

TAG-307

**THREE-AXIS
GYROSCOPE**

TAG-207

**TWO-AXIS
GYROSCOPE**



The **Inertial Labs TAG-307** and **TAG-207** are Three-axis and Two-axis Gyroscopes, developed for different platforms Guidance & Navigation and also Electro-Optical Systems, Gimbals, Line-Of-Site and Pan & Tilt Platforms stabilization and pointing applications. **TAG-307** and **TAG-207** utilizes advanced performance, tactical-grade MEMS gyroscopes, of which size, power consumption, reliability and performance are ideal for accomplishing complex tasks requiring accurate stabilization of assorted platforms. Robust technology with proven reliability in the field, Inertial Labs Gyroscope solutions consistently deliver performance in all environments.

Developed for use in particularly harsh environments, the **TAG-307** and **TAG-207** gyroscopes can withstand extreme shock and vibration in accordance with MIL-STD-810 ground mobile use. Additionally, they are fully digitized (RS-422/RS-232 interface), include Built-In-Test (BIT) functionalities and have no moving parts. Key advantages of the Inertial Labs **TAG-307** and **TAG-207** Gyroscopes:



- Low Noise
- Low Latency
- Wide Bandwidth
- High Data Rate
- Low Bias Drift
- Low VRE
- High MTBF
- Affordable Price
- ITAR-free



TAG-307 and **TAG-207** are factory calibrated over operational temperature range with very low non-orthogonality and misalignment between sensitive elements, QA/QC tested and supplied with individual Calibration and Acceptance Test Certificates.

Performance Specifications

Parameter	Units	Value
Output signals		Angular rates, Temperature, Synchronization output
Available colors of enclosure		Black
Data update rate	Hz	4000
Start-up time	sec	<1
Latency	msec	1.15
Performance		
Number of Axis		3 or 2
Measurement range	deg/sec	± 450
Bandwidth (-3dB)	Hz	1000
Data update rate	Hz	4000
Bias in-run stability (Allan Variance)	deg/hr	0.45
Bias instability & repeatability over temp. range, 1σ	deg/hr	35
SF accuracy (over temperature range, 1σ)	ppm	150
Noise. Angular Random Walk (ARW)	deg/ $\sqrt{\text{hr}}$	0.06
Non-linearity	ppm	100
Axis misalignment	mrads	<0.5
Environment		
Mechanical shock & Vibration		MIL-STD-810F/514.5/I
Operating temperature	deg C	-40 to +85
Storage temperature	deg C	-50 to +90
MTBF (G_M @ +65degC, operational)	hours	100,000
Sealing		IP-67
Electrical		
Supply voltage	V DC	5 to 30
Power consumption	Watts	0.8 @5V
Output Interface	-	RS-422/RS-232
Output data format	-	Binary
EMC/EMI/ESD		MIL-STD-461G
Mechanical		
Size	mm	39 x 45 x 22
Weight	grams	70

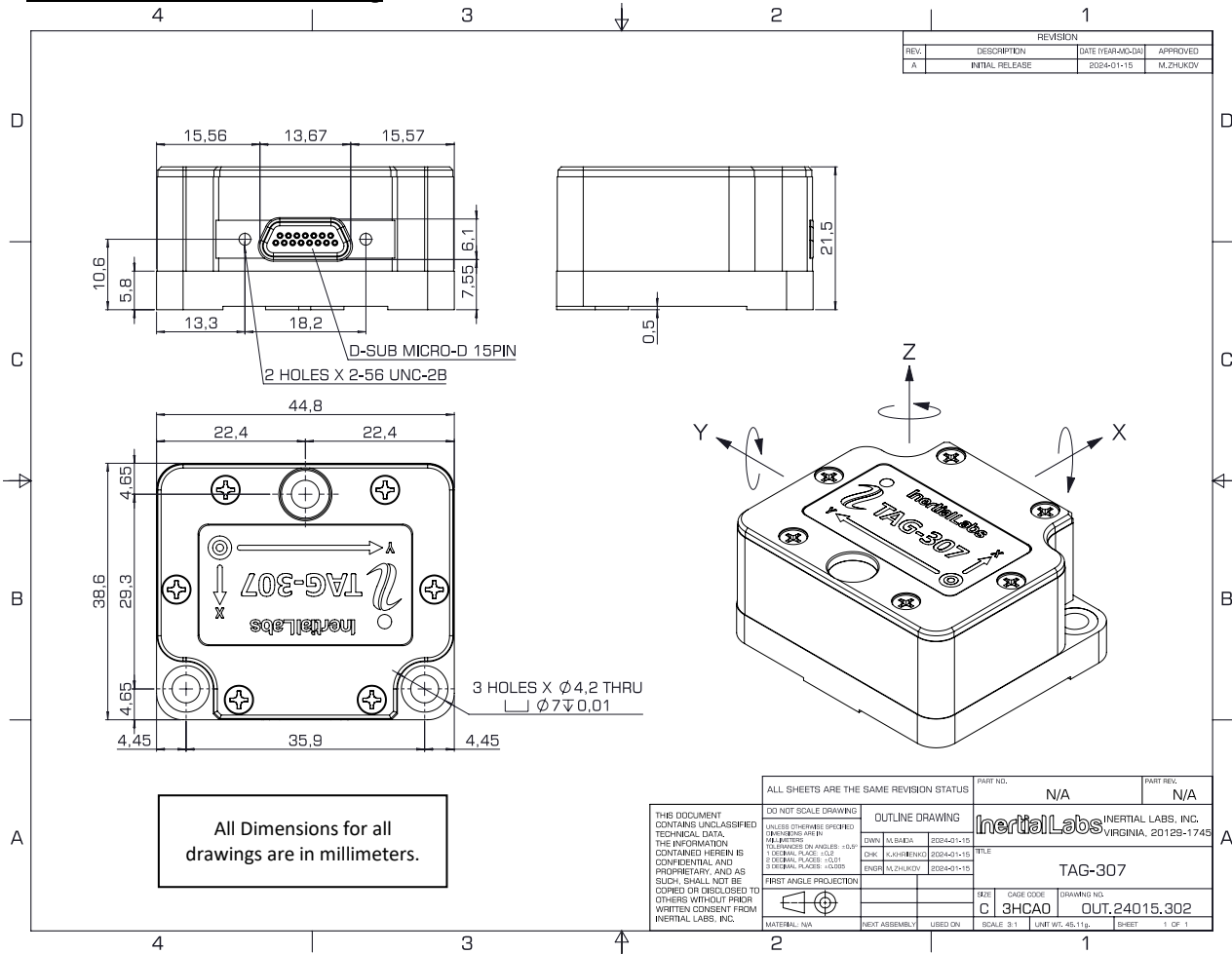
Product code description	TAG-307 TAG-207	-	G450	-	TG	-	C1	-	B	-	V1S.12
Model	TAG-307	Three-axis Gyroscope									
Model	TAG-207	Two-axis Gyroscope									
Gyroscopes measurement range	G450	±450 deg/sec measurement range									
Temperature calibration	TG	All gyroscopes axes are calibrated over operational temperature range									
Enclosure	C1	Aluminum Enclosure (IP-67)									
Color of enclosure	B	Black									
Grade	V1S	Tactical-grade, stabilization									
Interface	12	RS-232, RS-422									

Examples:

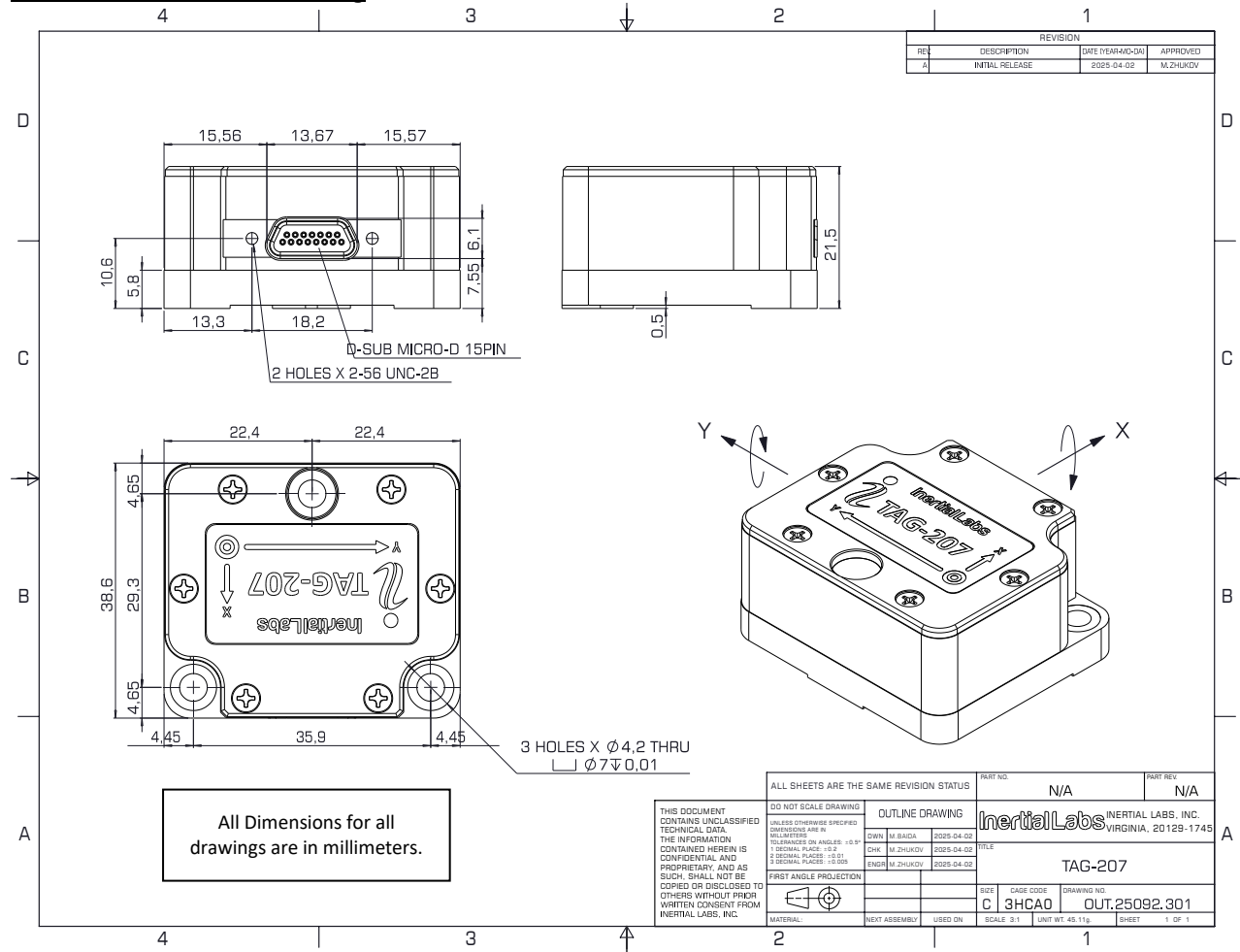
TAG-307-G450-TG-C1-B-V1S.12

TAG-207-G450-TG-C1-B-V1S.12

TAG-307 mechanical interface drawing



TAG-207 mechanical interface drawing



Recommended Vibration Isolator to be used with TAG-307 or TAG-207 (Part Number: AS144011)

