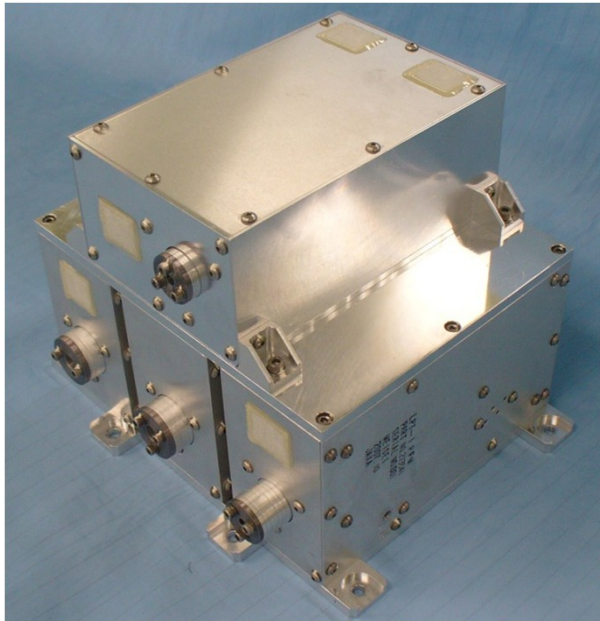


Particle Detector for Spacecraft



Outline

A particle detector instrument observes electron, proton and He. The instrument contributes to investigations into the cause of troubles such as malfunctions of semiconductor devices and electrostatic charge. It also observes the worst environment of trapped particles in the radiation belt, solar flare particles, and auroral particles.

Heritage:

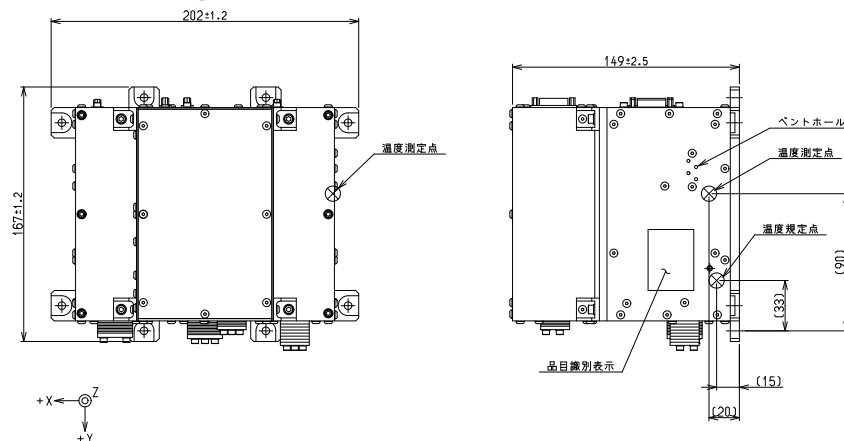
- Greenhouse Gases Observing Satellite "IBUKI" (GOSAT)
- JASON2

Features

The particle detector instrument consists of the low energy electron detector (ELS-A), the high energy electron detector (ELS-B), the low energy alpha proton detector (APS-A), and the middle energy alpha proton detector (APS-B). The detectors observe light particles (electron, proton, deuteron, tritium, helium 3, and helium 4).

The instruments will be separately used in accordance with the intended use.

Outer Shape Drawing



* This product was developed with the support of JAXA (Japan Aerospace Exploration Agency)

* Note that, with due to the rights of other relevant parties and/or depending on usage, application and/or delivery place, the product may not be sold, commercially distributed, leased or included in a part of product or system which intends to receive benefits through the inclusion of the product.

Specifications

LPT1, LPT2	
Observation particle	Electron, proton, deuteron, tritium, helium
Observation energy range	Electron: 30keV to 20MeV Proton: 400keV to 250MeV Deuteron: 2 MeV/n to 26.6 MeV/n Tritium: 2 MeV/n to 20.7 MeV/n Helium 3: 3 MeV/n to 84.3 MeV/n Helium 4: 0.75 MeV/n to 100 MeV/n
Sensor composition	Silicon semiconductor detector (PIN type) APS-A: 3 pieces APS-B: 4 pieces ELS-A: 4 pieces ELS-B: 1 piece
Energy resolution	APS-A, APS-B, ELS-A: less than 25keV ELS-B: less than 10%
Observation frequency	More than 5×10^4 event/sec
G-Factor	APS-A: 0.003 cm ² ·sr APS-B: 0.0085 cm ² ·sr ELS-A: 0.0442 cm ² ·sr ELS-B: 0.0597 cm ² ·sr
Field of vision	APS-A: ±10° APS-B: ±16.7° ELS-A: ±21.8° ELS-B: ±21.8°

* The specifications will be tailored to suit your needs.



Caution

- 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, re-export, 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 printed colors may appear difficult from the actual product.

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