

Inertial Reference Unit

Features



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- MITSUBISHI PRECISION's TDG (Tuned Dry Gyroscope) is long life and superior accurate inertial rate sensor for satellite. Enabling angular velocity of orthogonal 2 axes.
- Compact Size and Light weight
- High reliability, Long Life (> 20.5years)
- Up to severe environmental condition
- Low power consumption
- 2TDGs configuration is available (option)

Heritage

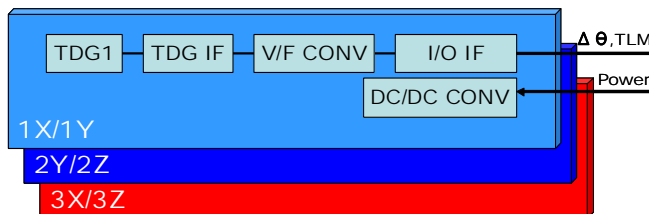
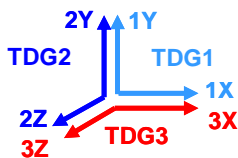
GOSAT, QZS, GCOM-W1 (2012), ASTRO-H (2013), ALOS-2 (2013), GCOM-C1 (2014)

Block Diagram

We have made more than 200 TDGs.92 TDGs got excellent orbital heritage.Joint development with JAXA



Internally full redundant system



Performance

Design Specification	Capability	Remarks
Number of TDG	2 or 3 (Redundant conf.)	
Measurement range	Linear range Polarity range	$\pm 4.0\text{deg/s}$ Min $\pm 10.0\text{deg/s}$ Min
Scale factor (Nominal)		0.05arcsec/pulse
Short term stability		0.002deg/h (1 σ) Max
NEA (Noise Equivalent Angle)		2.0arcsec p-p Max
Angle data interface		RS422 (Pulse train)
Temperature	Operating Turn-on	-10°C to +50°C -5°C to +50°C
Power (@ 3TDG on)		36W Max
Bus voltage		30~52V
Figure / Mass		364W x 252D x 120Hmm TYP
Mass		< 10kg (3 Gyros)
Design Life		20.5years
Random Vibration		> 19.7Grms (Qualification)

Subject to change without prior notice.

This product cannot be exported overseas without permission from the government.