

# V&V Summary Report

## L2 ASCDS Version : 10.9.1

Observation 6122 - L2 Version 4  
Chandra X-Ray Center

L2 Processing Date : Oct 8 2020

See axaff06122N004\_VV001\_vvref2.pdf for the full report

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	32.16537

## Comments

Joint proposal with HST.

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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	200369	Sequence number
obs_id	6122	Observation id
title	Planet-Induced Activity Enhancements in the HD 179949 System	Propo
observer	Steven Saar	Principal investigator
object	HD 179949	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	288.888333	Observer's specified target RA [deg]
dec_targ	-24.179361	Observer's specified target Dec [deg]
ra_nom	288.89299333326	Nominal RA [deg]
dec_nom	-24.176889090593	Nominal Dec [deg]
roll_nom	95.046499868106	Nominal Roll [deg]
revision	4	Processing version of data
ontime	32165.375182241	Sum of GTIs [s]
livetime	31758.07783402	Livetime [s]
ontime2	29950.634359032	Sum of GTIs [s]
ontime3	30142.992857367	Sum of GTIs [s]
ontime5	32204.267075777	Sum of GTIs [s]
ontime6	30130.028807044	Sum of GTIs [s]
ontime7	32165.375182241	Sum of GTIs [s]
ontime8	30311.525346845	Sum of GTIs [s]
l2events	497000	Number of level 2 events

