

# GPS / WLAN Patch Antenna

**APAEA1575R0940K14-T**

RoHS/RoHS II compliant



9.0 x 9.0 x 4.0mm

MSL level: Not Applicable

## FEATURES:

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

## TYPICAL APPLICATIONS:

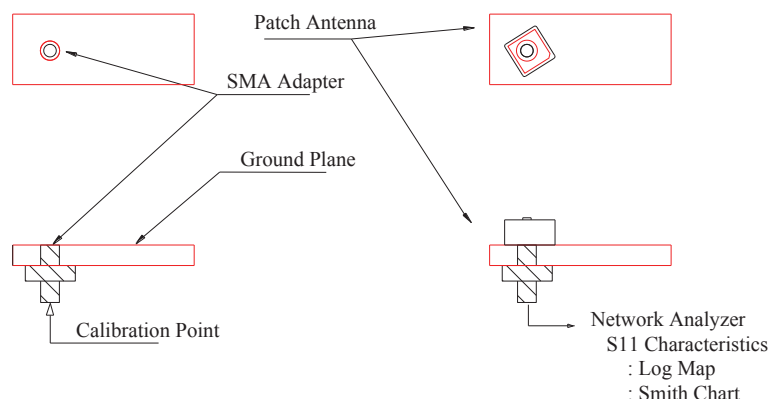
Automotive navigation, Marine buoys,  
Surveying equipment, Cell phone, Laptop,  
Healthcare and medical monitoring devices, PND, PDA

## STANDARD SPECIFICATIONS:

| Parameters                        | Min. | Typ. | Max. | Units             | Note                                                    |
|-----------------------------------|------|------|------|-------------------|---------------------------------------------------------|
| Receiving Frequency Range         |      | 1575 |      | MHz               |                                                         |
| Center Frequency (*)              |      | 1606 |      | MHz               | (with JL03V2.0 GND Plane)                               |
| Bandwidth                         | 5    |      |      | MHz               | (Return loss $\leq$ 10dB)                               |
| Gain                              |      | -1.0 |      | dBic              | (Peak gain on standardized Ground Plane facing Zenith.) |
| Axial Ratio                       |      |      | 5    | dB                |                                                         |
| VSWR @ Center Frequency           |      |      | 1.5  |                   |                                                         |
| Polarization Model                |      | RHCP |      |                   | (Right Hand Circular Polarization)                      |
| Impedance                         |      | 50   |      | $\Omega$          |                                                         |
| Frequency Temperature Coefficient | -10  |      | 10   | ppm/ $^{\circ}$ 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 & TEST SETUP:



## STRUCTURE AND MATERIAL

| Description       | Material             |
|-------------------|----------------------|
| Antenna Substrate | Dielectric Ceramics  |
| Pin               | Copper and tinplated |
| Electrode         | Ag Plated            |
| Ground Plane      | Ag Plated            |
| Adhesive Type     | NITTO 5000NS         |

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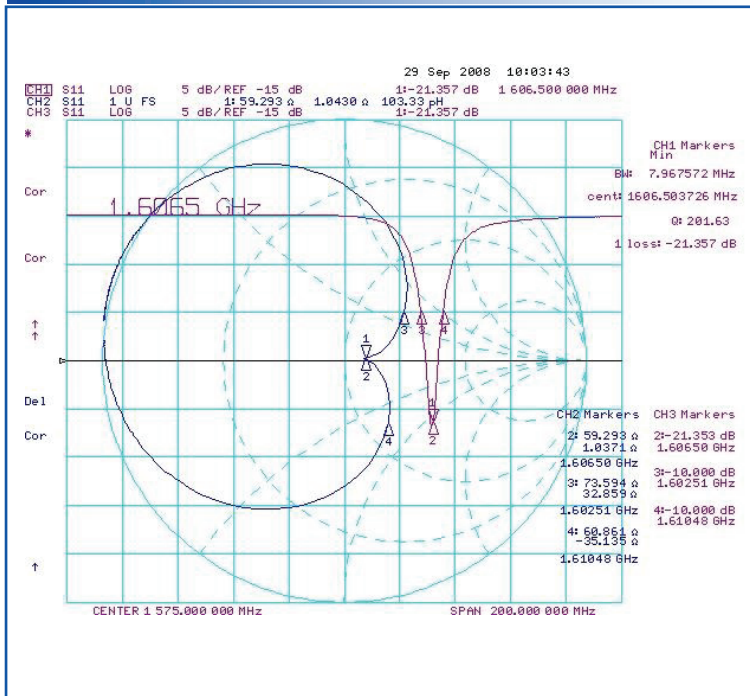
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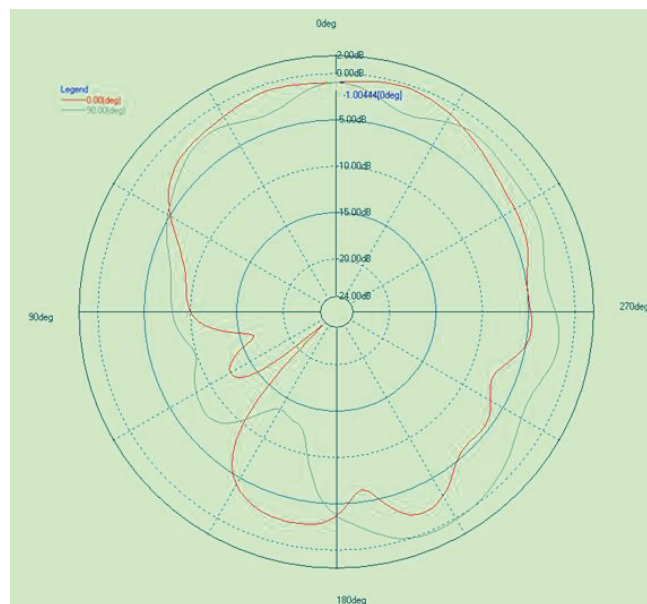


9.0 x 9.0 x 4.0mm

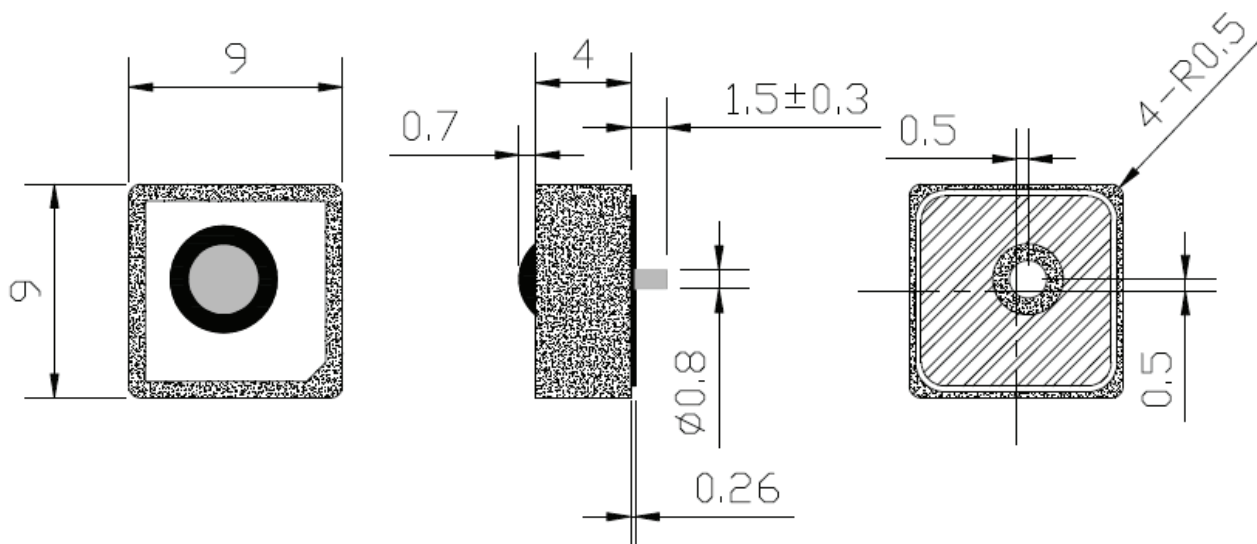
## SMITH CHART



## RADIATION PATTERN



## OUTLINE DIMENSION:



Other Tolerance: ±0.2mm

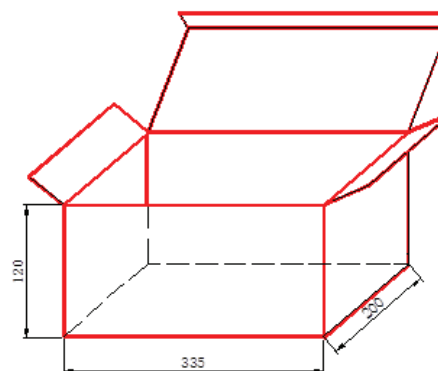
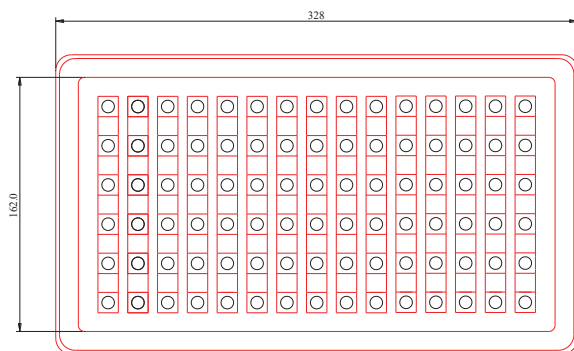
Unit: mm



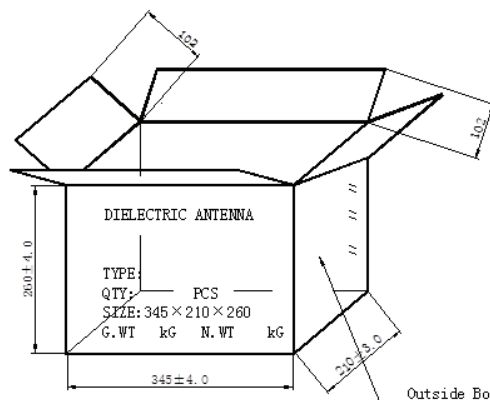
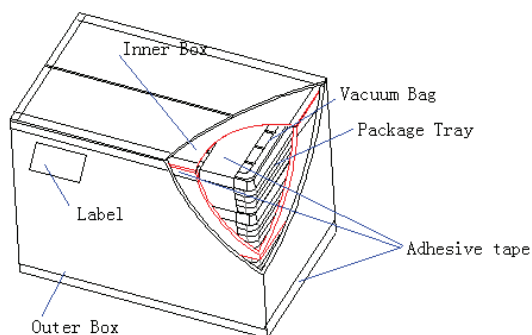
9.0 x 9.0 x 4.0mm

### PACKAGING:

| Package Type | Quantity     |
|--------------|--------------|
| Tray         | 90 pcs/tray  |
| Inner Box    | 900pcs/box   |
| Outer Box    | 1800 pcs/box |



Inner Box



Outside Box

### 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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Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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