

## Product Brief



### ANT-915-CPA

## 915 MHz Directional Embedded Ceramic Patch Antenna

The 915-CPA compact ceramic patch antenna offers directional signaling at 915 MHz with a footprint of only 25 mm x 25 mm on a recommended ground plane size of 40 mm x 40 mm.

The 915-CPA antenna is ideal for RFID and hand-held applications and other 915 MHz ISM band applications where directional signaling is desired.

The 915-CPA antenna mounts to the printed circuit board (PCB) using re-peelable 5000NS adhesive backing which allows for repositioning or reorientation of the antenna. The pin-type connection feeds through the PCB where it is soldered to the feed line.



### Features

- Directional radiation pattern orthogonal to antenna surface
- Compact size, 25 mm x 25 mm x 4 mm
- Peak gain: 1.5 dBi when used with a 40 mm x 40 mm ground plane. Larger ground planes provide increased gain performance
- Pin-mount solder connection for direct PCB attachment
- Right-hand circularly polarized (RHCP)
- Durable re-peelable self-adhesive backing

### Applications

- Smart Home networking
  - Security systems
  - Home weather stations
- Remote sensing, monitoring and control
  - Security systems
  - Industrial machinery
  - Keyless entry systems
  - UHF RFID devices
- Hand-held devices
- Low-power, wide-area (LPWA) applications
  - LoRaWAN®
  - Sigfox®

### Ordering Information

Part Number	Description
ANT-915-CPA	915 MHz ceramic patch antenna

Available from Linx Technologies and select distributors and representatives.

## Electrical Specifications

Frequency Range	915 MHz
VSWR (max.)	1.2
Return Loss (max.)	-21.1
Peak Gain (dBi)	1.5
Average Gain (dBi)	-9.7
Efficiency (%)	23
Polarization	RHCP
Radiation	Directional
Max Power	8 W
Wavelength	1/4-wave
Electrical Type	Radiating patch
Impedance	50 $\Omega$
Connection	Pin type
Weight	13.2 g (0.46 oz)
Dimensions	25.0 mm x 25.0 mm x 4.0 mm (1.00 in x 1.00 in x 0.16 in)
Operating Temperature Range	-40 °C to +85 °C
ESD Sensitivity	NOT ESD sensitive. As a best practice, Linx may use ESD packaging.

Electrical specifications and plots measured with a 40 mm x 40 mm (1.6 in x 1.6 in) 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.

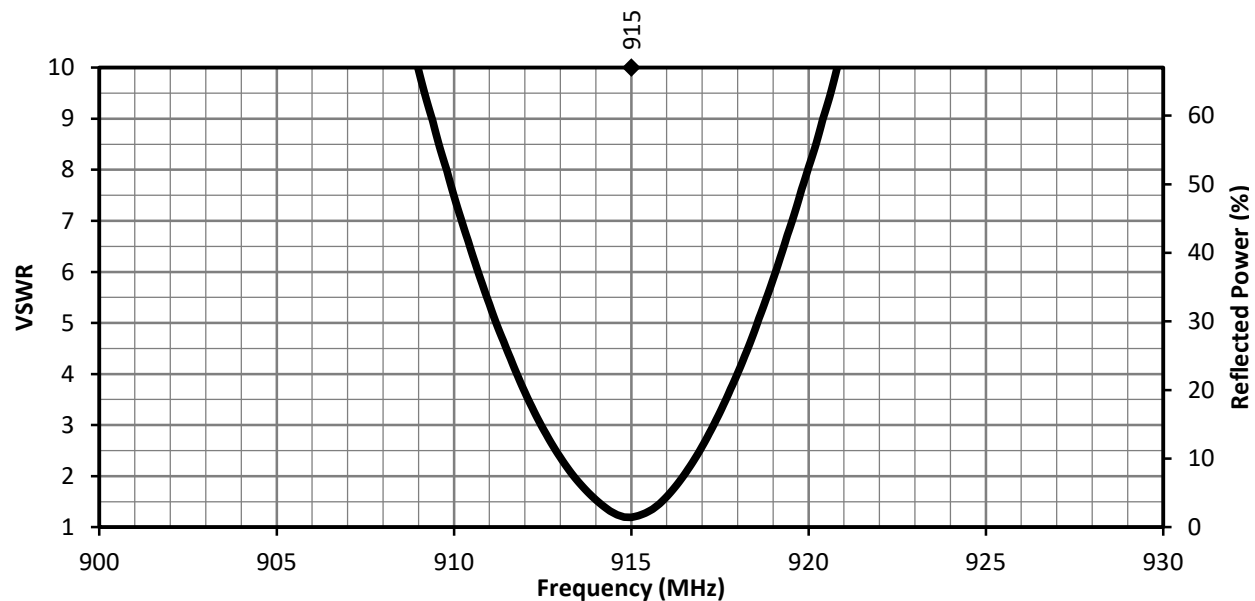


Figure 1. ANT-915-CPA Antenna VSWR

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