

# V&V Summary Report

## L2 ASCDS Version : 10.7.1

Observation 22220 - L2 Version 3  
Chandra X-Ray Center

L2 Processing Date : Jun 3 2019

See [axaff22220N003\\_VV001\\_vvref2.pdf](#) for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2019.06.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	33.231147460938

## Comments

The target was too faint during this observation for the zeroth order position to be determined automatically by the software. The zeroth order position was determined by eye and manually input into the processing.

====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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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  $(\text{chipx}, \text{chipy}) = (232:234, 322:339)$  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).

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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  $m_{\text{ACA}} = 10.2$  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.

seq_num	201260	Sequence number
obs_id	22220	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	&#160
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	242.05380815708	Nominal RA [deg]
dec_nom	-39.138221638859	Nominal Dec [deg]
roll_nom	21.157360541921	Nominal Roll [deg]
revision	3	Processing version of data
ontime	33231.147460938	Sum of GTIs [s]
livetime	32796.958054945	Livetime [s]
ontime5	33231.106420994	Sum of GTIs [s]
ontime6	33231.065380931	Sum of GTIs [s]
ontime7	33231.147460938	Sum of GTIs [s]
ontime8	33231.024340987	Sum of GTIs [s]
l2events	367402	Number of level 2 events

