V&V Summary Report
L2 ASCDS Version : 10.9.2

Observation 62649 - L2 Version 1
Chandra X-Ray Center

L2 Processing Date : Oct 26 2020

See axaff62649N001_VV001_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.73780654037

Comments

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Calibration test with high voltage ramp-up for HRC-S. High voltage was
varied throughout the observation. This processing only includes the
standard voltage events in Level 2. All events are recoverable with
alternate processing. The observation was set up with obsid 24645, but
there are no meaningful events in that obsid. All AR LAC data are in
this obsid. Times and voltage settings are included in this V&V report
and in the Obsid Report for this obsid.

HRC SOT Shift Report

See http://cxc.harvard.edu/mta/SOT_reports/sot-shift.html

Report H7766

Start at 2020:299:12:15:00
= 8:15am, Sunday, October 25, 2020
End at 2020:299:15:25:00.000
= 11:25am, Sunday, October 25 2020
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HRC SOT Shift Report October 25, 2020
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HRC Personnel: Dan Patnaude, Ralph Kraft, Paul Nulsen, Grant Tremblay, Tom Gauron

PLAN:

Execute CAP 1555: Controlled ramp up of the HRC-S microchannel plate high voltage

NOTES/ISSUES/PROBLEMS

- in timeline, only milestone voltage steps are noted

CLD Files executed:

2A_IHV_DM00_135.cld
2A_SDEFAULTB_135.cld
2A_SHV_DM20_135.cld

SUMMARY:

The HRC-S was brought up to full voltage at 299:14:03 UT, and data were acquired until SCS 88 was activated at 299:15:19:42UT.

TIMELINE (GMT day 299)

12:21UT command load 2A_IHV_DM00.cld uploaded to SCS 135
12:23UT SCS 135 enabled and activated. HRC team verifies 2IMONST=OFF and top and bottom plate steps set to 0 steps
12:24UT SCS 135 is disabled and cleared
12:25UT SCS 87 is disabled
12:26UT SCS 89 and SCS 90 are disabled. SCS 91 is inactive; SIM is at proper position; FMT1 is verified
12:27UT SCS 88 is disabled
12:28UT dither is verified; command load 2A_SDEFAULTB_135.cld is uploaded to SCS 135
12:30UT SCS 135 is enabled and activated; HRC verifies 2PREADS = IMAG and 2PREBDS = SPEC
12:46UT SCS 135 is disabled and cleared
12:47UT command load 2A_SHV_DM20_135.cld is uploaded to SCS 135
12:48UT Obsid is changed to 62649; HRC verifies COBSRQID = 62649
12:49UT SCS 135 is enabled and activated; deadman timer begins at 12:50UT
12:51UT SCS 93 is activated; HRC verifies 2SPONST = ON
12:55UT start script 2_HV_S_UP_VERY_SLOW; HRC verifies 2SPBPAST = 19 and 2SPTPAST = 8

13:02UT HRC verifies 2SPBPAST = 54 and 2SPTPAST = 43; half voltage
13:06UT SCS 135 is disabled and cleared; deadman timer is cancelled
13:07UT SCS 88 enabled and inactive
13:08UT script 2_HV_S_UP_VERY_SLOW resumed; HRC verifies 2SPBPAST = 62
and 2SPTPAST = 51
13:35UT HRC verifies 2SPBPAST = 89 and 2SPTPAST = 78; total and valid
event rates > 0
14:03UT HRC verifies 2SPBPAST = 105 and 2SPTPAST = 93; total rates ~ 225
c/s and valid rates ~ 110 c/s
14:36UT script 2_HV_S_UP_VERY_SLOW is stopped and exited. Data at
nominal settings will be collected until SCS 88 is activated
15:20UT HRC verifies that SCS 88 has been activated and the HRC-S is at
half voltage: 2SPBPAST = 54 and 2SPTPAST = 43

seq_num		Sequence number
obs_id	62649	Observation id
title	Measure the HRC-S PSF in the Cross-Dispersion Direction Near the 0th Order	Proposal title
observer	CXC Calibration	Principal investigator
object	AR Lac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.16842988773	Nominal RA [deg]
dec_nom	45.739731345713	Nominal Dec [deg]
roll_nom	242.05635379115	Nominal Roll [deg]
revision	1	Processing version of data
ontime	4737.80654037	[s]
livetime	4689.3935575975	Ontime multiplied by DTCOR
l2events	450930	Number of level 2 events