

BS-FM150

High-precision inertial measurement unit (Type A, Type B)

Product features: Wide measurement range, built-in multi-mode satellite navigation system, can output precision IMU information acquisition synchronization signal

The additional measurement range is optional, and the surplus computing resources are available for secondary development by customers. Lightweight, low power, built-in high precision crystal oscillator time synchronization error within 1 ppm, low power version available, 5V power supply, steady state power consumption 6 W



Typical should be:

1. Map acquisition, underwater machines
2. Track detection and pipeline detection
3. Unmanned vehicles, high-precision agriculture, etc.

Technical indicators				
	Parameter name	Unit	BS-FM150A-M-D6EC	BS-FM150B-M-D6EC
Gyro channel	Measuring range	(°)/s	-500~+500	-500~+500
	Synthetic zero bias residuals	(°)/h	-0.3~+0.3	-0.3~+0.3
	Random walk coefficient	(°)/√h	0.02	0.02
	Zero bias stability at room temperature	(°)/h(10s, 1σ)	≤0.1	≤0.2
	Zero bias stability at full temperature	(°)/h(10s, 1σ)	≤0.15	≤0.3
	Normal-temperature zero-bias repeatability	(°)/h(1σ)	≤0.1	≤0.2
	Zero-bias repeatability at full temperature	(°)/h(1σ)	≤0.15	≤0.3
	Scale factor nonlinearity	ppm	≤20	≤30
	Scale factor repeatability	ppm(1σ)	≤20	≤30
	Gyro start time	s	≤5	≤5
	Gyro bandwidth	Hz	≥300	≥300
	Installation error residual of three-axis gyroscope	"	≤30	≤30
	Acceleration channel	Measuring range	g	-20~+20
Zero bias stability at full temperature		ug(10s, 1σ)	≤100	≤100
Zero-bias repeatability at full temperature		ug(1σ)	≤100	≤100
Add up the starting time		s	≤5	≤5
Triaxial addition installation error residual		"	≤30	≤30
1. Environmental parameters				
1.1	Operating temperature	°C	-40~+60	
1.2	Storage temperature	°C	-45~+75	
1.3	Vibration	Hz.g ² /Hz	20~2000,0.04	
1.4	Impact	g.ms	20,11, half sine	
2. Electrical parameters				
2.1	Power supply	V	+9~+36(DC)	
2.2	Steady-state power	W	≤9	
2.3	Data interface	/	RS-422/CAN	
2.4	Data refresh rate	Hz	≤200 (settable)	
3. Physical parameters				
3.1	Outline ruler	mm	78x78x80	
3.2	Install the ruler	mm	69.5x69.5(4xΦ4.5)	
3.3	Weight	kg	≤0.8	