

Geosci. Instrum. Method. Data Syst. Discuss., referee comment RC1
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Comment on gi-2022-5

Anonymous Referee #1

Referee comment on "Single-event effect testing of the PNI RM3100 magnetometer for space applications" by Mark B. Moldwin et al., Geosci. Instrum. Method. Data Syst. Discuss., <https://doi.org/10.5194/gi-2022-5-RC1>, 2022

In "Single Event Effect Testing of the PNI RM3100 Magnetometer for Space Applications", by Mark Moldwin and others, the authors present results of radiation testing of the PNI RM3100 magnetometer sensor, taken to destruction, looking for evidence of single event effects. They conclude that "the PNI RM3100 is appropriate for use on missions in a variety of space environments (LEO polar, MEO, HEO, GEO, and deep space)."

The paper is concise, and very well written, addressing a range of single event failure modes, all presented in suitable contexts.

As space science evolves towards increasing use of small, and by inference lower cost scientific spacecraft, there is a clear need for the considered uses of COTS components. This paper contributes in a significant way towards those ends.

This reader has only one question, not really a comment of the paper: Going forward is there a middle ground for such testing of the PNI RM3100, that is not destructive, but could still be beneficial in increasing the space-worthiness/reliability of this device?

This reader recommends publishing as is.