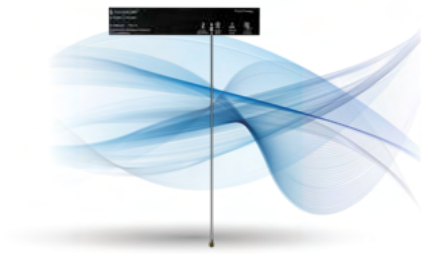
F47NBAAB Embedded Antenna

Profile Contour Series Antenna



The F47NBAAB 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 2G, 3G, and 4G 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 F47NBAAB 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
- Provides coverage of global frequency bands (698 MHz to 960 MHz, 1559 MHz to 1610 MHz, 1710 MHz to 2700 MHz) including support for 2G/3G and LTE
- 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

F47NBAAB-G150U	Cellular/4G (698 MHz to 960 MHz, 1559 MHz to 1610 MHz, 1710 MHz to 2700 MHz) Flex PCB Antenna, 105 mm x 20 mm x 0.105 mm, Grey 150 mm Cable, U.Fl Connector

SPECIFICATIONS AND INTERFACE

Standard	3GGP LTE
Frequency Range	698 MHz to 960 MHz, 1559 MHz to 1610 MHz, 1710 MHz to 2700 MHz
Peak Gain	2.9 dBi @ 700 MHz; 2.5 dBi @ 800 MHz; 3.7 dB i@ 2000 MHz; 2.9 dBi @ 2400 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	105 mm x 20 mm x 0.105 mm
Weight	0.64 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