



AGM01



Sensor Specifications

Angles

Range	Pitch: $\pm 90^\circ$ Roll: $\pm 180^\circ$ Yaw: $\pm 180^\circ$
Static Accuracy (RMS)	Pitch $\leq 0.0210^\circ$ Roll $\leq 0.0175^\circ$ Yaw $\leq 0.1530^\circ$
Dynamic Accuracy (RMS)	Pitch $\leq 0.42^\circ$ Roll $\leq 0.47^\circ$ Yaw $\leq 1.40^\circ$
Angular Resolution	Pitch: 0.05° Roll: 0.05° Yaw: 0.05°

Accelerometer

Range	± 16 g
Zero Offset Error	± 125 mg
In-run Bias Stability	0.2 mg/ $^\circ$ C
Noise Density	0.075 mg/ $\sqrt{\text{Hz}}$ (@ 500 Hz)
Velocity Random Walk	X & Y: 38.2 mm/sec/ $\sqrt{\text{hr}}$ Z: 26.5 mm/sec/ $\sqrt{\text{hr}}$ (@ 10 g)
Nonlinearity	0.1 % FS (@ 10 g)

Gyroscope

Range	± 2000 d/s
In-run Bias Stability	0.474 d/ $\sqrt{\text{hr}}$
Angle random walk	0.711 d/ $\sqrt{\text{hr}}$
Noise Density	0.0079 d/s/ $\sqrt{\text{Hz}}$
Nonlinearity	± 0.1 %

Magnetometer

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

Barometre

Range	0.15PSI $\sim$ 17.4PSI
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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

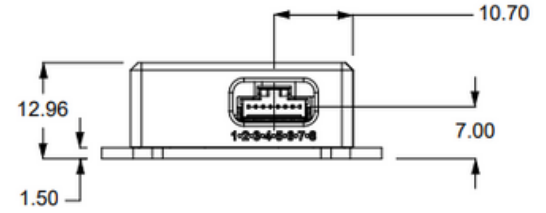
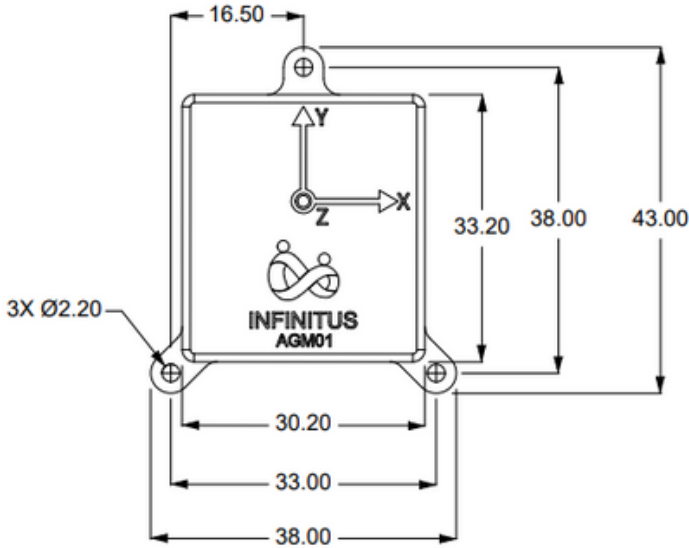
Dimension	38 x 43 x 12.96 mm
Material	Aluminium AL6061-T6

System Specifications

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



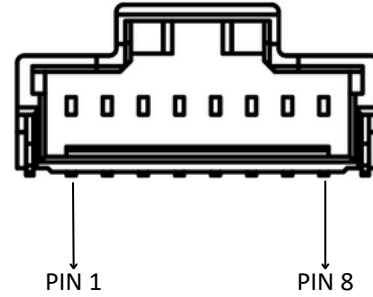
Dimensional Drawing



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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