



AGM08



Sensor Specifications

Angles

Range	Pitch: $\pm 90^\circ$ Roll: $\pm 180^\circ$ Yaw: $\pm 180^\circ$
Static Accuracy (RMS)	Pitch $\leq 0.0185^\circ$ Roll $\leq 0.0182^\circ$ Yaw $\leq 0.1505^\circ$
Dynamic Accuracy (RMS)	Pitch $\leq 0.45^\circ$ Roll $\leq 0.38^\circ$ Yaw $\leq 1.46^\circ$
Angular Resolution	Pitch: 0.05° Roll: 0.05° Yaw: 0.05°

Accelerometer

Range	± 16 g
Zero Offset Error	-
In-run Bias Stability	< 0.04 mg
Noise Density	0.15 mg/ $^\circ\text{C}$
Velocity Random Walk	-
Nonlinearity	± 2 g ± 0.1 %

Gyroscope

Range	± 2000 d/s
In-run Bias Stability	0.9 d/vh
Angle random walk	1.35 d/vh
Noise Density	0.015 d/s/ $\sqrt{\text{Hz}}$
Nonlinearity	± 5 0.2 FS

Magnetometer

Range	± 8 Gauss
Nonlinearity	Linearity over ± 200 uT 0,50%
Noise Density	36 $\mu\text{Gauss}/\sqrt{\text{Hz}}$

Barometre

Range	0.15 PSI ~ 17.4 PSI
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General Specifications

- 6 DOF sensor data: 3-axis accelerometer and 3-axis gyroscopic turn rate
- Additional 3 DOF on IMU and AHRS: 3-axis magnetic field intensity
- Output data rate up to 50Hz
- Simple ASCII interface language
- Robust aluminium housing

Applications

- Inertial navigation and GPS compensation
- Avionics and unmanned vehicles
- Motion and dynamics measurements
- Vehicle control: marine, robotics, automotive

Mechanical Specifications

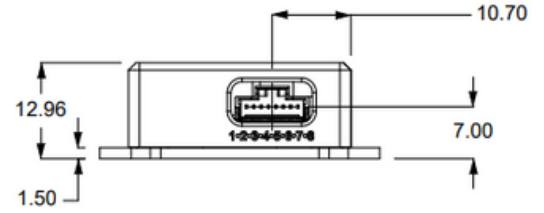
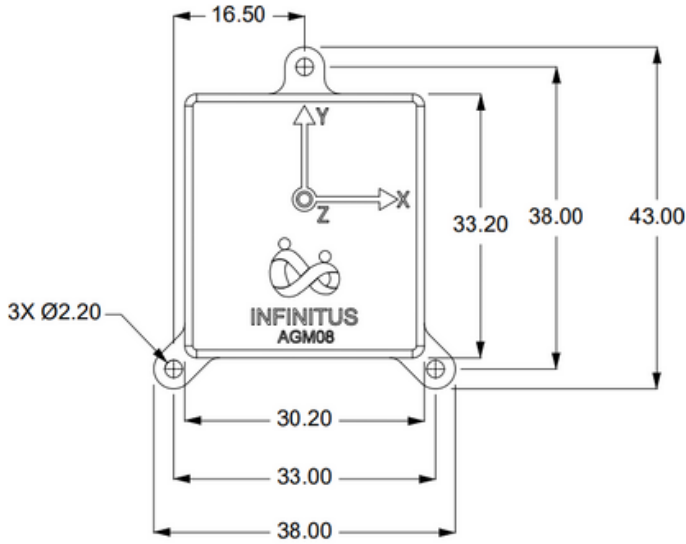
Dimension	$38 \times 43 \times 12.96$ mm
Material	Alüminyum AL6061-T6

System Specifications

Power Source	$4.5 - 5.5$ V
Power Consumption	< 220 mW
Data Format	ASCII and binary
Baud Rate	2.4 kbps – 921.6 kbps selectable
Output data rate	50 Hz
Operating Temperature	-40°C to $+85^\circ\text{C}$



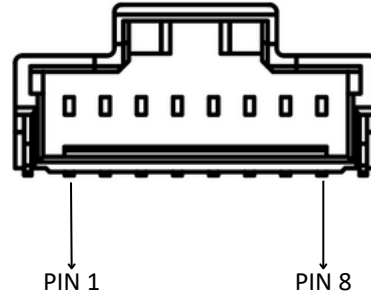
Dimensional Drawing



Tüm ölçüler mm cinsindendir.

Pin Assignment

PIN 1	VCC
PIN 2	RX_TTL
PIN 3	TX_TTL
PIN 4	RESV
PIN 5	RESV
PIN 6	RESV
PIN 7	NC
PIN 8	GND



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This product is fully designed and manufactured in Türkiye.

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