



# Space Particle Monitor (SPM) for Satellite

~ Monitoring for the space radiation environment in the satellite orbit ~



#### **Outline**

SPM can count space radiation, and it is used for a small satellite with an altitude of 400 to 500 km.\* SPM identify the effect of the space radiation environment(TID,SEE etc.\*\*) in the satellite orbit.

\*Customization is available

\*\*Estimate only. SPM count the number of the energy particle(Electron, Proton, Heavy ion)

#### **Features**

- Simultaneous classification and energy measurement of electrons, protons, and heavy particles.
- ITAR free
- RoHS nonconformity
- Made in JAPAN

## **SPECIFICATIONS**

Items	Performance
Power supply voltage	+12 $V_{DC}$ (45mA <sub>typ.</sub> ), -12 $V_{DC}$ (20mA <sub>typ.</sub> ), +5 $V_{DC}$ (60mA <sub>typ.</sub> )
Telemetry / command interface	RS-422
Line type / Energy range	Electron: >0.21 MeV (2CH)
	Proton: 5.5 to 300 MeV (6CH)
	Heavy Ion: >7.12 MeV/n (2CH)
FOV	±41.2 deg
Dimensions	102 x 132 x 46 mm (flange and screw not included)
Mass	< 900 g (MLI included)
Operating temperature range	-10 to +50 °C
Power consumption	< 1.1 W
Data rate	370 bps (in the case of 1 sec integration time)
Lead time	About 9 to 12 months after receiving orders.  Delivery time depends on availability of calibration test equipment.
Flight heritage	RAPIS-1 (JAXA)

- \* Above-mentioned specification is an example.
- \* FOV is determined by satellite orbit.

  The specifications will be customized to suit your request.

  In the case we would kindly ask you to pay for the option fee.



- For safe and correct usage, please read the "Operation Manual" prior to the use of the products.
- Specifications and designs are subject to change without notice.
- Specifications and designs are based on the standard model.
   Please contact us regarding further customization to suit your project's needs.
- This products may be subject to the application of the Foreign Exchange and Foreign Trade Act and other related laws and regulations in Japan. Customer agrees to comply with such regulations and acknowledges that it is their responsibility to obtain any required licenses to export, reexport, or import this products.
- We shall not be liable for any damages arising out of or in connection with the use of specifications herein, including liability for lost profit, business interruption, or any other damages whatsoever.
- The color of the product photography on catalog might be different from that of actual product because of printing.

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