Product Brief

LCW Series
2.4 GHz Antenna

The LCW dipole antenna is a very cost-effective solution for 2.4 GHz applications including single-band WiFi, Bluetooth®, ZigBee®, and other 802.15.4 solutions. The LCW delivers high efficiency and excellent peak gain in a ground plane independent dipole antenna.

The hinged, rotating, design of the LCW antenna 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 LCW antenna is available with an SMA plug (male pin), or RP-SMA plug (female socket) connector for FCC Part 15 compliant applications.

Features

- Performance at 2.4 GHz
  - VSWR: ≤ 1.4
  - Peak Gain: 2.8 dBi
  - Efficiency: 86%
- Ground plane independent
- Hinged, rotating, design with detents for straight, 45 degree and 90 degree positioning
- SMA plug (male pin) or RP-SMA plug (female socket)

Applications

- Single-band WiFi/WLAN
  - 802.11b/g
- 2.4 GHz ISM Applications
  - Bluetooth®
  - ZigBee®
  - IEEE 802.15.4
- Internet of Things (IoT) devices
- Smart Home networking
- Sensing and remote monitoring
- Gateways

Ordering Information

Part Number	Description
ANT-2.4-LCW-SMA	Antenna with SMA plug (male pin)
ANT-2.4-LCW-RPS	Antenna with RP-SMA plug (female socket)

Available from Linx Technologies and select distributors and representatives.

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Electrical Specifications

ANT-2.4-LCW-ccc	WiFi / ISM		
Frequency Range	2.4 GHz to 2.485 GHz		
VSWR (max.)	1.4		
Peak Gain (dBi)	2.8		
Average Gain (dBi)	-0.8		
Efficiency (%)	86		
Polarization	Linear	**Impedance**	50 Ω
Radiation	Omnidirectional	**Max Power**	10 W
Wavelength	1/2-wave	**Electrical Type**	Dipole
Weight	7.4 g (0.26 oz)	**Operating Temp. Range**	-40 °C to +80 °C
Dimensions	Height: 83.1 mm (3.27 in) Diameter: 9.4 mm (0.37 in)		
Connection	SMA plug (male pin) or RP-SMA plug (female socket)		

Electrical specifications and plots measured with antenna, mounted on the edge, bent 90 degrees.

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.

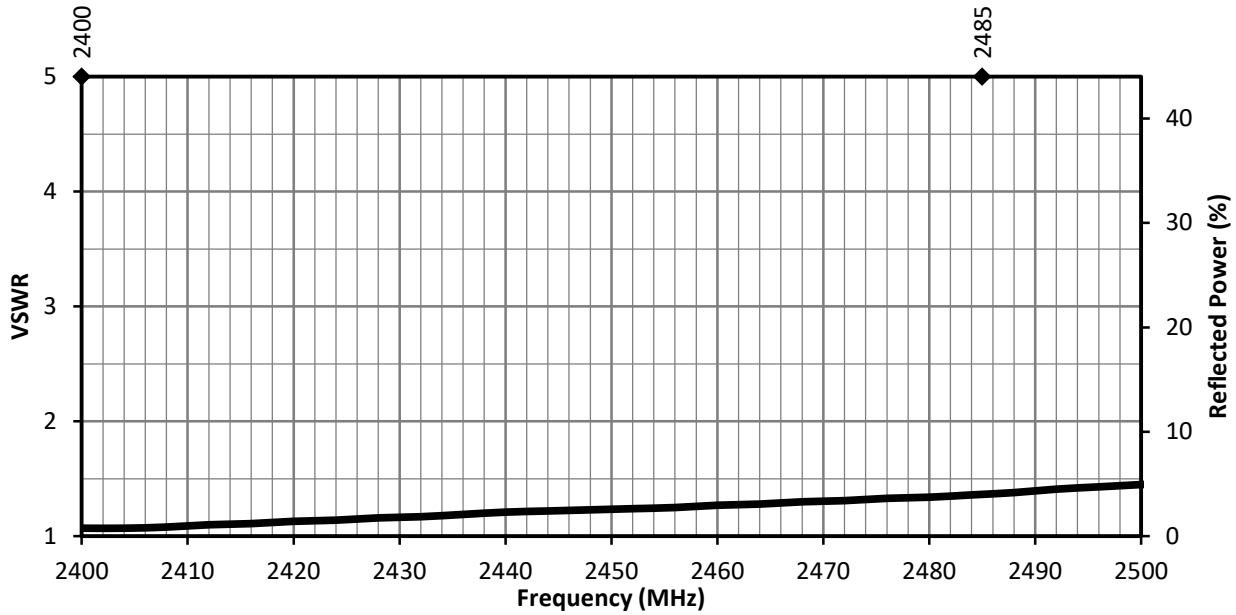

Figure 1. VSWR for the LCW Series Antenna

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Mouser Electronics

Authorized Distributor

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Linx Technologies:

ANT-2.4-LCW-RPS ANT-2.4-LCW-SMA

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