

Inertial Reference Unit

Features



- 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

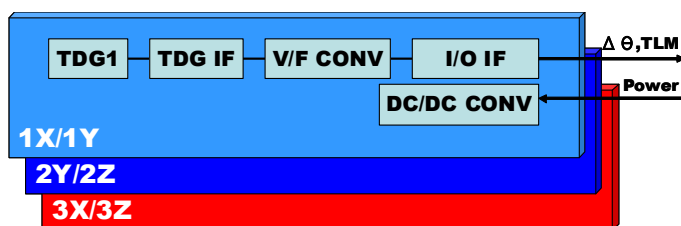
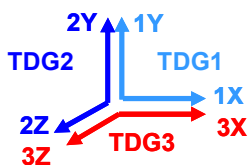
QZS-2 ,QZS-3 ,QZS-4 ,SLATS

Block Diagram

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



Internally full redundant system



Performance

| Item | 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 | | 218W x 208D x 175Hmm TYP |
| Mass | | < 7kg (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.