

High Gain Multi-GNSS High Performance Precision Antenna

GNSS/GPS Antenna – Precision

GNSS-L1256-40TNC



Description

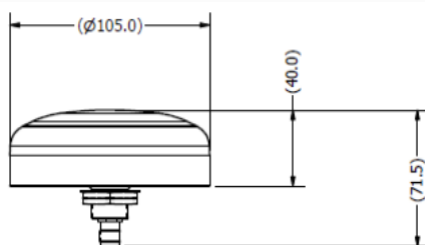
High gain, low-profile multi-GNSS antenna designed to meet stringent AAR environmental standards.

Technologies

- GPS: L1/L2/L5
- GLONASS: G1/G2/G3
- Galileo: E1/E5/E6
- Beidou: B1/B1-2/B2/B3
- QZSS: L1/L2/L5/L6
- Navic L5
- L Band

Features

- Full GNSS compatibility covering 1150-1300MHz and 1500-1615MHz frequency ranges
- High Gain (40dB typ.)
- AAR compliant
- Excellent multipath mitigation



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The GNSS-L1256-40TNC is a high gain, multi-GNSS high performance antenna designed to meet stringent AAR environmental standards. The antenna features a multi-stacked patch design covering global GNSS frequencies, a multi-stage LNA, and advanced filtering to combat the effects of adjacent band interference. The antenna has a hermetic seal, is AAR tested and approved. This antenna comes with a 5 year warranty.

Features

- High Gain (40dB typ.)
- Advanced Out-of-Band Filtering
- AAR Compliant
- Excellent Multipath Mitigation
- IP67 ingress protection
- Full GNSS Compatibility

Applications

- PTC Rolling Stock Tracking
- Military Vehicle & Asset Tracking
- Precision Agriculture
- Differential Correction
- GNSS Indoor Reradiation
- High Accuracy Time Sync

Certifications



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Electrical Specifications – All bands

Specification	Measurement
LNA Gain	40 dB +/- 5 dB
Nominal Impedance	50 ohms
Polarization	Right Hand Circular
ESD Protection	>15kV
VSWR	<2.0:1 (typical)
Noise Figure	3.0 dB (typical)
DC Voltage	2.5 - 5.5 VDC
DC Current	37 mA (typical) <50 mA (max.)
Out-of-Band Rejection	<1050 MHz >80 dB <1450 MHz >70dB <1125 MHz >30 dB >1690 MHz >30dB >1350 MHz >70 dB >1730 MHz >80dB

Electrical Specifications – Band Specific

Band	Gain @ 10° Elevation	Gain @ 90° Elevation	Axial Ratio @ 30° Elevation	Axial Ratio @ 45° Elevation	Axial Ratio @ 90° Elevation
GPS L1	-5 dBic	2 dBic	≤ 2.5 dB	≤ 2.5 dB	≤ 2.5 dB
GPS L2	-6 dBic	3 dBic			
GPS L5	-7 dBic	1 dBic			
GLONASS L1	-7 dBic	0 dBic			
GLONASS L2	-8 dBic	0 dBic			
GLONASS L3	-4 dBic	3 dBic			
GALILEO E1	-5 dBic	2 dBic			
GALILEO E5	-4 dBic	3 dBic			
GALILEO E6	-4 dBic	3 dBic			
BEIDOU B1	-4 dBic	3 dBic			
BEIDOU B1-2	-4 dBic	3 dBic			
BEIDOU B2	-5 dBic	2 dBic			
BEIDOU B3	-8 dBic	0 dBic			
QZSS L1	-5 dBic	2 dBic			
QZSS L2	-6 dBic	3 dBic			
QZSS L5	-7 dBic	1 dBic			
QZSS L6	-4 dBic	3 dBic			

Mechanical and Environmental Specifications

Specification	Measurement
Dimensions (D x H)	4.13" x 1.57" (105.0 x 40.0 mm)
Weight	13.6 ounces
Connector	TNC Female
Mount ¹	¾" thru-hole or bracket mount
Radome Color	White
IP Rating	IP67
Radome Seal	Rubber gasket
Environmental Rating	AAR compliant

CONTACT US

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this product contact your
sales representative or visit
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Solving Complex Wireless Challenges

PCTEL is a leading global provider of wireless technology solutions, including purpose-built Industrial IoT devices, antenna systems, and test and measurement products. Trusted by our customers for 29 years, we solve complex wireless challenges to help organizations stay connected, transform, and grow.



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