

XMM-Newton CCF Release Note

XMM-CCF-REL-90

EPIC PN Energy Scale

M. Smith

September 21, 2001

1 Changes

Changes consist of new offset values for three columns, related to the bad pixel table updates of May and July 2001.

The offset values for selected columns are uploaded to the PN instrument at the same time as bad pixel locations. These offsets correct for low level noisy columns, by artificially suppressing their threshold values. However, in the ground processing this value must be added back in to obtain the correct energy scaling.

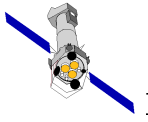
Owing to manual commanding and changes in the time-line the uploaded column offset values change back and forth between the old and new situation. This is reflected in the corresponding CCFs.

2 Scientific Impact of this Update

For a limited set of columns ensures a correct energy conversion. However if the wrong file is used it probably only affects a handful of columns at around a few eV level.

3 Estimated Scientific Quality

We expect that because the threshold of these columns was artificially raised, the actual detection efficiencies will have been altered as well. Not yet accounted for.



4 Expected Updates

With instrument database modifications, or due to future commanding errors.

5 CCF components

Name of CCF	VALDATE	List of Blocks changed	CAL VERSION	XSCS flag
EPN_ADUCONV_0094	2001-05-14T14:30:00	OFFSET_GAIN		NO
EPN_ADUCONV_0095	2001-05-14T20:30:00	OFFSET_GAIN		NO
EPN_ADUCONV_0096	2001-05-22T05:00:00	OFFSET_GAIN		NO
EPN_ADUCONV_0097	2001-05-22T16:30:00	OFFSET_GAIN		NO
EPN_ADUCONV_0098	2001-05-23T07:15:00	OFFSET_GAIN		NO
EPN_ADUCONV_0099	2001-05-23T21:00:00	OFFSET_GAIN		NO
EPN_ADUCONV_0100	2001-05-26T08:05:00	OFFSET_GAIN		NO
EPN_ADUCONV_0101	2001-05-26T15:00:00	OFFSET_GAIN		NO
EPN_ADUCONV_0102	2001-06-03T04:30:00	OFFSET_GAIN		NO
EPN_ADUCONV_0103	2001-07-26T14:00:00	OFFSET_GAIN		NO
EPN_ADUCONV_0104	2001-07-29T04:50:00	OFFSET_GAIN		NO
EPN_ADUCONV_0105	2001-08-02T04:00:00	OFFSET_GAIN		NO
EPN_ADUCONV_0106	2001-08-12T03:50:00	OFFSET_GAIN		NO
EPN_ADUCONV_0107	2001-08-16T03:50:00	OFFSET_GAIN		NO