

Voltage Supply & Readout Modules

The Voltage Supply and Readout Module is the smallest regulated DC-DC high-voltage power supply for SiPM. It also converts the charge or current signal from the SiPM into a voltage that can be readily processed by DAQ.

Module Features

- Extra-small and lightweight
- Battery or DC Input from 2-5 V
- Low ripple (< 50 mV peak to peak)
- Remarkably short signal duration
- Exceptionally high count rate

Physical Characteristics

- Pulse duration: < 1 μ s
- Count rate: >10⁶ cps

Electrical Characteristics

- DC input: 2-5 V
- Power consumption: < 2 mA (with Detector Module)

Mechanical Characteristics

- Dimensions: 0.79 x 0.79 in

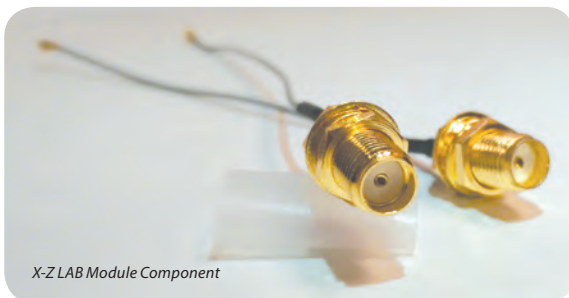
Environmental Characteristics

- Operating temperature: -0-60 °C/ 32-140 °F
- Storage temperature: -20-60 °C/ -4-140 °F
- EMC compliance: exceeds standards by a large margin

Functional Characteristics -

Three Connectors

- One U.FL connector for connection to detect module
- One U.FL connector for connection to DAQ
- One two-pin connector for connection to battery



X-Z LAB Module Component



Engineering
A Safer World

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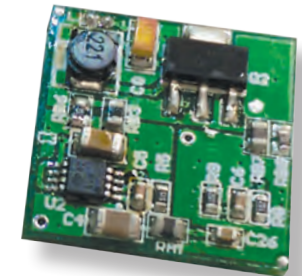


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RDM

All Digital
Modularity in Design
Transformative



Radiation Detection
Module



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All Digital

High System Stability & Reliability



Greater Accuracy

Virtual Elimination of Errors & False Alarms

High Sensitivity

Detection of Minute Measurement Variations

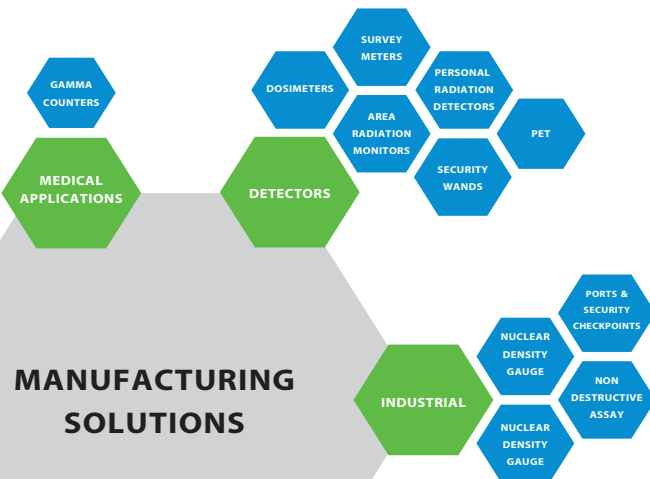


Instant Response

Less than Two-Second Notification

Gamma | Beta | X-Ray

Enhanced Awareness & Analysis



OEM Radiation Detection Solutions

Our OEM Integration Team can augment your radiation detection portfolio and manufacturing capabilities.

Our YSO / SiPM / MVT platform can be implemented as a solution in a variety of dosimeters, detectors, hardware and software. By customizing detector modules, we can address unusual target areas or requirements for radiation safety.

Our Radiation Detection Modules offer the smallest footprint commercially available providing flexible and seamless integration into existing enclosures.

In addition to monitoring a range of radiological parameters, a module can export data through RF, WiFi, ZigBee, Ethernet, or other communication protocols.

Implement the best modular, all-digital and transformative technology available to advance yours. Give us a call to discuss a MVT license and developer kit.



Radiation Detection Modules

The detector module is based on YSO and SiPM, which can be used for gamma counting or energy measurements. Compared to traditional radiation detectors, our detection modules have many advantages:

- Compact and light design
- Low power consumption
- Temperature & magnetic field stability
- On-demand size
- Competitive price

Physical Characteristics

- Energy range for gamma counting: 20 keV–3 MeV
- Energy range for energy measurements: 30 keV–1.33 MeV
- Energy resolution: < 10% @ 662 keV

Electrical Characteristics

- Power supply: 30±2 V DC
- Power consumption: < 0.1 mA

Environmental Characteristics

- Temperature Range: 0–60 °C / 32–140 °F
- Storage: -20–60 °C / -4–140 °F
- EMC compliance: exceeds standards by a large margin

Functional Characteristics

- One connector: pick-and-placeable U.FL connector

YSO / SiPM Customization

- YSO 0.16 x 0.16 x 0.79 in / SiPM 0.16 x 0.16 in
- YSO 0.28 x 0.28 x 0.79 in / SiPM 0.28 x 0.28 in

All Digital

All-digital technology unlocks the potential of digital signal processing (DSP) to provide state-of-the-art architecture at a fraction of the cost.

Modularity In Design

Enables adaptive configurations from simple to extremely complex measurement and imaging solutions.

Transformative

Our transformative technology provides inspiration to exceed the perpetual research and development threshold.