

V&V Summary Report

L2 ASCDS Version : 10.9.1

Observation 6298 - L2 Version 5
Chandra X-Ray Center

L2 Processing Date : Oct 8 2020

See axaff06298N005_VV001_vvref2.pdf for the full report

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.767531

Comments

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.

seq_num	400470	Sequence number
obs_id	6298	Observation id
title	Search for X-Ray Jets from a Millisecond Pulsar	Proposal title
observer	Deepto Chakrabarty	Principal investigator
object	SAX J1808.4-3658	Source name
ra_targ	272.114583	Observer's specified target RA [deg]
dec_targ	-36.978972	Observer's specified target Dec [deg]
ra_nom	272.11834342725	Nominal RA [deg]
dec_nom	-36.983372744164	Nominal Dec [deg]
roll_nom	9.7101593724662	Nominal Roll [deg]
revision	5	Processing version of data
ontime	4767.5314677358	[s]
livetime	4729.2628598348	Ontime multiplied by DTCOR
l2events	243268	Number of level 2 events

