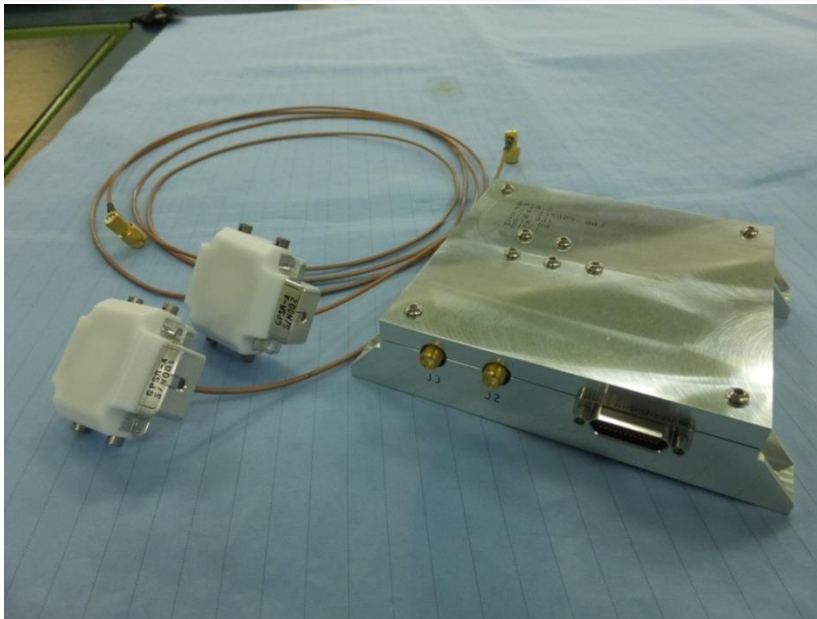


Dual Antenna GPS Receiver for Satellite



Outline

- GPS and QZSS receiver for micro and small satellites
- Dual GPS antenna enables positioning at any attitude
- Inner combination of signals from two antennas

Features

- **Flight proven**
- Lower cost using COTS parts
- QZSS and GPS receivable
- Software processing by CPU and FPGA with the flexibility to meet individual needs.
- Digital synthesis of dual channel antenna input signal
- Positioning of the spacecraft regardless of the attitude by dual channel antenna
- The maximum length of cable is 1.5m.
- GPS-R(1PC)/GPS-A(2PC)
- ITAR free
- RoHS nonconformity
- Made in Japan

SPECIFICATIONS

	Items	Performance	
GPS-R	Number of channels	16	
	Number of antennas	2	
	GPS signal	L1 C/A 1575.42 ± 1.023 MHz	
	Positioning accuracy	< 3 m	
	Time to fix	Cold start: < 15 min Warm start: < 1 min	
	Sensitivity	< -130 dBm at antenna terminal	
	Telemetry/command interface	Serial I/F (TIA/EIA-422 ITU-T V.11)	
	Telemetry	Latitude, Longitude, Altitude, Position (3D), Velocity (3D), Status, Temperature, etc.	
	Supply voltage	5 V	
	Power consumption	< 2.5 W (except antenna)	
	Dimensions	Receiver	107 x 131 x 31 mm
		Antenna	44 x 51 x 15 mm (flange and screw not included)
	Mass	< 500 g	
	Temperature range	Operation	-20 to +60°C
		Non-operation	-50 to +70°C
Vibration	Random : 25.72 Grms (20 to 2000 Hz)		
Radiation	Tolerant to radiation environment of LEO altitude		
Rigidity (first natural frequency)	300 Hz		
GPS-A	Reception frequency	1575.42 ± 1.023 MHz	
	Gain	26 dBi ± 6 dB (-30 to + 85 °C)	
	Output impedance	50Ω	
	Output VSWR	> 2.0	
	Power supply voltage	DC 4.5 ±0.5 V	
	Consumption current	12 to 30mA	
	Operating temperature range	-30 to +85°C	
	Storing temperature range	-40 to +100°C	
Other	Lead time	About 6 months after receiving orders.	
	Flight heritage	ISS	

Caution

- 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, 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 color of the product photography on catalog might be different from that of actual product because of printing.

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