

XMM-Newton CCF Release Note

XMM-CCF-REL-71

RGS2 CCD2 Thickness of SiO₂ Layer

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1 CCF components

Name of CCF	VALDATE	List of Blocks changed	CAL VERSION	XSCS flag
RGS2_QUANTUMEF_0007	1998-01-01T00:00:00	CCD_DESC	—	NO

2 Changes

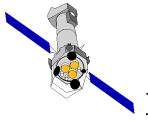
For CCD2 the thickness of the in-active layer of SiO₂ is increased from = 0 to 40 nm.

3 Scientific Impact of this Update

CCD2 was found to have a significantly lower efficiency than the remainder of the CCD's. This modification corrects that and brings the estimated response in-line with observations from the data.

4 Estimated Scientific Quality

The source of this apparent in-active layer could not be established to date. This absorbing layer was deduced from data by comparisons between first and second orders and also by comparisons with RGS1 and was found to be the most appropriate combination of material and thickness to best describe the data [1]. The accuracy with this CCF is estimated to $\sim 5\%$.



References

- [1] C. de Vries. *Comparing RGS1/RGS2 and CCD2 RGS2*. RGS-SRON-CAL-ME-01/cv1, Space Research Organization of the Netherlands, February 2001. http://ws13.sron.nl:8080/xmmdoc/effective_area/rgs-sron-cal-me-01_cv1.ps.