



Applications



IoT "Smart" Devices



Medical Devices



Set-Top Boxes & Routers



Mobile Electronic Wallets



Bluetooth Speakers

Overview

Amphenol RF offers a wide variety of embedded antennas designed for use inside connected devices. These ceramic chip antennas are the most compact antenna option and are SMT mounted on the surface of a PCB.

Embedded chip antennas typically have a monopole, loop or IFA design in order to provide optimal performance. This compact, cost effective and off-the-shelf embedded antenna solution supports a wide frequency range of 0.4 through 8.5 GHz including cellular (4G/LTE/5G-FR1) and complementary (Wi-Fi/BT/BLE/GNSS/LoRa/UWB) antennas.

Features and Benefits

- Reliable RF performance up to 8.5 GHz supporting Cellular (4G/5G-FR1), Wi-Fi/Bluetooth/BLE and LoRa/UWB/GNSS protocols
- SMT, Surface mount on PCB
- Tape and reel packaging
- Ideal for compact IoT applications and consumer devices

For more information on Internal RF Antennas, visit:

<https://www.amphenorlrf.com/antennas.html>

Amphenol RF

Four Old Newtown Road
Danbury, CT 06810

For more information visit www.amphenorlrf.com
or call 800.627.7100

Amphenol® RF

Ordering Information



Part Number	ST0147-00-010-A	ST0147-00-011-A	ST0347-10-001-A	ST1247-00-001-A	ST1247-00-001-F
Frequency Range (GHz)	2.4 – 2.5 GHz		0.69 – 0.96 1.7 – 2.2 2.3 – 2.7	2.5 5.15 7.2	6.2 – 8.5
Return Loss (dB)	<-10	<-7	< -4 < -7 < -8	<-10	< -10
Max Input Power (W)	2	2	1	2	2
Gain, Peak / Average (dB)	3.3 -1.1	3.7 -1.0	4.7/-3.4 3.6/-1.6 4.3/-0.9	3.1/-1.0 5.3/-1.1 5.2/-1.4	3.2 -2.0
Efficiency / Average (%)	77	80	46 69 81	79 78 72	63
Dimensions (mm)	5 x 2 x 1	3.05 x 1.6 x 0.55	40 x 8 x 3.2	10 x 4 x 1.5	3.2 x 1.6 x 1.1
Temperature Range (°C)	-40 to 85				
Humidity	Non-condensing 65°C 95% RH				
RoHS	RoHS Compliant				



Part Number	ST0643-00-N02-A	ST0643-00-N01-A	ST0243-00-N02-B
Frequency Range	915 - 919 MHz	433 MHz	2.4 – 2.5 GHz
Return Loss (dB)	<-10	<-10	< -10
Max Input Power (W)	1	1	1
Gain, Peak / Average (dB)	1.8 -1.8	0.9 -1.8	2.3 -1.6
Efficiency / Average (%)	65	66	69
Dimensions (mm)	5 x 3 x 0.5	5 x 3 x 0.5	5 x 3 x 0.5
Temperature Range (°C)	-25 to 70		
Humidity	Non-condensing 65°C 95% RH		
RoHS	RoHS Compliant		

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