## V&V Summary Report L2 ASCDS Version : 8.4.5

## Observation 4148 - L2 Version 3 Chandra X-Ray Center

L2 Processing Date : Oct 17 2012

See axaff04148N002\_VV001\_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.10.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	96.844

## Comments

Zeroth order piled up. Standard data processing software did not correctly locate the zeroth order due to pileup. Manual intervention was used to input the correct sky coordinates (x=4003.58, y=4219.68) into the \*src1a.fits file table. These corrected coordinates were determined using a software tool developed by CXC called findzero, which is expected to be released in CIAO as tg\_findzo (currently in ISIS as findzo). The tool calculates the point of intersection of the readout streak and the meg arm. The zeroth order source position determined by the standard pipeline processing using the tool tgdetect was not used in this processing. The newly determined zeroth order coordinates have been placed in the \*src1a.fits file, replacing the coordinates determined by tgdetect. Note that these corrected coordinates of the zeroth order cannot be reproduced by running tgdetect on the data.

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.

seq_num	700827	Sequence number
obs_id	4148	Observation id
title	HIGH RESOLUTION SPECTROSCOPY OF A BLAZAR IN OUTBURST: JET ENVIRONMENT AND THE INTERGALACTIC MEDIUM	Proposal title
observer	Dr. Fabrizio Nicastro	Principal investigator
object	MRK 421	Source name
dtycycle	0	
cycle	Р	events from which exps? Prim/Second/Both
ra_targ	166.11375	Observer's specified target RA [deg]
dec_targ	38.208833	Observer's specified target Dec [deg]
ra_nom	166.09766991138	Nominal RA [deg]
dec_nom	38.192017650826	Nominal Dec [deg]
roll_nom	48.657280518333	Nominal Roll [deg]
revision	3	Processing version of data
ontime	96844.298350751	Sum of GTIs [s]
livetime	91480.903656383	Livetime [s]
ontime4	96844.298350751	Sum of GTIs [s]
ontime5	96844.298350751	Sum of GTIs [s]
ontime6	96844.298350751	Sum of GTIs [s]
ontime7	96844.298350751	Sum of GTIs [s]
ontime8	96844.298350751	Sum of GTIs [s]
ontime9	96844.298350751	Sum of GTIs [s]
l2events	6628618	Number of level 2 events

