

## Product Brief



# ANT-W63-FPC2-ccc-100 Flexible Embedded WiFi 7/6/6E Antenna

The Linx ANT-W63-FPC2 antenna is a flexible embedded multiband antenna offering excellent performance for WiFi 7/WiFi 6/WiFi 6E applications in the 2.4 GHz, 5 GHz and 6 GHz bands.

The ANT-W63-FPC2 provides a ground plane independent dipole embedded antenna solution comparable in performance to an external antenna. The flexibility and adhesive backing makes the W63-FPC2 antenna easy to mount in unique and custom enclosures, while enabling an environmentally sealed enclosure and protection from tampering or accidental antenna damage.

Connection is made to the radio via a 100 mm (3.94 in) long, 1.13 mm coaxial cable terminated in a U.FL-type plug (female socket) or MHF4 plug (female socket) connector.



### Features

- Performance at 2.4 GHz to 2.5 GHz
  - VSWR:  $\leq 2.4$
  - Peak Gain: 3.2 dBi
  - Efficiency: 61%
- Performance at 5.925 GHz to 7.125 GHz
  - VSWR:  $\leq 2.4$
  - Peak Gain: 8.4 dBi
  - Efficiency: 57%
- Ground plane independent dipole antenna
- Compact, low-profile
  - 42.0 mm x 12.0 mm x 0.2 mm
- U.FL-type plug (female socket) Compatible with MHF1, AMC, UMCC
- MHF4-type plug (female socket)
- Adhesive backing permanently adheres to non-metal enclosures using 3M 467MP™/200MP adhesive
- Flexible to fit in challenging enclosures

### Applications

- WiFi/WLAN coverage
  - WiFi 7 (802.11be)
  - WiFi 6E (802.11ax)
  - WiFi 6 (802.11ax)
  - WiFi 5 (802.11ac)
  - WiFi 4 (802.11n)
  - 802.11b/g
- 2.4 GHz ISM applications
  - Bluetooth®
  - ZigBee®
- U-NII bands 1-8
- Internet of Things (IoT) devices
- Smart Home networking
- Sensing and remote monitoring

### Ordering Information

Part Number	Description
<b>ANT-W63-FPC2-UFL-100</b>	WiFi 7/6/6E antenna on 100 mm of 1.13 mm coaxial cable and U.FL-type plug (female socket)
<b>ANT-W63-FPC2-M4-100</b>	WiFi 7/6/6E antenna on 100 mm of 1.13 mm coaxial cable and MHF4-type plug (female socket)

Available from Linx Technologies and select distributors and representatives.

Table 1. Electrical Specifications

Parameter	ISM/WiFi	WiFi/U-NII 1-3	WiFi 6E/U-NI 4-8
Frequency Range	2400 MHz to 2485 MHz	5150 MHz to 5850 MHz	5925 MHz to 7125 MHz
VSWR (max.)	2.4	1.4	2.4
Peak Gain (dBi)	3.2	7.7	8.4
Average Gain (dBi)	-2.3	-1.6	-2.9
Efficiency (%)	61	72	57
Impedance	50 Ω	Radiation	Omnidirectional
Wavelength	1/2-wave	Electrical Type	Dipole
Polarization	Linear	Max Power	2 W

Electrical specifications and plots measured with the antenna on a 2 mm (0.08 in) thick plastic sheet

Table 2. Mechanical Specifications

Parameter	Value
Connection	U.FL-type plug (female socket) or MHF4-type plug (female socket) on 100 mm (3.94 in) of 1.13 mm coaxial cable.
Operating Temp. Range	-40 °C to +80 °C
Weight	0.6 g (0.02 oz)
Dimensions	42.0 mm x 12.0 mm x 0.2 mm (1.65 in x 0.47 in x 0.01 in)

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.

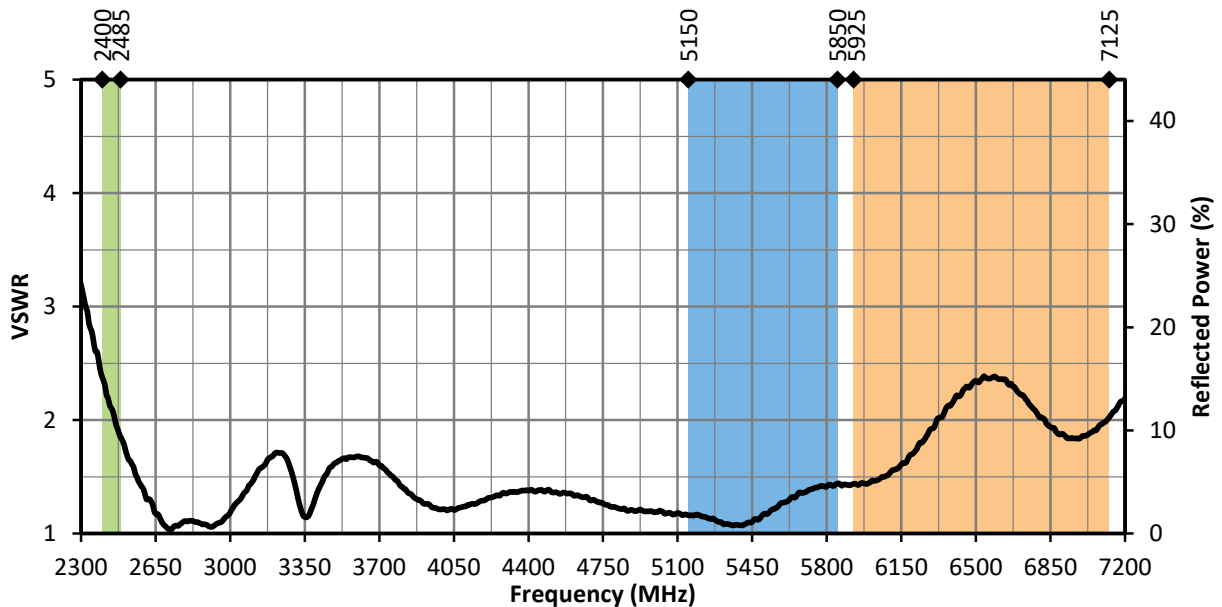


Figure 1. ANT-W63-FPC2-ccc-100 VSWR

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