

V&V Summary Report

L2 ASCDS Version : 10.9.2

Observation 20163 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Oct 26 2020

See axaff20163N002_VV001_vvref2.pdf for the full report

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.016600300193

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	201180	Sequence number
obs_id	20163	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	Wolf 1061	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	247.57475	Observer's specified target RA [deg]
dec_targ	-12.668672	Observer's specified target Dec [deg]
ra_nom	247.57385690506	Nominal RA [deg]
dec_nom	-12.667601041774	Nominal Dec [deg]
roll_nom	255.66041325625	Nominal Roll [deg]
revision	2	Processing version of data
ontime	39016.600300193	Sum of GTIs [s]
livetime	38506.819693668	Livetime [s]
ontime5	39016.600300193	Sum of GTIs [s]
ontime6	39016.600300193	Sum of GTIs [s]
ontime7	39016.600300193	Sum of GTIs [s]
ontime8	39016.600300193	Sum of GTIs [s]
l2events	440719	Number of level 2 events

