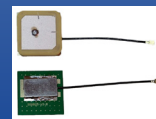


# Compact Multiband Active GNSS (GPS/GLONASS/BEIDOU/Galileo) Patch Antenna



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

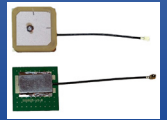
- GPS/GLONASS/Galileo/Beidou applications
- IoT
- M2M
- Remote technology monitoring
- Geofencing
- Surveying and mapping systems
- Logistics

## 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		dB	
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	



APAKC2506A-SG3



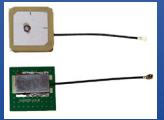
25.0 x 25.0 x 6.9 mm  
 RoHS/RoHS II Compliant  
 MSL = N/A: Not Applicable

**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.

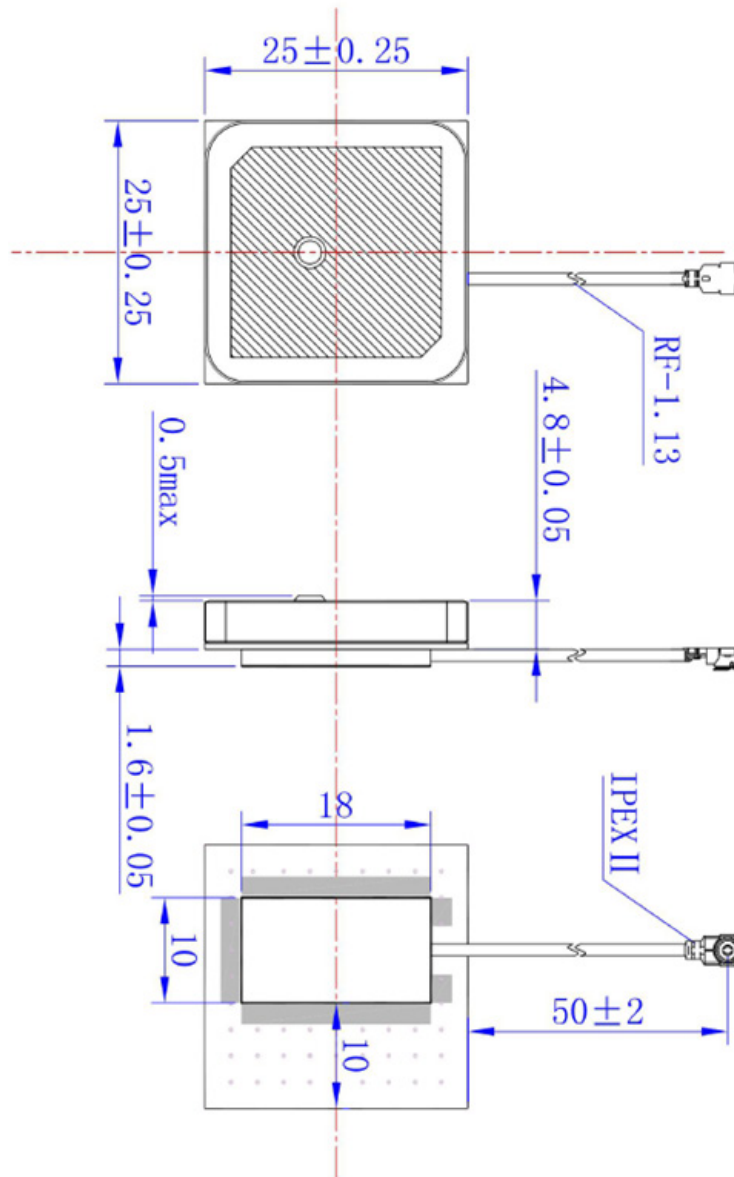


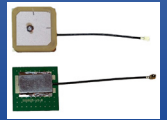
APAKC2506A-SG3



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

Product Dimensions





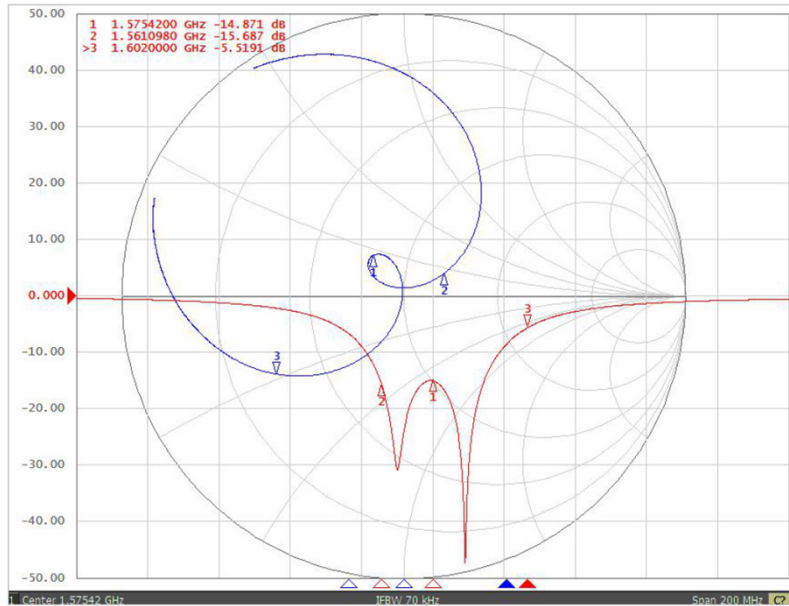
APAKC2506A-SG3



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

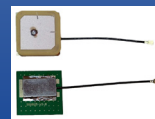
Return Loss and Impedance Characteristics

Antenna



LNA (Gain @ 3.0 V)





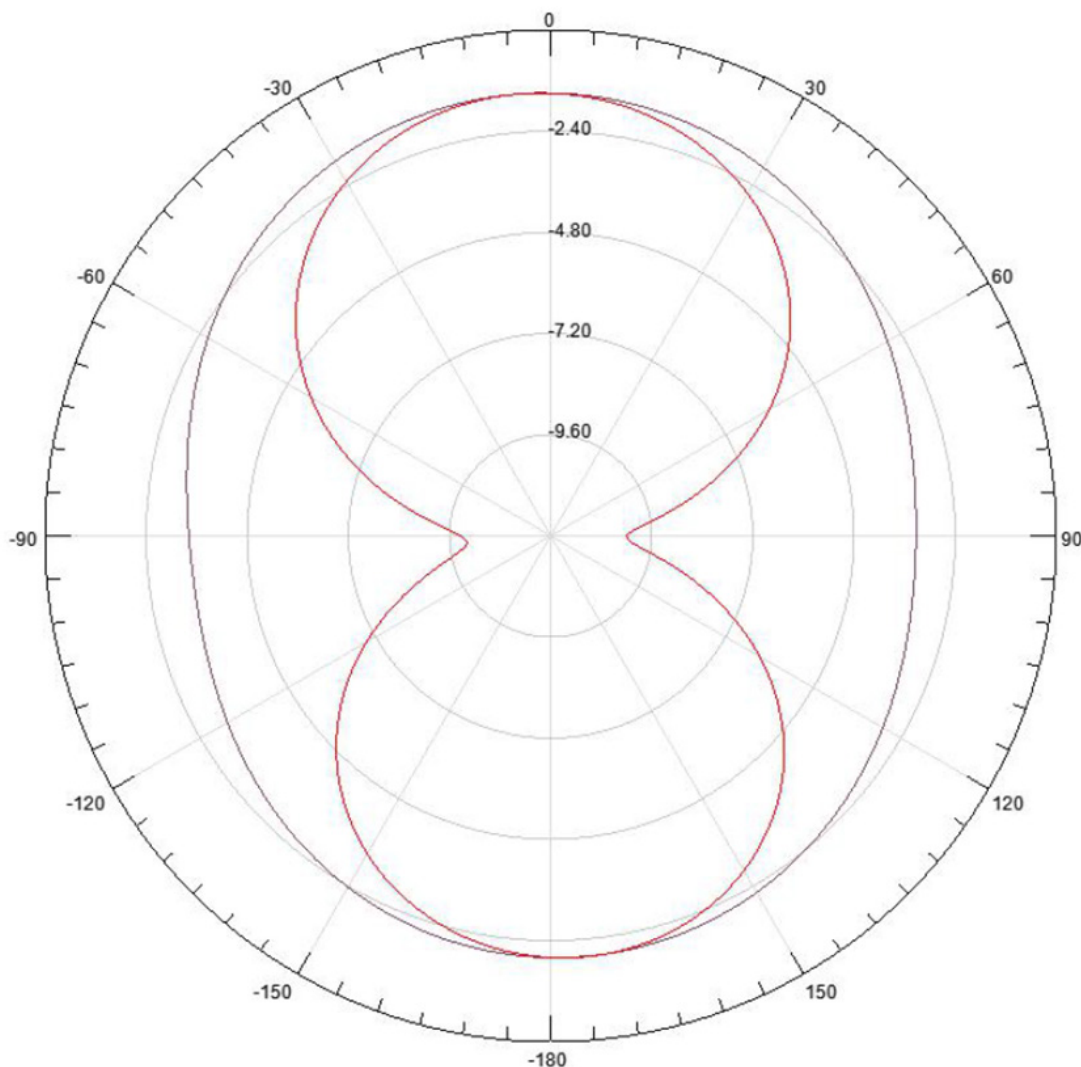
APAKC2506A-SG3

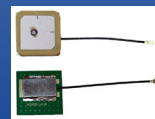


25.0 x 25.0 x 6.9 mm  
RoHS/RoHS II Compliant  
MSL = N/A: Not Applicable

**Radiation Pattern**

2D - Pattern  
YZ & XZ - Plane  
1561.098 MHz





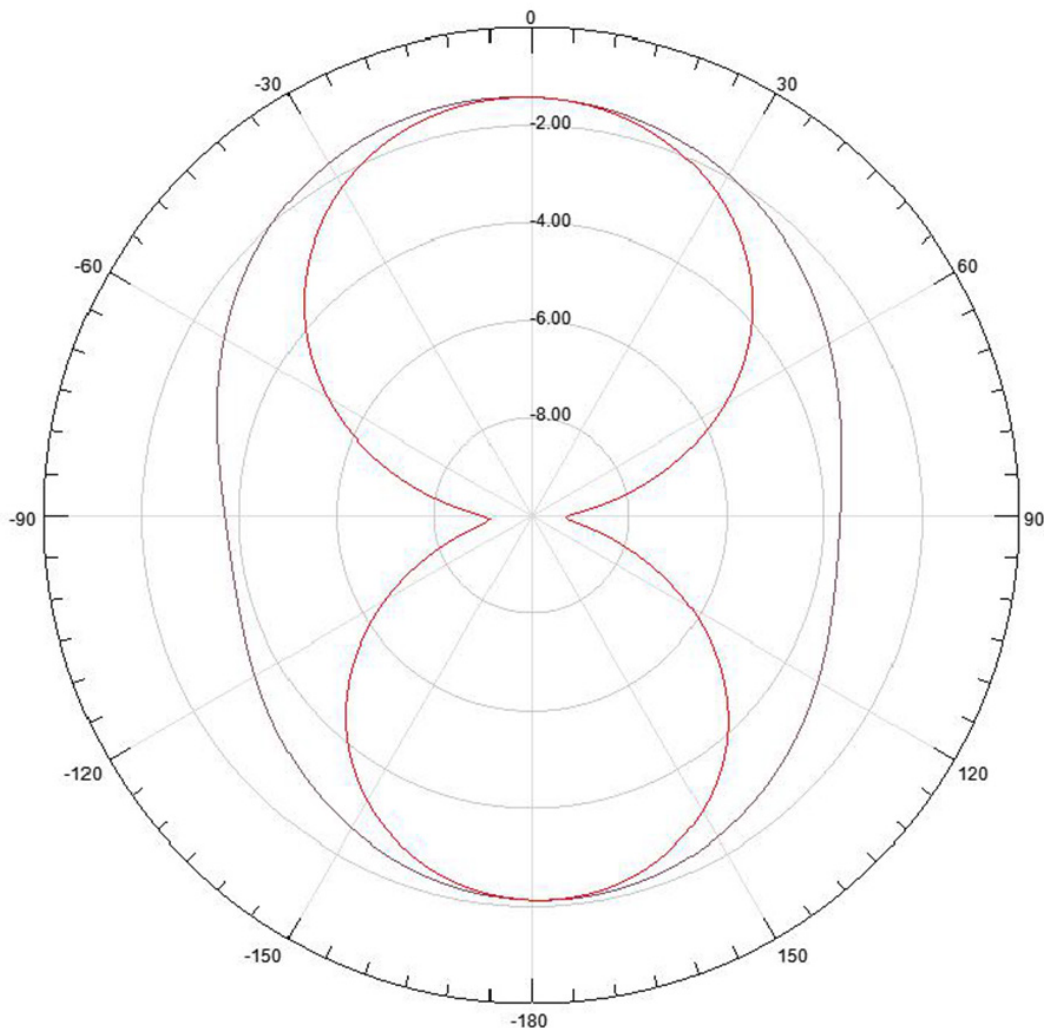
APAKC2506A-SG3

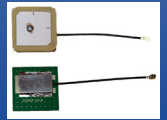


25.0 x 25.0 x 6.9 mm  
RoHS/RoHS II Compliant  
MSL = N/A: Not Applicable

**Radiation Pattern**

2D - Pattern  
YZ & XZ - Plane  
1575.42 MHz





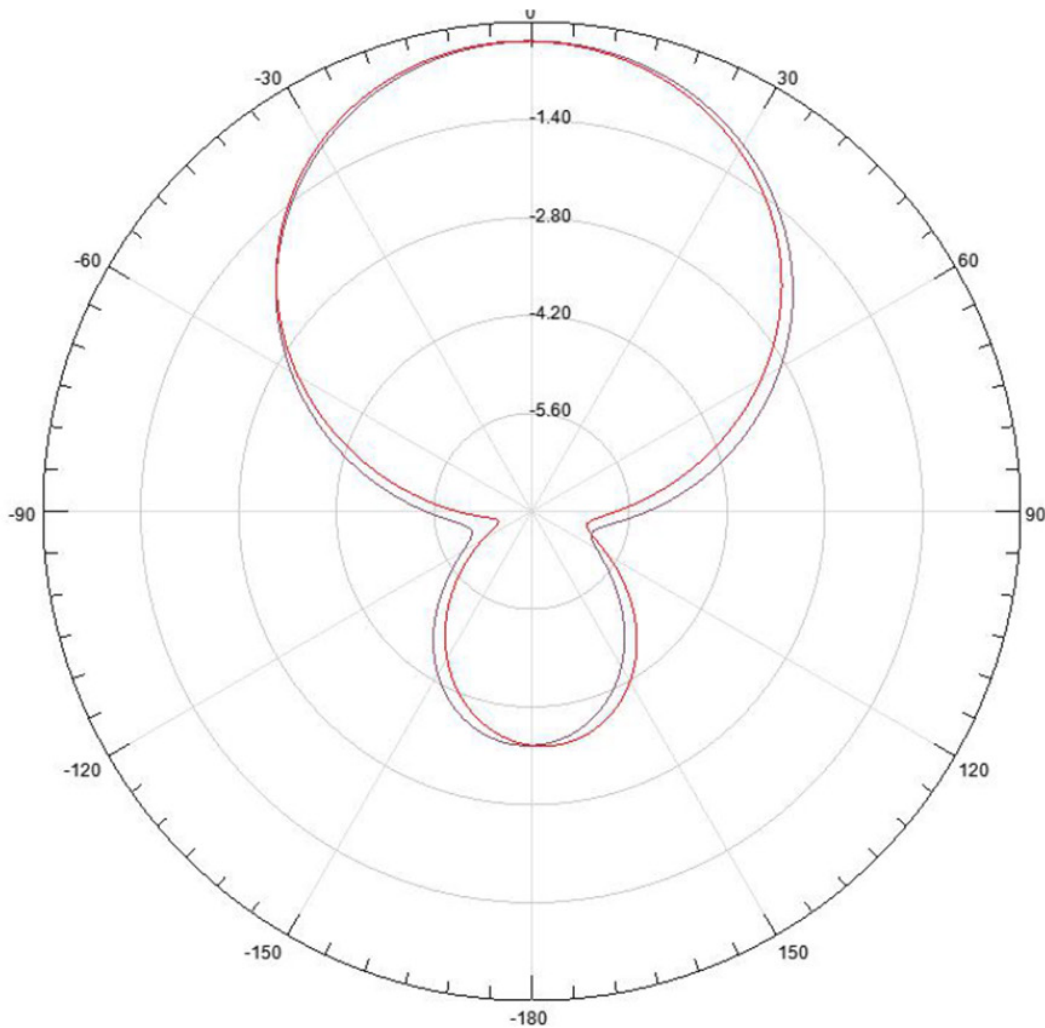
APAKC2506A-SG3

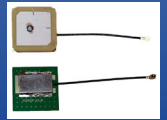


25.0 x 25.0 x 6.9 mm  
RoHS/RoHS II Compliant  
MSL = N/A: Not Applicable

**Radiation Pattern**

2D - Pattern  
YZ & XZ - Plane  
1602 MHz





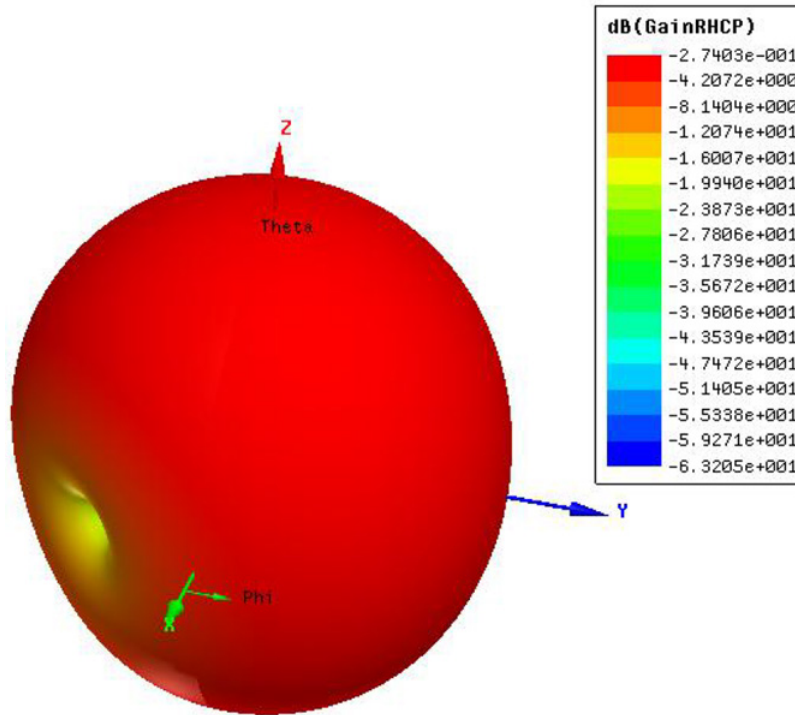
APAKC2506A-SG3



25.0 x 25.0 x 6.9 mm  
 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

**ATTENTION:** Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



5101 Hidden Creek Ln Spicewood TX 78669  
 Phone: 512-371-6159 | Fax: 512-351-8858  
 For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 04-21-21

ABRACON IS  
 ISO9001-2015  
 CERTIFIED



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Antennas](#) category:*

*Click to view products by [Abracon](#) manufacturer:*

Other Similar products are found below :

[GAN30084EU](#) [930-033-R](#) [GW17.07.0250E](#) [1513563-1](#) [EXE902SM](#) [APAMPG-117](#) [MAF94383](#) [W3908B0100](#) [W6102B0100](#) [YE572113-30RSMM](#) [108-00014-50](#) [66089-2406](#) [A09-F8NF-M](#) [A09-F5NF-M](#) [RGFRA1903041A1T](#) [W3593B0100](#) [W3921B0100](#) [SIMNA-868](#) [SIMNA-915](#) [SIMNA-433](#) [W1044](#) [W1049B090](#) [A75-001](#) [WTL2449CQ1-FRSMM](#) [CPL9C](#) [EXB148BN](#) [0600-00060](#) [TRA9020S3PBN-001](#) [GD5W-28P-NF](#) [MA9-7N](#) [GD53-25](#) [GD5W-21P-NF](#) [EXB144SM](#) [C37](#) [MAF94051](#) [GD35-17P-NF](#) [P1744](#) [MA9-5N](#) [EXD420PL](#) [B1322NR](#) [QWFTB120](#) [MAF94271](#) [MAF94300](#) [GPSMB301](#) [FG4403](#) [AO-AGSM-OM54](#) [5200232](#) [MIKROE-2349](#) [WCM.01.0111](#) [MIKROE-2393](#)