

APAKC3508A-SG3



35.0 x 35.0 x 8.7 mm
 RoHS/RoHS II Compliant
 MSL = N/A: Not Applicable

Features

- Multiband GPS/GLONASS/BeidouGalileo GNSS patch
- Active GNSS with LNA, LNA gain of 32 dB
- RHCP polarization
- 35.0 x 35.0 x 8.7 mm
- RF coax cable, IPEX connector

Applications

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

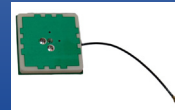
Electrical Specifications

Parameters	GPS-L1			BeiDou-B1			GLONASS-L1			Galileo-E1			Units
	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
Operating Frequency	1555 ~ 1615												MHz
VSWR			1.5			1.5			1.5			1.5	
Gain		3.0			2.8			2.5			3.0		dBi
Axial Ratio			3			3			3			3	dB
Impedance	50												Ω
Polarization	RHCP												

LNA

Parameters	Min.	Typ.	Max.	Units	Notes
Operating Frequency	1555 ~ 1615			MHz	
VSWR			2.0		
Gain		32 $\pm$ 2		dB	@ 25°C
Noise Figure		1.2		dB	
DC Voltage		3.0		V	
DC Current		8.5		mA	
Impedance	50			Ω	

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



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Mechanical Specifications

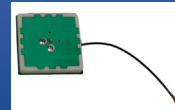
Parameters	Description
Antenna	Dielectric Ceramics
Ground	PCB, FR4, 0.6 mm
Cable	75 mm, RF-1.13
Connector	IPEX-II

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.

Product Image



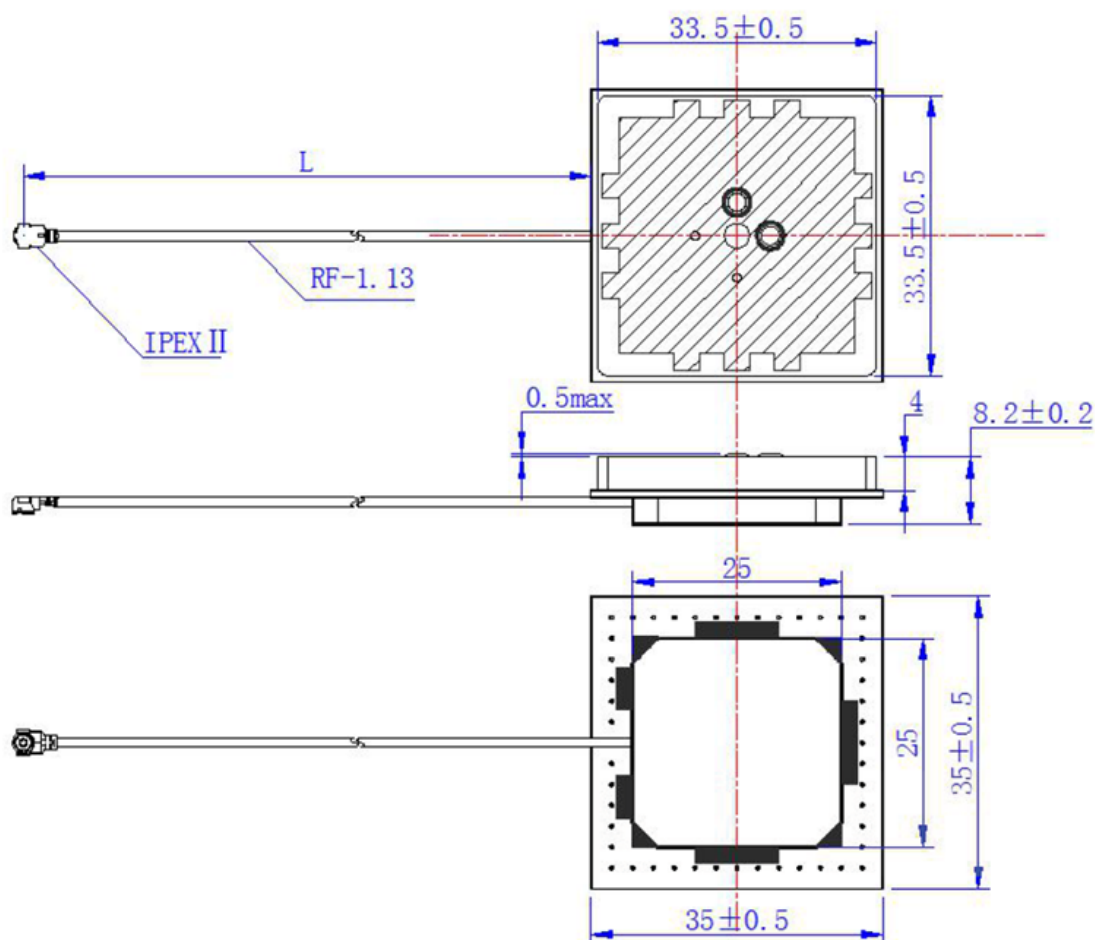


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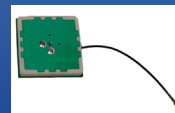


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Product Dimensions



(Unit : mm)



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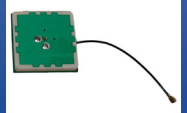
Return Loss and Impedance Characteristics

Antenna



LNA (Gain @ 3.0 V)





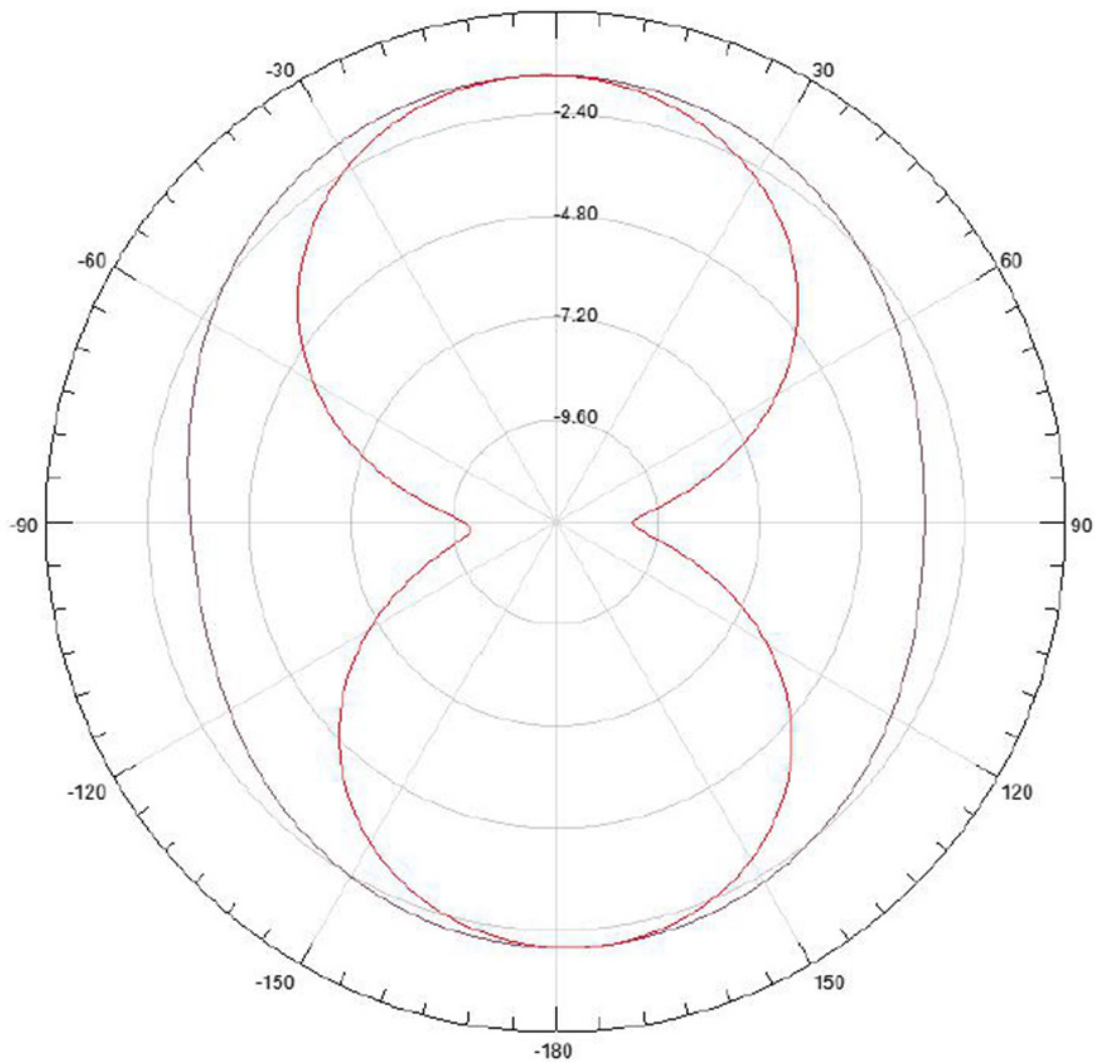
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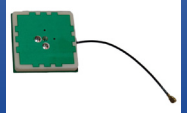


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Radiation Pattern

2D - Pattern
YZ & XZ - Plane
1561 MHz





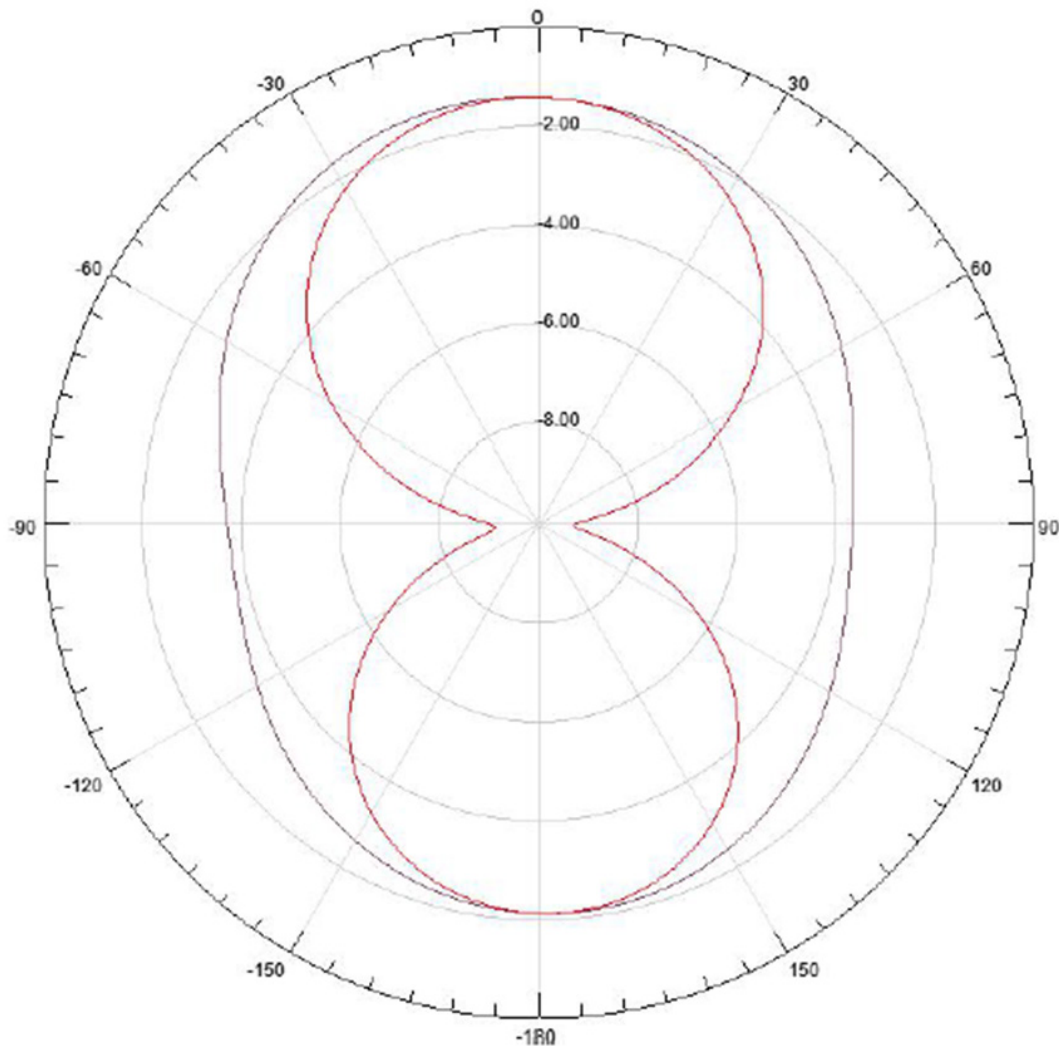
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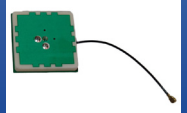


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Radiation Pattern

2D - Pattern
YZ & XZ - Plane
1575.42 MHz





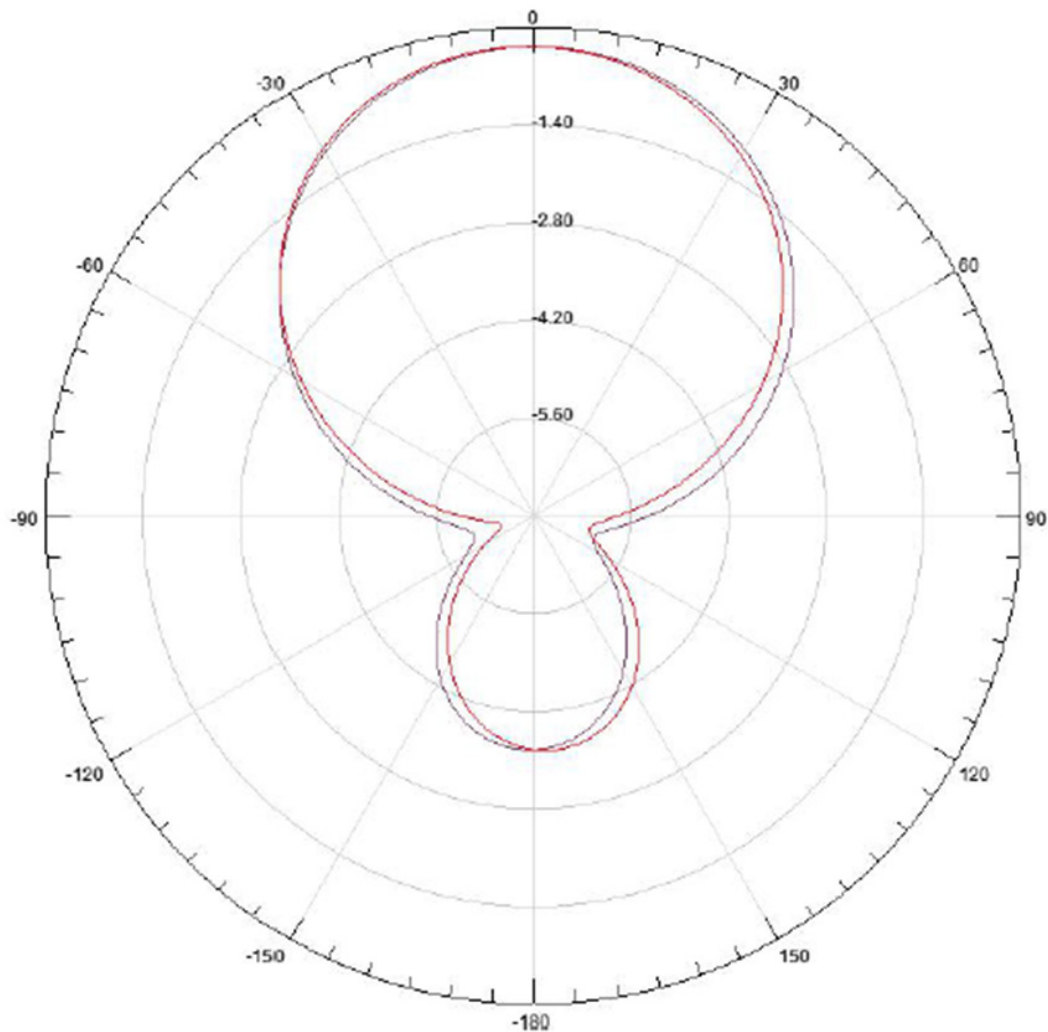
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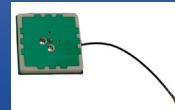


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Radiation Pattern

2D - Pattern
YZ & XZ - Plane
1602 MHz





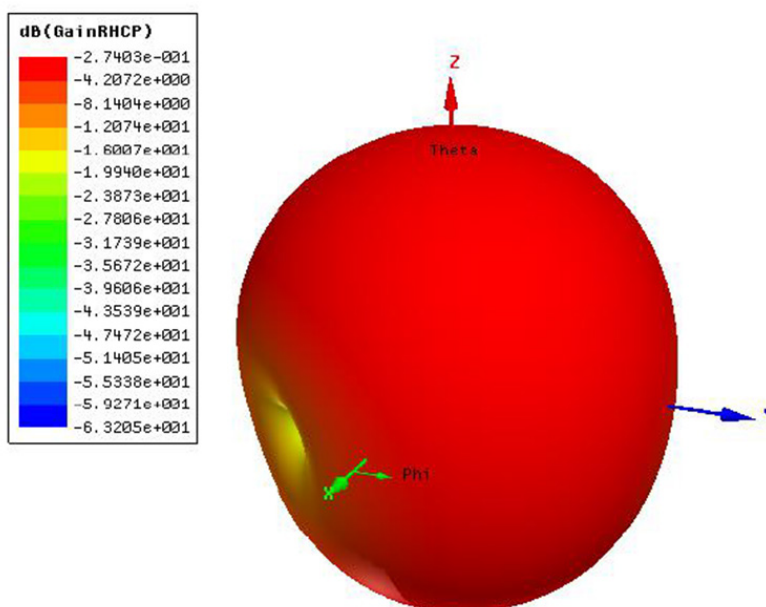
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Radiation Pattern

3D - Pattern



Packaging

A package has 1000 antenna elements.

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