

V&V Summary Report

L2 ASCDS Version : 10.2.2

Observation 16425 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Dec 12 2014

See axaff16425N002_VV001_vvref2.pdf for the full report

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2015.11.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.079003436148

Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.

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Zeroth order piled up. The zeroth order sky position was determined using a software tool developed by CXC called findzero, which is available in CIAO as part of the tgdetect2 tool. The tool calculates the point of intersection of the readout streak on the ACIS CCD and the LEG dispersed spectral arm, rather than using a centroid position of the source. The findzero results are more accurate than source centroid in this case.

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Gain and CTI correction are not well calibrated on CCD_ID 5 (ACIS-S1). Default order sorting can clip some regions, particularly longward of 30A (first order). User-specified custom processing parameters may be required in tg_resolve_events (osipfile=None, osort_lo, osort_hi ~0.5) though this can allow more zeroth order background at short wavelengths.

Faint grating spectra can be seen in an image of bad events. This is probably due to pileup in the spectrum, causing migration to bad grades. This should be considered in analysis.

seq_num	790265	Sequence number
obs_id	16425	Observation id
title	AO-15 Calibration Observations of Mkn421	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	MKN421	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	166.113333	Observer's specified target RA [deg]
dec_targ	38.208806	Observer's specified target Dec [deg]
ra_nom	166.12539882817	Nominal RA [deg]
dec_nom	38.253812454275	Nominal Dec [deg]
roll_nom	261.49594630622	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10079.003436148	Sum of GTIs [s]
livetime	9520.811839177	Livetime [s]
ontime5	10079.044476151	Sum of GTIs [s]
ontime6	10079.003436148	Sum of GTIs [s]
ontime7	10079.085516155	Sum of GTIs [s]
ontime8	10078.962396145	Sum of GTIs [s]
ontime9	10078.921356142	Sum of GTIs [s]
l2events	138398	Number of level 2 events

