

V&V Summary Report

L2 ASCDS Version : 10.9.1

Observation 5418 - L2 Version 4
Chandra X-Ray Center

L2 Processing Date : Oct 5 2020

See axaff05418N004_VV001_vvref2.pdf for the full report

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.02991

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	200351	Sequence number
obs_id	5418	Observation id
title	Untangling the Accretion Spots on Classical T Tauri Stars	Proposal
observer	Dr. Andisheh Mahdavi	Principal investigator
object	GK Tau	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	68.39375	Observer's specified target RA [deg]
dec_targ	24.3525	Observer's specified target Dec [deg]
ra_nom	68.389446265323	Nominal RA [deg]
dec_nom	24.344532928809	Nominal Dec [deg]
roll_nom	275.74470678868	Nominal Roll [deg]
revision	4	Processing version of data
ontime	15029.917920023	Sum of GTIs [s]
liveltime	13889.839863987	Livetime [s]
ontime5	15029.917920023	Sum of GTIs [s]
ontime7	15029.917920023	Sum of GTIs [s]
l2events	18724	Number of level 2 events

