

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

**APAE1575R2520ABDD7-T**

RoHS/ RoHS II compliant



25.0 x 25.0 x 2.0mm

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

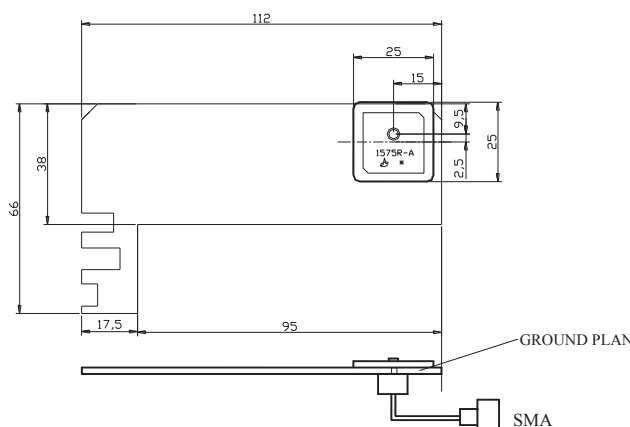
## STANDARD SPECIFICATIONS:

| Parameters                                        | Min.          | Typ. | 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 |                                           |

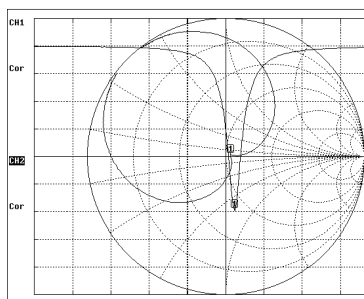
<sup>(\*)</sup>Application environment, including size of ground plane will affect stated performance. Fine tuning might be required when installed on customer's PCB.

## TEST CONDITIONS & TEST SETUP:

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

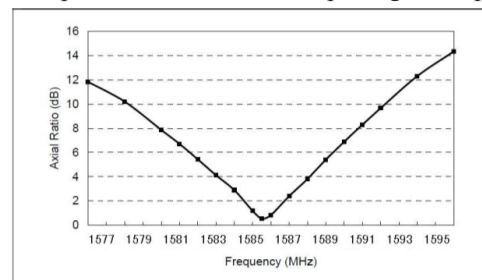


## IMPEDANCE CHARACTERISTICS



## MEASURED AXIAL RATIO

(For Example: 1585MHz 70mm square ground plane)



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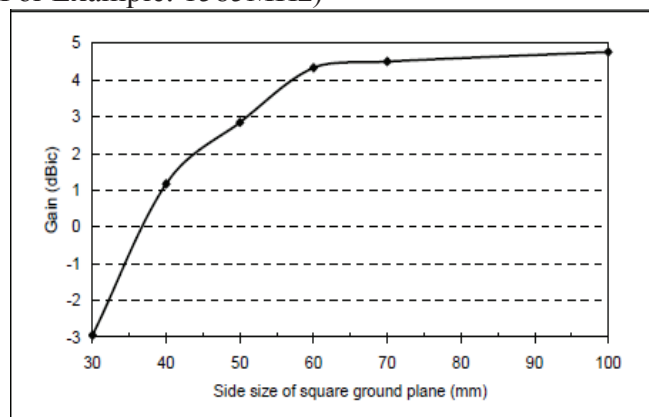
RoHS/ RoHS II compliant



25.0 x 25.0 x 2.0mm

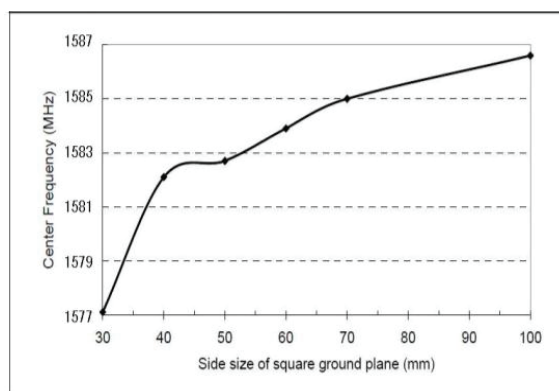
## ANTENNA GAIN VS. GROUND PLANE SIZE

(For Example: 1585MHz)

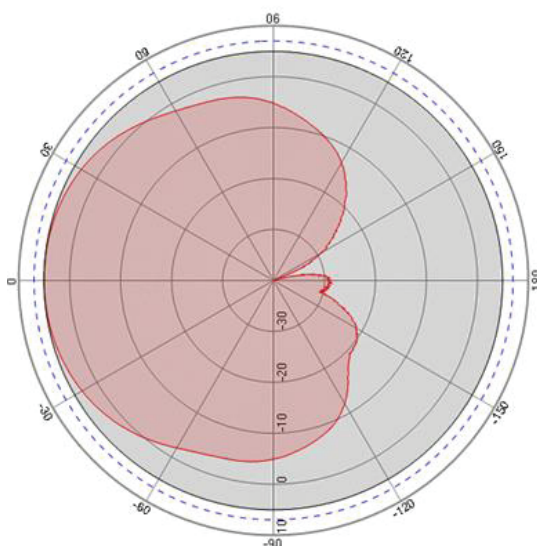


## CENTER FREQUENCY VS. GROUND PLANE

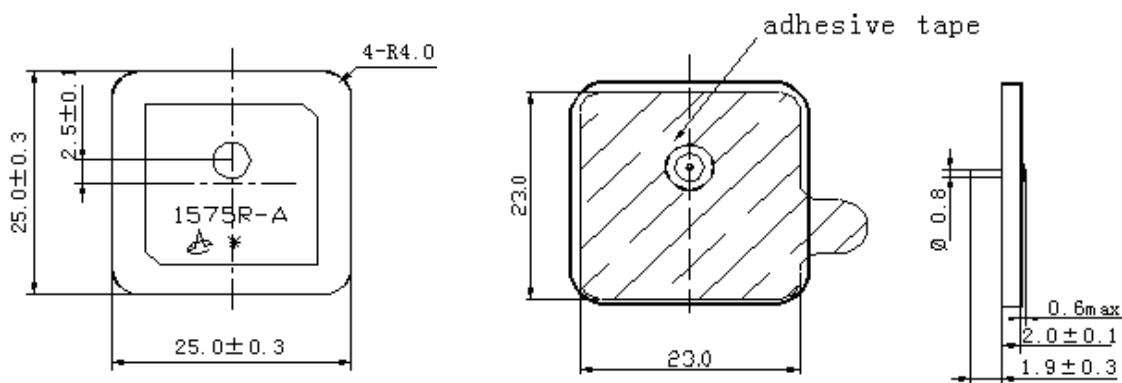
(For Example: 1585MHz)



## THE NORMALIZED ANTENNA GAIN CHART



## OUTLINE DRAWING:



Dimension: mm

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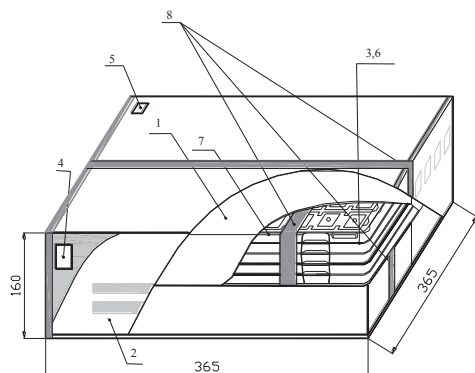
25.0 x 25.0 x 2.0mm

## PACKAGING:

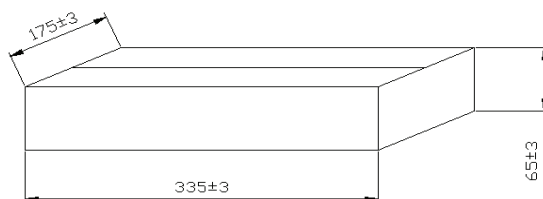
“T” is for a vacuum sealed tray containing 50 units.

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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