

# V&V Summary Report

## L2 ASCDS Version : 10.7.1

Observation 21189 - L2 Version 1  
Chandra X-Ray Center

L2 Processing Date : Feb 12 2019

See [axaff21189N001\\_VV001\\_vvref2.pdf](#) for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2019.02.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.0219002530575

## Comments

Monitor source used in slot 7. 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	201243	Sequence number
obs_id	21189	Observation id
title	Testing X-ray activity as an age indicator	Proposal title
observer	Christian Schneider	Principal investigator
object	BD+59 1783	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	255.842917	Observer's specified target RA [deg]
dec_targ	59.581667	Observer's specified target Dec [deg]
ra_nom	255.8382133626	Nominal RA [deg]
dec_nom	59.58321749832	Nominal Dec [deg]
roll_nom	65.312901464593	Nominal Roll [deg]
revision	1	Processing version of data
ontime	9021.9002530575	Sum of GTIs [s]
livetime	8809.2349573805	Livetime [s]
ontime2	9021.9002530575	Sum of GTIs [s]
ontime3	9021.9002530575	Sum of GTIs [s]
ontime6	9021.9002530575	Sum of GTIs [s]
ontime7	9021.9002530575	Sum of GTIs [s]
ontime8	9021.9002530575	Sum of GTIs [s]
l2events	33500	Number of level 2 events

