

Product Brief



PW Series Panel-Mount Single-Band Antennas

PW series antennas are rugged panel-mount monopole external antennas for low-power wide-area (LPWA) networks, LTE cellular, and ISM applications in plastic¹ and metal enclosures.

For NB-IoT and LTE-M applications, PW series single-band antennas typically outperform multiband counterparts over desired frequencies and reject signals from unwanted frequencies. The job of antenna selection is simplified by including the LTE frequency band in the part number. Other PW antennas align with LoRaWAN[®] and Sigfox[®] low-power, wide-area (LPWA) applications as well as license-free ISM band uses.



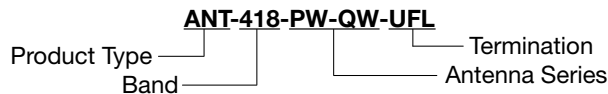
Features

- Outperforms similar multiband solutions
- Durable, flexible main shaft
- Weather resistant for IP-rated applications²
- Wide bandwidth
- O-ring compatible base
- MHF1/U.FL-compatible plug (female socket) on 216 mm of 1.32 mm coax or 216 mm of unterminated RG-174 coax
- Compatible with plastic¹ and metal enclosures

Applications

- LTE-M (Cat-M1) and NB-IoT cellular IoT
- LoRaWAN[®] and Sigfox[®]
- FirstNet[®] Public Safety
- ISM/Bluetooth[®]/ZigBee[®]
- Sensing and remote monitoring
- Hand-held devices
- Internet of Things (IoT) devices
- Low-power wide-area (LPWA) networks

Ordering Information



Band	Frequency Range (MHz) ³	VSWR	Peak Gain (dBi)	Efficiency (%)	Standard Bands	Termination
418	380 to 450	≤ 2.0 : 1	2.9	~	GSM, Remote Control	UFL, (blank) = Cut end
433	400 to 470	≤ 2.0 : 1	3.3	~	LoRaWAN, ISM, LTE, GSM	UFL, (blank) = Cut end
490	470 to 510	≤ 2.0 : 1	1.3	72	LoRaWAN, GSM	UFL, (blank) = Cut end
868	750 to 950	≤ 2.0 : 1	1.2	65	LoRaWAN, SIGFOX, LTE, GSM, UMTS	UFL, (blank) = Cut end
916	865 to 965	≤ 2.0 : 1	1.6	68	LoRaWAN, SIGFOX, ISM, LTE, GSM, UMTS	UFL, (blank) = Cut end
B5	800 to 900	≤ 2.0 : 1	1.2	65	LTE B5, LTE B6, GSM, UMTS	UFL, (blank) = Cut end
B8	870 to 960	≤ 2.0 : 1	1.6	68	LTE B8, GSM, UMTS	UFL, (blank) = Cut end
B13	740 to 790	≤ 2.0 : 1	1.7	77	LTE B13, UMTS	UFL, (blank) = Cut end
B14	750 to 800	≤ 2.0 : 1	1.9	80	LTE B14, FirstNet Public Safety	UFL, (blank) = Cut end
B20	790 to 870	≤ 2.5 : 1	1.6	72	LTE B20, UMTS	UFL, (blank) = Cut end
B28	700 to 810	≤ 2.7 : 1	1.7	73	LTE B17, LTE B28, LTE B44, GSM, UMTS	UFL, (blank) = Cut end
2.4	2350 to 2600	≤ 1.9 : 1	1.6	~	ISM	UFL, (blank) = Cut end

Available from Linx Technologies and select distributors and representatives.

Notes

1 With appropriate counterpoise.

2 Use of an O-ring is recommended, IP-ratings cannot be guaranteed.

3 Suggested frequency range. Antennas may support wider bandwidth than listed. See individual datasheets.

Electrical Specifications (Common to all)

Polarization	Linear	Electrical Type	Monopole
Radiation	Omnidirectional	Operating Temp. Range	-40 °C to +90 °C
Max Power	10 W	Impedance	50 Ω
Wavelength	1/4-wave (ANT-2.4-PW-QW-ccc is a 1/2-wave monopole)		
Connection	ANT-fff-PW-QW-UFL: 216 mm of 1.32 mm coaxial cable terminated with an MHF1/U.FL-compatible plug (female socket) ANT-fff-PW-QW: 216 mm of RG-174 coaxial cable, unterminated		

Electrical specifications and plots measured with a 102 mm x 102 mm (4 in x 4 in) reference ground plane.

Product Dimensions

Band	418	433	490	868	916	
Dimension A	177.2 mm (6.98 in)	173.4 mm (6.83 in)	157.7 mm (6.21 in)	83.5 mm (3.29 in)	80.5 mm (3.17 in)	
Band	B5	B8	B13	B14	B20	B28
Dimension A	83.5 mm (3.29 in)	80.5 mm (3.17 in)	98.4 mm (3.87 in)	94.2 mm (3.71 in)	89.7 mm (3.53 in)	98.4 mm (3.87 in)

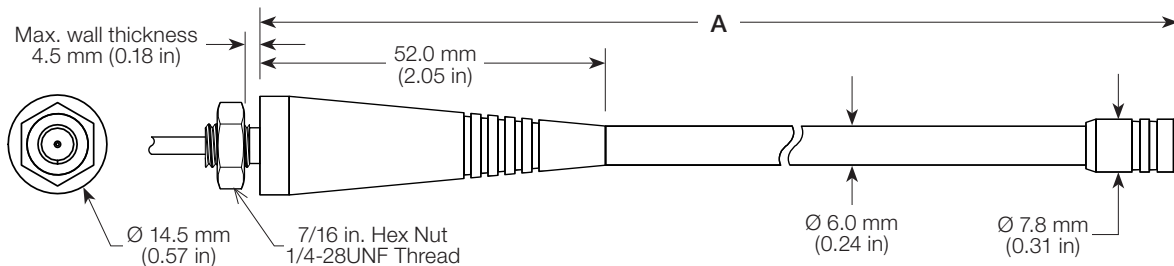


Figure 1. PW Series Antenna Dimensions (except 2.4 GHz)

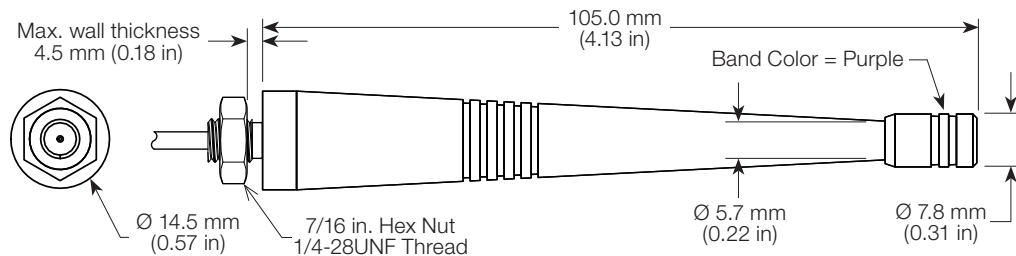


Figure 2. PW Series 2.4 GHz Antenna Dimensions

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