

Press release

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Laser 2000 presents the SPMPlus: Large-Area Silicon Photomultiplier

Wessling, 12. February 2008, The SPMPlus is a large area version of SensL's SPM detectors incorporating an array of individual Silicon Photomultipliers (SPM) pixels tiled together using a novel packaging concept. The output of the tiles are summed together resulting in a sensor with a large active area — the first silicon alternative for Large Area PMT. The detector is packaged in a format suitable for scintillator coupling or free space / fluorescence applications and is available with appropriate interface / preamplifier electronics.

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Actual Dimensions: 27mm x 30mm - The SPMPlus is the first solid state alternative to the analog Large Area Photomultiplier Tube

Whether you are an OEM or a researcher, with an application using a portable/miniature device, a large area radiation detector, or a high tier laboratory analysis instrument, the SPMPlus is the detector you should be investigating. Ideal for early adopters who wish to study the technology and evaluate the potential use of large area SPMs for low light detection applications, it will be of particular interest to research groups active in the development of detector systems for applications such as SPECT, Gamma Camera, and Radiation Detection for both medical and security purposes as well as developers of fluorescence applications requiring large detector sizes.

The module incorporates a transparent thick glass substrate with a connector which allows all of the individual pixel signals to be summed as a single output. The module can be supplied with appropriate interface / preamplifier electronics and a power supply. The first version has a total active area of 1.3cm x 1.3cm but the design is flexible and customizable to customer defined active size and performance. SensL's patented biasing circuitry ensures that these large area SPMs retain the fast on-set time (<10ns) and recovery time (<60ns) of their smaller cousins.

The SPMPlus is the first solid state alternative to the analog Large Area Photomultiplier Tube. It combines the high gain (10⁶) and gain stability advantages of the PMT technology with the well appreciated benefits of size, operating voltage, robustness, reliability, magnetic insensitivity and suitability for miniaturization of silicon detectors. In addition, the novel design is tolerant to excess / ambient light.

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About SensL:

SensL's broad range of detector technologies in analog SPM and digital Photon Counting are designed to suit the current and emerging market for low light sensors. At the core of every SensL detector is a low light sensing silicon photodiode that is capable of converting single photons into a measurable output signal. SensL uses dedicated fabrication processes to manufacture these sensors to provide the highest degree of sensitivity and device uniformity, which is only possible with silicon CMOS processing techniques from SensL.

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Über Laser 2000:

Laser 2000 GmbH is a supplier of high technology in the field of lasers, micromachining equipment, optics, and fiber optic equipment. Our products are designed to meet the challenges of both research and industrial production as well as your actual or future requirements of your applications. Laser 2000 is headquartered in Munich, Germany and operates local offices in all major business areas of the European market. In order to support your application we deliver top-level service and products and meet the highest standard of quality. With an installed base of thousands of applications around the world, Laser 2000 has shown the ability to provide onsite-support in time. Learn more about Laser 2000: www.laser2000.de

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