

G-RAD Workshop - Grenoble Radiation Testing of semiconductor devices and systems



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Pulsed-Laser Testing for Single-Event Effects Investigations

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Laser testing offers an exciting opportunity for the impact of the natural space radiation environment on electronic components to be assessed in your own lab or workshop, without waiting for beam time and travelling to a remote facility. The value of laser testing for radiation tolerant product development and the screening of COTS parts is becoming appreciated ever more widely. When developing new products, the possibility of immediately testing the effect of a design change, mapping the single-event effects response across a die and correlating physical and virtual memory locations shorten the time to market and help you obtain results that are not possible with conventional radiation testing methods. When screening for part selection, laser testing can eliminate those types of component that are vulnerable to single-event effects so that you can use scarce heavy ion beam time on those you have confidence will pass. This approach is starting to make radiation testing available to even the lowest budget missions, something that was not attainable for CubeSats until now.

Presenter: SHARP, Richard (Radtest Ltd)

Session Classification: Session 4 - Alternative Testing Methods