

Product Brief



CW Series Single-Band Connectorized Monopole Antennas

CW Series antennas are rugged connectorized 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, CW 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 CW 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
- Wide bandwidth
- Weather resistant for IP-rated applications²
- O-ring compatible base
- SMA plug or FCC Part 15 compliant, reverse-polarity SMA (RPS) connector
- 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

ANT-418-CW-QW-SMA

Product Type — Band — Antenna Series — Connector

Band	Frequency Range (MHz) ³	VSWR	Peak Gain (dBi)	Standard Bands	Connector
B5	800 to 900	≤ 2.0 : 1	1.2	LTE B5, LTE B6, GSM, UMTS	SMA
B8	870 to 960	≤ 2.0 : 1	1.6	LTE B8, GSM, UMTS	SMA
B13	740 to 790	≤ 1.9 : 1	1.7	LTE B13, UMTS	SMA
B14	750 to 800	≤ 2.0 : 1	1.9	LTE B14, FirstNet Public Safety	SMA
B20	790 to 870	≤ 2.1 : 1	1.6	LTE B20, UMTS	SMA
B28	700 to 810	≤ 2.7 : 1	1.7	LTE B17, LTE B28, LTE B44, GSM, UMTS	SMA
418	380 to 450	≤ 2.0 : 1	2.9	GSM, Remote Control	SMA, (blank) = RPS
433	400 to 470	≤ 2.0 : 1	3.3	LoRaWAN, ISM, LTE, GSM	SMA, (blank) = RPS
490	470 to 510	≤ 1.5 : 1	1.3	LoRaWAN, GSM	SMA
868	750 to 950	≤ 2.0 : 1	1.6	LoRaWAN, SIGFOX, LTE, GSM, UMTS	SMA, (blank) = RPS
916	865 to 965	≤ 2.0 : 1	1.8	LoRaWAN, SIGFOX, ISM, LTE, GSM, UMTS	SMA, (blank) = RPS
2.4	2350 to 2600	≤ 2.0 : 1	1.1	ISM	SMA, (blank) = RPS

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
Radiation	Omnidirectional
Max Power	10 W
Electrical Type	Monopole
Wavelength	1/4-wave (ANT-2.4-CW-QW-ccc is a 1/2-wave monopole)
Impedance	50 Ω
Operating Temperature	-40 °C to +90 °C

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	94.2 mm (3.71 in)	90.3 mm (3.56 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)

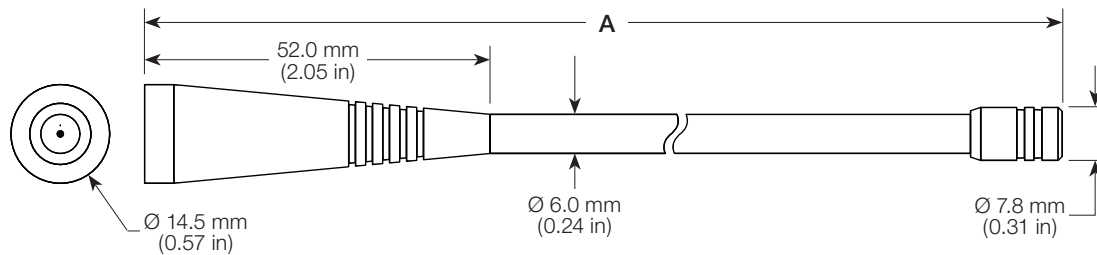


Figure 1. CW Series Antenna Dimensions (except 2.4 GHz)

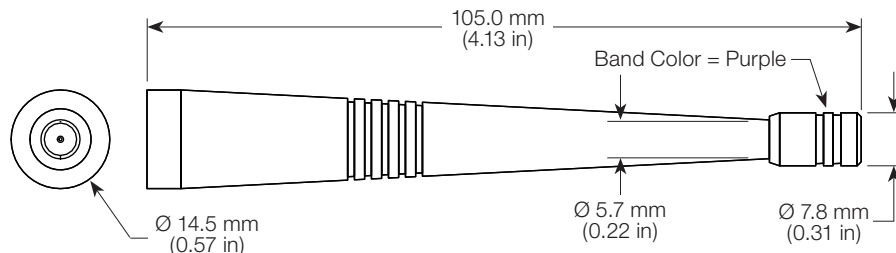


Figure 2. CW Series 2.4 GHz Antenna Dimensions

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