



### Overview

Amphenol RF offers a wide variety of internal FPC and PCB antennas designed for use inside connected devices. The antennas feature either a flexible pad or rigid printed circuit board which can be mounted inside a device. These antennas are commonly terminated to wireless modules featuring AMC or compatible ultraminiature connectors.

Internal antennas typically have a dipole design but are also available in both monopole and F-Type configurations. Common uses include tablets, autonomous or robotic appliances and portable entertainment devices.

### Features and Benefits

- Ideal for IoT, Wi-Fi and LTE applications
- Dual-band, multi-band and wide-band options available
- Secure adhesive mount backing for easy install
- Flexible options for use in compact IoT devices
- Low profile design
- Reliable RF performance

For more information on Internal RF Antennas, visit:

<https://www.amphenolrf.com/rf-antennas.html>

### Amphenol RF

Four Old Newtown Road  
Danbury, CT 06810

For more information visit [www.amphenolrf.com](http://www.amphenolrf.com)  
or call 800.627.7100

### Applications



Wi-Fi Enabled Lawn Mowers



Smart Speakers



Drones



Tablets



Smart TVs



Navigation Systems



Routers



Security Cameras



Wireless Headphones



Payment Terminals

## Ordering Information



Part Number	ST0224-10-401-A	ST1224-10-401-A	ST0412-20-001-A	ST0225-10-401-A	ST1225-10-401-A	ST1225-20-001-A	ST0425-20-401-A
Frequency Range (GHz)*	2.4 – 2.5 5.15 – 5.85 Wi-Fi	2.4 – 2.5 5.15 – 7.2 Wi-Fi 6E	0.69 – 0.96 1.7 – 4.2 LTE 5G-NR	2.4 – 2.5 5.15 – 5.85 Wi-Fi	2.4 – 2.5 5.15 – 7.2 Wi-Fi 6E	2.4 – 2.5 5.15 – 7.2 Wi-Fi 6E	0.69 – 0.96 1.7 – 5.0 LTE 5G-NR
Material	FPC   PI   Adhesive 3M 467			PCB   FR-4   Adhesive 3M 467			
Return Loss (dB)	< -10   < -10	< -10   < -10	< -6   < -6	< -10   < -10	< -7   < -6	< -10   < -10	< -6   < -6
Power (W) 50 Ohm	1	1	1	1	1	1	1
Gain, Peak / Average (dB)	2.1/3.1   -1.2/-1.5	2.1/3.6   -1.2/-1.1	3.1/2.7   -3.7/-2.0	2.6/2.6   -3.8/-1.6	2.6/4.1   -3.5/-2.0	3.4/4.2   -1.7/-1.6	4.2/4.2   -3.0/-3.0
Efficiency / Average (%)	77   71	77   78	42   63	42   69	44   65	68   70	50   51
Dimensions (mm)	30 x 10 x 0.2	30 x 10 x 0.2	95 x 15 x 0.2	25 x 7 x 0.85	30 x 7 x 0.85	50.4 x 13.8 x 0.7	95 x 15 x 0.85
Cable Length	100 mm standard – Custom cable length upon request						
Temperature Range (°C)	-40 to 85						
Humidity	Non-condensing 65°C 95% RH						
RoHS	RoHS Compliant						



Part Number	ST1124-10-401-A	ST1124-11-401-A	ST1125-00-401-A	ST1125-11-401-A
Frequency Range (GHz)*	6.35 – 7.91 7.93 – 8.44	3.18 – 4.74 4.76 – 6.33 6.35 – 7.91 7.93 – 8.44	6.35 – 7.91 7.93 – 8.44	3.18 – 4.74 4.76 – 6.33 6.35 – 7.91 7.93 – 8.44
Material	FPC   PI   Adhesive 3M 467			
Return Loss (dB)	< -10   < -10	< -10   < -10   < -10   < -10	< -10   < -10	< -10   < -10   < -10   < -10
Power (W) 50 Ohm	1	1	1	1
Gain, Peak / Average (dB)	6.0 / -0.9   5.1/-0.8	3.6/-0.7   4.3/-1.1   4.3/-1.4   4.5/-1.5	3.8/-1.4   3.7/-0.8	3.8/-0.7   5.0/-1.1   4.5/-0.9   4.3/-0.5
Efficiency / Average (%)	81   91	86   78   72   71	72   83	85   78   82   89
Dimensions (mm)	15 x 17.4 x 0.2	24.1 x 34 x 0.2	13.1 x 16.4 x 0.45	23 x 35 x 0.45
Cable Length	100 mm standard – Custom cable length upon request			
Temperature Range (°C)	-40 to 85			
Humidity	Non-condensing 65°C 95% RH			
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