V&V Reference Report
L2 ASCDS Version : 8.4.5

Observation 4024 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Oct 31 2012

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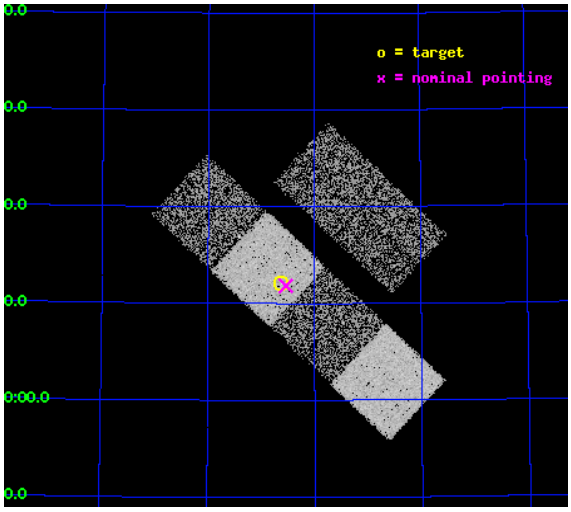
1 Front

seq_num	700703	Sequence number
obs_id	4024	Observation id
title	A CHANDRA SURVEY OF INFRARED-BRIGHT LINER GALAXIES	Proposal title
observer	Dr. Shobita Satyapal	Principal investigator
object	IC 1218	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	244.15625	Observer's specified target RA [deg]
dec_targ	68.2025	Observer's specified target Dec [deg]
ra_nom	244.13434616334	Nominal RA [deg]
dec_nom	68.197298939206	Nominal Dec [deg]
roll_nom	223.07398649446	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4697.5307646096	Sum of GTIs [s]
livetime	4638.0478015546	Livetime [s]
ontime2	4697.5718046129	Sum of GTIs [s]
ontime3	4697.4076445997	Sum of GTIs [s]
ontime5	4697.4897246063	Sum of GTIs [s]
ontime6	4697.448684603	Sum of GTIs [s]
ontime7	4697.5307646096	Sum of GTIs [s]
ontime8	4694.125664264	Sum of GTIs [s]
l2events	44836	Number of level 2 events

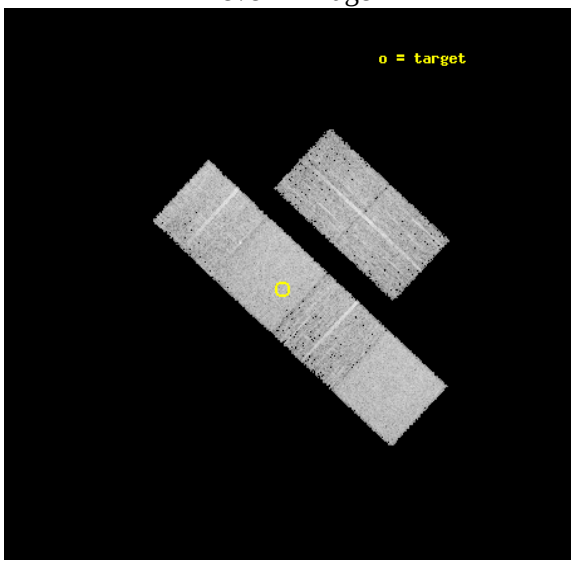


2 OBI

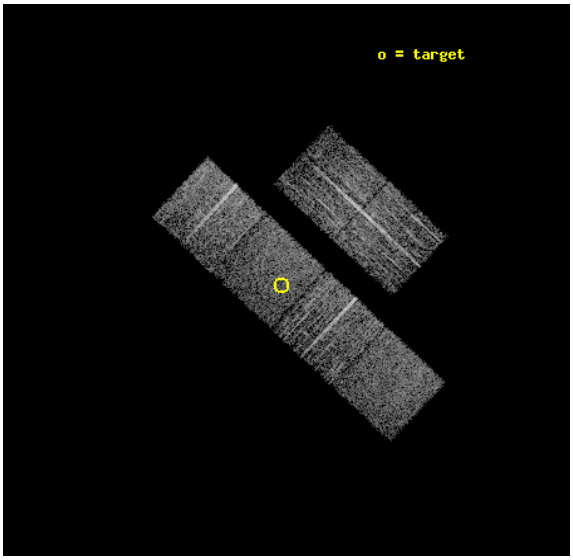
2.1 OBI

2.1.1 Images

Level 1 Image

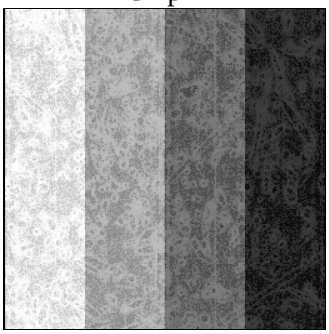


Level 1 Bad Events

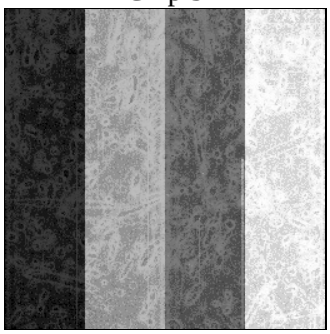


2.1.2 Bias

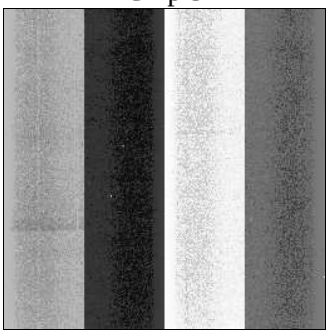
Chip 2



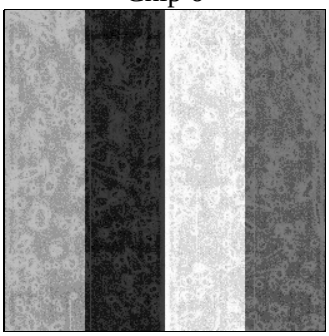
Chip 3



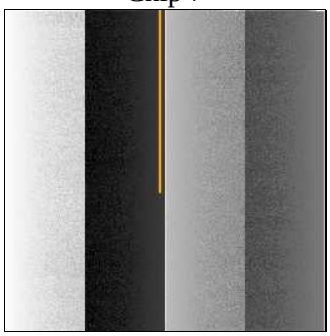
Chip 5



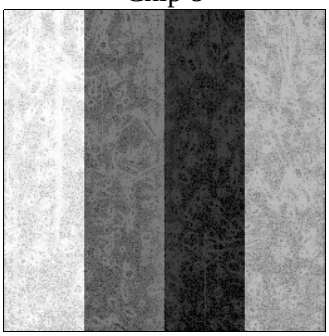
Chip 6



Chip 7



Chip 8



2.1.3 Parameters

obi_num	0	Obi number
ascdsver	8.4.5	Processing system revision
caldbver	4.5.2	
date	2012-11-01T02:05:54	Date and time of file creation
revision	3	Processing version of data

sched_exp_time	4944.000000	[s] Scheduled observation exposure time
ontime	4697.5307646096	Sum of GTIs [s]
ontime2	4697.5718046129	Sum of GTIs [s]
ontime3	4697.4076445997	Sum of GTIs [s]
ontime5	4697.4897246063	Sum of GTIs [s]
ontime6	4697.448684603	Sum of GTIs [s]
ontime7	4697.5307646096	Sum of GTIs [s]
ontime8	4694.125664264	Sum of GTIs [s]
l1events	203161	Number of level 1 events

2.1.4 Events

	ccd 2	**ccd 3**	**ccd 5**	**ccd 6**	**ccd 7**	**ccd 8**
level 1 events	29342	27962	40604	29276	38346	37631
rejected events	26005	24689	22715	25854	22600	30531
rejected %	88%	88%	55%	88%	58%	81%

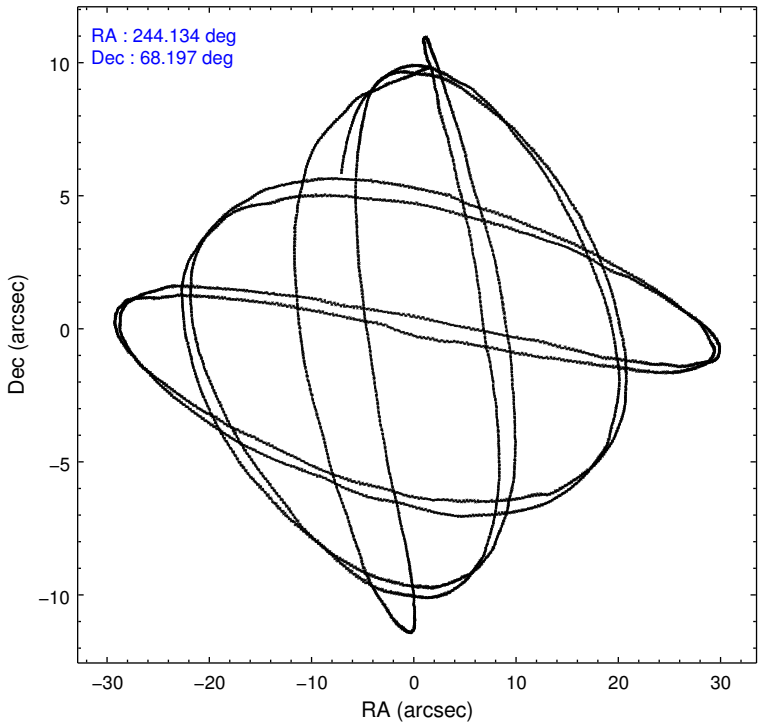
	ccd 2	**ccd 3**	**ccd 5**	**ccd 6**	**ccd 7**	**ccd 8**
grade 0 events	1468	1520	1076	1345	1487	2310
	5%	5%	2%	4%	3%	6%
grade 1 events	13	13	49	16	34	30
	0%	0%	0%	0%	0%	0%
grade 2 events	651	561	5377	675	3096	1506
	2%	2%	13%	2%	8%	4%
grade 3 events	325	307	767	334	1399	789
	1%	1%	1%	1%	3%	2%
grade 4 events	317	323	673	347	1374	700
	1%	1%	1%	1%	3%	1%
grade 5 events	1133	1256	3037	1196	3543	1660
	3%	4%	7%	4%	9%	4%
grade 6 events	580	566	10022	725	8412	1820
	1%	2%	24%	2%	21%	4%
grade 7 events	24855	23416	19603	24638	19001	28816
	84%	83%	48%	84%	49%	76%

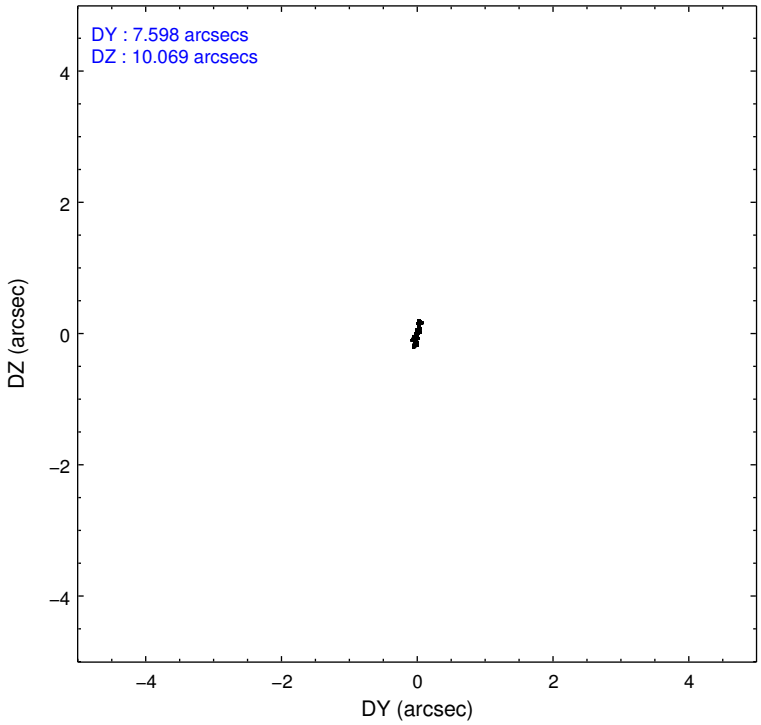
2.2 Compared Parameters

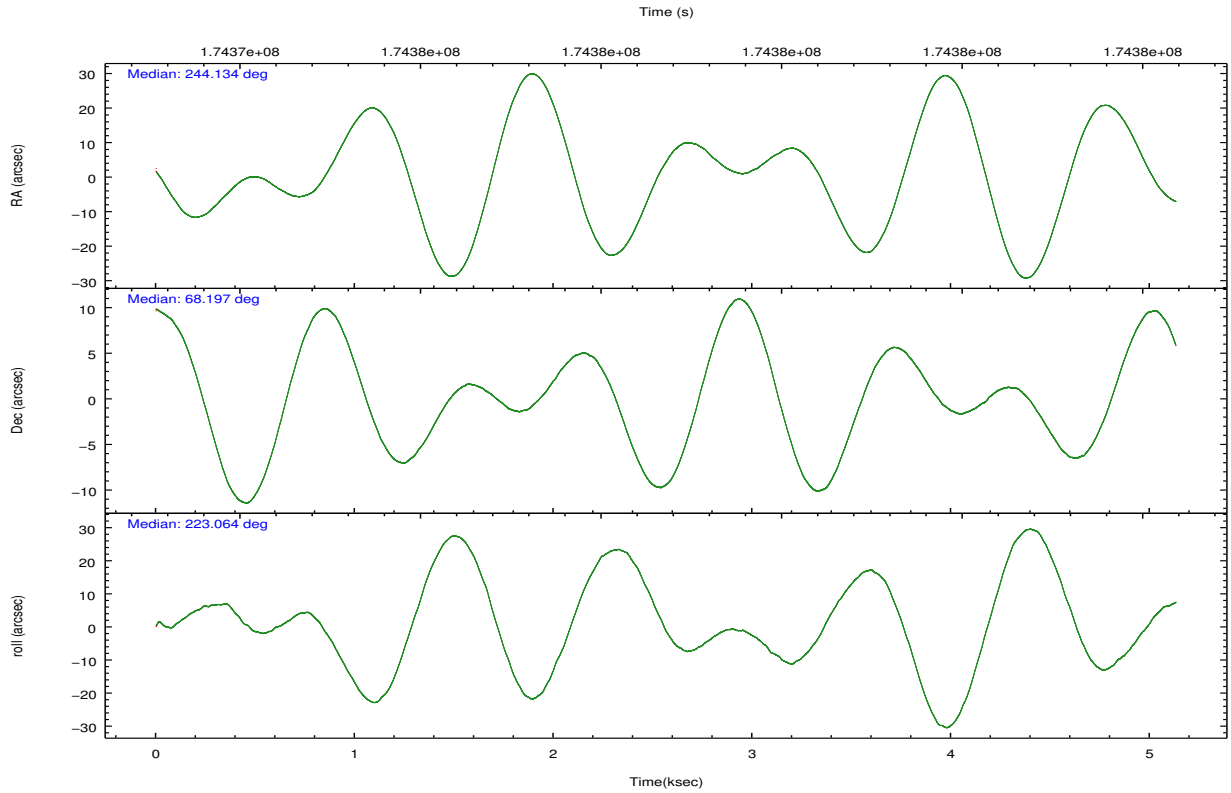
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-235678	ACIS-235678
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	244.154825	244.1343461633413
[deg] Pointing Dec	68.223391	68.19729893920591
[deg] Pointing Roll	222.898331	223.0739864944596
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1400660498719
[mm] SIM translation stage offset	0	0.00754346686406393
[s] Observation start time (MET)	174373983.184000	174373424.70561
Observation start date	2003-07-12T05:11:59	2003-07-12T05:03:44
[s] Observation end time (MET)	174378927.184000	174379405.58087
Observation end date	2003-07-12T06:34:23	2003-07-12T06:43:25
Read mode	TIMED	TIMED

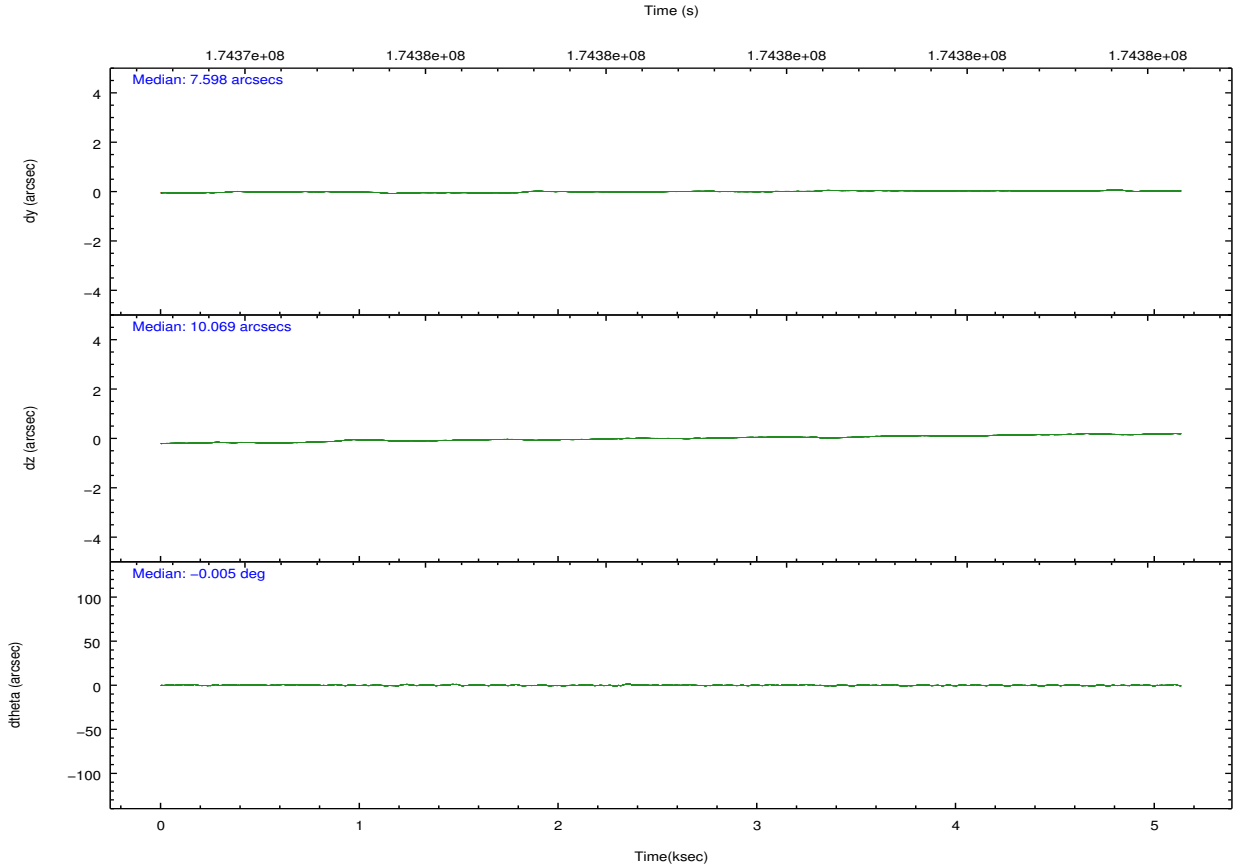
Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

2.3 Aspect


RA : 244.134 deg
Dec : 68.197 deg
Dec (arcsec)
RA (arcsec)
10
5
0
−5
−10
−30
−20
−10
0
10
20
30


DY : 7.598 arcsecs
DZ : 10.069 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
1.7437e+08
1.7438e+08
1.7438e+08
1.7438e+08
1.7438e+08
1.7438e+08
Median: 244.134 deg
RA (arcsec)
Median: 68.197 deg
Dec (arcsec)
Median: 223.064 deg
roll (arcsec)
Time(ksec)

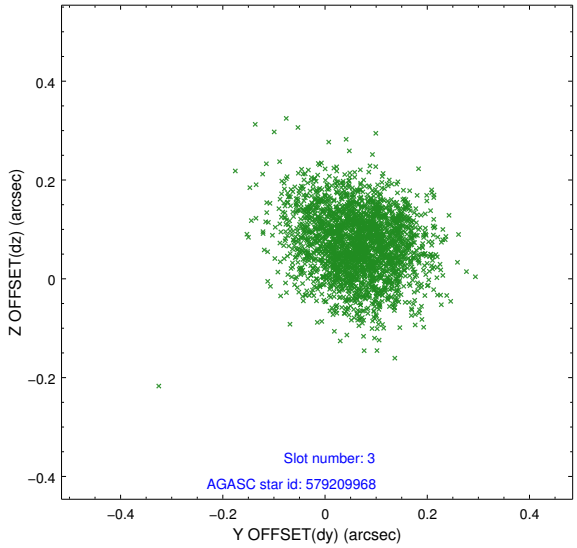

Time (s)
1.7437e+08
1.7438e+08
1.7438e+08
1.7438e+08
1.7438e+08
1.7438e+08
Median: 7.598 arcsecs
dy (arcsec)
Median: 10.069 arcsecs
dz (arcsec)
Median: −0.005 deg
dtheta (arcsec)
Time(ksec)

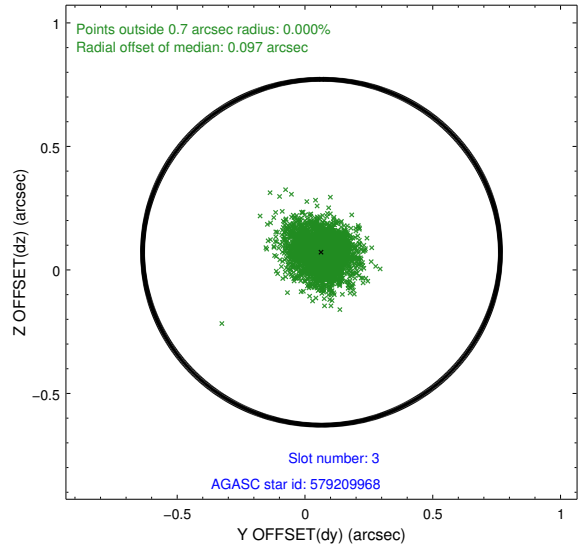
Slot Statistics

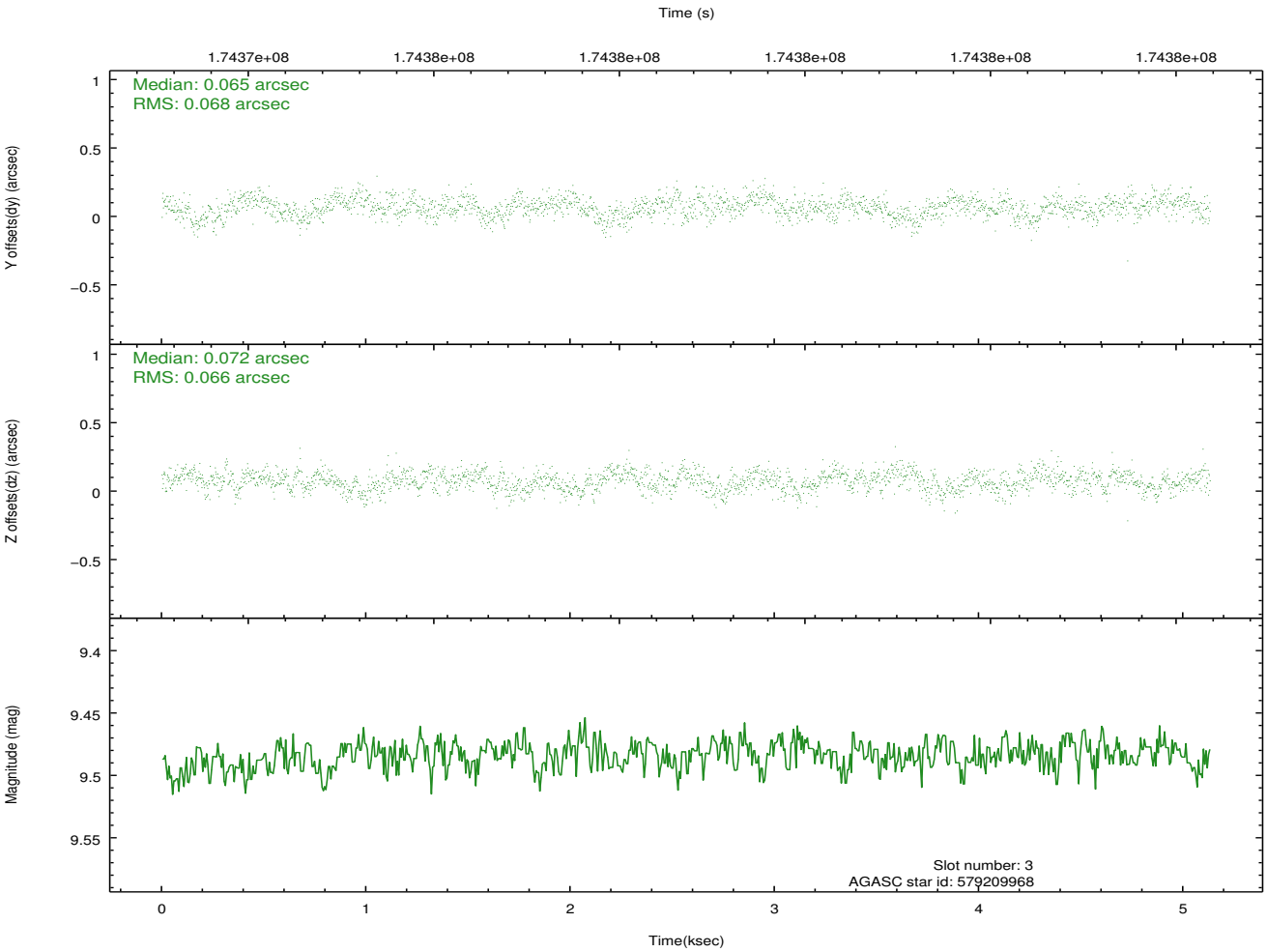
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	1251	-0.043	-0.021	0.007	0.012	0.000000	0.000000	-760.37	-1731.35
1	FID	ACIS-S-4	7.20	1252	0.085	0.027	0.006	0.010	0.000000	0.000000	2152.46	176.01
2	FID	ACIS-S-5	7.23	1252	-0.073	0.003	0.007	0.012	0.000000	0.000000	-1811.76	170.93
3	GUIDE	579209968	9.48	2502	0.065	0.072	0.101	0.162	245.936339	68.404692	-2196.19	1103.66
4	GUIDE	579213592	9.41	2503	-0.065	-0.034	0.113	0.183	242.484001	68.506933	898.94	-2268.55
5	GUIDE	579215256	9.10	2503	0.061	-0.042	0.077	0.121	244.220286	68.793690	-1458.99	-1446.75
6	GUIDE	579223000	10.21	2501	0.027	0.067	0.124	0.211	243.091768	68.186217	1124.44	-878.81
7	GUIDE	579227624	7.96	2503	-0.078	-0.061	0.063	0.103	245.239148	67.907469	-309.62	1823.04

2.4 Star Slots

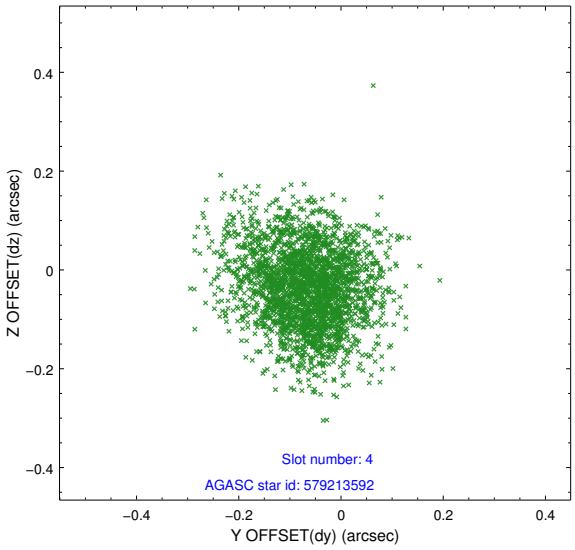
2.4.1 Slot 3

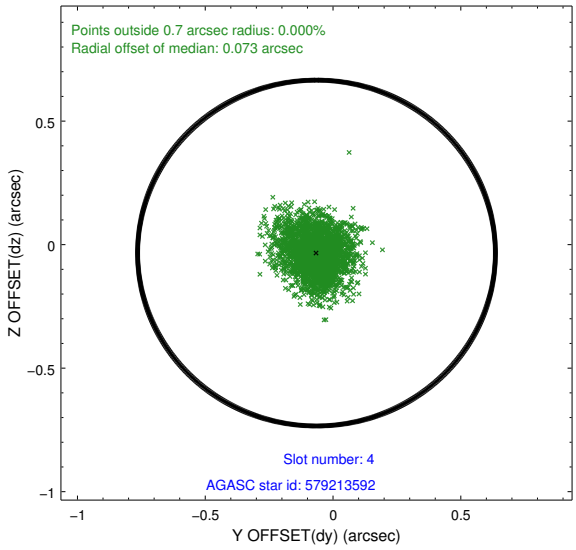


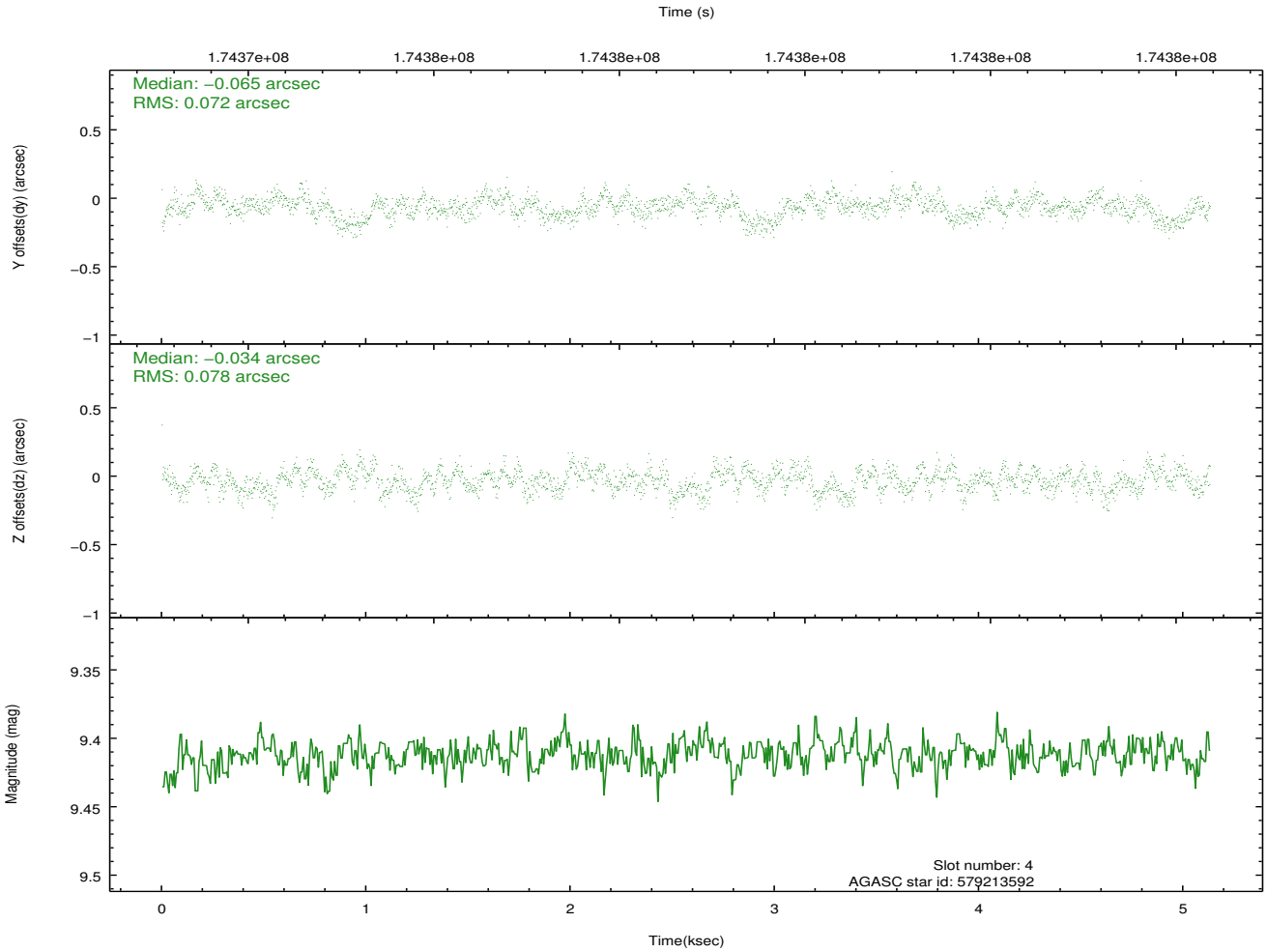




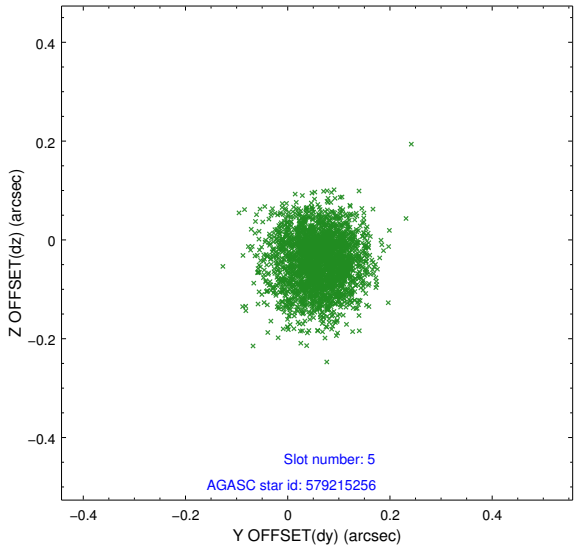
2.4.2 Slot 4

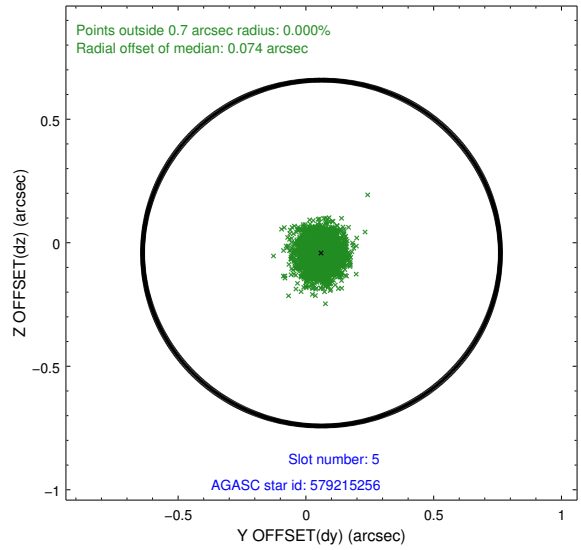

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 579213592

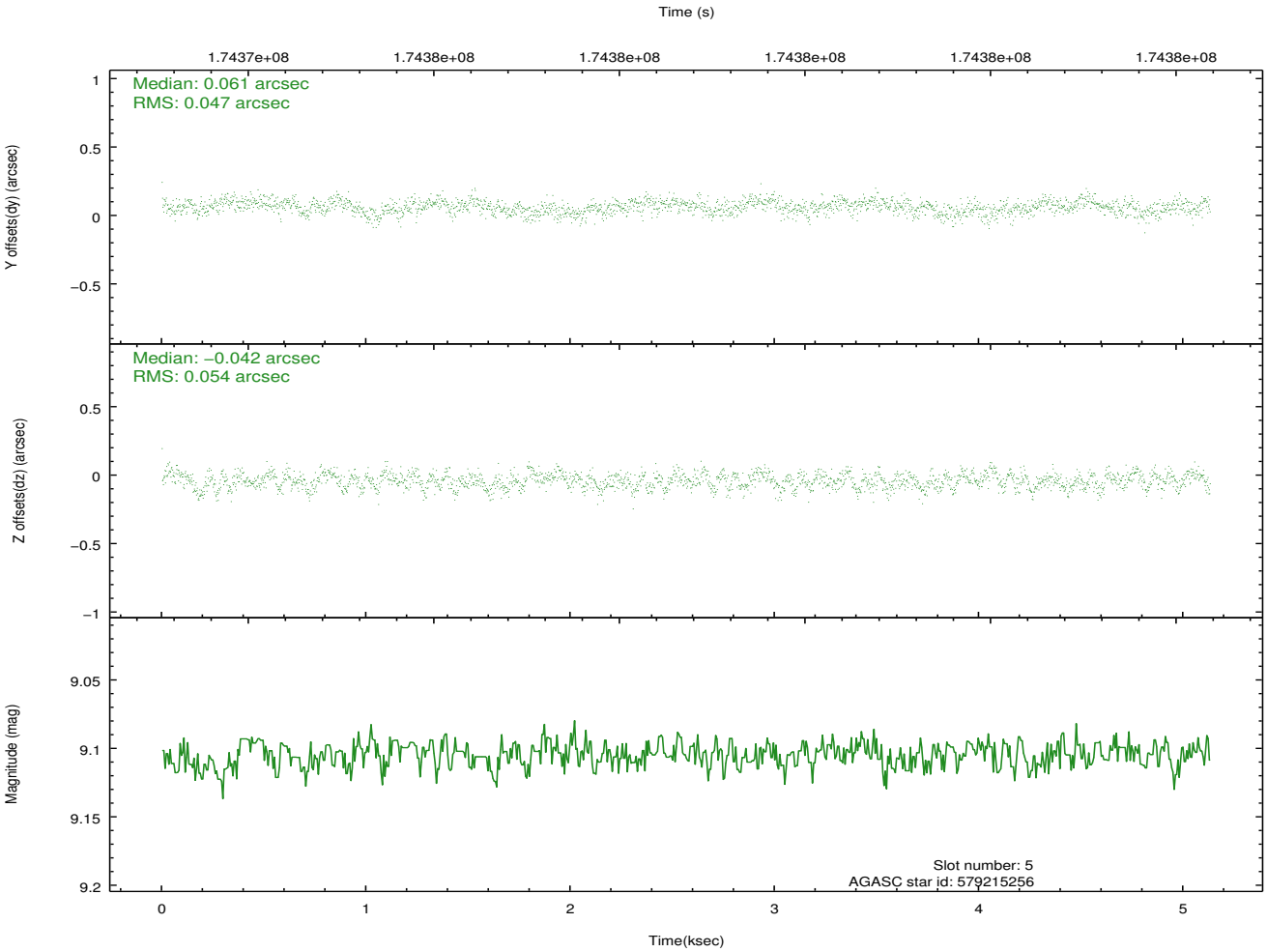

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.073 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 579213592


Time (s)
Median: −0.065 arcsec
RMS: 0.072 arcsec
Y offsets(dy) (arcsec)
Median: −0.034 arcsec
RMS: 0.078 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 4
AGASC star id: 579213592
Time(ksec)

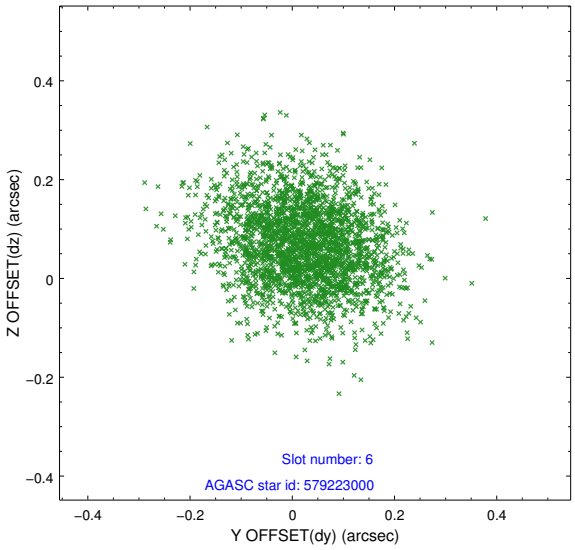
2.4.3 Slot 5

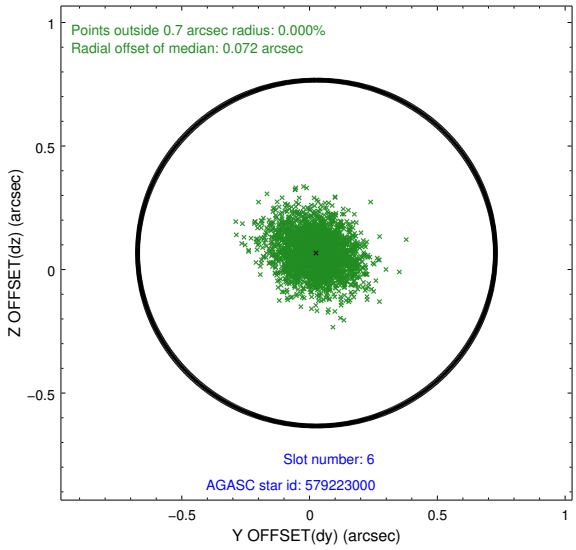

Slot number: 5
AGASC star id: 579215256
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

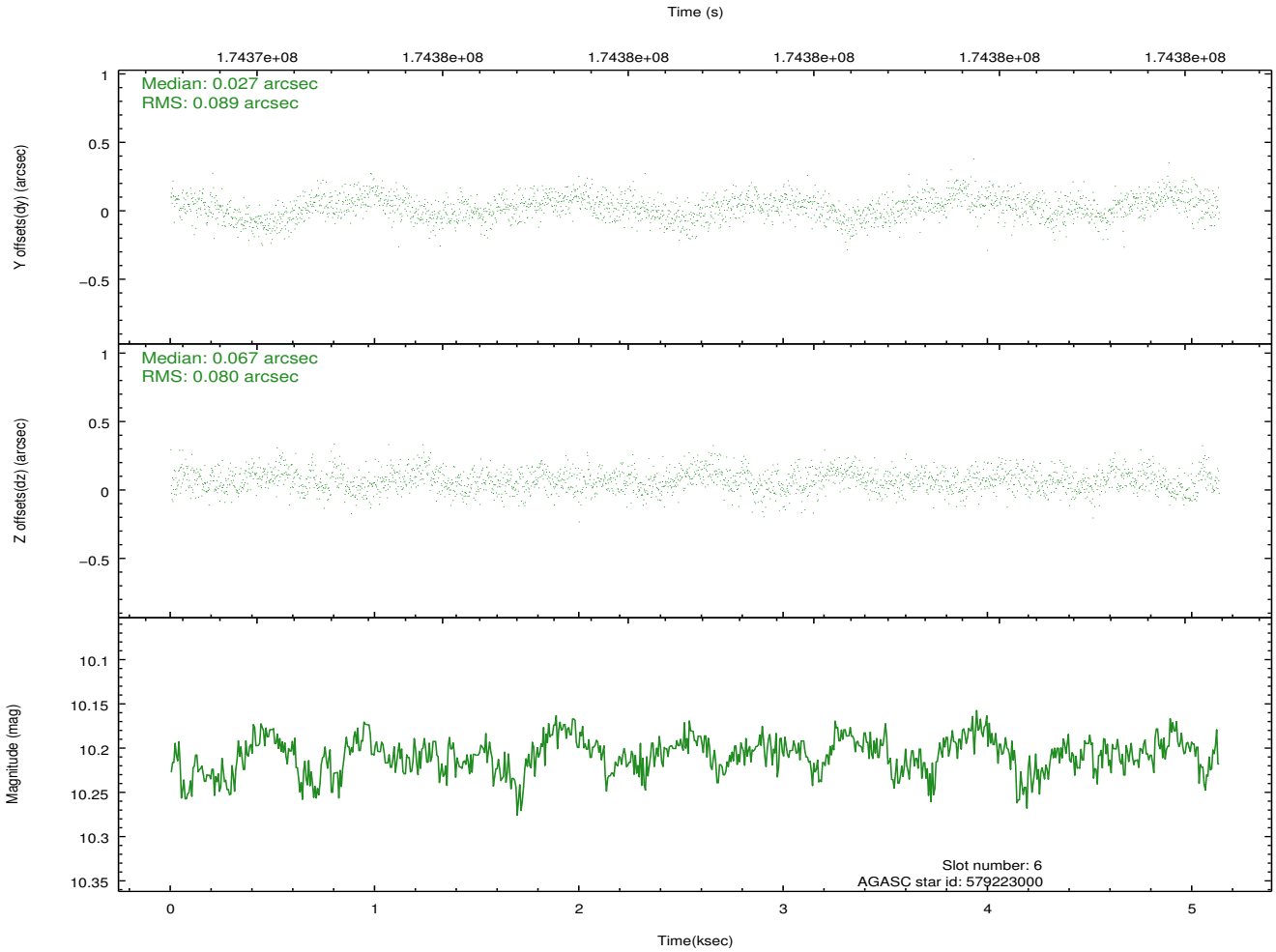

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.074 arcsec
Slot number: 5
AGASC star id: 579215256
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)


Time (s)
Median: 0.061 arcsec
RMS: 0.047 arcsec
Y offsets(dy) (arcsec)
Median: −0.042 arcsec
RMS: 0.054 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 5
AGASC star id: 579215256
Time(ksec)

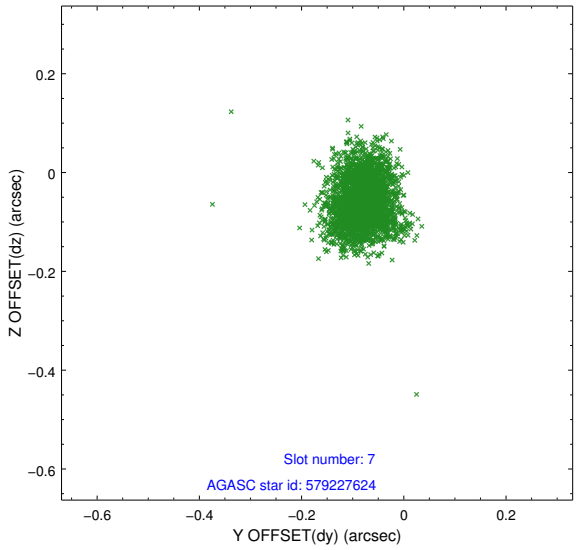
2.4.4 Slot 6

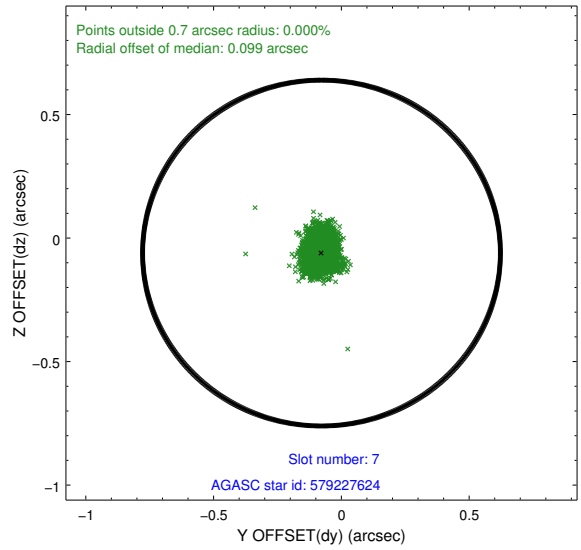

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 579223000

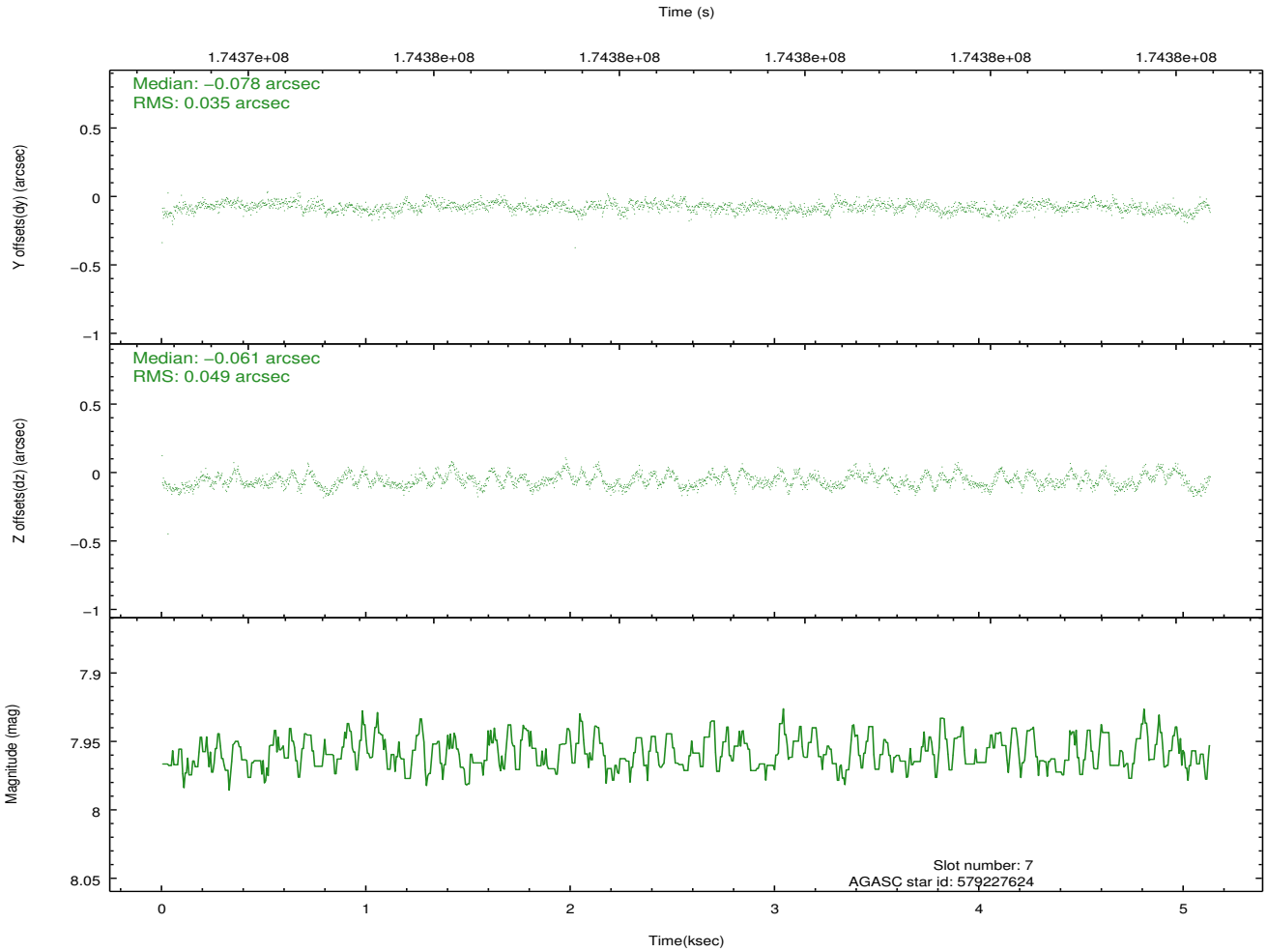

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.072 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 579223000


Time (s)
Median: 0.027 arcsec
RMS: 0.089 arcsec
Y offsets(dy) (arcsec)
Median: 0.067 arcsec
RMS: 0.080 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 6
AGASC star id: 579223000
Time(ksec)

2.4.5 Slot 7

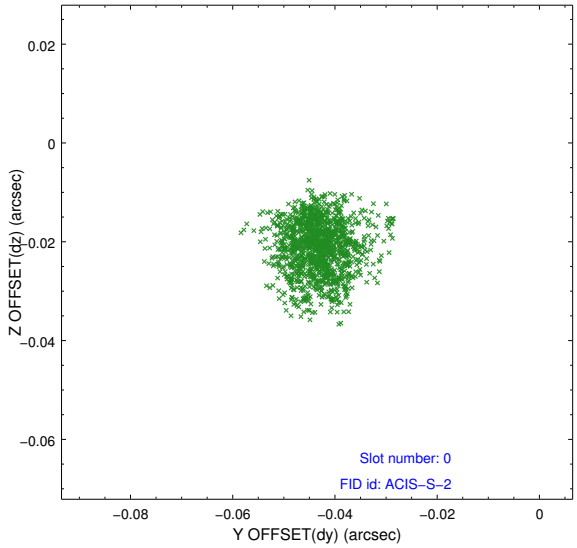

Slot number: 7
AGASC star id: 579227624
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

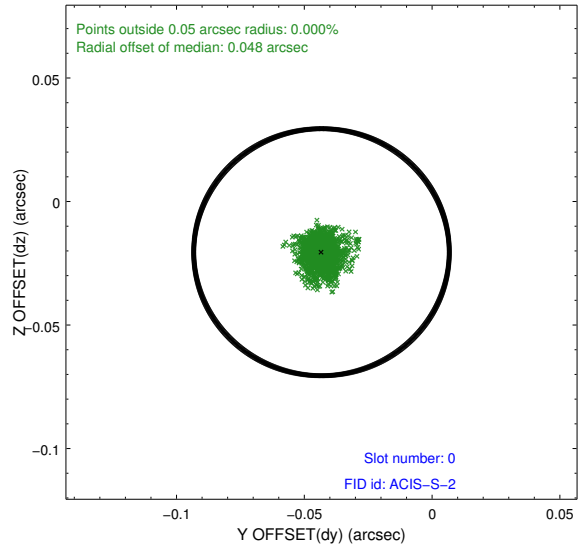

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.099 arcsec
Slot number: 7
AGASC star id: 579227624
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

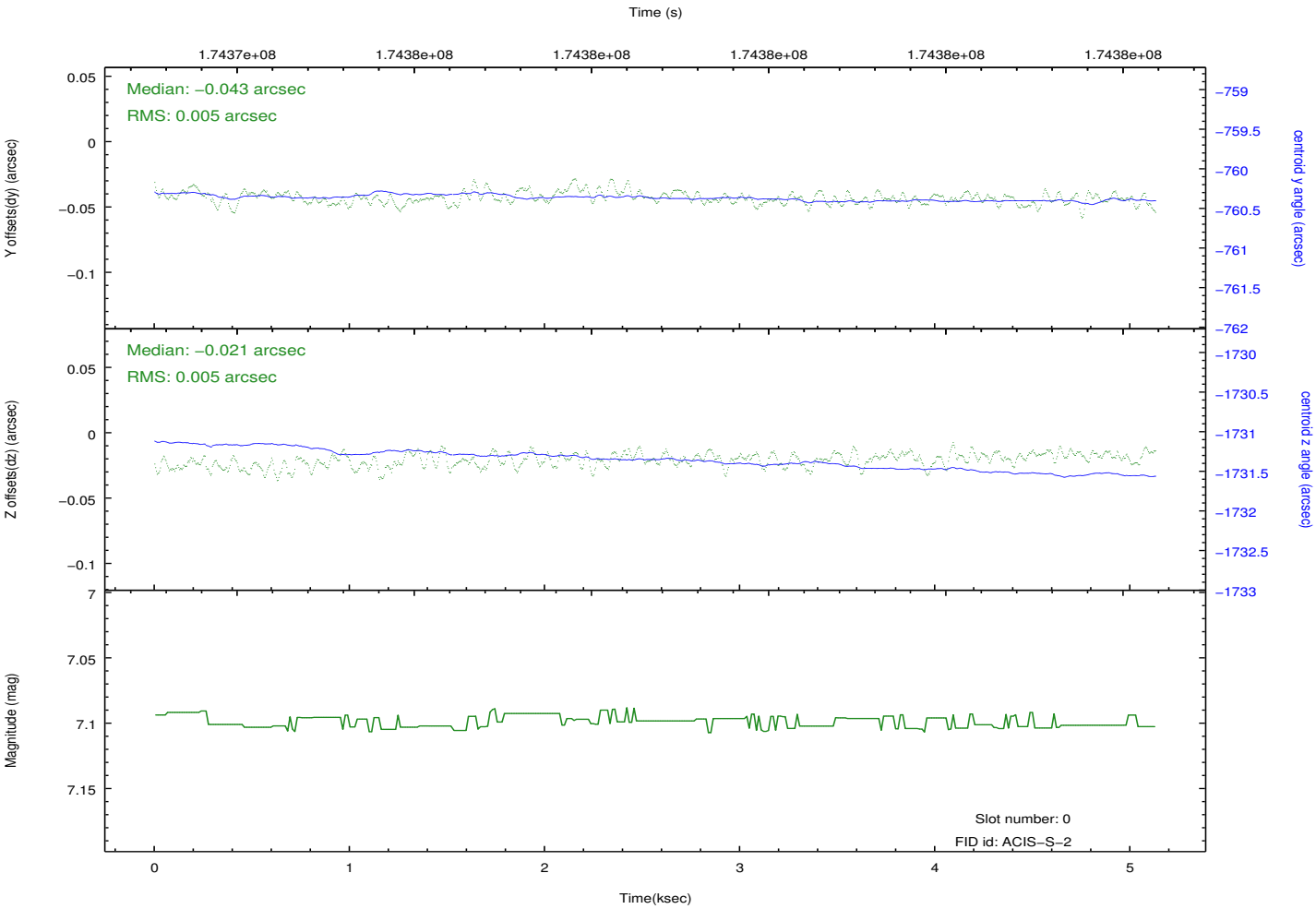

Time (s)
Median: −0.078 arcsec
RMS: 0.035 arcsec
Y offsets(dy) (arcsec)
Median: −0.061 arcsec
RMS: 0.049 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 7
AGASC star id: 579227624
Time(ksec)

2.5 FID Slots

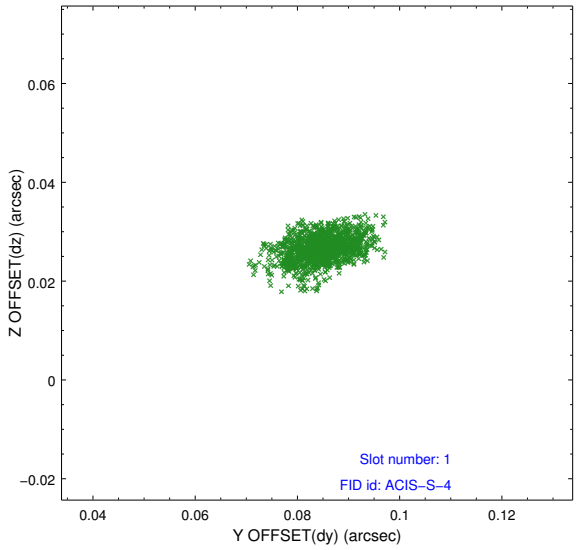
2.5.1 Slot 0

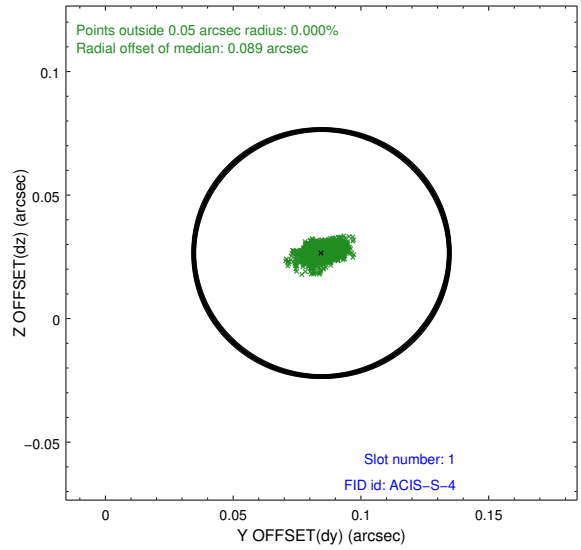


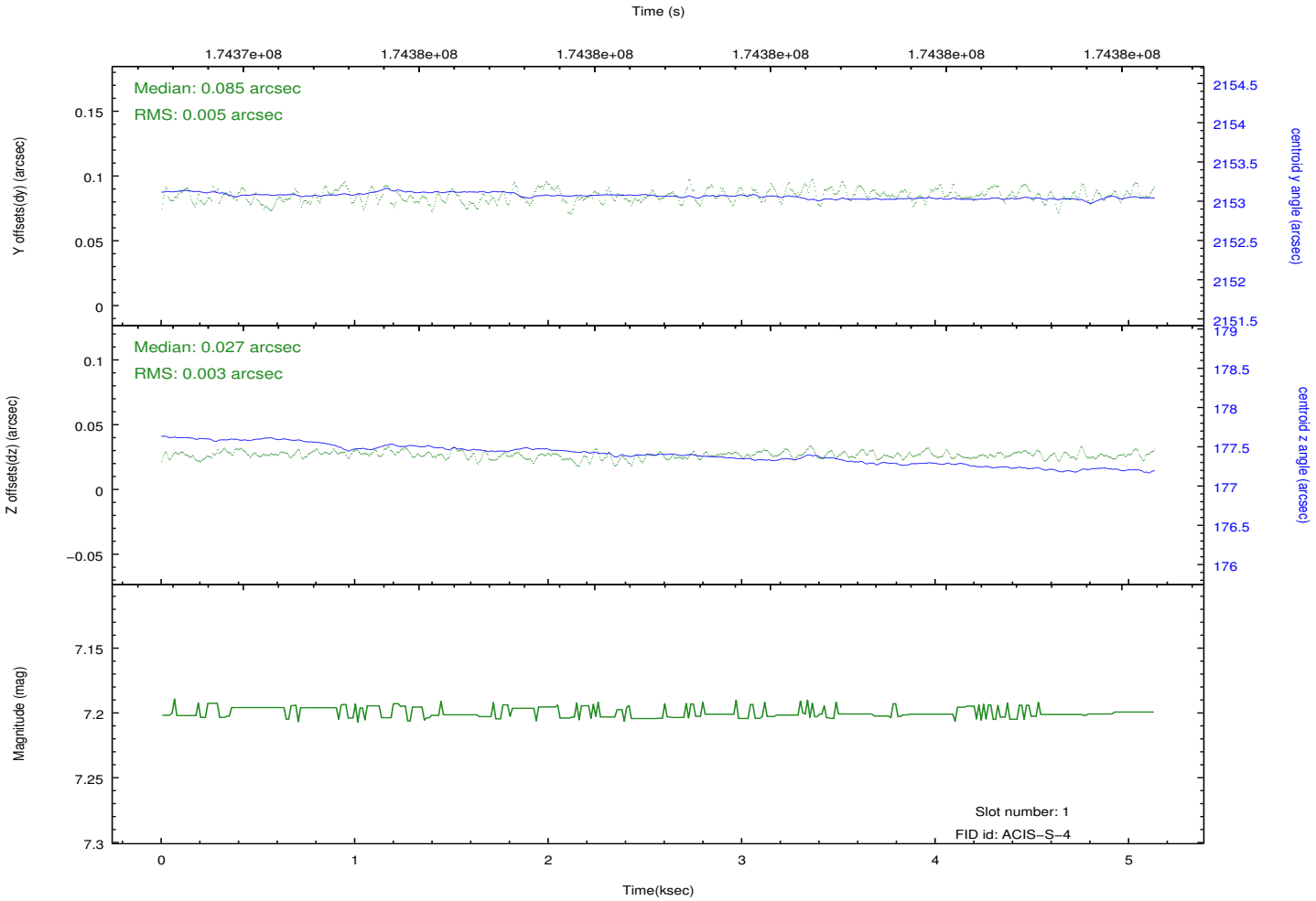




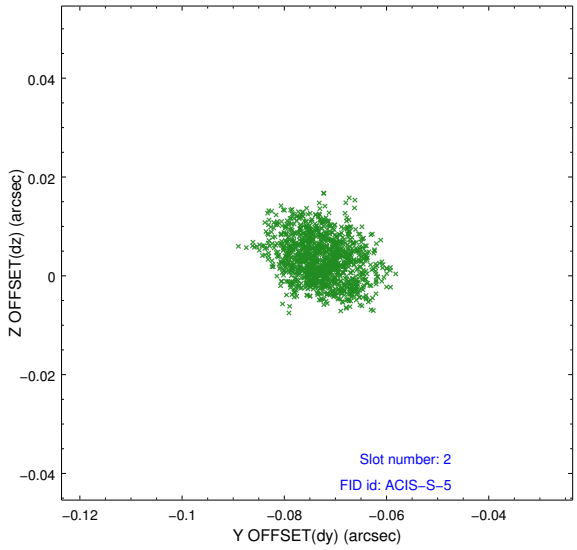
2.5.2 Slot 1

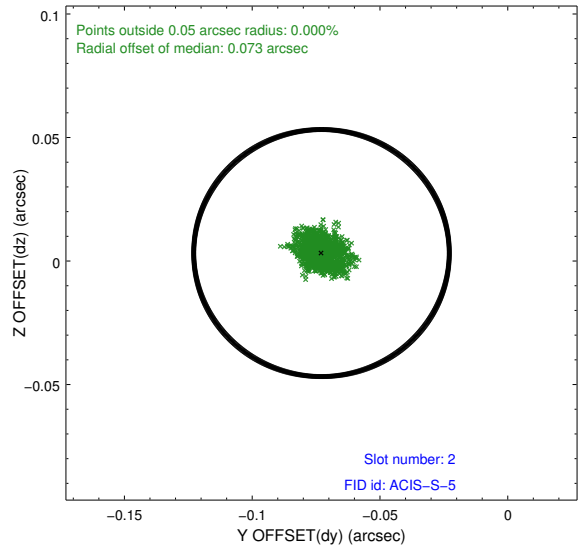

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−4

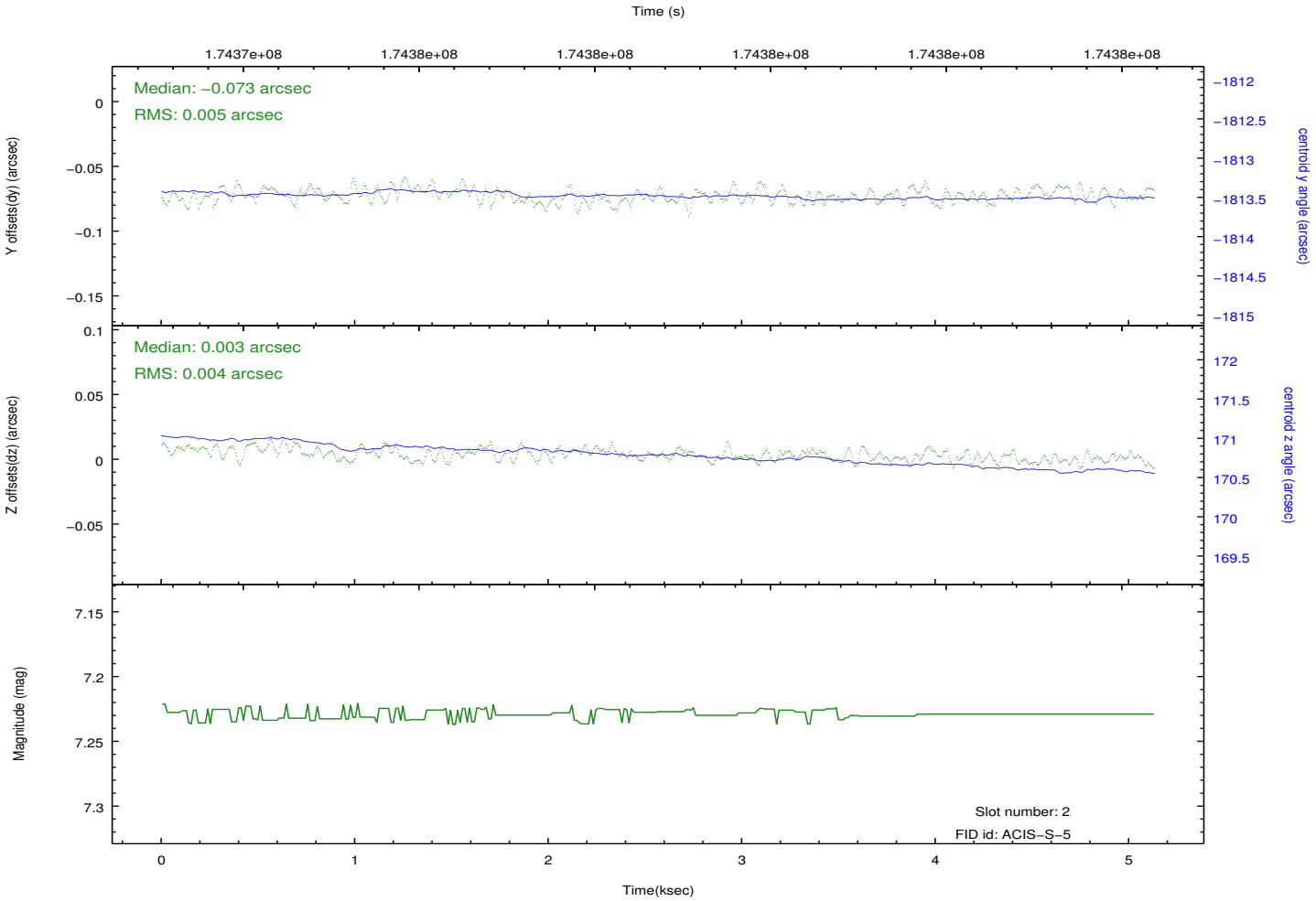

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.089 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−4


Time (s)
Median: 0.085 arcsec
RMS: 0.005 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.027 arcsec
RMS: 0.003 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 1
FID id: ACIS−S−4
Time(ksec)

2.5.3 Slot 2


Slot number: 2
FID id: ACIS−S−5
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)


Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.073 arcsec
Slot number: 2
FID id: ACIS−S−5
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)


Time (s)
Median: −0.073 arcsec
RMS: 0.005 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.003 arcsec
RMS: 0.004 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 2
FID id: ACIS−S−5
Time(ksec)

A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.11.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.697

A.2 Comments