

## Inertial Measurement Unit RION-IMU300



**RION-IMU300** delivers unmatched cost-affordable, high performance measurements where angle and motion parameters are required for dynamic measuring, positioning, and navigation.

This rug-designed IMU uses high reliable and quality quartz accelerometers and closed-loop fiber optic gyroscope to provide reliable angular and line motion measurement even under harsh environment via the state-of-art technology.

### Application

- Aviation
- Antenna Stabilization
- Vehicle Guidance and Control
- GPS Augmentation
- Attitude Reference
- Marine Dynamics
- Mining and Auto-farming
- Train & Container Tracking



### Features

- Full temperature compensated via testing data from -45°C ~ +70°C for zero point, SF
- Rugged design to protect against the harsh environments
- Vibration and EMI resistance

### Specification

Physical	Size	Configuration (L×W×H)	151 mm× 120 mm× 101 mm
		Installation (L×W)	140 × 110 (4-Φ5.5)
Power	Weight		
	Voltage	Power Consumption	9~36 VDC < 12 W
Activation Time			<3s
Gyroscope	Bias Drift at Fixed Temperature		0.5 deg/h
	Bias Drift at Changing Temperature (-45°C ~70°C)		<2 deg/h
	Bias Repeatability		0.5 deg/h
	Scale Factor Non-linearity		200 ppm
	Scale Factor Repeatability		200 ppm
	Bandwidth		>100 Hz
	Resolution/Threshold		0.3 deg/h
Accelerometer	Alignment		< 1'
	Bias		0.5 mg
	Bias Stability		0.1 mg
	Bias Repeatability		0.1 mg
	Scale Factor Non-Linearity		300 ppm
	Scale Factor Repeatability		300 ppm
	Resolution/Threshold		0.1 mg
Operating Range	Bandwidth		> 100 Hz
	Alignment		< 1'
	Angular Rate	Acceleration	±300 deg/s ±10 g
	Output Rate		100 Hz @ 115200 Baud rate
Reliability (predicted)			10 Kh MTBF
Input/ Output			RS232/RS422
Environmental	Operational Temperature		-45°C ~ +60°C
	Storage Temperature		-50°C ~ +70°C
	Vibration		6 g @ 20~2000 Hz
	Shock		40 g, 11 ms, 1/2 Sine

