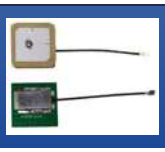
Compact Multiband Active GNSS (GPS/GLONASS/BEIDOU/Galileo) Patch Antenna



APAKC2506A-SG3

25.0 x 25.0 x 6.9 mm
RoHS/RoHS II Compliant
MSL = N/A: Not Applicable

Features

- Multiband GPS/GLONASS/Beidou/Galileo GNSS patch
- Active GNSS with LNA, LNA gain of 32 dB
- RHCP polarization
- 25.0 x 25.0 x 6.9 mm
- RF coax cable, IPEX connector

Applications

- GPS/GLONASS/Galileo/Beidou applications
- IoT
- M2M
- Remote technology monitoring
- Geofencing
- Surveying and mapping systems
- Logistics

Electrical Specifications

Parameters	GPS-L1 / Galileo-E1			BeiDou-B1			GLONASS-L1			Units	Notes
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.		
Operating Frequency	1555 ~ 1615									MHz	
VSWR	1.5										Max.
Gain		-1.5			-1.0			-2.5		dBi	
Axial Ratio			10			10			10	dB	
Impedance	50									Ω	
Polarization	RHCP										

LNA

Parameters	Min.	Typ.	Max.	Units	Notes
Operating Frequency	1555 ~ 1615			MHz	
VSWR	2.0				Max.
Gain	32 ± 2			dB	@25 °C
Noise Figure	1.1			dB	
DC Voltage	1.5	3.0	3.6	V	
DC Current	7.3	8.5	10.0	mA	
Impedance		50		Ω	

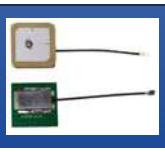
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25.0 x 25.0 x 6.9 mm
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Mechanical Specifications

Parameters	Description
Antenna	Dielectric Ceramics
Ground	PCB, FR4, 0.6 mm
Cable	59 mm, RF OD 1.13
Connector	IPEX-II

Environmental Specifications

Parameters	Description
Operating Temperature	-40 °C to +80 °C
Storage Temperature	-40 °C to +85 °C
Frequency Temperature Coefficient	20ppm/deg. °C
Humidity	10 % ~ 95 % R.H.

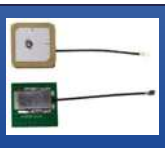
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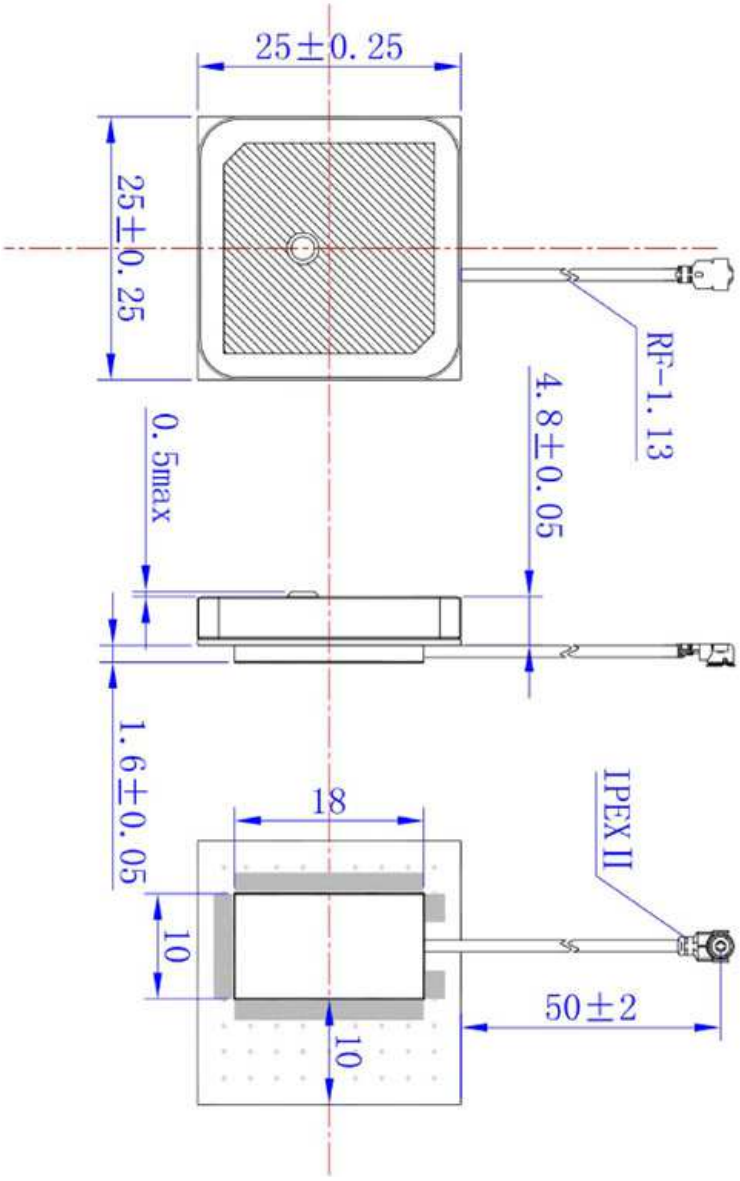
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Product Dimensions

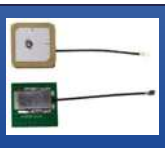


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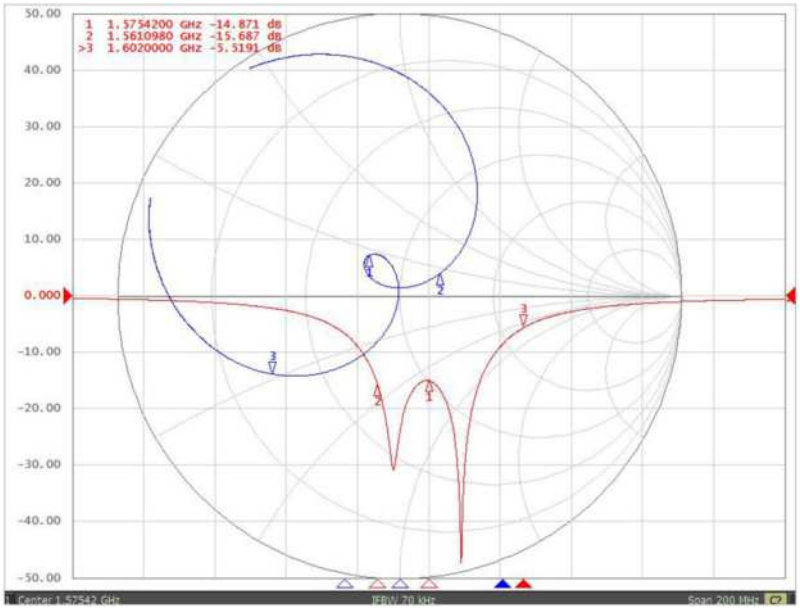


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Return Loss and Impedance Characteristics

Antenna



LNA (Gain @ 3.0 V)



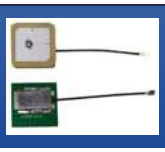
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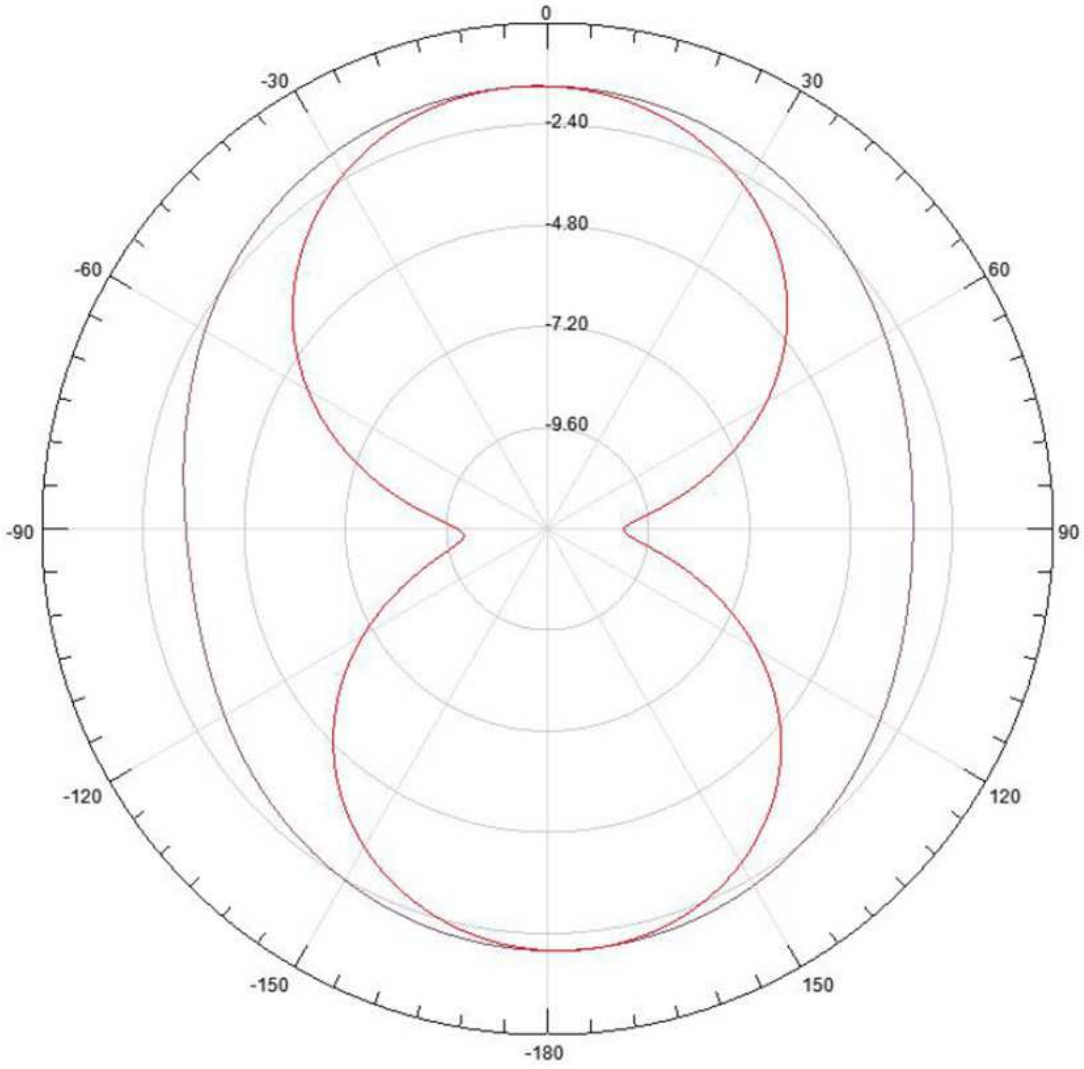


APAKC2506A-SG3

25.0 x 25.0 x 6.9 mm
RoHS/RoHS II Compliant
MSL = N/A: Not Applicable

Radiation Pattern

2D - Pattern
YZ & XZ - Plane
1561.098 MHz



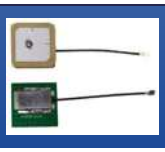
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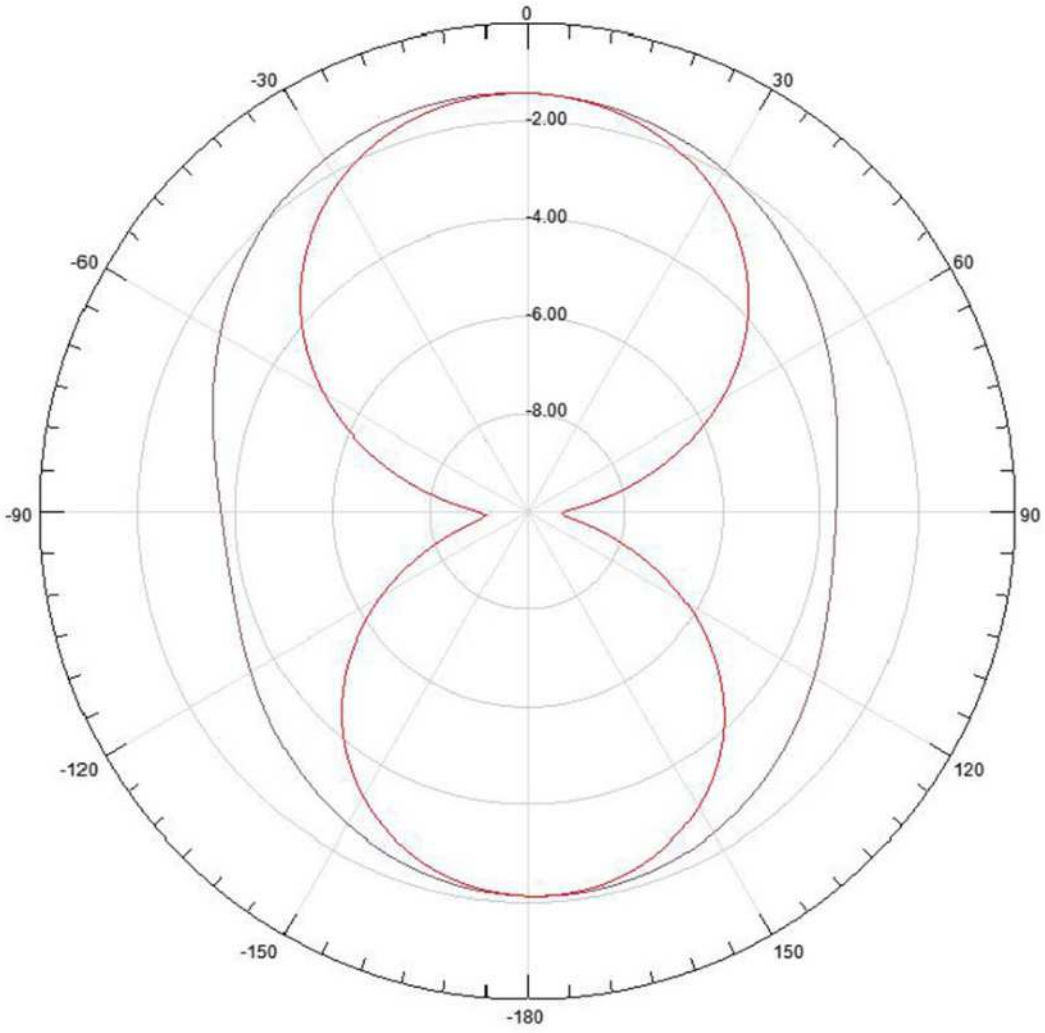


APAKC2506A-SG3

25.0 x 25.0 x 6.9 mm
RoHS/RoHS II Compliant
MSL = N/A: Not Applicable

Radiation Pattern

2D - Pattern
YZ & XZ - Plane
1575.42 MHz



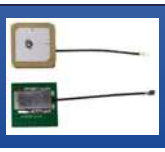
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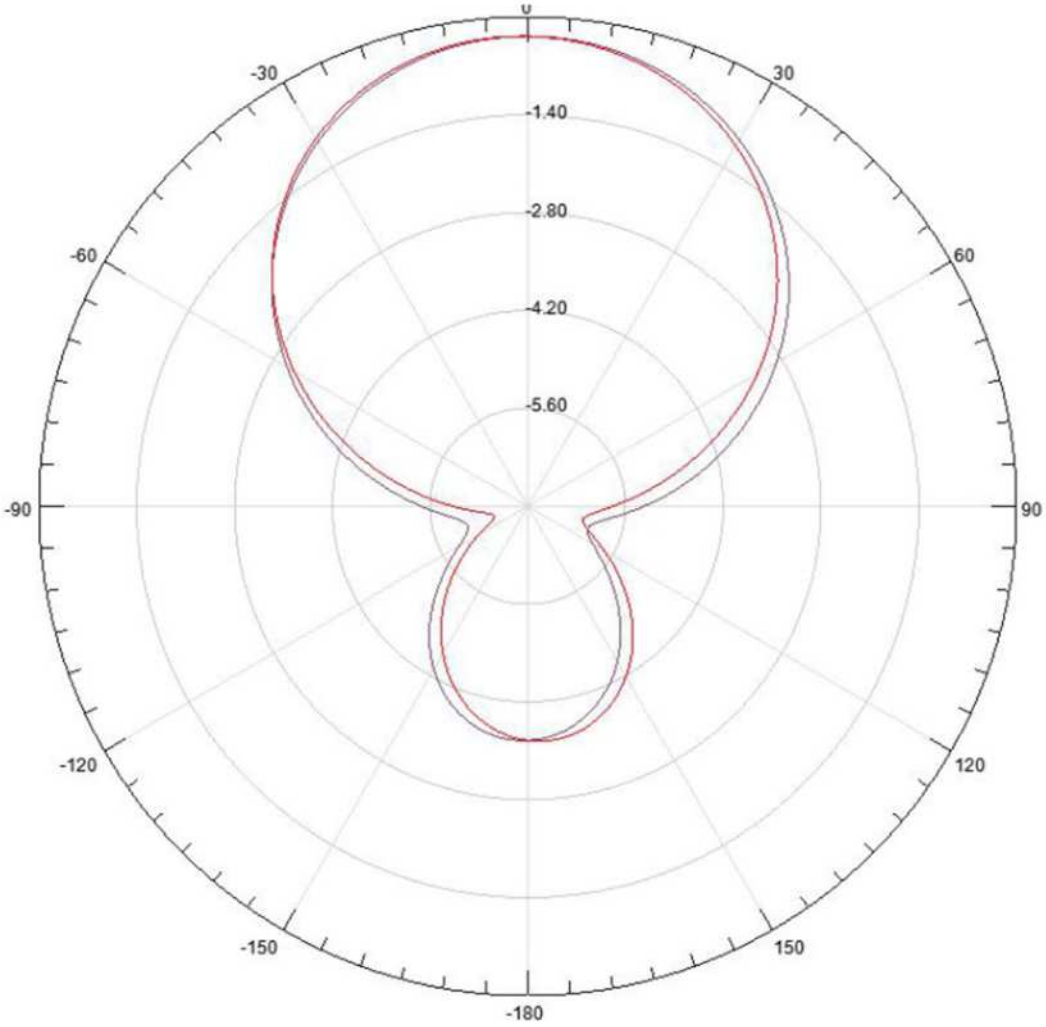


APAKC2506A-SG3

25.0 x 25.0 x 6.9 mm
RoHS/RoHS II Compliant
MSL = N/A: Not Applicable

Radiation Pattern

2D - Pattern
YZ & XZ - Plane
1602 MHz



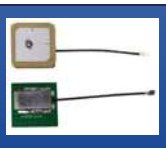
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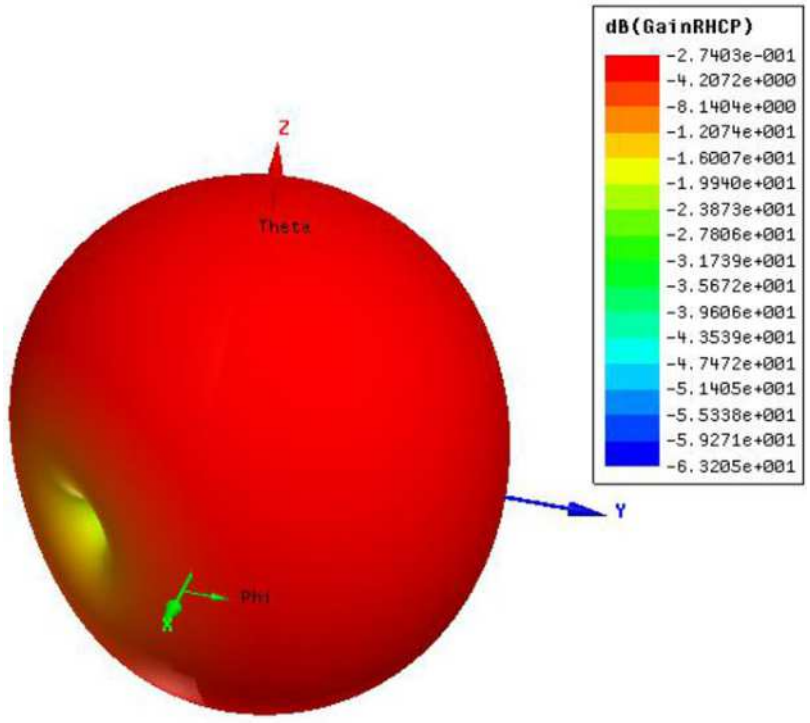


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RoHS/RoHS II Compliant
MSL = N/A: Not Applicable

Radiation Pattern

3D - Pattern



Packaging

A package has 1000 antenna elements.

Package Type	Quantity
1 Package base	50 Antennas
1 Vacuum bag	6 Package bases
1 Inner box	1 Vacuum bag
1 Package	4 Inner boxes

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