

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 1575.42MHZ; 25.0 x 25.0 x 2.0mm GPS Patch Antenna

# **APAE1575R2520ABDD7-T**

RoHS/ RoHS II compliant



**MSL level: Not Applicable** 

#### **FEATURES:**

- High Gain
- Compact Size and Low Profile
- Pin type
- Customization Available
- RoHS Compliance

## **▼ TYPICAL APPLICATIONS:**

Automotive navigation, Marine buoys, Surveying equipment, Cell phone, Laptop, Healthcare and medical monitoring devices, PND, PDA

## > STANDARD SPECIFICATIONS:

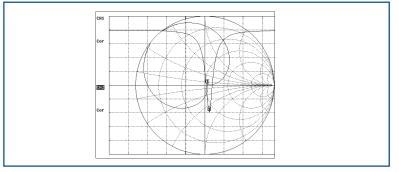
Parameters	Min.	Тур.	Max.	Units	Note
Receiving Frequency Range	1575.42±1.023			MHz	
Center Frequency @ -10dB bandwidth <sup>(*)</sup>	1575±3.0			MHz	(on the special PCB ground plane)
VSWR at Center Frequency			1.5		
Gain (Zenith@90°)		4.3		dBic	(Peak gain on standardized Ground Plane.)
Impedance		50±10		Ω	
Polarization Model	RHCP				(Right Hand Circular Polarization)
Frequency Temperature Coefficient			20	ppm/°C	

<sup>(\*)</sup> Application environment, including size of ground plane will affect stated performance. Fine tuning might be required when installed on customer's PCB.

## **TEST CONDITIONS & TEST SETUP:**

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

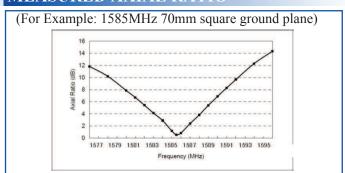
## > IMPEDANCE CHARACTERISTICS



#### ABRACON IS ISO9001:2008 CERTIFIED



## MEASURED AXIAL RATIO

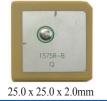


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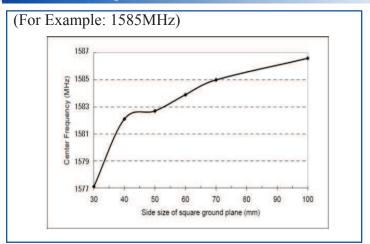
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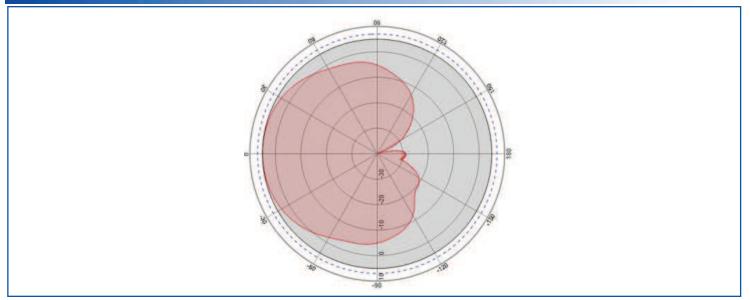
# ANTENNA GAIN VS. GROUND PLANE SIZE

# (For Example: 1585MHz) 5 4 3 0 2 0 1 -1 -2 -3 30 40 50 60 70 80 90 100 Side size of square ground plane (mm)

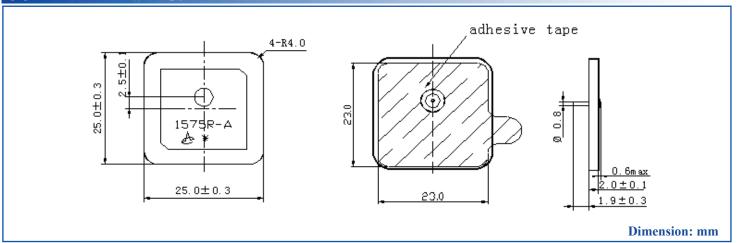
# CENTER FREQUENCY VS. GROUND PLANE



## > THE NORMALIZED ANTENNA GAIN CHART



# **OUTLINE DRAWING:**







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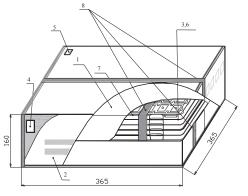
## **PACKAGING:**

"T" is for a vacuum sealed tray containing 50 units.

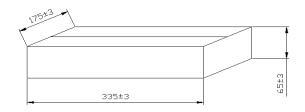
1000 pieces is the suggested quantity containing 20-trays with 50-pcs per Tray.

NOTE: This product is vacuum packaged to reduce the possibility of oxidation and/or contamination

during storage.



Inner Box dimensions (unit: mm)



NO.	Name		
1	Inner Box		
2	Package		
3	Vacuum Bag		
4	Certificate of approval		
5	Label		
6	Cushion		
7	Tray		
8	Adhesive tape		

#### **CAUTION:**

- (1) Do not apply excess mechanical stress to the component body or terminations. Do not attempt to re-form or bend the components as this will cause damage to the component.
- (2) Do not expose the component to open flame.
- (3) This specification applies to the functionality of the component as a single unit. Please insure the component is thoroughly evaluated in the application circuit.

#### **NOTE:**

- 1) The parts are manufactured in accordance with this specification. If other conditions and specifications which are required for this specification, please contact ABRACON for more information.
- 2) ABRACON will supply the parts in accordance with this specification unless we receive a written request to modify prior to an order placement.
- 3) In no case shall ABRACON be liable for any product failure from in appropriate handling or operation of the item beyond the scope of this specification.
- 4) When changing your production process, please notify ABRACON immediately.
- 5) ABRACON Corporation'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-dependant 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 Corporation is required. Please contact ABRACON Corporation for more information.
- 6) All specifications and Marking will be subject to change without notice.

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