

V&V Summary Report

L2 ASCDS Version : 10.2.2

Observation 16429 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Dec 12 2014

See axaff16429N002_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	10.077199828327

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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Note: offset 3 arcmin off-axis; psf/lsf will be enlarged; no calibration for grating rmfs (lsf) off-axis.

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Zeroth order moderately 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.

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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	790269	Sequence number
obs_id	16429	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	166.1250343584	Nominal RA [deg]
dec_nom	38.253865328697	Nominal Dec [deg]
roll_nom	261.80413294355	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10077.199828327	Sum of GTIs [s]
livetime	9519.108118089	Livetime [s]
ontime5	10077.199828327	Sum of GTIs [s]
ontime6	10077.199828327	Sum of GTIs [s]
ontime7	10077.199828327	Sum of GTIs [s]
ontime8	10077.199828327	Sum of GTIs [s]
ontime9	10077.199828327	Sum of GTIs [s]
l2events	144126	Number of level 2 events

