

V&V Summary Report

L2 ASCDS Version : 10.7.1

Observation 21188 - L2 Version 1
Chandra X-Ray Center

L2 Processing Date : Dec 21 2018

See [axaff21188N001_VV001_vvref2.pdf](#) for the full report

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2018.12.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.02010014081

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	201242	Sequence number
obs_id	21188	Observation id
title	Testing X-ray activity as an age indicator	Proposal title
observer	Christian Schneider	Principal investigator
object	BD+18 3182	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	247.219583	Observer's specified target RA [deg]
dec_targ	18.414056	Observer's specified target Dec [deg]
ra_nom	247.21878218765	Nominal RA [deg]
dec_nom	18.416983952306	Nominal Dec [deg]
roll_nom	27.295689036373	Nominal Roll [deg]
revision	1	Processing version of data
ontime	5020.10014081	Sum of GTIs [s]
livetime	4901.7657488495	Livetime [s]
ontime2	5020.10014081	Sum of GTIs [s]
ontime3	5020.10014081	Sum of GTIs [s]
ontime6	5020.10014081	Sum of GTIs [s]
ontime7	5020.10014081	Sum of GTIs [s]
ontime8	5020.10014081	Sum of GTIs [s]
l2events	18767	Number of level 2 events

