

Product Brief



ANT-LTE-WS-SMA Dipole Blade LTE Antenna

The WS antenna is a compact dipole blade antenna ideal for LTE and cellular IoT – LTE-M (Cat-M1) and NB-IoT – applications while also supporting low-power, wide-area (LPWA) networking including LoRaWAN®, Sigfox® and HaLow™ at 868 MHz and 915 MHz.

The hinged, rotating, 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.

The WS comes with an SMA plug (male pin) connector.



Features

- Covers all common 4G/3G/2G LTE bands
- Ground plane independent dipole antenna
- Performance at 1710 MHz to 2200 MHz
 - VSWR: ≤ 2.0
 - Peak Gain: 5.9 dBi
 - Efficiency: 75%
- Performance at 791 MHz to 960 MHz
 - VSWR: ≤ 1.7
 - Peak Gain: 3.4 dBi
 - Efficiency: 63%
- Rotating hinge design with detents for straight, 45 degree and 90 degree positioning
- SMA plug (male pin) connector

Applications

- Worldwide LTE, UMTS and GSM
- Cellular IoT: LTE-M (Cat-M1) and NB-IoT
- FirstNet® Public Safety
- Low-power, wide-area (LPWA) applications
 - LoRaWAN®
 - Sigfox®
 - WiFi HaLow™
- ISM Applications:
 - Bluetooth®
 - ZigBee®
- Internet of Things (IoT) devices
- Smart Home networking
- Sensing and remote monitoring

Ordering Information

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

Available from Linx Technologies and select distributors and representatives.

Electrical Specifications

ANT-LTE-WS-SMA	Frequency Range	VSWR (max.)	Peak Gain (dBi)	Avg. Gain (dBi)	Efficiency (%)
LTE 71	617 MHz to 698 MHz	3.0	4.1	-3.2	53
LTE 12, 13, 14, 17, 26, 28, 29	698 MHz to 803 MHz	1.6	4.1	-2.2	63
LTE 5, 8, 20	791 MHz to 960 MHz	1.7	3.4	-3.1	63
LTE 1, 2, 3, 4, 25, 66	1710 MHz to 2200 MHz	2.0	5.9	-1.8	75
LTE 30, 40	2300 MHz to 2400 MHz	2.1	3.1	-1.6	71
LTE 7, 41	2496 MHz to 2690 MHz	2.2	4.1	-1.6	72
GPS/GNSS	1553 MHz to 1609 MHz	3.3	5.0	-1.7	69
ISM/WiFi	2400 MHz to 2485 MHz	2.3	3.3	-1.8	68

Polarization	Linear	Impedance	50 Ω
Radiation	Omnidirectional	Connection	SMA plug (male pin)
Wavelength	1/2-wave	Electrical Type	Dipole
Max Power	5 W	Weight	1.4 g (0.05 oz)
Operating Temp. Range	-20 °C to +65 °C		
Dimensions	Height: 136.3 mm (5.40 in) Width: 20.0 mm (0.79 in)		

Electrical specifications and plots measured with the antenna straight, no reference ground plane.

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.

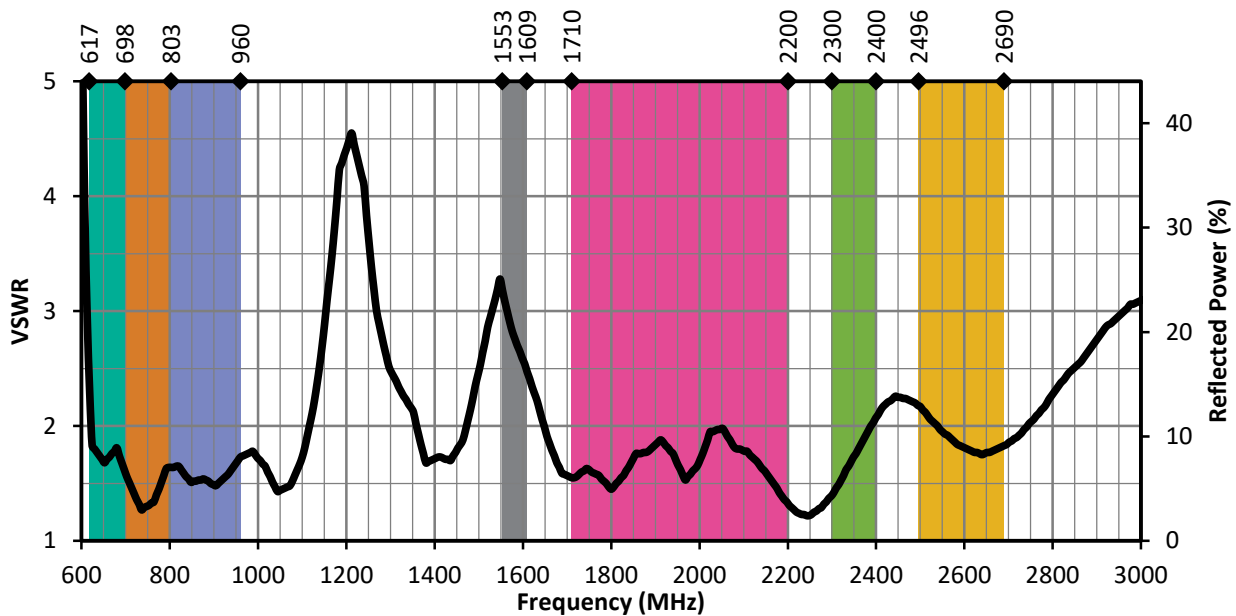


Figure 1. WS Series VSWR, with Frequency Band Highlights

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