

V&V Summary Report

L2 ASCDS Version : 10.6.4.1

Observation 21071 - L2 Version 1
Chandra X-Ray Center

L2 Processing Date : Sep 30 2018

See axaff21071N001-VV001_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2018.10.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.023900123358

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	201179	Sequence number
obs_id	21071	Observation id
title	Beyond Proxima b: Characterizing the X-ray Environments of the Next Three Nearest Potentially Habitable Exoplanets	Proposal title
observer	Edward Guinan	Principal investigator
object	Kapteyn's Star	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	77.966363	Observer's specified target RA [deg]
dec_targ	-45.047864	Observer's specified target Dec [deg]
ra_nom	77.959808023762	Nominal RA [deg]
dec_nom	-45.042121403157	Nominal Dec [deg]
roll_nom	85.151969362931	Nominal Roll [deg]
revision	1	Processing version of data
ontime	16023.900123358	Sum of GTIs [s]
livetime	15814.536071622	Livetime [s]
ontime5	16023.900123358	Sum of GTIs [s]
ontime6	16023.900123358	Sum of GTIs [s]
ontime7	16023.900123358	Sum of GTIs [s]
ontime8	16023.900123358	Sum of GTIs [s]
l2events	181762	Number of level 2 events

