

V&V Summary Report

L2 ASCDS Version : 10.7.1

Observation 22215 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : May 15 2019

See axaff22215N002_VV001_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2019.05.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.62060032022

Comments

Target optically monitored in slot 7. The ACA has the capability to devote one or more of the eight image slots to "monitor" particular sky locations. This allows simultaneous optical photometry of one or more targets in the ACA field of view. These optical sources can be slightly fainter than the ACA guide star limit of $m_{ACA} = 10.2$ mag. The bright-end limit for monitor star photometry is $m_{ACA} = 6.2$ mag. However, since there are a fixed number of image slots, devoting a slot to photometry instead of tracking a guide star results in a degradation of the image reconstruction and celestial location accuracy (Section 5.4). Using one monitor slot represents a 15 - 25% increase in the aspect image reconstruction RMS diameter, depending on the particular guide star configuration. Two monitor slots would increase the diameter by about 50 - 60%, but this configuration is not operationally allowed under normal circumstances. The photometric accuracy which can be achieved depends primarily on the star magnitude, integration time, CCD dark current, CCD read noise, sky background, and the CCD dark current uncertainty.

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The software tool `tgdetect` could not locate the zeroth order automatically because of low S/N of the source. The zeroth order position was manually determined by eye and input into the processing.

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To compensate for a few bad pixels not marked as bad that were not removed in the Level 2 processing, a custom bad pixel file with additional bad pixels at (chipx, chipy) = (232:234,322:339) in S1 was added in this processing. As a result, the user will NOT find a relatively bright square of pixels on the S1 chip for level 2 data caused by the application of the dither algorithm to the bad pixels in question, as opposed to previous processing(s). Please note this bad pixel did impact the dispersed spectral data.

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There are multiple dispersed spectra associated with different sources in this observation. The ciao tool tgextract2 can be used to create non-standard background regions. =====

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seq_num	201260	Sequence number
obs_id	22215	Observation id
title	Identifying Accretion at a Key Stage of Pre-main Sequence Stellar Evolution	Proposal title
observer	Dr. Claude Canizares	Principal investigator
object	SZ 96	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	242.052667	Observer's specified target RA [deg]
dec_targ	-39.142633	Observer's specified target Dec [deg]
ra_nom	242.05142952298	Nominal RA [deg]
dec_nom	-39.138381624424	Nominal Dec [deg]
roll_nom	44.155845091961	Nominal Roll [deg]
revision	2	Processing version of data
ontime	41620.60032022	Sum of GTIs [s]
livetime	41076.796536396	Livetime [s]
ontime5	41620.60032022	Sum of GTIs [s]
ontime6	41620.60032022	Sum of GTIs [s]
ontime7	41620.60032022	Sum of GTIs [s]
ontime8	41620.60032022	Sum of GTIs [s]
l2events	472056	Number of level 2 events

