DATASHEET CELLULAR ANTENNAS (5G, LTE, CBRS, 3G, 2G)

5G FR1 and GNSS Multiband Base Station Antenna Platform

Cellular Antennas (5G, LTE, CBRS, 3G, 2G) – Base Station

BOA5G2X2L125PTNM, BOA5G4X4L125NF, BOA5G4X4L125NM

Description

5G FR1 multiband antenna with advanced GPS LNA technology for mobile data and video commnunications.

Technologies

- 5G FR1
- Cellular
- GSM
- PCS
- Wi-Fi

Features

- Wideband coverage
- High rejection GPS LNA technology
- Dual port MIMO design
- High quality low loss cable and connectors
- Easy to install
- Rugged, UV-resistant fiberglass housing

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This multiband base station antenna platform utilizes PCTEL's broadband element technology to achieve superior bandwidth performance and consists of the most advanced 5G and GNSS vertically stacked antennas in the market. This platform offers multiband coverage, an easy-to-install designwith ruggedized materials to provide maximum durability, and performance for mobile data and video communications.

Features

- Multiband coverage – Cellular, GSM, PCS, WiFi
- Versatile – Multiple network compatibility
- Powerful coverage – Dual port MIMO design, each with full broadband coverage
- Top quality – High performance, low loss cable and connectors
- Easy installation – Collar mount for pipes up to 1.66 inches OD
- Rugged – UV-resistant; tough fiberglass housing

Certifications

RoHS COMPLIANT

SPECIFICATIONS

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Standard Configurations

Model	Cables	Connector[1]	Mount
BOA5G2X2L125PTNM	3x 3.5ft PTFE RG58	N-Type Male	Collar mount (included) to fit schedule 40 (1.38-inch ID) or schedule 80 (1.278-inch ID) pipe sizes (pipe not included)
BOA5G4X4L125NM	5x 4ft PCTEL PRO-FLEX PLUS	N-Type Male	
BOA5G4X4L125NF	5x 10ft PCTEL PRO-FLEX PLUS	N-Type Female	

Electrical Specifications - RF Antenna (All Models)

Frequency Ranges	Peak Gain[2]	VSWR[3]	Average Power	Nominal Impedance	Polarization
617 - 960 MHz	5.5 dBi	< 2.0:1	50 watts	50 ohms	Vertical, linear x 2
1710 - 2700 MHz	4.0 dBi	< 2.0:1			
3200 - 3800 MHz	5.8 dBi	< 2.0:1			
3800 - 4200 MHz	4.0 dBi	< 2.25:1			
4200 - 6000 MHz	3.0 dBi	< 2.5:1			

Electrical Specifications - GNSS Antenna (All Models)

Specification	Measurement
LNA Gain	28dB ± 3dB
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 - 5.5VDC
DC Current	37 mA (typical) <50 mA (maximum)
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

Mechanical and Environmental Specifications

Model	Dimensions	Weight	Package Weight	Housing Material	Temperature Range
BOA5G2X2L125PTNM	3.26" OD x 22.83" H in (8.28 OD x 57.99 H cm)	4.3 lbs	5.3 lbs	Black, UV-stable fiberglass	-40°F to +185°F (-40°C to +85°C)
BOA5G4X4L125NM	3.26" OD x 35.68" H in (8.28 OD x 90.63 H cm)	6.8 lbs	8.1 lbs		
BOA5G4X4L125NF	3.26" OD x 35.68" H in (8.28 OD x 90.63 H cm)	7.0 lbs	8.3 lbs		

[1] Consult customer service for other connector options.
[2] Maximum gain of the 3D pattern
[3] VSWR measured with 3.5 ft cables on antenna in free space conditions
** Gain measured without cable loss*

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 solutions, 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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