V&V Summary Report
L2 ASCDS Version : 10.8

Observation 21449 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Sep 25 2019

See axaff21449N002_VV001_vvref2.pdf for the full report

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2019.09.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.062044194818

Comments

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Joint proposal with HST.
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One optional chip was dropped.
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The guide star in slot 3 was removed from the aspect solution due to
poor data quality. The aspect solution is improved by the removal of
this slot from the solution.
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The focal plane temperature during part of this observation was warmer
than the upper limit for optimum calibration of the ACIS gain and
spectral resolution (i.e., -111.0 C for ACIS-S). The Chandra calibration
team calibrates the ACIS gain and spectral resolution using data from
the external calibration source (ECS). ECS data show that the
frontside-illuminated (FI) CCDs are more temperature-sensitive than the
backside-illuminated (BI) CCDs. A summary of the current calibration
status of the ACIS gain and spectral resolution can be found at:

http://asc.harvard.edu/cal/Acis/Cal_prods/Gain_and_Spectral_Resolution/A
CIS_response_summary

The main points are:
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1) The gain on BI chips remains within 0.3% (i.e., the systematic uncertainty in the ACIS gain quoted on the Chandra Calibration Status Summary web page) at all measured temperatures.
2) The gain on FI chips remains within 0.3% below row 600 at all measured temperatures.
3) The gain on FI chips above row 600 can be underestimated by as much as 1% for focal plane temperatures exceeding -116 C.
4) The spectral resolution (i.e., FWHM) on BI chips is insensitive to the focal plane temperature.
5) Warmer focal plane temperatures increase the FWHM on FI chips by up to 30 eV near row 512 and by up to 70 eV near the top of the chips.
In summary, the user should be cautious in the spectral analysis of high S/N emission lines detected on the top half of FI chips in this observation. Default processing with the current version of the CALDB will underestimate photon energies by up to 1% and broaden emission lines by up to 70 eV.

seq_num	703746	Sequence number
obs_id	21449	Observation id
title	Testing Mid-Infrared AGN Selection in Dwarf Galaxies with Chandra and HST	Proposal title
observer	Amy Reines	Principal investigator
object	J005904.10+010004.2	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	14.767083	Observer's specified target RA [deg]
dec_targ	1.001222	Observer's specified target Dec [deg]
ra_nom	14.762545811942	Nominal RA [deg]
dec_nom	1.0037365025059	Nominal Dec [deg]
roll_nom	98.156657681221	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10062.044194818	Sum of GTIs [s]
livetime	9930.5761798431	Livetime [s]
ontime2	10061.921074867	Sum of GTIs [s]
ontime3	10061.962114811	Sum of GTIs [s]
ontime6	10062.003154874	Sum of GTIs [s]
ontime7	10062.044194818	Sum of GTIs [s]
l2events	63415	Number of level 2 events