

LTE-MON Series LTE Connectorized Monopole Whip Antennas

Linx's LTE-MON family of compact rotatable hinged-whip antennas provides options for a wide range of cellular LTE and IoT applications, particularly in challenging sub-1 GHz frequency bands and on a smaller ground plane than competing solutions.

The LTE-MON series provides excellent multiband cellular and cellular IoT performance in 3 options targeting 600 MHz and 700 MHz bands like 71, 12, 13, 14; optimized 800 MHz plus GNSS/GPS & Bluetooth®; and general purpose LTE.

The hinged design allows for the antenna to be positioned for optimum performance and reduces the potential for damage from impact compared to a fixed whip design.



Features

- MON-L: Optimized 600 MHz and 700 MHz for LTE bands like 71, 12, 13, 14
- MON-E: Optimized 800 MHz LTE with GPS/ GNSS and Bluetooth® support
- MON: General purpose LTE applications
- Covers all common LTE/4G/3G/2G bands
- Hinged for optimum positioning
- Small, unobtrusive profile, less than 80 mm long
- Extended temperature range to 130 °C
- SMA plug (male pin)

Applications

- Cellular IoT: LTE-M (Cat-M1) and NB-IoT
- Worldwide LTE, UMTS and GSM
- Low-power, wide-area (LPWA) applications
 - LoRaWAN®
 - Sigfox®
- Citizens Broadband Radio Service (CBRS)
- ISM: Bluetooth® and ZigBee®
- FirstNet® Public Safety
- Internet of Things (IoT) devices
- Gateways

Ordering Information

Part Number	Description
ANT-LTE-MON-SMA-L	MON-L antenna with SMA plug (male pin)
ANT-LTE-MON-SMA-E	MON-E antenna with SMA plug (male pin)
ANT-LTE-MON-SMA	MON antenna with SMA plug (male pin)

Available from Linx Technologies and select distributors and representatives.

Electrical Specifications

LTE-MON Series	VSWR (Max.)			Peak Gain (dBi)			Avg. Gain (dBi)			Efficiency (%)		
Select Bands	MON-L	MON-E	MON	MON-L	MON-E	MON	MON-L	MON-E	MON	MON-L	MON-E	MON
LTE 71 617 MHz to 698 MHz	3.3	6.8	-	3.4	2.5	-	-1.5	-2.8	-	73	58	-
LTE 12, 13, 14, 17, 26, 28, 29 698 MHz to 803 MHz	2.2	2.2	3.9	4.8	4.5	4.8	-0.7	-1.1	-0.7	90	83	89
LTE 5, 8, 20 791 MHz to 960 MHz	2.6	1.9	3.3	5.0	5.1	5.8	-1.1	-0.7	-1.0	90	83	89
LTE 1, 2, 3, 4, 25, 66 1710 MHz to 2200 MHz	3.2	3.2	4.1	3.9	3.3	3.7	-1.6	-2.0	-1.9	72	69	69
LTE 30, 40 2300 MHz to 2400 MHz	2.3	1.3	4.6	3.4	3.1	2.0	-1.2	-1.2	-2.9	77	78	52
LTE 7, 41 2496 MHz to 2690 MHz	1.9	2.9	4.1	4.1	1.3	2.4	-1.1	-3.3	-3.1	79	51	53
LTE 22, 42, 52, 43, 48, 49 3300 MHz to 3800 MHz	2.2	6.3	2.8	4.6	1.2	6.2	-2.4	-5.3	-2.2	64	30	65
GPS/GNSS 1553 MHz to 1609 MHz	6.1	3.6	-	0.1	1.1	-	-5.4	-4.3	-	33	42	-

Electrical specifications and plots measured with a 102 mm x 102 mm (4.0 in x 4.0 in) reference ground plane, edge straight orientation.

Electrical Specifications (Common to all)

Polarization	Linear	Impedance	50 Ω
Radiation	Omnidirectional	Connection	SMA plug (male pin)
Max Power	10 W	Wavelength	1/4-wave
Electrical Type	Monopole	Operating Temp.	-40 °C to +130 °C

Product Dimensions

Dimension	MON-L	MON-E	MON
A	78.7 mm (3.10 in)	72.4 mm (2.90 in)	71.1 mm (2.80 in)
B	65.0 mm (2.60 in)	53.5 mm (2.11 in)	58.2 mm (2.30 in)
C	33.3 mm (0.76 in)	30.5 mm (1.20 in)	29.9 mm (1.18 in)
D	29.0 mm (1.14 in)	28.0 mm (1.10 in)	27.3 mm (1.07 in)
E	49.7 mm (2.01 in)	44.4 mm (2.17 in)	43.9 mm (1.73 in)
F	Ø8.0 mm (0.31 in)	Ø5.2 mm (0.21 in)	Ø5.2 mm (0.21 in)
G	Ø10.0 mm (0.39 in)	Ø10.0 mm (0.39 in)	Ø10.0 mm (0.39 in)

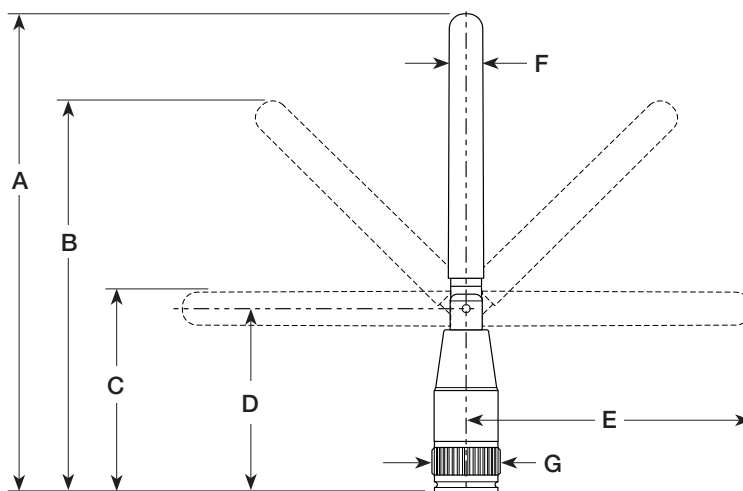


Figure 1. MON Series Antenna Dimensions (ANT-LTE-MON-SMA-E Shown)

VSWR

Figure 2 provides the voltage standing wave ratio (VSWR) across the MON-L antenna bandwidth in an edge-straight antenna orientation.

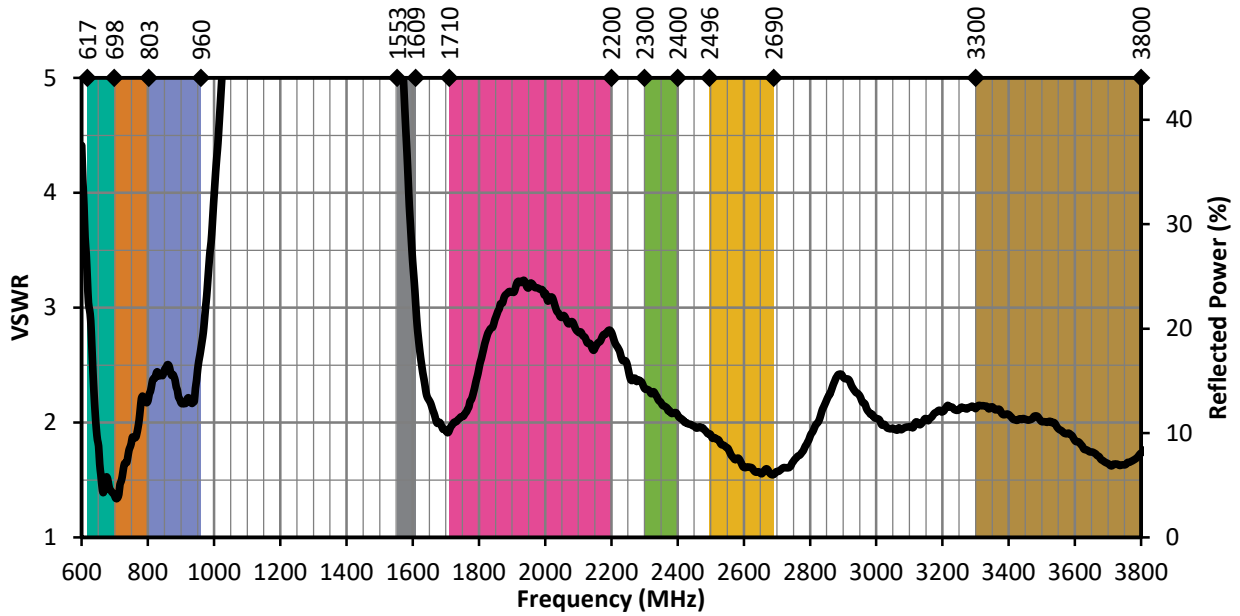


Figure 2. MON-L VSWR, with Frequency Band Highlights

VSWR

Figure 3 provides the voltage standing wave ratio (VSWR) across the MON-E antenna bandwidth in an edge-straight antenna orientation.

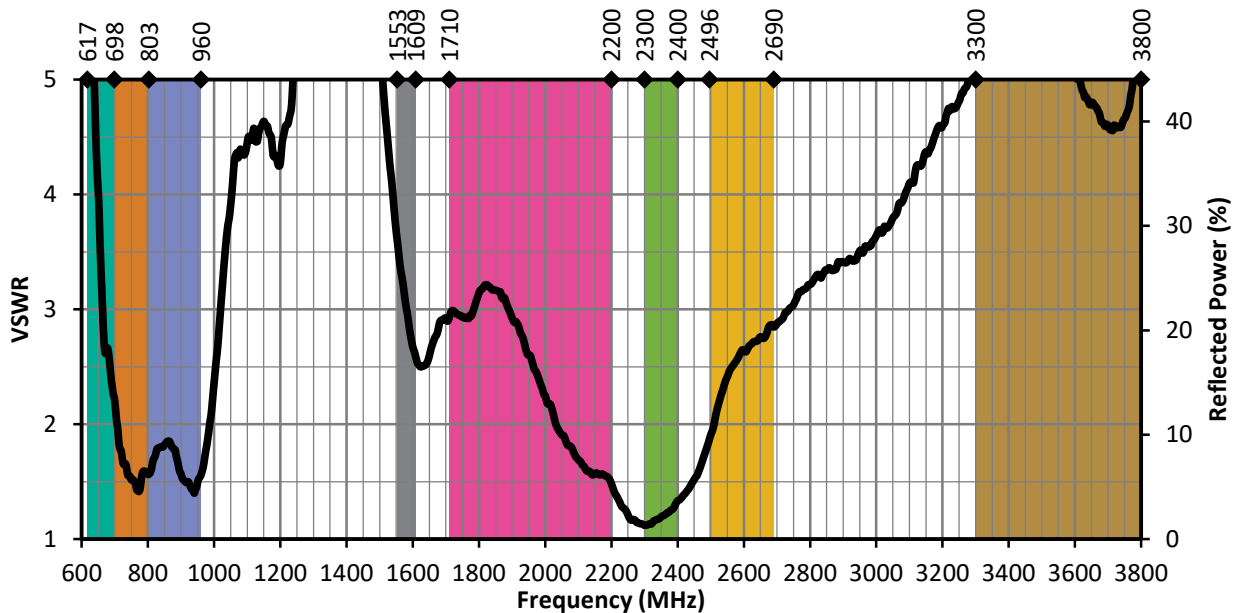


Figure 3. MON-E VSWR, with Frequency Band Highlights

VSWR

Figure 4 provides the voltage standing wave ratio (VSWR) across the MON antenna bandwidth in an edge-straight antenna orientation.

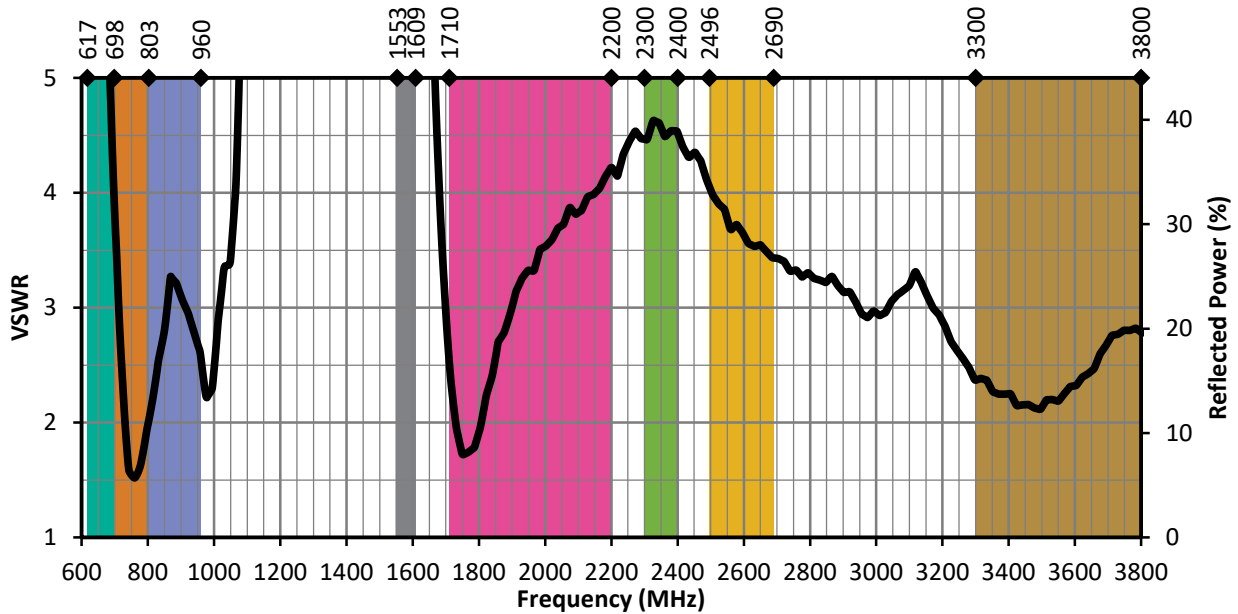


Figure 4. MON VSWR, with Frequency Band Highlights

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Doc # PB20072-10ANT Replaces (PB19266-10ANT)

