

Ultra Low Profile Multiband MIMO Antenna with High Rejection GNSS

Combination Antenna – 4G Cellular, WiFi, and GNSS

GNSMB-COV



Description

Multiband coverage for heavy construction applications

Technologies

- 4G Cellular
- WiFi
- GNSS
 - GPS L1
 - Galileo E1
 - GLONASS L1
 - Beidou B1

Features

- No tune, multiband coverage
- Sub 1-inch height without magnet mount adapter
- IP67 compliant design withstands severe environmental conditions
- Proprietary filtering design enables wideband coverage and superior out-of-band rejection for all GNSS frequencies
- Braided conduit for ease in installation



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The GNSMB-COV multiband antenna provides optimal MIMO 4G LTE and single port 802.11ac WiFi coverage in a covert, low-profile housing. The antenna also incorporates PCTEL's unique high rejection GNSS technology for global guidance and support of carrier voice and data networks. Designed for heavy construction, this antenna will withstand the most rugged applications with a sub 1-inch height profile and conduit for ease in installation.

Features

- No tune, multiband coverage – Dual 4G LTE, WiFi and GPS L1/Galileo E1/GLONASS L1/Beidou B1 frequencies
- Low profile – Sub 1-inch height (without magnet mount adapter)
- Withstands severe environmental conditions – IP67 compliant design protects against water or dust ingress
- Proprietary filtering design – allows wideband coverage while achieving superior out-of-band rejection for all GNSS frequencies
- Easy installation – Braided conduit

Applications

- Heavy construction
- Industrial IoT

Certifications



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Standard Configuration

Model	Elements	Cable	Connectors ³	Mounting Method	Nominal Impedance
GNSMB-COV	4G LTE (2) WiFi (1) GNSS (1)	Two-17 ft Pro-Flex™ Plus 195 (4G LTE) One-17 ft Pro-Flex™ Plus 195 (802.11n WiFi) One-17 ft RG-174/U (GNSS)	SMA Plug x2 (LTE) RP SMA Plug (WiFi) SMA Plug (GNSS)	RP62 VHB Tape Mount (standard) or magnet mount adapter (-MAG)	50 ohms

Electrical Specifications – RF Antenna

Frequency Ranges	Gain ¹ (typ.)	Polarization	Power Handling	VSWR ²
690-960 MHz	0-4 dBi	Vertical, linear	10 watts	< 2.0:1
1710-2170 MHz	3-5 dBi			
2300-2700 MHz	3-5 dBi			
2.4-2.495 GHz	1-4 dBi			
4.91-5.825 GHz	4-6 dBi			

¹ Measured on a 4-foot diameter ground plane. Gain value is measured at the base of the antenna (0.5-ft cable loss included)

² VSWR < 2:1 across all bands when measured in free space with 17-ft cable (ARG-1162)

³ Consult customer service for other connector requirements

Electrical Specifications – GNSS Antenna

Frequency Range	1561-1608 MHz
LNA Gain	26 dB (typical) @ 3.0 VDC
Element Gain	3 dBic @ 90° / -2 dBic @ 20°
VSWR	2.0:1 (max.)
Current Draw	25mA (typical)
DC Voltage	2.7 (2.7-6.0V) (operating) ≤12.0V (survival)
Noise Figure	2.0 dB (typical)
Out of Band Rejection	f0 = 1586 MHz f0 ± 50 MHz: ≥ 60 dBc f0 ± 60 MHz: ≥ 70 dBc
Polarization	Right hand circular

Mechanical and Environmental Specifications

Physical

Dimensions	5.9" L x 5.2" W x .98" H (151 x 1326 x 25 mm)
Housing Material	Black, UV-Stable Rugged Thermoplastics
Operating Temperature	-40°C to +85°C
Magnet Mount Adapter	5.8 mm height (20 lbs pull strength)
Ingress Protection	IP67

CONTACT US

**For more information about
this product contact your
sales representative or visit
> pctel.com/antenna-products**

Solving Complex Wireless Challenges

PCTEL, an Amphenol company, is a leading global provider of wireless technology, including purpose-built antenna systems and test and measurement products. Trusted by our customers for decades, we solve complex wireless challenges to help organizations stay connected, transform, and grow.



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