

# V&V Summary Report

## L2 ASCDS Version : 10.7.1

Observation 21190 - L2 Version 1  
Chandra X-Ray Center

L2 Processing Date : Jan 3 2019

See [axaff21190N001\\_VV001\\_vvref2.pdf](#) for the full report

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2019.01.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.0244001970291

## 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	201244	Sequence number
obs_id	21190	Observation id
title	Testing X-ray activity as an age indicator	Proposal title
observer	Christian Schneider	Principal investigator
object	49 Ser	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	243.327083	Observer's specified target RA [deg]
dec_targ	13.526917	Observer's specified target Dec [deg]
ra_nom	243.3254570379	Nominal RA [deg]
dec_nom	13.529856590531	Nominal Dec [deg]
roll_nom	47.69097497053	Nominal Roll [deg]
revision	1	Processing version of data
ontime	7024.4001970291	Sum of GTIs [s]
livetime	6858.8202080076	Livetime [s]
ontime2	7024.4001970291	Sum of GTIs [s]
ontime3	7024.4001970291	Sum of GTIs [s]
ontime6	7024.4001970291	Sum of GTIs [s]
ontime7	7024.4001970291	Sum of GTIs [s]
ontime8	7024.4001970291	Sum of GTIs [s]
l2events	27495	Number of level 2 events

