

## Product Brief



# ANT-5GMFPC1-UFL-100 Flexible Embedded Midband 5G Antenna

The Linx 5GMFPC1 antenna is a flexible embedded multiband antenna for 5G New Radio midband applications. With excellent performance from 2300 MHz to 5000 MHz the 5GMFPC1 supports 5G band 40 (2300 MHz to 2400 MHz), 5G band n90 (2496 MHz to 2690 MHz), CBRS private cellular networking (3550 MHz to 3700 MHz), 5G band n78 (3300 MHz to 3800 MHz), 5G band n79 (4400 MHz to 5000 MHz), and a growing number of 5G midband solutions.

The 5GMFPC1 provides a ground plane independent embedded antenna solution comparable in performance to an external antenna. The flexibility and adhesive backing makes the 5GMFPC1 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) connector.



### Features

- Performance at 3300 MHz to 3800 MHz
  - VSWR:  $\leq 1.7$
  - Peak Gain: 4.8 dBi
  - Efficiency: 59%
- 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
- Adhesive backing permanently adheres to non-metal enclosures using 3M 467MP™/200MP adhesive
- Flexible to fit in challenging enclosures

### Applications

- 5G NR midband and LTE applications
- 5G NR/LTE bands 7, 22, 30, 40, 41, 42, 43, 48, 49, 52, n77, n78, n79
- 2.5 GHz EBS/BRS applications
- Private cellular networks
  - Citizens Broadband Radio Service (CBRS)
- Public Safety networks

### Ordering Information

Part Number	Description
ANT-5GMFPC1-UFL-100	Antenna with 100 mm of 1.13 mm coaxial cable and U.FL-type plug (female socket)

Available from Linx Technologies and select distributors and representatives.

Electrical Specifications

ANT-5GMFPC1-UFL	Frequency Range	VSWR (max.)	Peak Gain (dBi)	Avg. Gain (dBi)	Efficiency (%)
Band 30, 40	2300 MHz to 2400 MHz	3.2	3.0	-2.6	57
Band 7, 41	2496 MHz to 2690 MHz	1.8	4.7	-1.6	73
Band 22, 42, 43, 48, 49, 52, n77, n78	3300 MHz to 3800 MHz	1.7	4.8	-2.7	59
C-Band, n77	3700 MHz to 4200 MHz	1.6	5.9	-1.9	68
Band n79	4400 MHz to 5000 MHz	1.4	6.7	-1.7	71
Polarization	Linear				
Radiation	Omnidirectional				
Max Power	2 W				
Wavelength	1/2-wave				
Electrical Type	Dipole				
Impedance	50 Ω				
Connection	U.FL-type plug (female socket) on 100 mm (3.94 in) of 1.13 mm coaxial cable.				
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)				
Operating Temp. Range	-40 °C to +80 °C				

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.

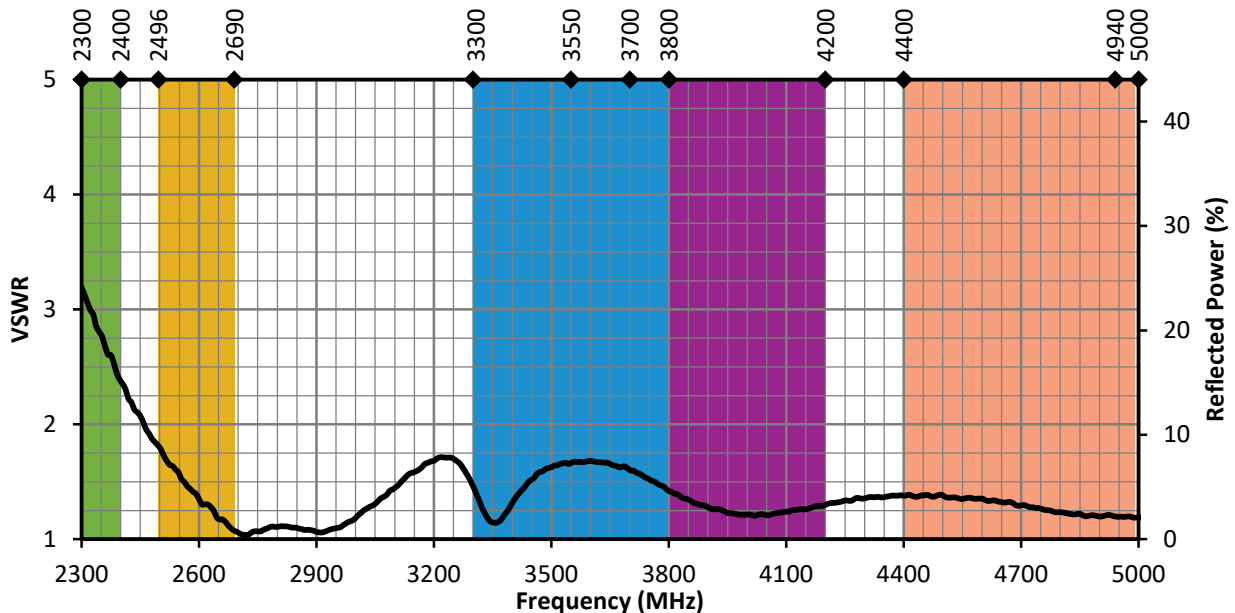


Figure 1. 5GMFPC1 VSWR with Frequency Band Highlights

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