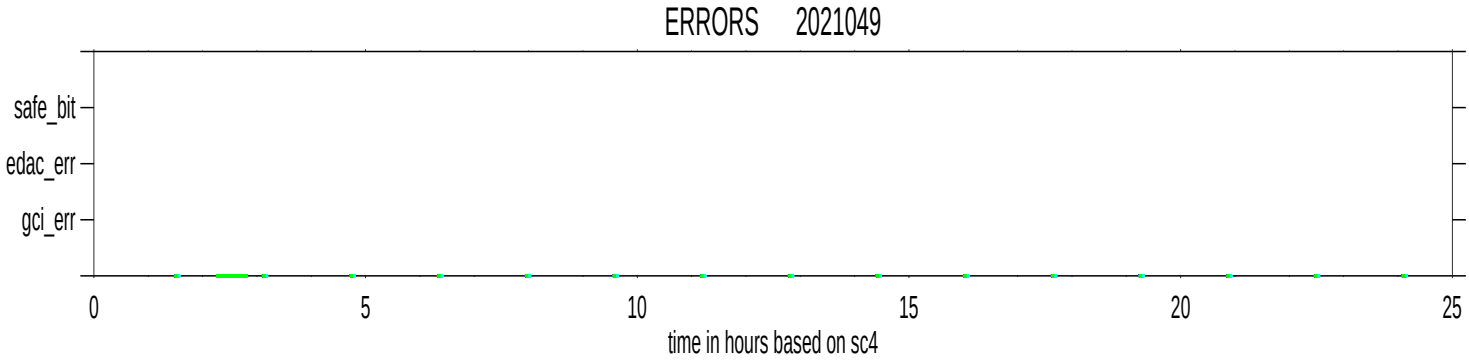
BUS_VOLTAGE 2021049

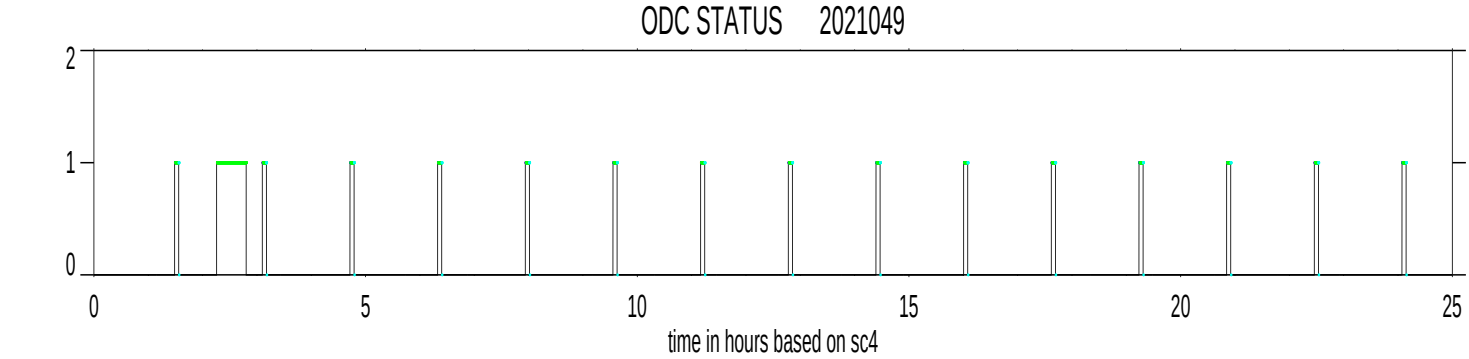


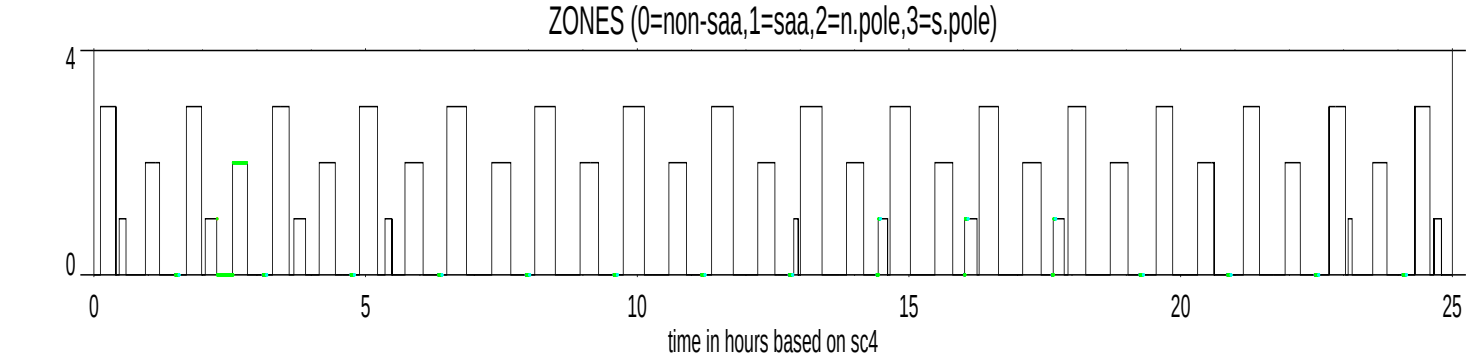
SEE_MU Operational Mode 2021049

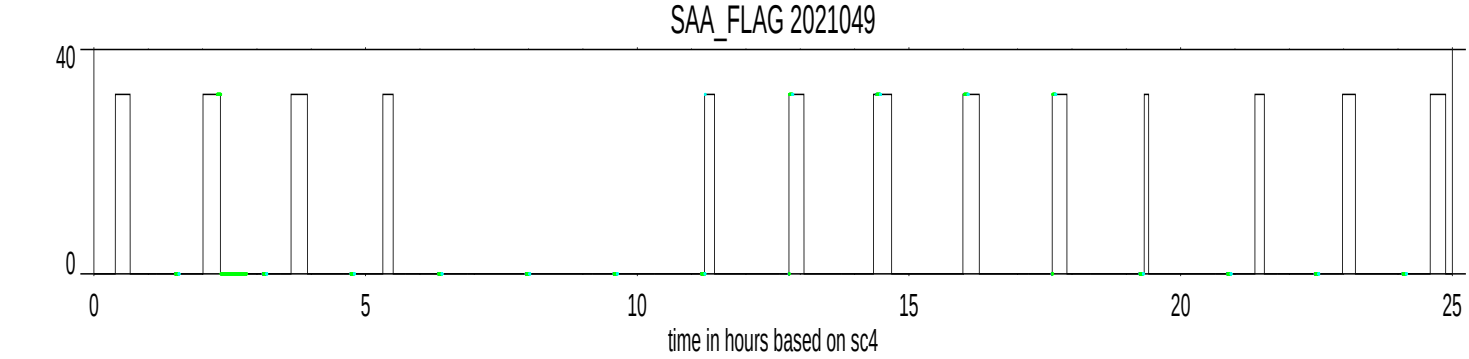


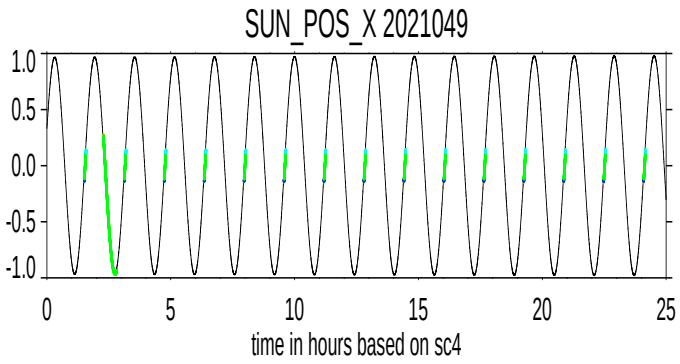

INTERNAL ERROR 2021049
16
8
0
0
5
10
15
20
25
time in hours based on sc4

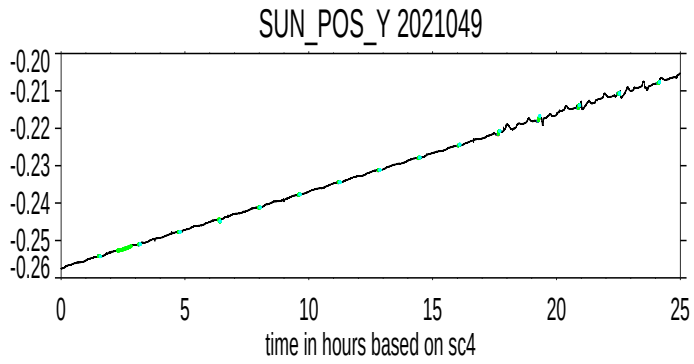

ERRORS 2021049
safe_bit
edac_err
gci_err
0
5
10
15
20
25
time in hours based on sc4

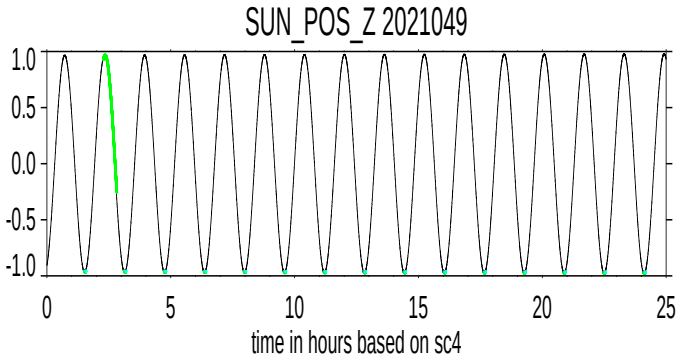

ODC STATUS 2021049
2
1
0
0
5
10
15
20
25
time in hours based on sc4

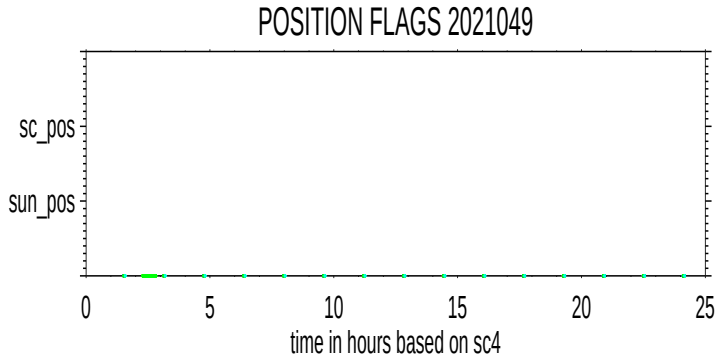

ZONES (0=non-saa,1=saa,2=n.pole,3=s.pole)
4
0
0
5
10
15
20
25
time in hours based on sc4

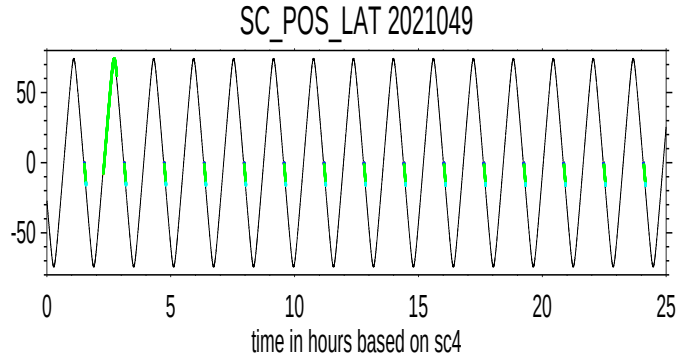

SAA_FLAG 2021049
40
0
0
5
10
15
20
25
time in hours based on sc4

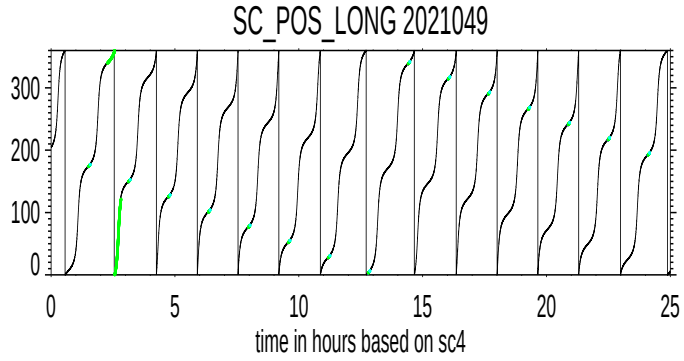

SUN_POS_X 2021049
1.0
0.5
0.0
-0.5
-1.0
0
5
10
15
20
25
time in hours based on sc4

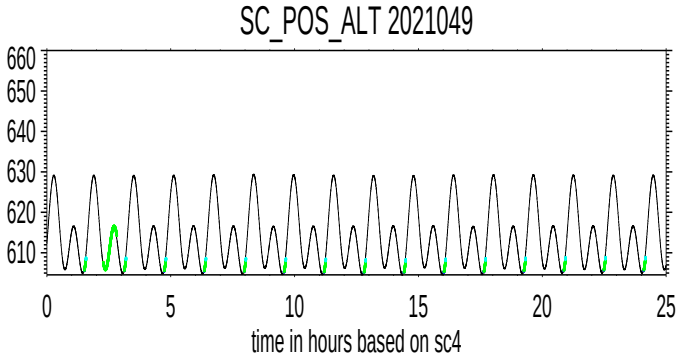

SUN_POS_Y 2021049
-0.20
-0.21
-0.22
-0.23
-0.24
-0.25
-0.26
0
5
10
15
20
25
time in hours based on sc4

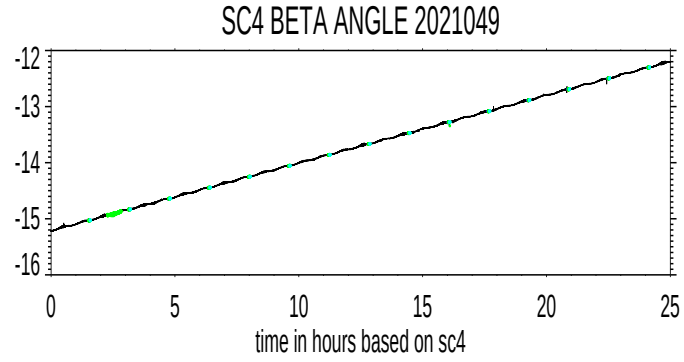

SUN_POS_Z 2021049
1.0
0.5
0.0
-0.5
-1.0
0
5
10
15
20
25
time in hours based on sc4


POSITION FLAGS 2021049
sc_pos
sun_pos
0
5
10
15
20
25
time in hours based on sc4


SC_POS_LAT 2021049
50
0
-50
0
5
10
15
20
25
time in hours based on sc4


SC_POS_LONG 2021049
300
200
100
0
0
5
10
15
20
25
time in hours based on sc4


SC_POS_ALT 2021049
660
650
640
630
620
610
0
5
10
15
20
25
time in hours based on sc4


SC4 BETA ANGLE 2021049
-12
-13
-14
-15
-16
0
5
10
15
20
25
time in hours based on sc4