



# F56NBAAA Embedded Antenna

## Profile Contour Series Antenna



The F56NBAAA 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 F56NBAAA 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 (617 MHz to 960 MHz, 1700 MHz to 6000 MHz), including support for 2G/3G/4G/and 5G cellular
- 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

F56NBAAA-G150U

Cellular/4G/5G (617 MHz to 960 MHz, 1700 MHz to 6000 MHz) Flex PCB Antenna, 122.5 mm x 56 mm x 0.185 mm, Grey  
150 mm Cable, U.FL Connector

**SPECIFICATIONS AND INTERFACE**

Standard	3GPP LTE
Frequency Range	617 MHz to 960 MHz, 1700 MHz to 6000 MHz
Peak Gain	1.7 dBi @ 617 MHz; 3.5 dBi @ 800 MHz; 3.0 dBi @ 2000 MHz; 4.2 dBi @ 2400 MHz; 4.0 dBi @ 3500 MHz; 5.1 dBi @ 5500 MHz; 6.9 dBi @ 6000 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	122.5 mm x 56 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