GPS/GALILEO + GLONASS Ceramic Patch Antenna



APAKN2504-C2G-T

Request Samples | Check Inventory

25.0 x 25.0 x 4.0mm
RoHS Compliant
MSL Level = N/A

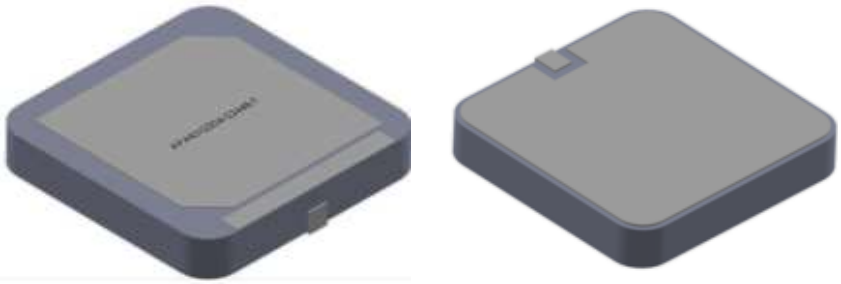
Features

- Multi-constellation passive GNSS antenna
  - GPS : L1
  - GLONASS : G1
  - Galileo : E1
- Peak gain up to 3.6 dBi
- RHCP polarization
- 25.0 x 25.0 x 4.0 mm form factor
- RoHS compliant

Applications

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

Product Image



ABRACON

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

REVISED: 12-11-24

ABRACON IS
ISO9001-2015
CERTIFIED

GPS/GALILEO + GLONASS Ceramic Patch Antenna

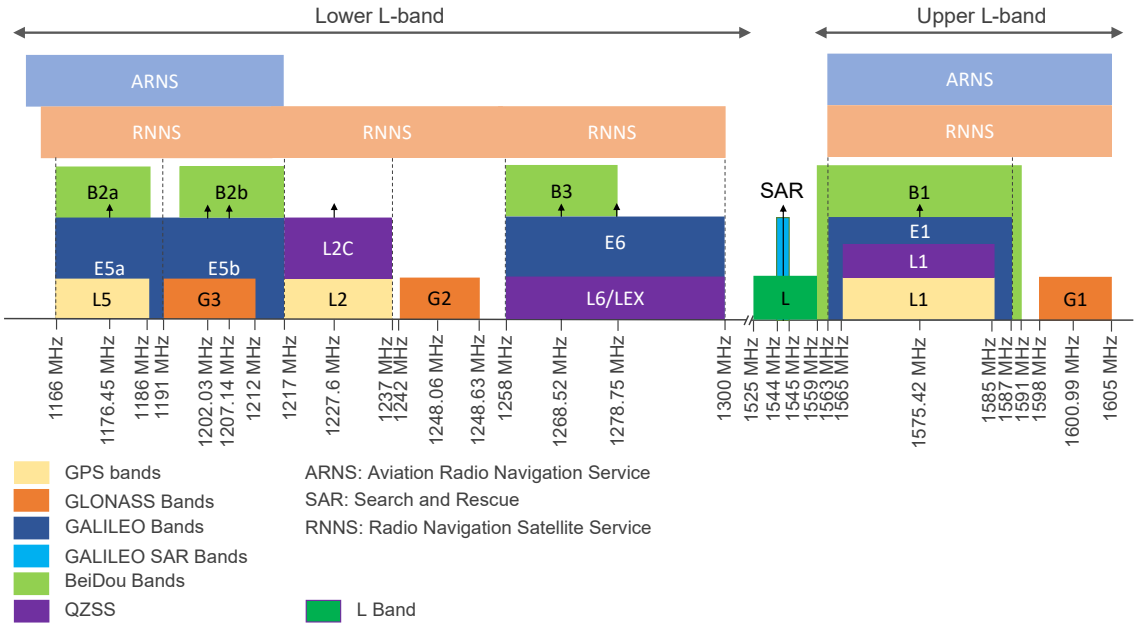


APAKN2504-C2G-T

Request Samples | Check Inventory

25.0 x 25.0 x 4.0mm
RoHS Compliant
MSL Level = N/A

GNSS Frequency Bands Covered				
GPS	L1 1575.42MHz	L2 1227.6MHz	L5 1176.45MHz	
	■	□	□	
GLONASS	G1 1598.06-1609.31MHz	G2 1242.93-1251.68MHz	G3 1202.025MHz	
	■	□	□	
Galileo	E1 1575.42MHz	E5a 1176.45MHz	E5b 1201.5MHz	E6 1278.75MHz
	■	□	□	□
BeiDou	B1 1561MHz	B2 1207.14MHz	B3 1268.52MHz	
	□	□	□	
QZSS	L1 1575.42MHz	L2 1227.6MHz	L5 1176.45MHz	L6 1278.75MHz
	□	□	□	□
IRNSS/NAVIC			L5 1176.45MHz	
			□	
SBAS	L1/E1/B1 1575.42MHz		L5/B2a/E5a 1176.45MHz	
	□		□	



Frequency allocation: GNSS systems, upper L bands and lower L bands

ABRACON

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

REVISED: 12-11-24

ABRACON IS ISO9001-2015 CERTIFIED

GPS/GALILEO + GLONASS Ceramic Patch Antenna



APAKN2504-C2G-T

Request Samples | Check Inventory

25.0 x 25.0 x 4.0mm
RoHS Compliant
MSL Level = N/A

Electrical Specification

Parameters	Typ.	Units	Note
Antenna			
Frequency	GPS: L1 GLONASS: G1 Galileo: E1	-	On a 70*70mm Ground Plane
VSWR	< 2.0	-	
Polarization	RHCP	-	(Right Hand Circular Polarization)
Nominal Impedance	50	Ω	
Peak Gain	3.6	dBic	L1 (1575.42±1.023 MHz)
	3.6		G1 (1602±5 MHz)

(*) Application environment, including size of the ground plane, proximity to adjacent components, etc., will affect stated performance. Fine tuning might be required when installed on end-customer's PCB. Abracon offers Antenna Optimization Service, please contact Abracon.

Mechanical Specification

Parameter	Specification
Antenna Dimension	25.0 x 25.0 x 4.0mm
Mounting Type	SMD

Environmental Specification

Parameter	Specification
Operating Temperature	-40ºC to +85ºC
Storage Temperature	-40ºC to +105ºC
RoHS Compliance	Yes

GPS/GALILEO + GLONASS Ceramic Patch Antenna



APAKN2504-C2G-T

Request Samples | Check Inventory

25.0 x 25.0 x 4.0mm
RoHS Compliant
MSL Level = N/A

Ordering Information

Part Number	Description
APAKN2504-C2G-T	GPS/GALILEO + GLONASS Ceramic Patch Antenna with Tray package
APAKN2504-C2G-T-1	GPS/GALILEO + GLONASS Ceramic Patch Antenna with Tape & Reel package

Note: Different cable and connector configurations that are not listed may be available upon request via Abracon online support

GPS/GALILEO + GLONASS Ceramic Patch Antenna

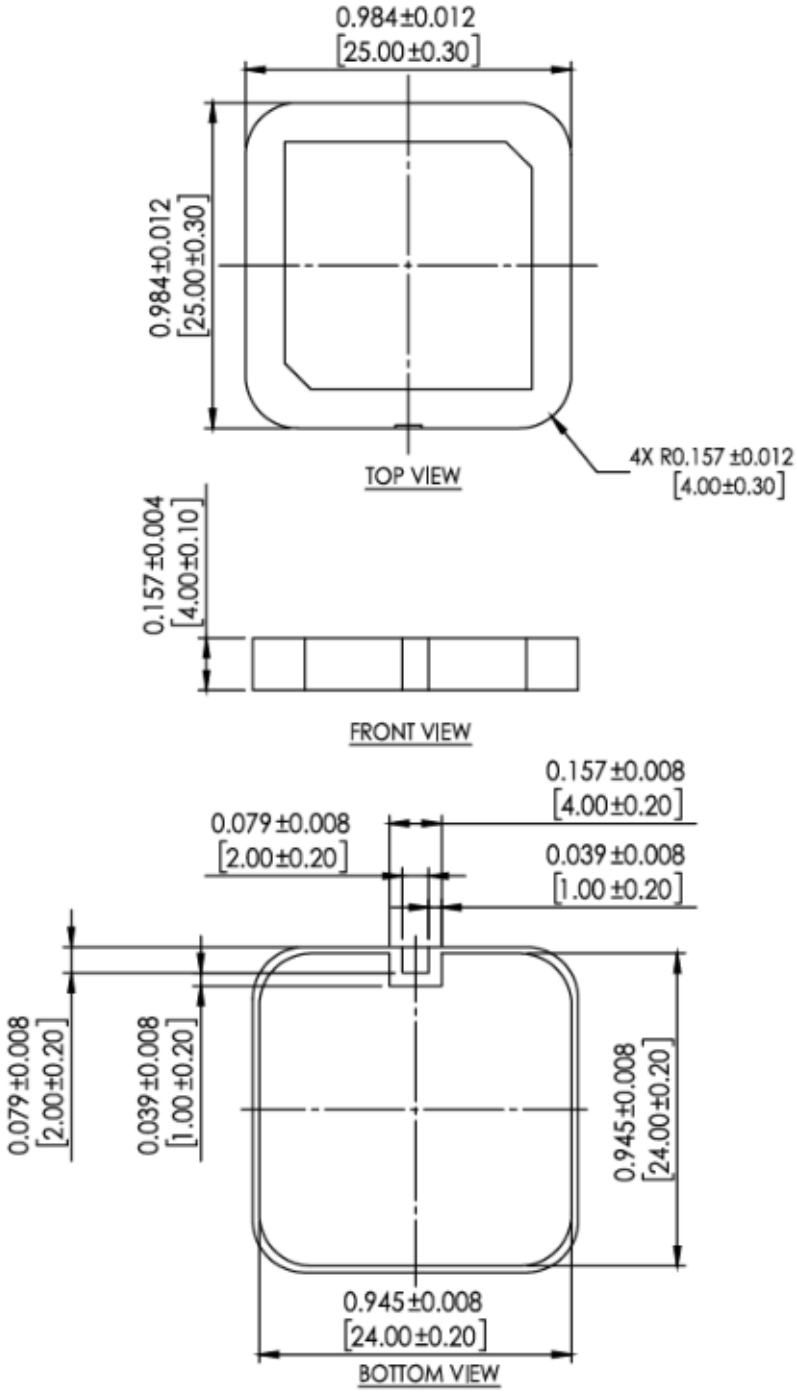


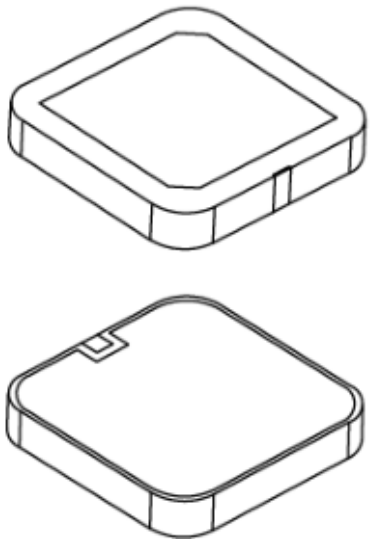
APAKN2504-C2G-T

Request Samples | Check Inventory

25.0 x 25.0 x 4.0mm
RoHS Compliant
MSL Level = N/A

Product Dimensions





Unit: inches[mm]

ABRACON

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

REVISED: 12-11-24

ABRACON IS ISO9001-2015 CERTIFIED

GPS/GALILEO + GLONASS Ceramic Patch Antenna

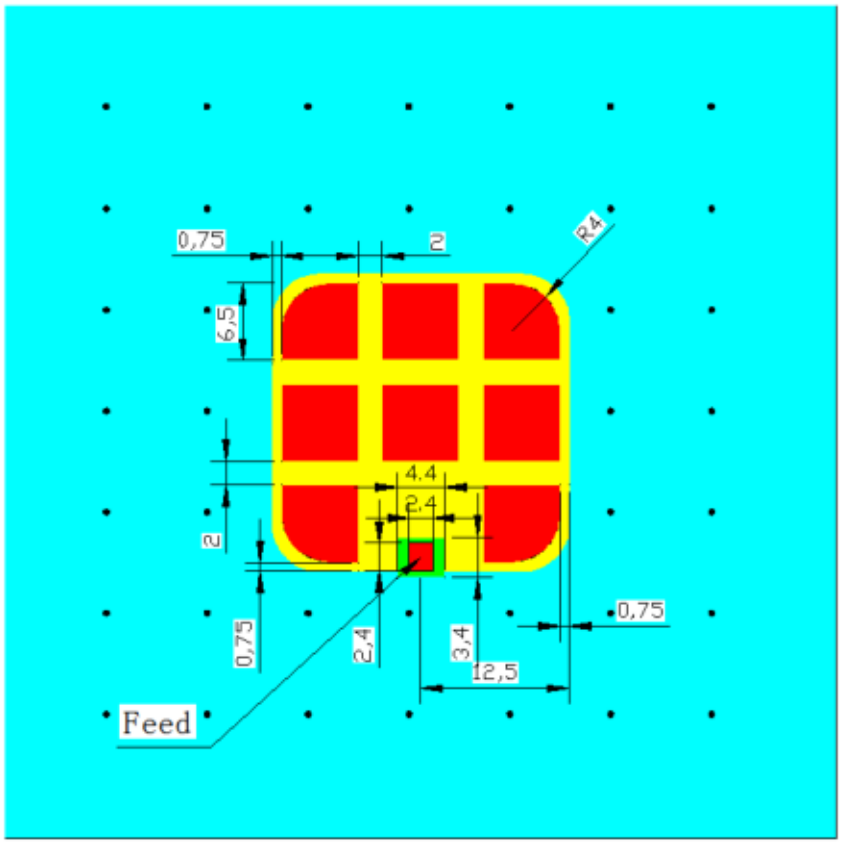


APAKN2504-C2G-T

Request Samples | Check Inventory

25.0 x 25.0 x 4.0mm
RoHS Compliant
MSL Level = N/A

Landing Pattern





Unit: mm

ABRACON

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

REVISED: 12-11-24

ABRACON IS ISO9001-2015 CERTIFIED

GPS/GALILEO + GLONASS Ceramic Patch Antenna

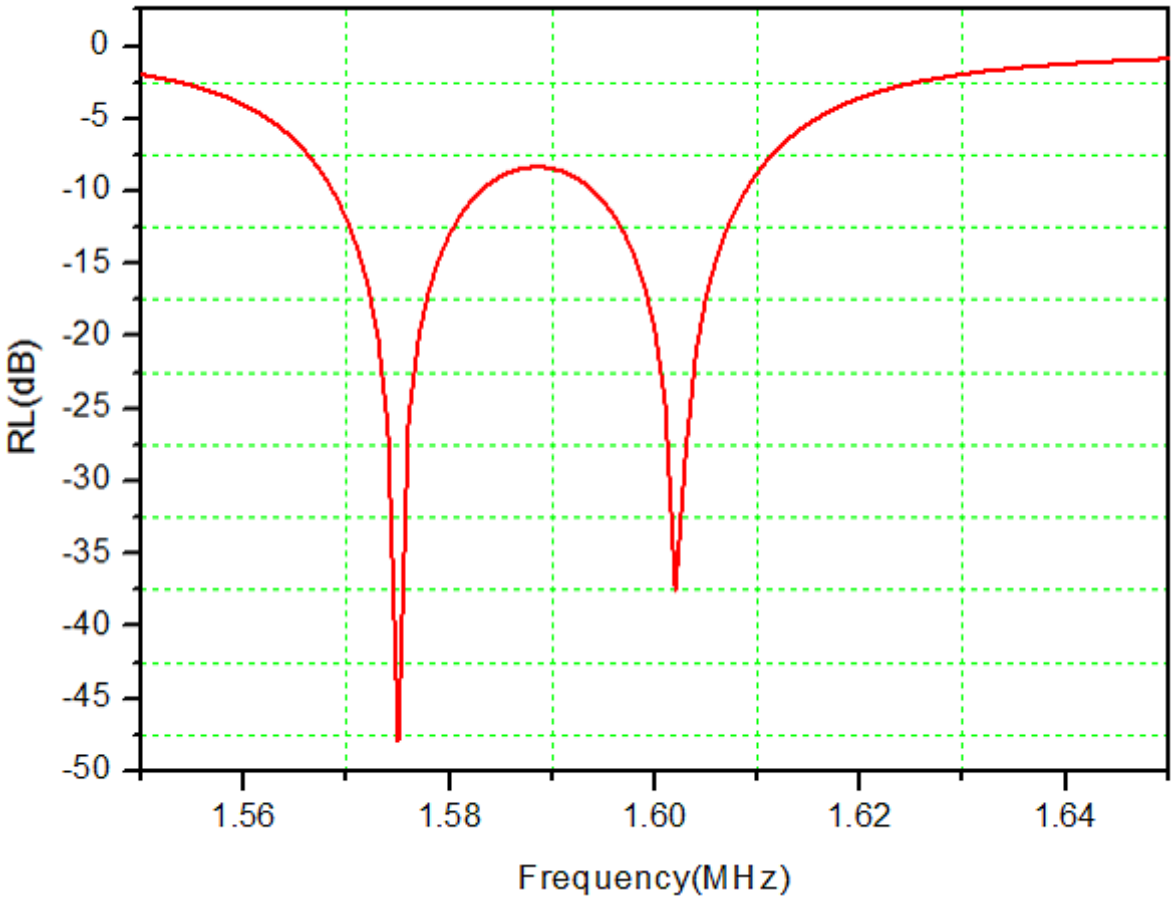


APAKN2504-C2G-T

Request Samples | Check Inventory

25.0 x 25.0 x 4.0mm
RoHS Compliant
MSL Level = N/A

Reflection Characteristics – Return Loss



ABRACON

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

REVISED: 12-11-24

ABRACON IS ISO9001-2015 CERTIFIED

GPS/GALILEO + GLONASS Ceramic Patch Antenna

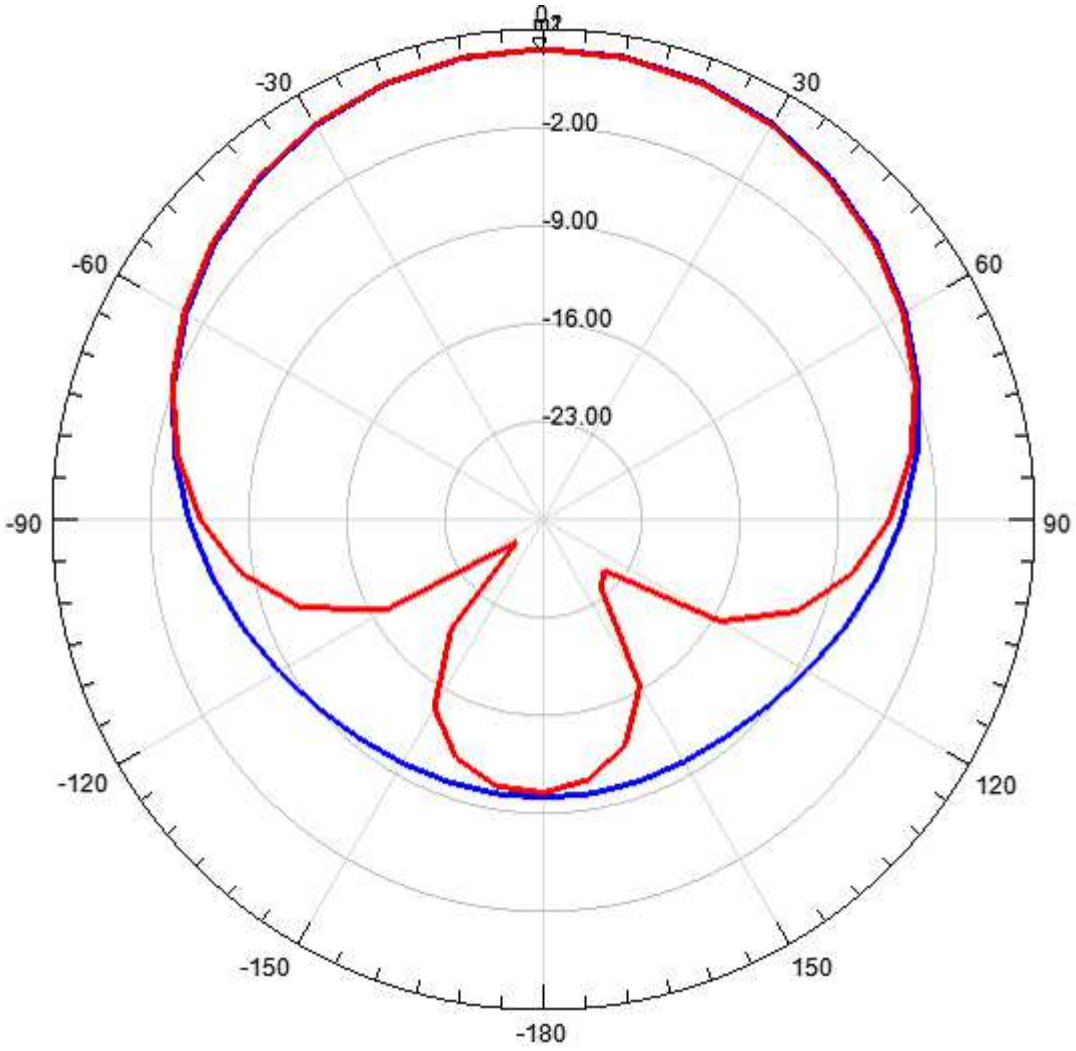


APAKN2504-C2G-T

Request Samples | Check Inventory

25.0 x 25.0 x 4.0mm
RoHS Compliant
MSL Level = N/A

Radiation Characteristics –2D Pattern



ABRACON

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

REVISED: 12-11-24

ABRACON IS ISO9001-2015 CERTIFIED



APAKN2504-C2G-T

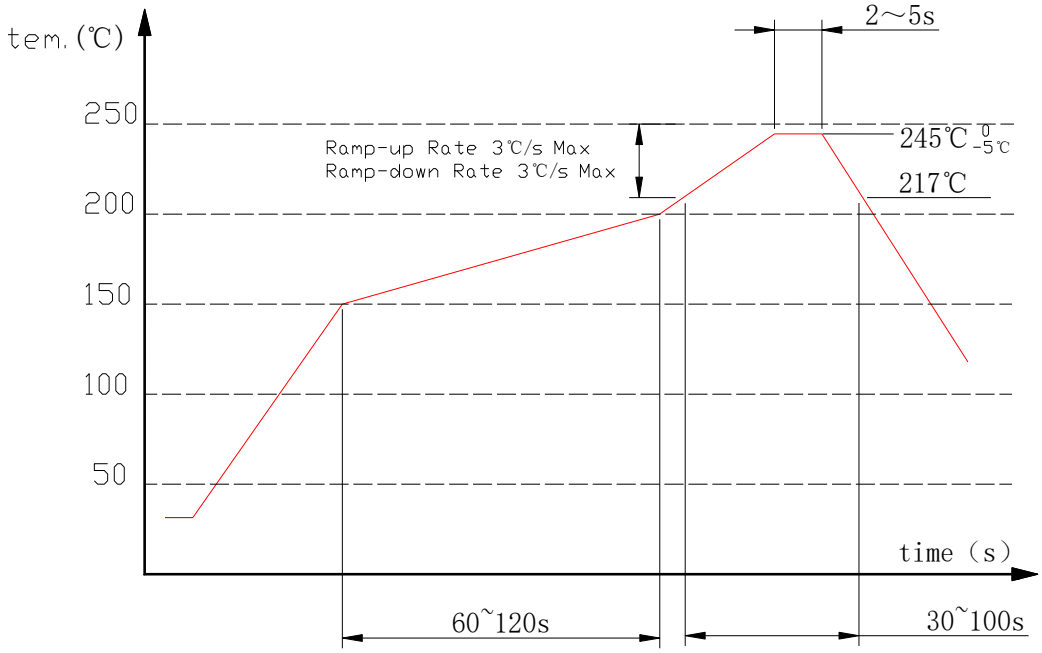
Request Samples | Check Inventory

25.0 x 25.0 x 4.0mm
RoHS Compliant
MSL Level = N/A

Reflow Profile

Solder Paste: Sn/Ag/Cu: 96.5/3.0/0.5

Recommended reflow condition:





APAKN2504-C2G-T

Request Samples | Check Inventory

25.0 x 25.0 x 4.0mm
RoHS Compliant
MSL Level = N/A

Packaging

APAKN2504-C2G-T

Package is made of corrugated paper with thickness of 0.8cm. Carton has 4 inner boxes; each box has 1 vacuum bag.

Quantity:

Per package base : 50 elements

Per vacuum bag : 5 package bases

Per inner box : 1 vacuum bag

Per package : 4 inner boxes

Total No of piece/package : 1000

Gross Weight : 12 Kg

Carton Dimensions : 37x37x17cm

APAKN2504-C2G-T-1

400 pcs per reel

1 reel per inner box

2 inner box per package

Dimension of the inner box: 340 x 340 x 56 mm

Tape & Reel Dimension:

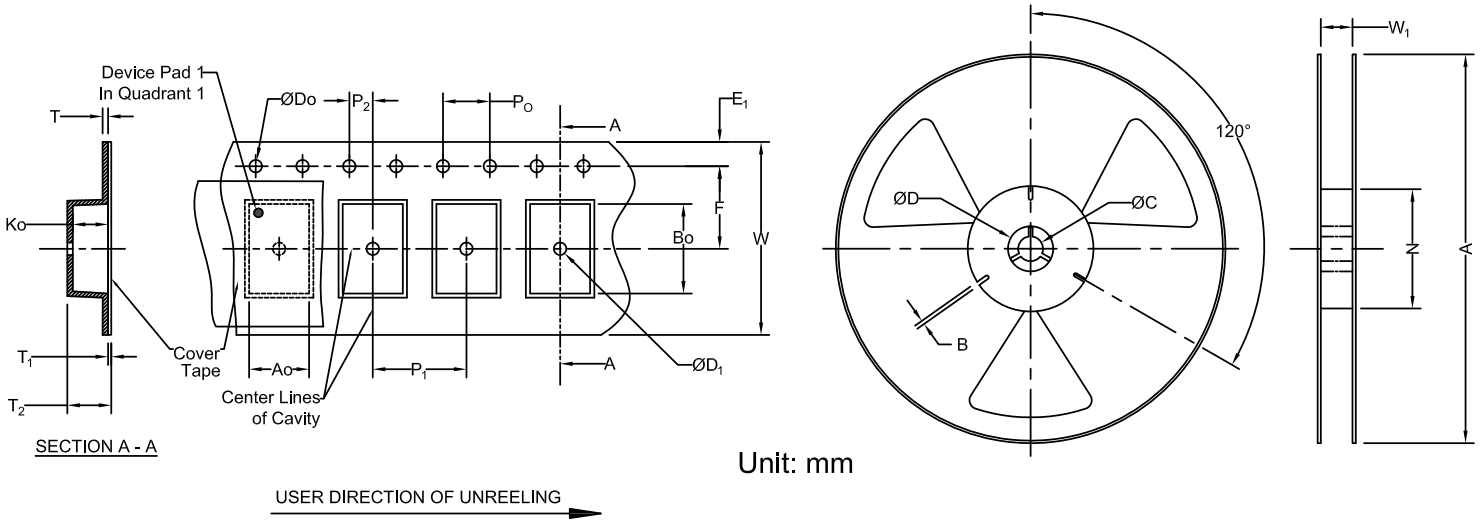
GPS/GALILEO + GLONASS Ceramic Patch Antenna



APAKN2504-C2G-T

Request Samples | Check Inventory

25.0 x 25.0 x 4.0mm
RoHS Compliant
MSL Level = N/A



Carrier Tape Specifications (mm)												
Do	D_1	E_1	P_0	P_2	T	F	P_1	W	A_0	B_0	K_0	Reel Qty
1.50 ± 0.1	2.00 ± 0.1	1.75 ± 0.1	4.0 ± 0.1	2.0 ± 0.10	0.4± 0.05	20.2 ± 0.15	32.0 ± 0.1	44.0 ±0.3	25.5 ± 0.2	25.5 ± 0.2	4.2 ± 0.2	400

Reel Specifications (mm)				
A	W_1	N	C	D
330 ± 5.0	44.5 ± 2.0	80 ± 5.0	13.5 ± 5.0	21.0 ± 1.0

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf ('COTS'), which are designed, intended, and validated for use in commercial, industrial, and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.

ABRACON

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

REVISED: 12-11-24

ABRACON IS
ISO9001-2015
CERTIFIED