

SEREEL2: SPA and TPA systems available

To enable laser Single Event Effects (SEE) testing and to simulate the ionisation tracks of charged particles, ultrashort laser pulses are focussed onto the device under test (DUT).

SPA relies on incident photons having energies above the bandgap of the target device. For silicon, wavelengths shorter than 1100 nm are required. SPA occurs along the laser propagation, making frontside testing of DUTs most suitable.

TPA relies on a high photon flux at the focus that enables the absorption of two photons having a combined energy above the bandgap of the target device. For silicon, this requires photons of wavelengths longer than 1100 nm. As TPA is confined to a small volume, it provides a 3D sectioning capability for the radiation sensitive regions. Also, due to no out-of-focus absorption, TPA makes backside testing of DUTs possible.

- SEREEL2 delivers varied laser scanning routines through our bespoke control software, SEE SIMulation
- Full registration of upsets to die locations
- Autofocussing and levelling option for speedy sample mounting
- The TPA system provides simple operation, suitable for flip chips and wire bonded devices
- The SPA system provides simple operation, ideal for wire bonded devices
- Spiral scanning for ultimate positional precision for high throughput part screening
- Raster scanning for R&D testing or less speed critical applications
- Fully enclosed for safe operation
- A full warranty is provided
- Non-ITAR



Companies can benefit from the SEREEL2 system to screen DUTs for SEE in your own facility, saving test and travel costs. Radtest Ltd can assist you with confirmation testing in our facilities or arrange for heavy ion testing time. Radtest Ltd provides installation, training and after-sales support for SEREEL2.

The setup is very customisable with options:

- Lasers of different wavelength, pulse duration and pulse energy.

- XY stages with 75 mm, 100 mm, 200 mm and 300 mm travel range (step size from 0.1 to 0.6 μm) are available.
- XY piezo stages with 250 and 800 μm travel range are available.
- Extended warranty is possible with order



For further information please contact **Radtest Ltd**

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