Combination Antenna - 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)		Bla	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	F2	SWR ³	Gain (dB) ³		Effi	ciency ³	Polarization	Nominal	Maximum	
(MHz)	(MHz)		Max	Typical	Range (±)	Avg	Range (±)		Impedance	Power
LTE Prim	nary Port 1									
617	698	3.2	2.4	1.6	0.9	42%	9%			
698	802	2.0	4.5	3.5	1.0	45%	6%			
824	960	2.7	5.1	3.9	1.2	51%	11%			
1710	2200	1.7	5.6	5.0	0.6	64%	4%	Linear	50 ohms	50 watts
2300	2690	1.6	5.2	5.0	0.2	60%	2%			
3400	3800	1.9	6.1	5.3	0.8	49%	2%			
5150	5950	2.2	4.9	4.2	0.8	41%	5%			
LTE Prim	nary Port 2									
617	698	4.6	0.5	0.4	0.1	35%	15%			
733	802	1.8	0.5	0.5	0.0	49%	1%	-		
824	960	2.9	0.5	0.5	0.0	50%	4%			
1805	2200	2.1	0.6	0.6	0.1	56%	6%	Linear	50 ohms	50 watts
2300	2690	2.3	0.5	0.5	0.1	46%	5%			
3400	3800	1.4	0.6	0.6	0.0	57%	1%			
5150	5950	1.3	0.5	0.5	0.0	48%	4%			
WiFi Por	t 3									
2400	2500	1.6	6.0	4.5	1.4	58%	3%			
	5900	2.2	6.7	4.6	2.1	48%	7%			

Minimum Isolation (dB)³

	LTE Primary (1)		LTE Seco	ndary (2)	WiFi (3)	
LTE Primary (1)	690-960 MHz		698-960 MHz	5.5	617-960 MHz	34.0
	1710-2700 MHz		1.71-2.7 GHz	15.0	1.71-2.7 GHz	16.0
	3300-4200 MHz		3.3-5.9 GHz	24.0	3.3-5.9 GHz	25.0
LTE Secondary (2)			690-960 MHz		617-960 MHz	32.0
			1710-2700 MHz		1.71-2.7 GHz	19.0
			3300-4200 MHz		3.3-5.9 GHz	22.0

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	2.8-6.0 V (operating) ≤ 12.0 V (survivability)			
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

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