

**ANT-DB1-LCD-ccc****Data Sheet****Product Description**

The Linx LCD Dipole Antenna is a superior solution for users searching for best-in-class performance for WLAN devices using Dual-Band WiFi (802.11ac, 802.11n, 802.11ax) or U-NII applications.

With a compact package and low price, the LCD's high peak gain and superior efficiency make it an excellent option for high volume, cost sensitive applications.

Dipole design means that no additional ground plane is required.

**Features**

- Excellent performance
- Dual-band
- Very low VSWR
- Omni-directional pattern
- Tilt and swivel base
- Standard SMA or Part 15 compliant RP-SMA connector

**Ordering Information**

ANT-DB1-LCD-RPS (with RP-SMA connector)  
 ANT-DB1-LCD-SMA (with SMA connector)

**Electrical Specifications**

| Parameter                   | 2.4GHz WIFI                                    | U-NII            | 5.8GHz WIFI/ U-NII-3 Band |
|-----------------------------|------------------------------------------------|------------------|---------------------------|
| Recommended Frequency Range | 2.4 – 2.5GHz                                   | 5.125 – 5.725GHz | 5.725 – 5.875GHz          |
| VSWR                        | <2:1                                           | <2:1             | <2:1                      |
| Peak Gain (max in the band) | 1.27dBi                                        | 2.07dBi          | 1.72dBi                   |
| Average Gain (typical)      | -0.6dBi                                        | -1.5dBi          | -2.2dBi                   |
| Efficiency (typical)        | 85%                                            | 70%              | 65%                       |
| Polarization                | Linear                                         |                  |                           |
| Radiation                   | Omni-Directional                               |                  |                           |
| Max Power                   | 10W                                            |                  |                           |
| Wavelength                  | 1/2-wave                                       |                  |                           |
| Impedance                   | 50-ohms                                        |                  |                           |
| Connection                  | SMA Plug (Male) or RPS (Reverse Polarity Male) |                  |                           |
| Weight                      | 7.4g (0.26oz.)                                 |                  |                           |
| Operating Temperature Range | -40°C to +80°C                                 |                  |                           |

Measurements taken on a 100 x 100mm ground plane, mounted on the edge, bent 90°.

## Product Dimensions



## Dipole antennas, ground planes and additional orientations

Since it is not always possible to provide an adequate ground plane, dipole antennas like the LCD are designed with a built-in ground plane, so an external ground plane is not required for the antenna to radiate properly.

Linx knows how our customers most frequently use our antennas in their designs, typically mounted to enclosures, conductive or non-conductive, so we tested our LCD antenna in 2 different configurations: straight, without ground (free space), and edge of a ground plane bent at 90°.



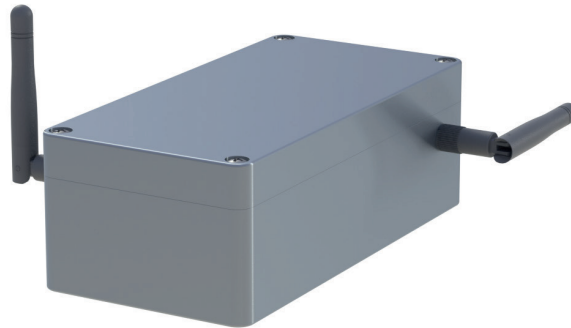
Straight, without ground



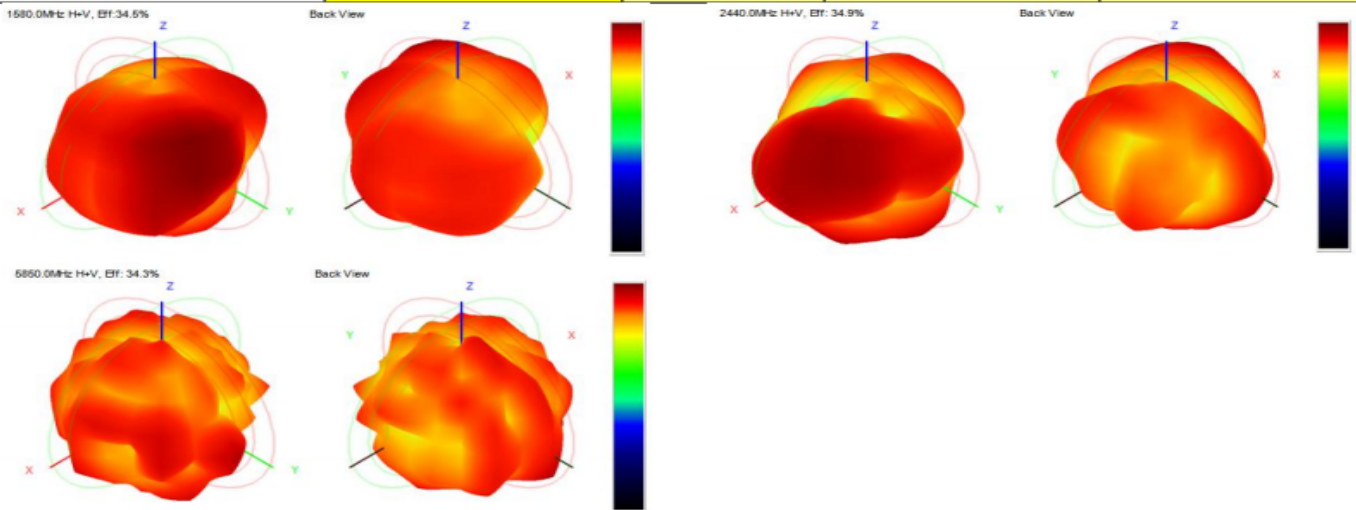
Bent 90°, on edge of ground

Linx tested the LCD dipole antenna to ensure excellent radiation behavior and minimize the risk to the customer when implementing a new design, regardless of complexity.

Additionally, there are many other configurations with which our LCD antenna will have similar performance to the Bent 90°, on edge of ground, with minimal difference, as shown below.



| Frequency (MHz) | Efficiency (dBi) | Gain (dBi) | Efficiency (%) | 天线增益 (dbi) |
|-----------------|------------------|------------|----------------|------------|
| 1570.0          | -4.78            | 0.61       | 33.25          | 0.82       |
| 1575.0          | -4.68            | 0.73       | 34.08          |            |
| 1580.0          | -4.63            | 0.82       | 34.46          |            |
| 2400.0          | -4.78            | 0.89       | 33.23          | 1.27       |
| 2410.0          | -4.76            | 1.19       | 33.44          |            |
| 2420.0          | -4.68            | 1.13       | 34.01          |            |
| 2430.0          | -4.60            | 1.12       | 34.65          |            |
| 2440.0          | -4.58            | 1.27       | 34.86          |            |
| 2450.0          | -4.77            | 0.82       | 33.34          |            |
| 260.0           | -4.67            | 1.16       | 34.15          |            |
| 2470.0          | -4.75            | 1.13       | 33.51          |            |
| 2480.0          | -4.60            | 0.74       | 34.64          |            |
| 2490.0          | -4.68            | 1.02       | 34.04          |            |
| 2500.0          | -4.70            | 0.97       | 33.91          |            |
| 5185.0          | -4.94            | 1.57       | 32.03          | 1.57       |
| 5250.0          | -4.72            | 2.07       | 33.74          | 2.07       |
| 5350.0          | -4.86            | 1.61       | 32.69          | 1.61       |
| 5550.0          | -4.66            | 1.72       | 34.21          | 1.72       |
| 5750.0          | -4.53            | 1.51       | 35.23          | 1.51       |
| 5820.0          | -4.65            | 1.44       | 34.31          | 1.44       |



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