

V&V Summary Report

L2 ASCDS Version : 10.7.1

Observation 22221 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : May 22 2019

See axaff22221N002_VV001_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2019.05.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.023500231028

Comments

Target was optically monitored in slot 7 during the observation. 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.

===

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).

seq_num	201260	Sequence number
obs_id	22221	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	242.05365180127	Nominal RA [deg]
dec_nom	-39.138358704013	Nominal Dec [deg]
roll_nom	21.157256281816	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30023.500231028	Sum of GTIs [s]
livetime	29631.22109753	Livetime [s]
ontime5	30023.500231028	Sum of GTIs [s]
ontime6	30023.500231028	Sum of GTIs [s]
ontime7	30023.500231028	Sum of GTIs [s]
ontime8	30023.500231028	Sum of GTIs [s]
l2events	328588	Number of level 2 events

