



F47AGCHA Embedded Antenna

Profile Contour Series Antenna



The F47AGCHA is a carrier-grade high performance flex antenna designed for installation inside small plastic enclosure devices such as cellular enabled IoT devices. This antenna provides ultra-wideband frequency coverage, providing support for common (700 MHz to 2700 MHz) LTE frequency bands and global coverage. Specifically designed and certified to pair with NimbeLink® Skywire® modems. The pairing will ensure carrier certification compliance when fitted according to the recommendations within. This antenna is ground plane independent, which means it does not require a large ground plane to achieve the levels of performance specified in this datasheet. Manufactured with an adhesive backed flexible polyimide material, the F47AGCHA provides flexibility and ease of integration for plug and play use. The length of the cable and cable routing affects the performance of this antenna. The performance detailed in this datasheet is based on 150 mm coax cable length terminated with a U.FL-style connector.

- Designed and optimized for use with Nimbelink Skywire modems
- Carrier-grade performance
- Designed in the USA
- Extended temperature range
- Adhesive-backed flexible polyimide PCB antenna with coaxial cable feed and U.FL compliant connector
- Minimum of 60% efficiency across all frequency bands with 150 mm cable
- Peel and stick plug-and-play installation
- Supports a wide variety of plastic enclosure form factors and contours

CONFIGURATION

F47AGCHA-G150U	Cellular/4G (700 MHz to 2700 MHz) Flex PCB Antenna, 59.3 mm x 65.55 mm x 0.185 mm, Grey 150 mm Cable, U.FL Connector
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SPECIFICATIONS AND INTERFACE

Standard	LTE
Frequency Range	700 MHz to 2700 MHz
Peak Gain	0.7 dBi @ 700 MHz; 3.9 dBi @ 830 MHz; 1.6 dBi @ 960 MHz; 3.6 dBi @ 1700 MHz; 3.1 dBi @ 1960 MHz; 3.8 dBi @ 2200 MHz; 2.6 dBi @ 2500 MHz; 2.7 dBi @ 2700 MHz
VSWR	< 2.5:1
Feed Impedance	50 ohms
Power Handling	30 dBm
Interface	50 ohms, 150 mm x 1.13 mm diameter coax cable terminated with U.FL-style connector
Dimensions	59.3 mm x 65.55 mm x 0.185 mm
Weight	TBD g
Temperature Range	Operating: -40° C to +85° C (-40° F to +185° F) Storage: -40° C to +85° C (-40° F to +185° F)
Humidity Range	0% to 95% non-condensing