



## INS GNSS Integrated Navigation System

### BS-NU13-M-D6EC

## MEMS Inertial Devices and Systems

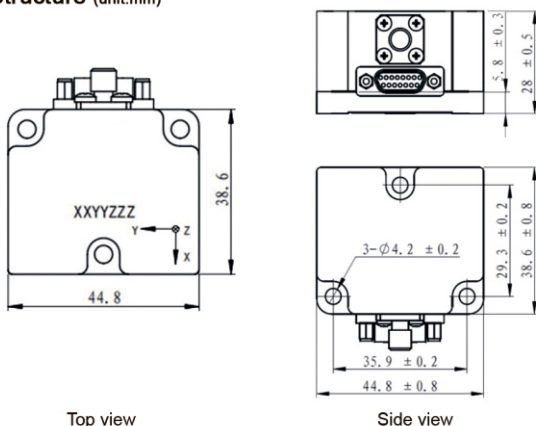
- ◇ Based on MEMS Process
- ◇ High accuracy gyros 5°/h (Allan variance)
- ◇ Compensated for over temperature
- ◇ Low power, small size
- ◇ Fully calibrated for parameters of each axis of sensors
- ◇ Robust for vibration & shock

Parameter	BS-NU13-M-D6EC	
Heading	Range	-180 ° ~ + 180 °
	Accuracy	≤0.2 °
Attitude	Range : Roll, Pitch	-180 ° ~ + 180 ° , -75 ° ~ + 75 °
	Dynamic Accuracy	≤0.2 °
GPS Outage	Position Drift ( 1 min )	≤3 m ( with odometer )
	Heading Drift ( 1min )	≤0.2 °
Gyroscope	Range : X,Y,Z	±450 °/s
	Angular Random Walk	≤0.2 °/√h
	Bias Stability ( 1s smoothing )	≤10 °/h
	Scale Factor Non-linearity	≤50 ppm
	Sensitive Axis Misalignment	10'
Accelerometer	Range : X,Y,Z	±10 g
	Bias	≤5 mg
	Bias Stability ( 1σ )	≤0.2 mg
	Bias Repeatability	≤0.2 mg
	Scale Factor Non-linearity (in ±1g)	≤150 ppm
GNSS Receiver	Sensitive Axis Misalignment	10'
	Horizontal Position Accuracy	≤1.5 m
	Vertical Position Accuracy	≤2 m
	Velocity ( 1σ )	≤0.05 m/s
	Heading ( 1σ )	≤0.3 °
System Performance	Frequency	GPS L1, GLONASS L1, Beidou L1
	Input Voltage	5±0.2 V
	Power consumption	≤2 W
	Interface	RS422
	Baud Rate	115200 default value
System Performance	Size	44.8 mm× 38.6 mm× 28 mm
	Operating Temperature	-45°C~+85°C
	Storing Temperature	-50°C~+85°C

### ◇ Applications

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

### ◇ Structure (unit:mm)



No.	Pin	Function
1	+5V	Power
2	GND	Power ground
3	RS422 TX_P	RS422 Transmit Positive
4	RS422 TX_N	RS422 Transmit Negative
5	RS422 RX_P	RS422 Receive Positive
6	RS422 RX_N	RS422 Receive Negative
7	AUX_RS232_TXA	Extended serial port output A
8	AUX_RS232_RXA	Extended serial port input A
9	SGND	Signal ground
10~15	NA	Reserved