

## Product Brief



### ANT-LTE-MON-SMA-E

## LTE Cellular and GPS/GNSS Connectorized Monopole Whip Antenna

The MON-E antenna is a member of Linx's LTE-MON family of compact rotatable hinged-whip antennas which offer optimized support for a wide range of LTE cellular, LPWA and IoT applications.

The MON-E antenna provides excellent multiband cellular and cellular IoT performance, providing outstanding gain in the 700 MHz to 800 MHz LTE bands such as LTE 8, 12, 13, 14, 17 and 20 and including LoRaWAN® bands at 868 MHz and 915 MHz. The MON-E may also be used for GPS/GNSS applications alone or with other frequency bands.

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

- Optimized for 698 MHz to 960 MHz LTE with GPS/GNSS and Bluetooth® support
- Enhanced low-band coverage including LTE 5, 8, 12, 13, 14, 17, 20, and 28
  - Efficiency: 83%
  - VSWR:  $\leq 2.2$
  - Peak Gain: 4.5 dBi
- Covers all common LTE/4G/3G/2G bands
- Hinged for optimum positioning
- Small, unobtrusive profile, 71.0 mm long
- Extended temperature range to 130 °C
- SMA plug (male pin)

### Applications

- Cellular IoT: LTE-M (Cat-M1) and NB-IoT
  - AT&T: bands 12, 14, 17
  - Verizon: band 13
  - Europe: bands 8, 20
  - Latin America: bands 5, 28
  - Asia Pacific: bands 5, 8, 20, 28
- Worldwide LTE and GSM (4G, 3G, 2G)
- Low-power, wide-area (LPWA) applications
  - LoRaWAN®
  - Sigfox®
- Global Navigation (GNSS)
  - GPS, GLONASS, Galileo, BeiDou
- ISM: Bluetooth® and ZigBee®
- FirstNet® Public Safety
- Internet of Things (IoT) devices
- Gateways

### Ordering Information

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

Available from Linx Technologies and select distributors and representatives.

Electrical Specifications

ANT-LTE-MON-SMA-E	Frequency Range	VSWR (max.)	Peak Gain (dBi)	Avg. Gain (dBi)	Efficiency (%)
LTE 71	617 MHz to 698 MHz	6.8	2.5	-2.8	58
LTE 12, 13, 14, 17, 26, 28, 29	698 MHz to 803 MHz	2.2	4.5	-1.1	83
LTE 5, 8, 20	791 MHz to 960 MHz	1.9	5.1	-0.7	83
LTE 1, 2, 3, 4, 25, 66	1710 MHz to 2200 MHz	3.2	3.3	-2.0	69
LTE 30, 40	2300 MHz to 2400 MHz	1.3	3.1	-1.2	78
LTE 7, 41	2496 MHz to 2690 MHz	2.9	1.3	-3.3	51
LTE 22, 42, 52, 43, 48, 49	3300 MHz to 3800 MHz	6.3	1.2	-5.3	30
GPS/GNSS	1553 MHz to 1609 MHz	3.6	1.1	-4.6	39
ISM	2400 MHz to 2485 MHz	1.8	2.4	-2.3	63

Polarization	Linear	Impedance	50 Ω
Radiation	Omnidirectional	Connection	SMA plug (male pin)
Max Power	10 W	Weight	8.4 g (0.30 oz)
Wavelength	1/4-wave	Height	71.0 mm (2.80 in)
Electrical Type	Monopole	Operating Temp. Range	-40 °C to +130 °C

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.

VSWR

Figure 1 provides the voltage standing wave ratio (VSWR) across the antenna bandwidth. VSWR describes the power reflected from the antenna back to the radio. A lower VSWR value indicates better antenna performance at a given frequency. Reflected power is also shown on the right-side vertical axis as a gauge of the percentage of transmitter power reflected back from the antenna.

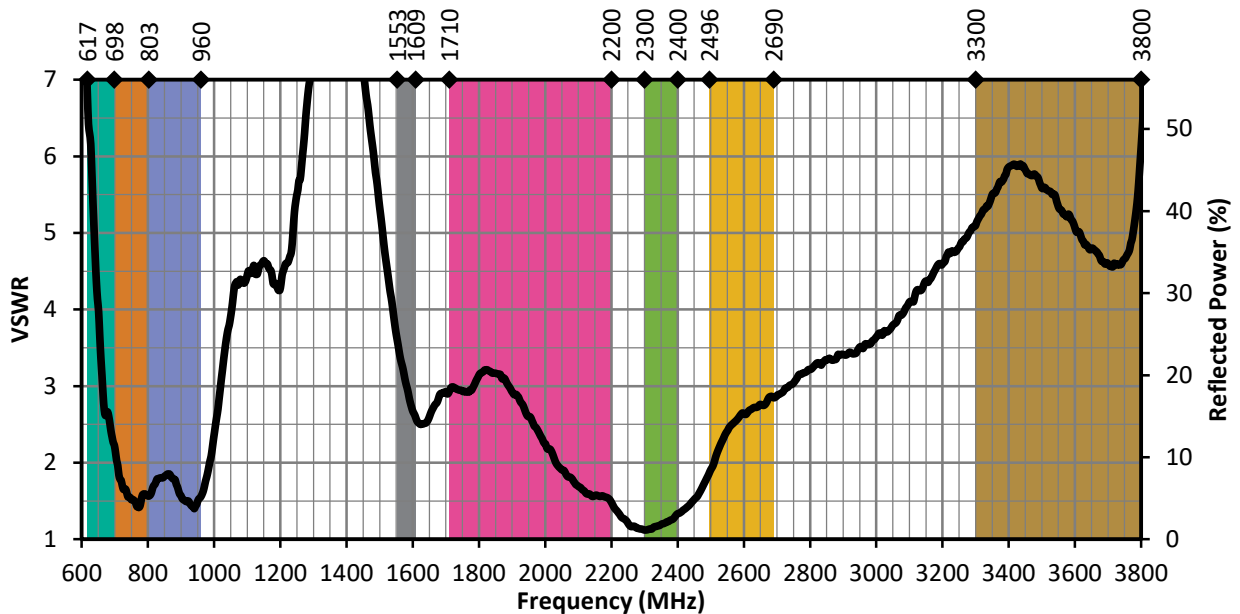


Figure 1. MON-E VSWR with Frequency Band Highlights

Website: <http://linxtechnologies.com> • Phone: +1 (541) 471-6256 • E-MAIL: [info@linxtechnologies.com](mailto:info@linxtechnologies.com) • Linx Offices: 159 Ort Lane, Merlin, OR, US 97532

Linx Technologies reserves the right to make changes to the product(s) or information contained herein without notice. No liability is assumed as a result of their use or application. No rights under any patent accompany the sale of any such product(s) or information.

Wireless Made Simple is a registered trademark of Linx Acquisitions LLC. Bluetooth is a registered trademark of Bluetooth SIG, Inc. FirstNet is a registered trademark of U.S. Department of Commerce, First Responder Network Authority. LoRaWAN is a registered trademark of Semtech Corporation. Sigfox is a registered trademark of SIGFOX. ZigBee is a registered trademark of ZigBee Alliance, Inc. Other product and brand names may be trademarks or registered trademarks of their respective owners.

Copyright © 2020 Linx Technologies. All Rights Reserved.

