

# RFID Patch Antenna

**APAES868R8060C16-T**

RoHS/RoHS II compliant



80.0 x 80.0 x 6.0mm

MSL level: Not Applicable

## FEATURES:

- High Gain
- Pin type
- Customization Available
- RoHS Compliance

## TYPICAL APPLICATIONS:

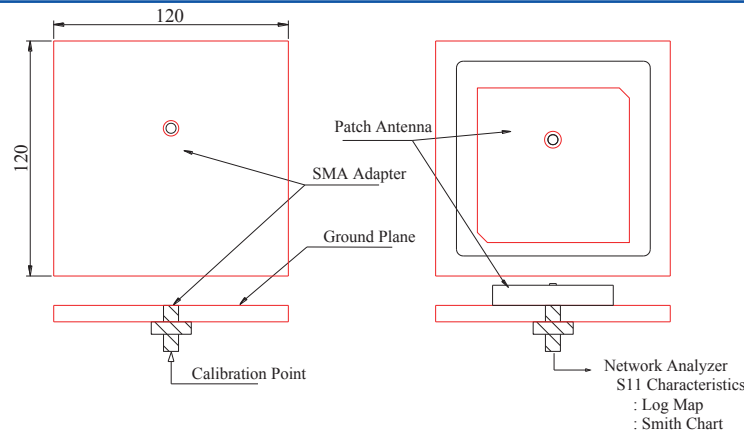
RFID systems for Logistic & Inventory Management of Retail, Pharmaceutical, Automotive Industries; Industrial automation, Contactless smart cards.

## STANDARD SPECIFICATIONS:

| Parameters                        | Min.  | Typ. | Max.  | Units  | Note   |
|-----------------------------------|-------|------|-------|--------|--|
| Receiving Frequency Range         | 854.0 |      | 882.0 | MHz    |  |
| Center Frequency <sup>(*)</sup>   | 868   |      |       | MHz    | ( On a 120*120mm Ground Plane )                      |
| Bandwidth                         | 20    |      |       | MHz    | (Return loss ≤10dB)                                  |
| Gain                              |       | 5.3  |       | dBi    | (Peak gain on 120*120mm Ground Plane facing Zenith.) |
| Axial Ratio                       |       |      | 3     | dB     |  |
| VSWR @ Center Frequency           | 1.3   |      |       |        |  |
| Polarization Model                | RHCP  |      |       |        | (Right Hand Circular Polarization)                   |
| Impedance                         | 50    |      |       | Ω      |  |
| Frequency Temperature Coefficient | -10   |      | 10    | 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 & 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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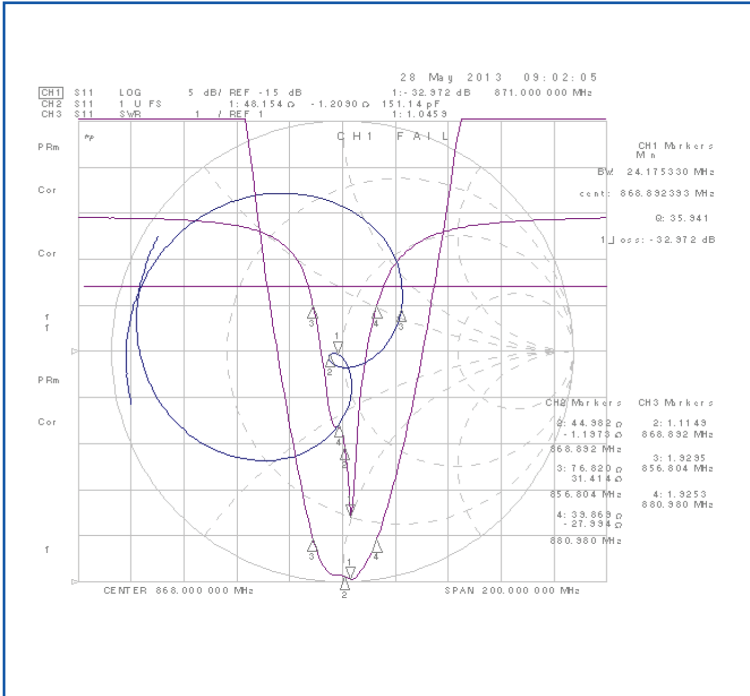
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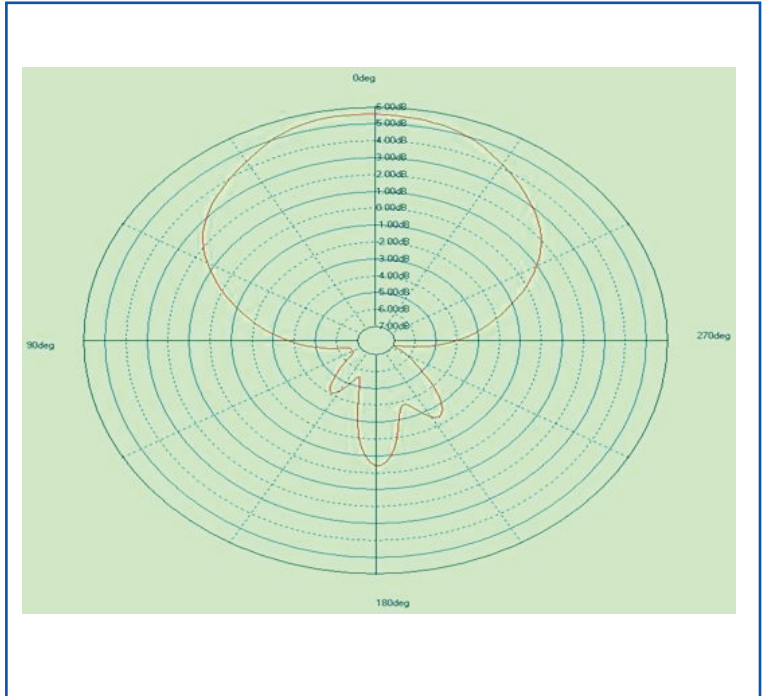


80.0 x 80.0 x 6.0mm

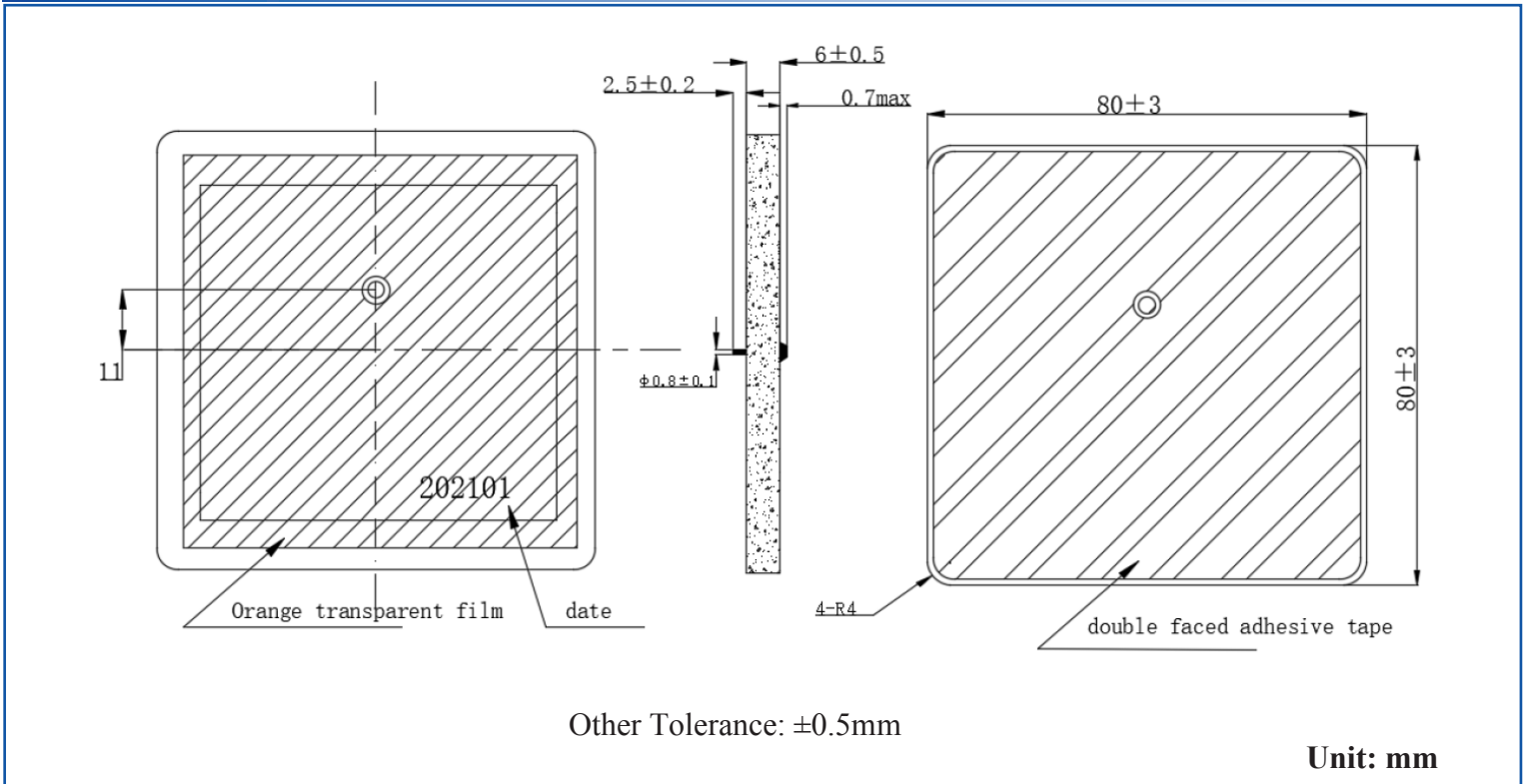
## SMITH CHART



## RADIATION PATTERN



## OUTLINE DIMENSION:



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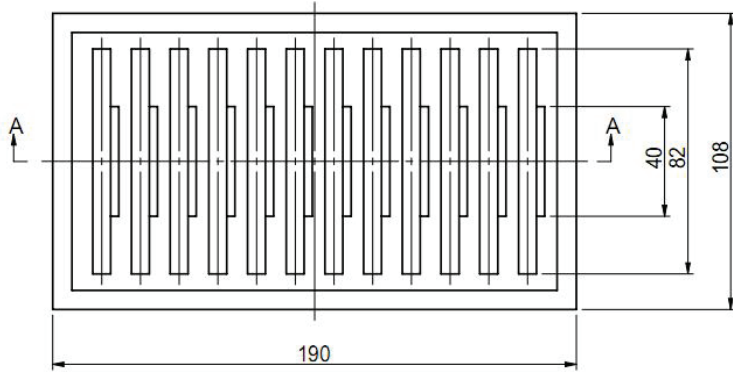
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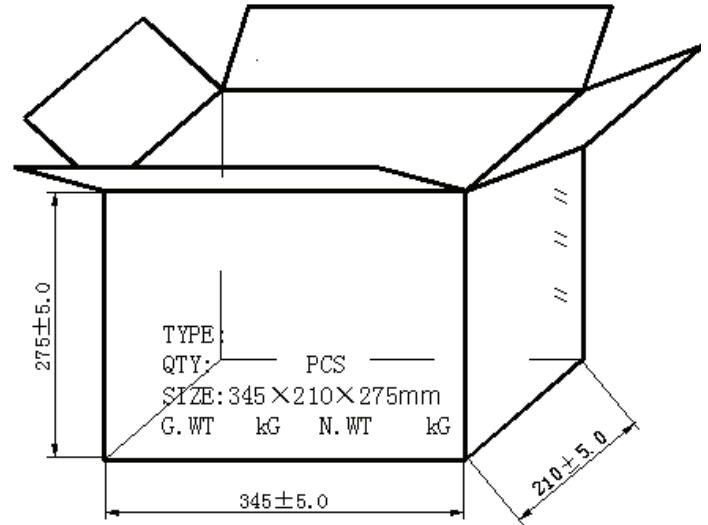
80.0 x 80.0 x 6.0mm

## PACKAGING:

Each foam box contains 12pcs of RFID patch antenna. There are 3 foam boxes per inner box, and 2 inner boxes per carton (Outer box).



Foam Box



Outer Box

| Package Type | Quantity         |
|--------------|------------------|
| Foam Box     | 12 pcs/foam box  |
| Inner Box    | 36 pcs/inner box |
| Outer Box    | 72 pcs/outer 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.
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ABRACON IS  
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Headquarters:

5101 Hidden Creek Ln Spicewood TX 78669 Phone: 512-371-6159

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