Combination Antennas - 5G Cellular, WiFi, and GNSS

GLLPDLTE-B, GLLPDLTE-W, GLLPDLTEWI-B, GLLPDLTEWI-W

Description

Low profile dual port 5G/4G GNSS multiband antenna covering sub 6 GHz 5G FR1 upper frequencies, with a dual band WiFi port option. Includes a built-in ground plane for maximum installation flexibility.

Technologies

- 5G FR1
- CBRS
- 4G LTE
- Dual band WiFi
- GNSS L1

Features

- Durable 1-1/3-inch tall housing for permanent mount IIoT installations requiring minimum overhead clearance
- Proprietary GNSS technology with superior out-of-band rejection
- Easy through-hole mount installation for fixed indoor or outdoor cabinet-top IIoT or Enterprise networks







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The Medallion[™] II 5G FR1 low profile antenna is ideal for cabinet mount industrial IoT applications. This GNSS multiband antenna includes two 5G FR1 ready ports, and an optional dual band 2.4/5 GHz port for WiFi coverage. Its proprietary, built-in GNSS technology features superior out-of-band rejection filtering for optimal operation with industrial IoT wireless networks. This antenna platform is housed in a rugged, UV-stable housing, available in black or white color options.

Features

- Dual cellular ports for 5G FR1 networks, including CBRS bands
- Low Profile 1-1/3-inch tall housing for permanent mount installations with limited overhead clearance
- GNSS compatibility, covering global systems: 1565-1608 MHz (GPS L1; GALILEO E1; GLONASS L1; QZSS L1; BEIDOU B1)
- Superior rejection of out-of-band signals with proprietary filtering technology for optimal GNSS performance
- Optional dual band 2.4/5 GHz WiFi port
- Simple through-hole mount installation for fixed indoor or outdoor, cabinet-top IIoT or Enterprise networks
- Durable, UV-stable white or black radome options
- Ingress protection: IPX7 rating



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Standard Configurations

Model	Elements	Cable	Connector ²	Mount	Housing Color
GLLPDLTE-W	LTE (2) GNSS (1)	Two- 3 foot RG-316 pigtails (Cellular) One- 3 foot RG-316 (GNSS)	SMA Plug (Cellular) SMA Plug (GNSS)	M18X2 threaded stud (18 mm long)	White
GLLPDLTE-B	LTE (2) GNSS (1)	Two- 3 foot RG-316 pigtails (Cellular) One- 3 foot RG-316 (GNSS) SMA Plug (Cellular) SMA Plug (GNSS)			Black
GLLPDLTEWI-B	LTE WiFi GNSS	Two- 3 foot RG-316 pigtails (Cellular) One- 3 foot RG-316 pigtails (WiFi) One- 3 foot RG-316 (GNSS)	SMA Plug (Cellular) Reverse Polarity SMA Plug (WiFi) SMA Plug (GNSS)	-	Black
GLLPDLTEWI-W	LTE WiFi GNSS	Two- 3 foot RG-316 pigtails (Cellular) One- 3 foot RG-316 pigtails (WiFi) One- 3 foot RG-316 (GNSS)	SMA Plug (Cellular) Reverse Polarity SMA Plug (WiFi) SMA Plug (GNSS)	-	White

Electrical Specifications – RF Antennas

F1 (MHz)	F2 (MHz)	SWR ³	Gain (dB) ³ Peak	Efficiency Avg	Polarization	Nominal Impedance	Maximum Power	
LTE Prim	ary Port 1							
617	698	<4	3	40				
698	790	<2	4.5	45				
790	960	<3.5	5	55				
1710	2170	<2	5	60	Linear	50 ohms	50 watts	
2300	2690	<2	4	55	Linear	50 011115	50 watts	
3300	4200	<2.5	7	45				
4400	5000	<3	5	40				
4900	5950	<2.5	4.5	35				
LTE Primary Port 2								
617	698	<4.5	3	40				
698	790	<2	4.5	50				
790	960	<3.5	4.5	55				
1710	2170	<2	4.5	55	Linear	50 ohms	50 watts	
2300	2690	<2	5.5	50	Linear	50 011118	50 Watts	
3300	4200	<2.5	7	55				
4400	5000	<3	6	45				
4900	5950	<3	7.5	45				
WiFi								
2400	2485	<3	5.5	55				
4900	5950	<2	6	45				

Minimum Isolation (dB) ³	F1 (MHz)	F2 (MHz)	LTE-2	WiFi
LTE Primary Port 1	617	698	5	32
	698	790	5	32
	790	960	7	40
	1710	2170	15	15
	2300	2690	25	15
	3300	4200	23	25
	4400	5000	25	25
	4900	5950	25	23
LTE Secondary Port 2	617	698		32
	698	790		32
	790	960		32
	1710	2170		23
	2300	2690		17
	3300	4200		22
	4400	5000		23
	4900	5950		25

¹ When installed according to PCTEL's installation instructions.

² Consult Customer Service for other connector options.
³ Measurements taken with 3-ft cables on a 2-ft ground plane.



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Electrical Specifications – GPS Antenna

Frequency Band	1565-1608 MHz
Amplifier Gain	@ 3.0 VDC: 26 dB (typical)
Output VSWR	2.0:1 (maximum)
DC Current	25 mA (typical)
DC Voltage	2.8-5.5V (operating)
Noise Figure	< 2.0 dB (typical)
Out-of-Band Rejection	f0 = 1586 MHz / f0 ± 50 MHz: ≥ 60 dBc / f0 ± 60 MHz: ≥ 70 dBc
Nominal Gain	3 dBic @ 90° -2 dBic @ 20°
Polarization	Right hand circular
Nominal Impedance	50 ohms

Mechanical Specifications

Physical

Dimensions (W x H)	5.19 L x 4.0 W x 1.3 H inches (13.2 x 10.2 x 3.4 cm)	
Weight	0.67 lbs (10.8 oz)	
Radome Construction	UV-Stable Rugged Thermoplastics	
Operating / Storage Temperature	-40°C to +85°C	

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

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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