Product Brief

ANT-5GLFPC1-UFL-100
Flexible Embedded Sub-6 Cellular LTE/5G Antenna

The 5GLFPC1 antenna is a flexible embedded sub-6 5G cellular and cellular IoT antenna (LTE-M and NB-IoT) ideal for use in LTE/5G bands 5, 8, 12, 13, 14, 17, 20, 26, 28, 29.

The 5GLFPC1 provides a ground plane independent dipole embedded antenna solution comparable in performance to an external antenna. The antenna's flexibility and adhesive backing makes it 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 long, 1.13 mm coaxial cable terminated in a U.FL-type plug (female socket).

Features

- Performance at 791 MHz to 960 MHz
  - VSWR: ≤ 3.7
  - Peak Gain: -8.1 dBi
  - Efficiency: 18%
- Ground plane independent (dipole)
- Compact, low-profile
  - 39.0 mm x 15.0 mm x 0.2 mm
- U.FL-type plug (female socket) Compatible with MHF1, AMC, UMCC
- Flexible to fit in challenging enclosures
- Adhesive backing permanently adheres to non-metal enclosures using 3M 467MP™/200MP adhesive

Applications

- Cellular IoT: LTE-M (Cat-M1) and NB-IoT
  - AT&T: bands 12, 17
  - Verizon: band 13
  - Europe: bands 8, 20
  - Latin America: bands 5, 28
  - Asia Pacific: bands 5, 8, 20, 28
- Remote control, monitoring and sensing
- Internet of Things (IoT) devices
- Smart Home networking

Ordering Information

Part Number	Description
ANT-5GLFPC1-UFL-100	Cellular 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-5GLFPC1-UFL	LTE Bands 12, 13, 14, 17, 26, 28, 29	LTE Bands 5, 8, 20
Frequency Range	698 MHz to 803 MHz	791 MHz to 960 MHz
VSWR (max.)	6.8	3.7
Peak Gain (dBi)	-3.2	-3.0
Average Gain (dBi)	-8.8	-8.1
Efficiency (%)	15	18
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	39.0 mm x 15.0 mm x 0.2 mm (1.54 in x 0.59 in x 0.01 in)	
Operating Temperature Range	-40 °C to +85 °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.

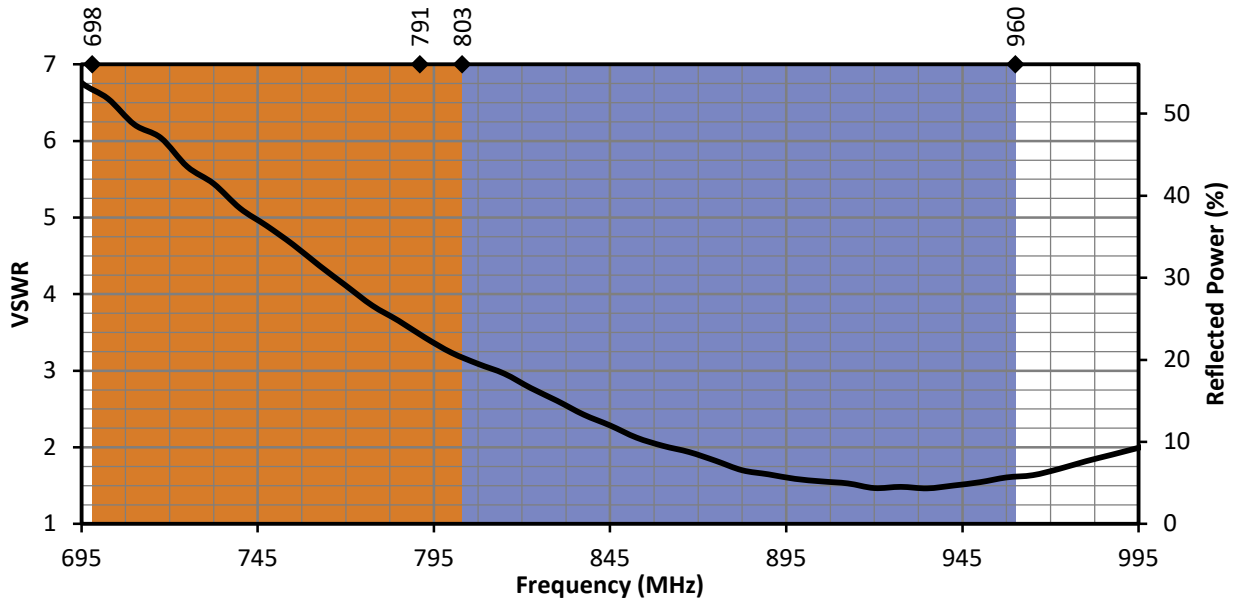

Figure 1. 5GLFPC1 VSWR with Frequency Band Highlights