V&V Summary Report
L2 ASCDS Version : 8.4.5

Observation 4575 - L2 Version 4
Chandra X-Ray Center

L2 Processing Date : Nov 30 2012

See axaff04575N002_VV001_vvref2.pdf for the full report

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.831

Comments

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Zeroth order PSF is asymmetrical. Due to the expected source brightness
the zeroth order was given a Y-offset (0.8 arcmin) and a SIM-Z-offset
(0.488 mm) in order to avoid a large added dose to the nominal target
point. The asymmetric PSF with an extension along the dispersion
direction can be attributed to an HRC instrumental effect.
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Details:
I extracted events from a 20 pixel radius crudely centered on the zeroth
order
position. For each of the events I used the aspect solution to model the

event's location on the detector. Since the extension was only in the
dispersion direction I only investigated possible distortions along the
HRC-S
V-axis. Attached is a figure with two scatter plots: one giving the
deviations
of the rawy (un-degapped V-axis coordinate) from the modeled position as
a
function of modeled V-axis position and the other giving the deviations
after
applying the degap. There is a distinct offset in the deviations in the
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degapped coordinates at the right-hand-side gap. The extension on the
image is
caused by this deviation.

seq_num	400357	Sequence number
obs_id	4575	Observation id
title	High Resolution Spectroscopy of LMC X-3: Probing Local Hot X-ray Absorbing Gas	Proposal title
observer	Dr. Taotao Fang	Principal investigator
object	LMC X-3	Source name
ra_targ	84.734583	Observer's specified target RA [deg]
dec_targ	-64.084167	Observer's specified target Dec [deg]
ra_nom	84.745602475017	Nominal RA [deg]
dec_nom	-64.077058188804	Nominal Dec [deg]
roll_nom	235.07111088951	Nominal Roll [deg]
revision	4	Processing version of data
ontime	19831.957123727	[s]
livetime	19673.3037205	Ontime multiplied by DTCOR
l2events	1440388	Number of level 2 events