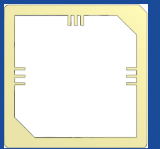


# Compact GPS Patch Antenna



APAKN0904-S1575-T



9.0 x 9.0 x 4.0mm  
RoHS/RoHS II Compliant  
MSL - 1

## FEATURES

- Compact 9.0 x 9.0 ceramic patch
- Circular polarization
- Low VSWR
- Optimized for GPS

## APPLICATIONS

- IoT
- Remote technology/monitoring
- GNSS

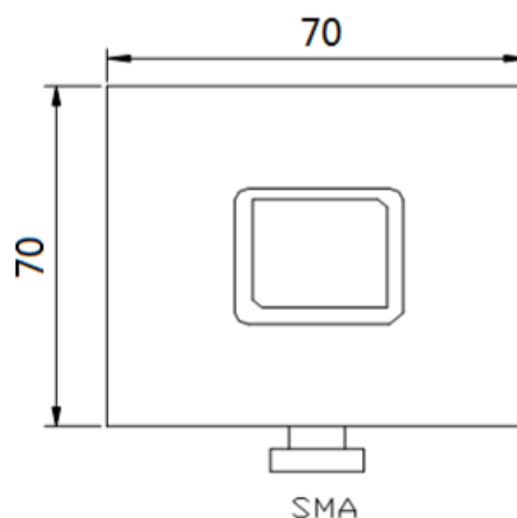
## Electrical Specifications

Parameters	Min.	Typ.	Max.	Units	Note
Nominal Frequency		1575.42±1.023		MHz	(On a 70*70mm Ground Plane)
Return Loss			-10	dB	
Peak Gain			0.5	dBi	
Polarization Model	RHCP				
Impedance	50			Ω	
Frequency Temperature Coefficient			20	ppm/°C	

(\*) 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.

## Test Conditions and Test Setup

Parts shall be measured under a condition  
(Temp.: 20°C±15°C, Humidity: 65%±20% R.H.).



General tolerance: ±1mm  
Unit: mm

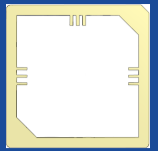


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# Compact GPS Patch Antenna

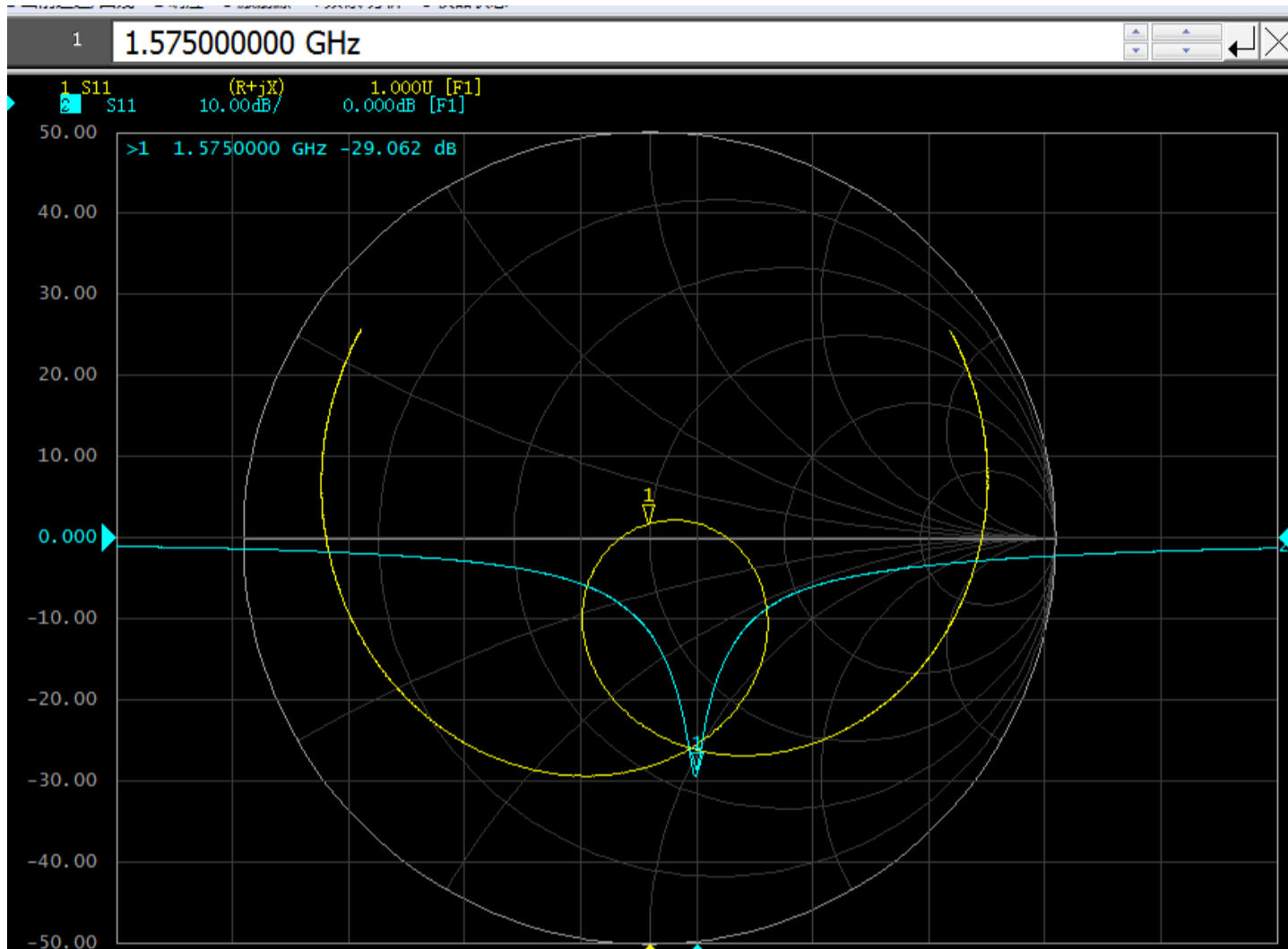


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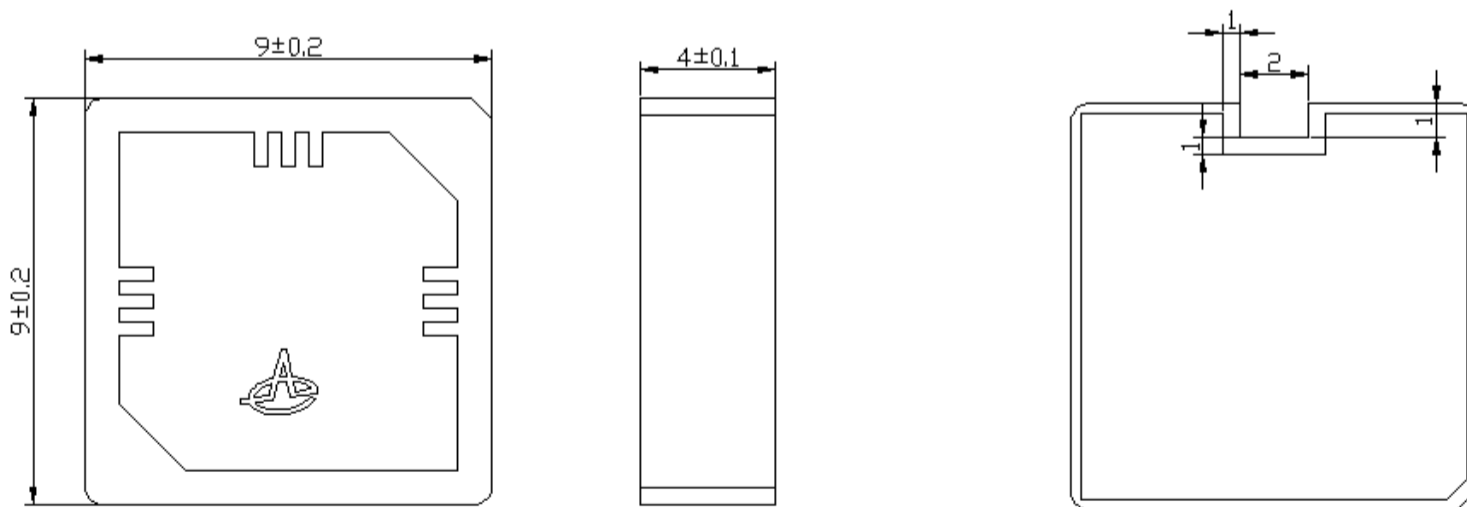


9.0 x 9.0 x 4.0mm  
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## Return Loss Characteristic



## Outline Drawing and Dimensions



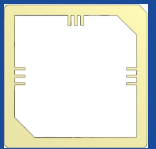
General Tolerance:  $\pm 0.2$  mm  
Unit: mm



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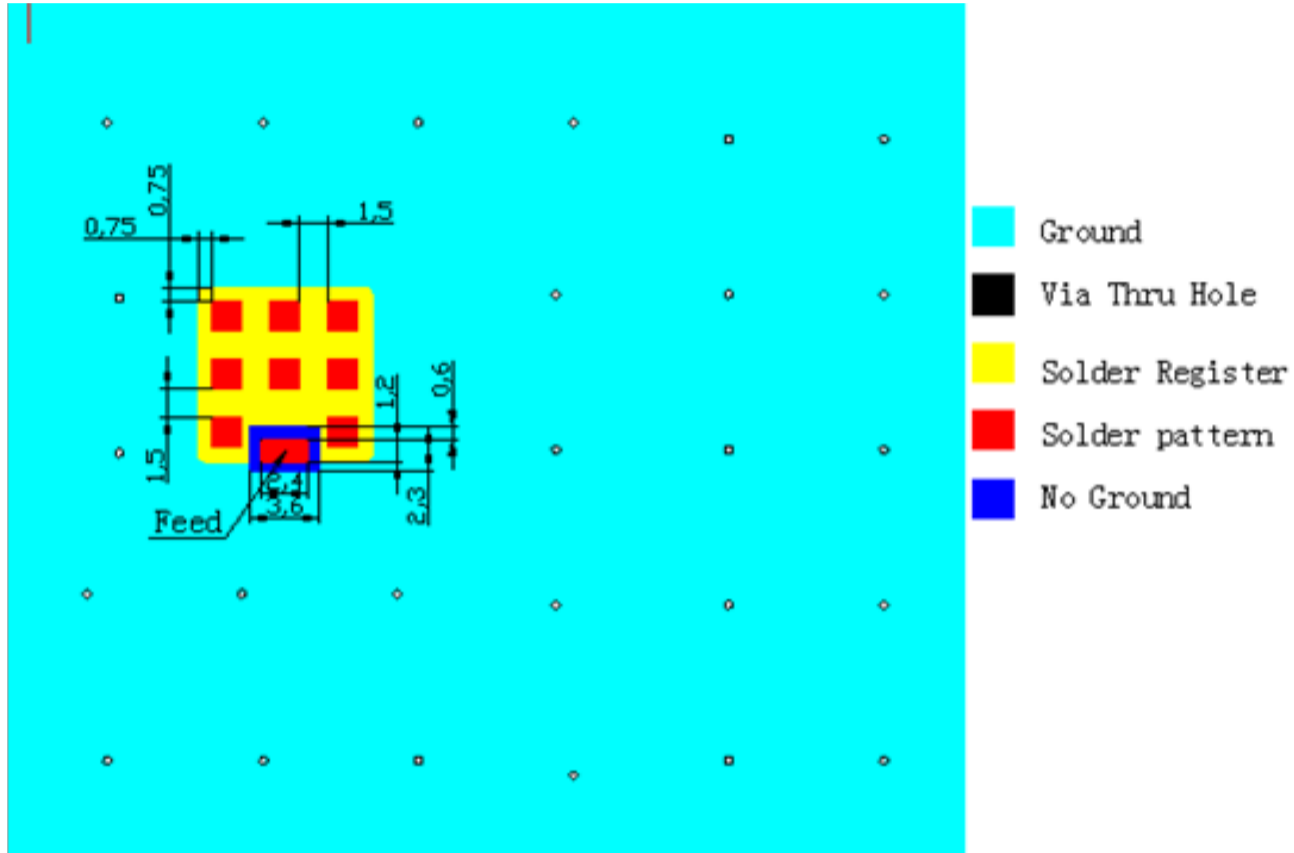


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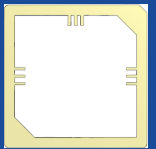


9.0 x 9.0 x 4.0mm  
RoHS/RoHS II Compliant  
MSL - 1

## Landing Pattern



# Compact GPS Patch Antenna

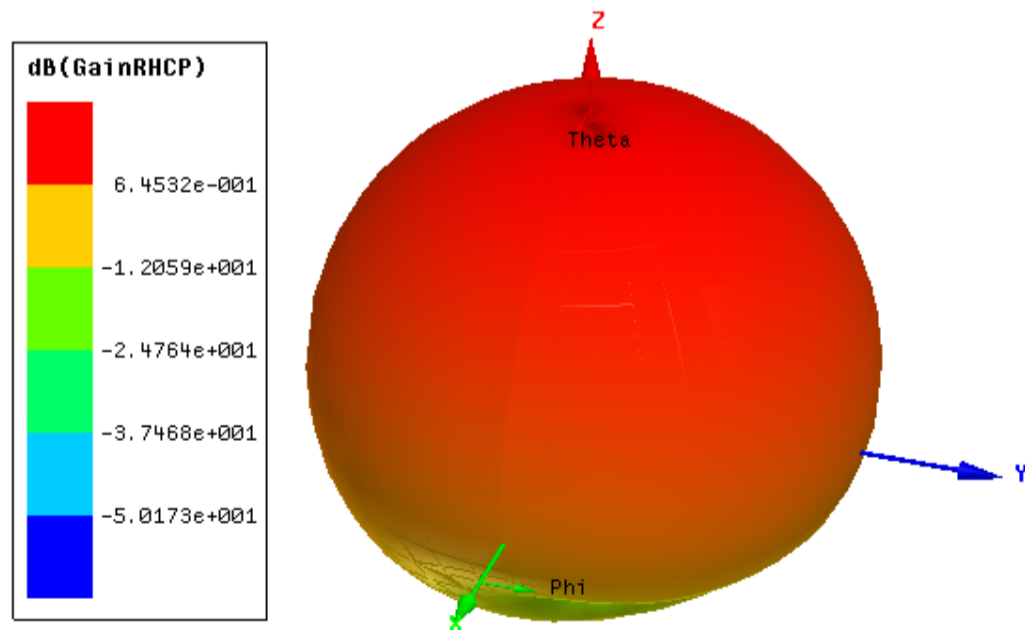
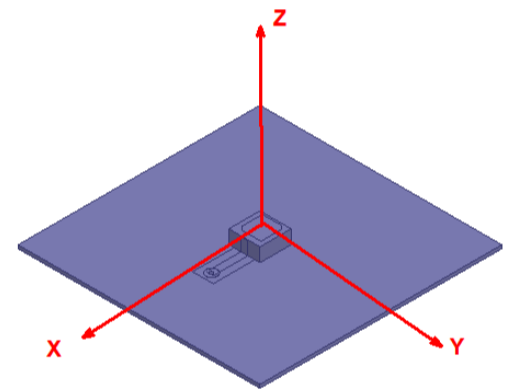
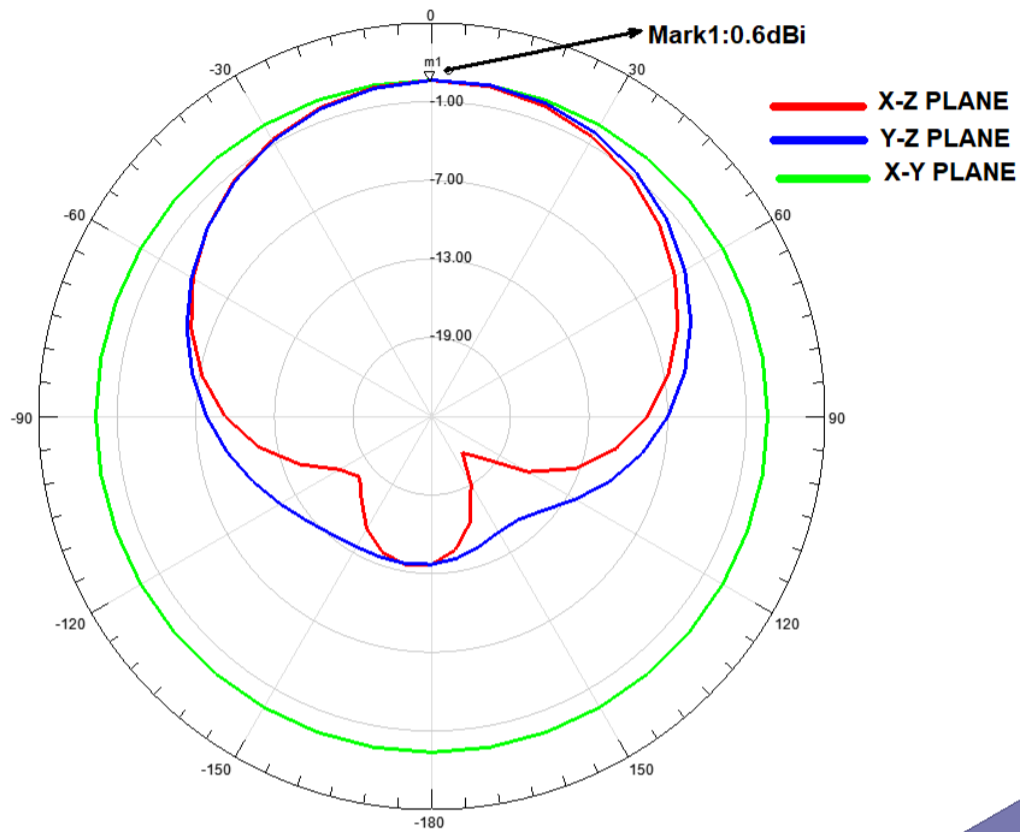


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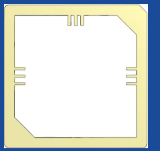


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MSL - 1

## Radiation Pattern (1575 MHz)



# Compact GPS Patch Antenna



APAKN0904-S1575-T

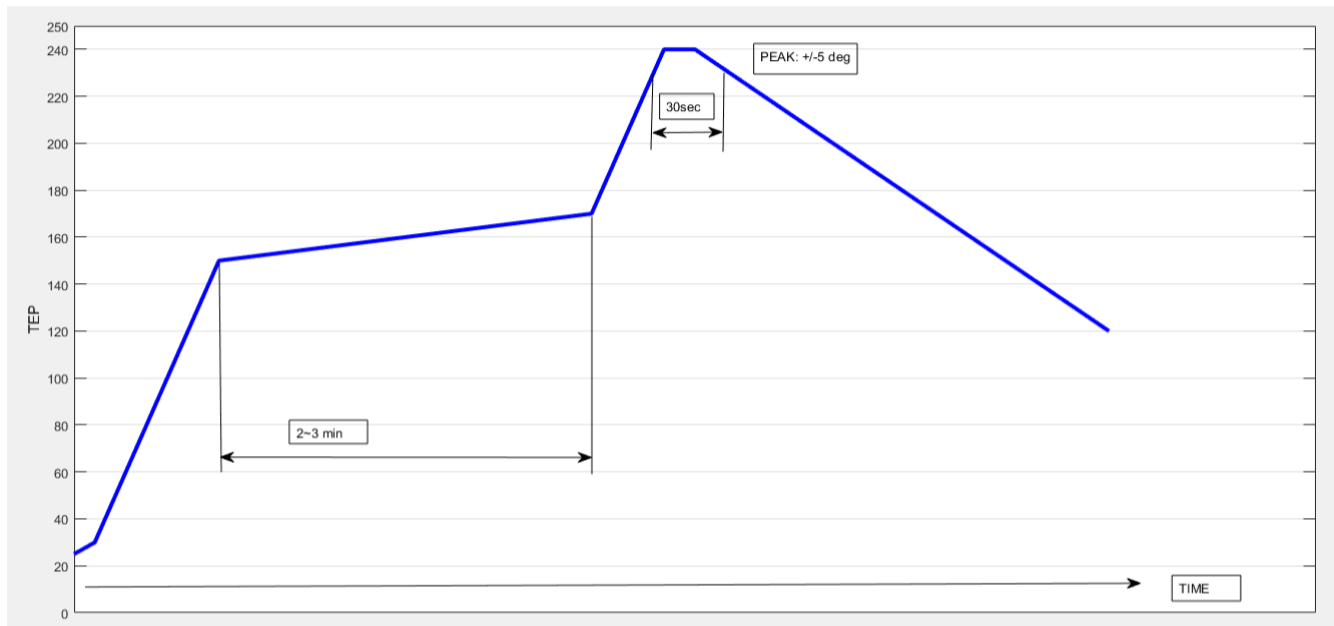


9.0 x 9.0 x 4.0mm  
RoHS/RoHS II Compliant  
MSL - 1

## Recommended Reflow Soldering Profile

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

Recommended reflow condition:



## Packaging

Carton has 10 inner boxes; each inner box has 1 reel (each reel for plastic bag).

Quantity:

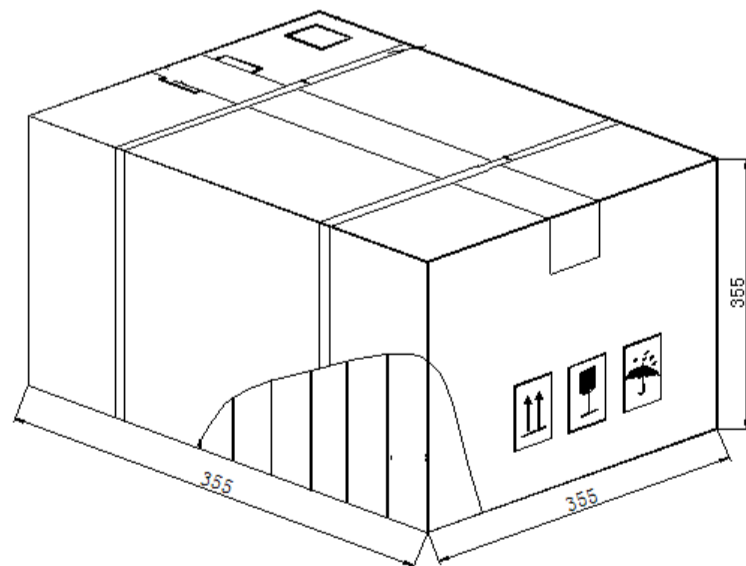
Per plastic reel: 600 pieces

Per inner box: 1 reel

Per package/carton: 10 inner boxes

Total No. of pieces/package: 6000

Package Dimensions (mm)

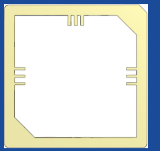


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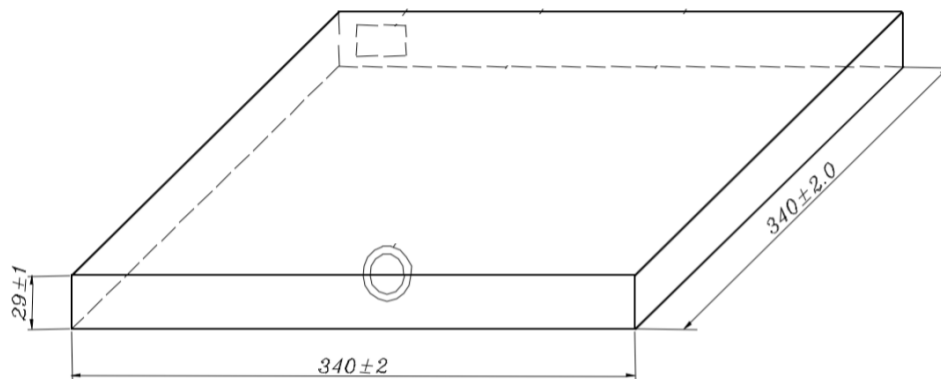
APAKN0904-S1575-T



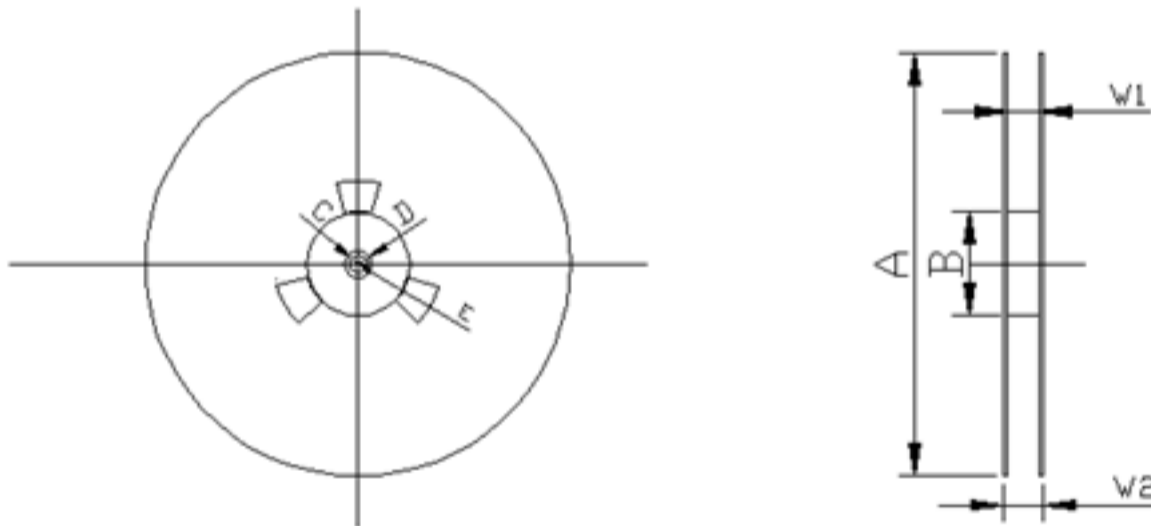
9.0 x 9.0 x 4.0mm  
 RoHS/RoHS II Compliant  
 MSL - 1

## Packaging

Inner Box Dimensions (mm)

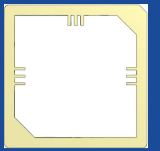


Reel Dimensions (mm)



A	B	C	D	E	W1	W2
±5.0	±5.0	±5.0	±1.0	±5.0	±2.0	±3.0
Φ330.0	Φ80.0	Φ13.5	Φ21.0	2.0	16.4	22.4

# Compact GPS Patch Antenna



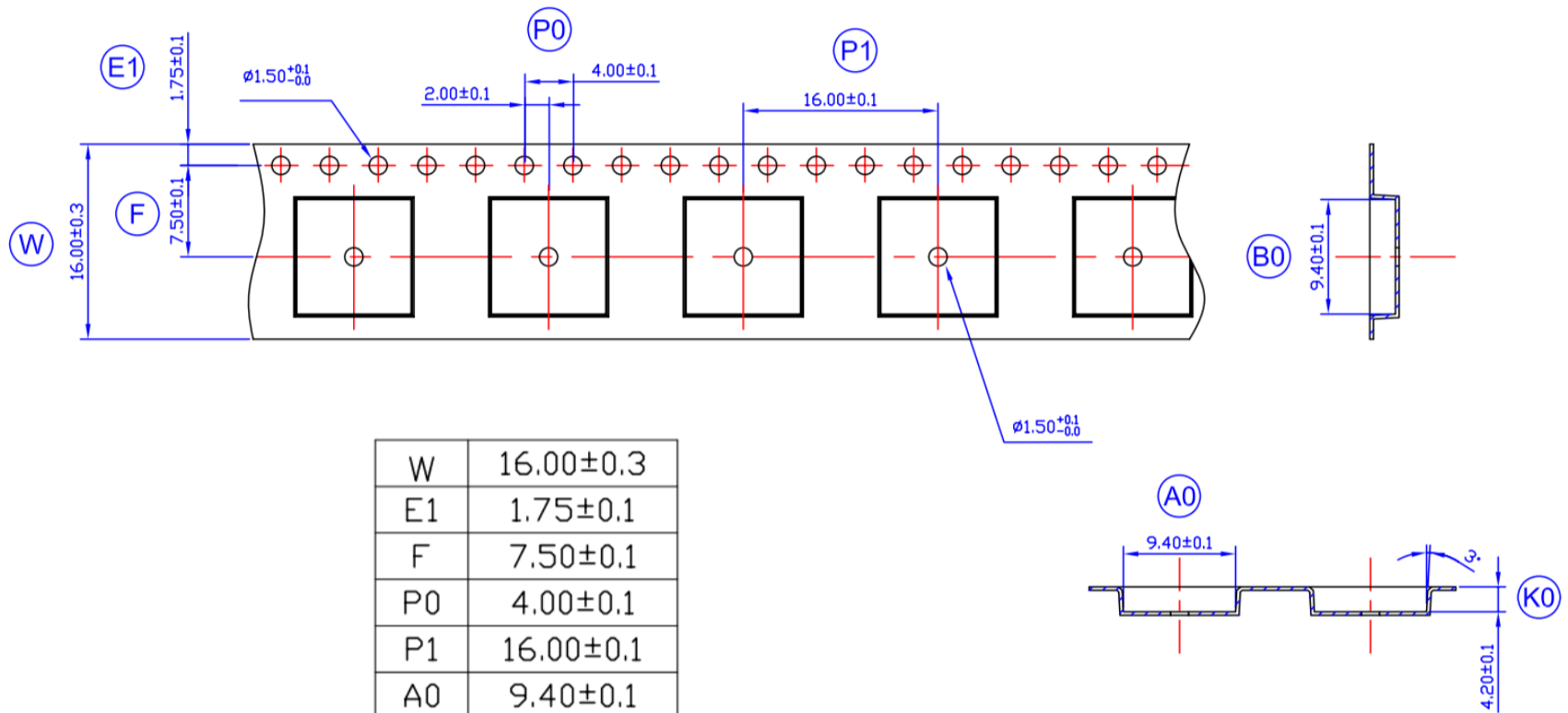
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RoHS/RoHS II Compliant  
MSL - 1

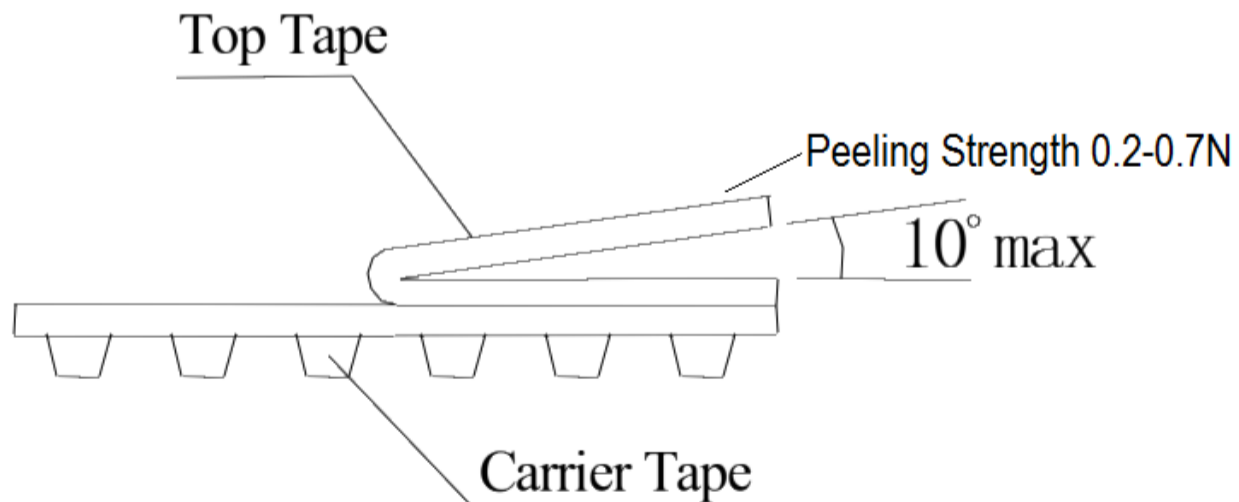
## Packaging

Carrier Tape Dimensions (mm)



W	16.00±0.3
E1	1.75±0.1
F	7.50±0.1
P0	4.00±0.1
P1	16.00±0.1
A0	9.40±0.1
B0	9.40±0.1
K0	4.20±0.1

Test Condition of Peeling Strength



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