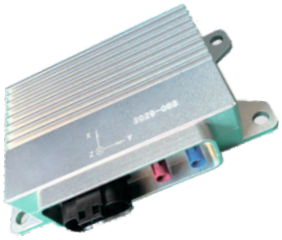
BLITZSensor



INS GNSS
Integrated Navigation System

BS-NU14-M-D6EC

MEMS Inertial Devices and Systems

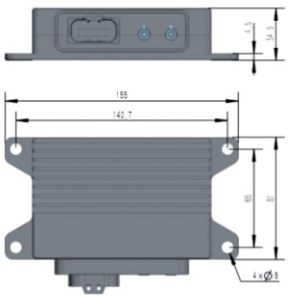
- ◇ Based on MEMS Process
- ◇ Compensated for over temperature
- ◇ Fully calibrated for parameters of each axis of sensors
- ◇ High accuracy gyros 2°/h (Allan variance)
- ◇ Low power, small size
- ◇ Robust for vibration & shock

	Parameter	BS-NU14-M-D6EC
Heading	Range	-180 ° ~ + 180 °
	Accuracy	<0.1 °
Attitude	Range : Roll, Pitch	-180 ° ~ + 180 ° , -90 ° ~ + 90 °
	Dynamic Accuracy	<0.05 °
GPS Outage	Position Drift (1km or 2min)	0.2% (with odometer)
	Heading Drift (1min)	0.15°
Gyroscope	Range : X,Y,Z	±450 °/s
	Angular Random Walk	≤0.25 °/√h
	Bias Instability (Allan variance)	≤2 °/h
	Bias Stability	≤10 °/h
	Scale Factor Non-linearity	≤50 ppm
	Sensitive Axis Misalignment	0.05%
Accelerometer	Range : X,Y,Z	±10 g
	Bias Stability (1σ)	≤0.2 mg
	Bias Repeatability	≤0.2 mg
	Scale Factor Non-linearity (in ±1g)	≤200 ppm
	Sensitive Axis Misalignment	0.05%
	Velocity Random Walk	≤0.02 m/s/√h
GNSS Receiver	Position	≤1.5 m (SPP), 2cm+1 ppm (RTK)
	Velocity (1σ)	≤0.03 m/s
	Attitude (1σ)	≤0.2 ° (Baseline 2 m)
	Heading (1σ)	≤0.2 ° (Baseline 1m)
		≤0.08 ° (Baseline 2 m)(GNSS INS Integrated Value)
	Signal Frequency	BDS: B1/B2 GPS:L1/L2 GLONASS:L1/L2 GALILEO: E1/E5b
System Performance	Input Voltage	9~24 V
	Power consumption	≤6 W
	Interface	RS422, CAN
	Data Rate	100/200 Hz
	Baud Rate	230400 bps
	Size	155 mm× 81 mm× 34.5 mm
	Weight	≤415 g
	Operating Temp.	-45~+85℃
	Storaging Temp.	-50~+85℃

◇ Applications

Integrated Navigation Systems & Inertial Guidance Systems Flight Control & Guidance Systems
Attitude Heading Reference Systems (AHRS) Stabilization of Antennas, Cameras & Platforms

◇ Structure (unit:mm)



Top View

PIN No.	Signal Name	PIN No.	Signal Name
1	CAN2_L	10	1PPS
2	CAN2_H	11	--
3	CAN1_L	12	GND
4	CAN1_H	13	--
5	GNSS_DIFF_TXD	14	RS422 R+
6	GNSS_DIFF_RXD	15	--
7	GND	16	RS422 R-
8	Power Ground	17	RS422 T+
9	Power Positive	18	RS422 T-

Pin Definition