

Three–Axis Magnetometer (TAM) for Satellite MS-15

Three-Axis Magnetometer (TAM) MS-15

- Magnetometer measure magnetic fields of environment.
- 3-axis magnetometers measure values of the x, y and z axes field, and total magnetic field.
- Total field can be measured exactly by accurate orthogonality correction between 3-axis values.
- Sensorpia Co. has accurate orthogonality correction technologies.
- Magnetometer was developed for scientific satellite and has heritage.



Applications

- Attitude control is important for satellites, and the attitude can be controlled using the earth's magnetic field.
- Magnetic torquers and 3-axis magnetometers are used to control the attitude of satellites.

Characteristic

- It's used to control the attitude of satellites. It has light weight and low power consumption.
- It senses attitude by measuring 3-axis components of the earth's magnetic field.

Specification

MS-15	
Measuring range	$\pm 60 \mu\text{T}$
Resolution	0.01 nT at 1Hz
Communication interface	RS-422
Linearity	$\pm 0.1 \%$
Axis alignment	Max. $\pm 1^\circ$
Bandwidth	10 Hz
Input Voltage	$15 \pm 2 \text{ V}$
Power consumption	$< 1.3 \text{ W}$

Operating environment and Mechanical

Operating Temp.	$-40^\circ\text{C} \sim +53^\circ\text{C}$
Dimension (mm)	35 X 112 X 35 (± 0.2)
Total weight (g)	< 250
Coating	Chromate or anodizing
Connector	DEMM9PNMBK52