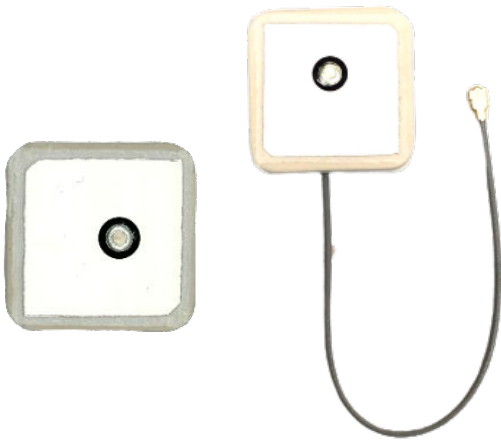




Overview

Amphenol RF offers a wide variety of embedded GNSS and GPS antennas designed for use inside connected devices. Ceramic antennas are a compact solution that can be surface mounted to a printed circuit board (PCB) or connectorized for better positioning. They are designed to receive radio signals transmitted on specific frequencies by satellites.

GNSS antennas use signals from global navigation satellites whereas GPS antennas utilize primarily North American satellites. Both types of antennas support AMC (I-Pex MHF® 1) connectors.

The low profile shape of these antennas make them ideal for a variety of applications including handheld and portable navigation devices, mobile electronics and automotive.

Features and Benefits

- Compact and lightweight
- Smooth SMT process
- Active antennas include LNA and cable
- Operates in multiple bands (GPS, GLONASS, Beidou)
- High-efficiency

For more information on Internal RF Antennas, visit:

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

Amphenol RF

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Danbury, CT 06810

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

Applications



Handheld & Portable Navigation Devices



Fleet Management



IoT Devices



E-Bike



Automotive & Infotainment



Asset Tracking

Ordering Information



Part Number	ST0543-00-N01-U	ST0543-00-N02-U	ST0543-00-N03-U	ST0543-00-N04-U	ST0543-00-N05-U	ST0543-00-N06-U
Frequency Range (GHz)	1575.42 ± 1	1575.42 ± 1 1602 ± 5	1575.42 ± 1	1575.42 ± 1 1602 ± 5	1575.42 ± 1	1575.42 ± 1 1602 ± 5
Return Loss (dB)	< -10	< -10 < -10	< -10	< -10 < -10	< -10	< -10 < -10
Gain (dBic) @Zenith at 20mm x 20mm ground	-1 typ.	-5.5 typ. -2.0 typ.	2.5 typ.	-0.5 typ. 1.0 typ.	3.5 typ.	-0.5 typ. 2.0 typ.
Bandwidth (MHz)	19	10 9	8	5 5	10	8 8
Efficiency (%) @Center Frequency	68	40 47	72	80 82	85	78 83
Axial Ration (dB)	3 typ.		3 typ.		3 typ.	
Polarization	RHCP		RHCP		RHCP	
Impedance (Ω)	50					
Dimensions (mm)	15 x 15 x 4	15 x 15 x 4	18 x 18 x 4	18 x 18 x 4	25.1 x 25.1 x 4	25.1 x 25.1 x 4
Temperature Range (°C)	-40 to 105					
Humidity	Non-condensing 65°C 95% RH					
RoHS	RoHS Compliant					



Part Number	ST0543-00-401-U	ST0543-00-402-U	ST0543-00-403-U	ST0543-00-404-U	ST0543-00-405-U	ST0543-00-406-U
Frequency Range (GHz)	1575.42 ± 1	1575.42 ± 1	1575.42 ± 1	1575.42 ± 1 1602 ± 5	1575.42 ± 1 1602 ± 5	1575.42 ± 1 1602 ± 5
Return Loss (dB)	< -10	< -10	< -10	< -10 < -10	< -10 < -10	< -10 < -10
Gain (dBic) @Zenith at 20mm x 20mm ground	2.0 typ.	2.5 typ.	-0.5 typ.	-0.5 typ. 2.0 typ.	-0.5 typ. 1.0 typ.	-0.5 typ. -2.0 typ.
Bandwidth (MHz)	10	8	9	8 8	5 5	10 9
Efficiency (%) @Center Frequency	80	72	65	78 83	80 82	40 47
Axial Ration (dB)	3.0 typ.	4.0 typ.	4.0 typ.			
Polarization	RHCP	RHCP	RHCP			
Impedance	50					
Dimensions (mm)	25.1 x 25.1 x 6.5	18 x 18.5 x 4.5	15 x 15 x 6.7	25.1 x 25.1 x 7.4	18 x 18 x 7.1	19 x 16 x 6.4
Temperature Range (°C)	-40 to 85	-20 to 85	-20 to 85	-40 to 85	-20 to 85	-20 to 85
Humidity	Non-condensing 65°C 95% RH					
RoHS	RoHS Compliant					