

RFID Patch Antenna

APAES923R4560C16-T

RoHS/RoHS II compliant



45.0 x 45.0 x 6.0mm

MSL level: Not Applicable

FEATURES:

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

TYPICAL APPLICATIONS:

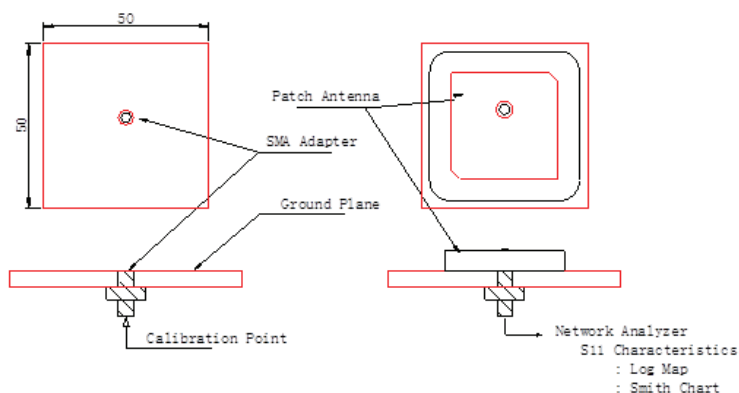
RFID systems for Logistic & Inventory Management of Retail, Pharmaceutical, Automotive Industries; Industrial automation, Contactless smart cards.

STANDARD SPECIFICATIONS:

Parameters	Min.	Typ.	Max.	Units	Note
Receiving Frequency Range	915		930	MHz	
Center Frequency ^(*)	923			MHz	(On 50*50mm GND Plane)
Bandwidth	7			MHz	(Return loss ≤ 10 dB)
Gain		2.5		dBic	(Peak gain on (On 70*70mm GND Plane facing Zenith.)
Axial Ratio			2.5	dB	
VSWR @ Center Frequency			1.5		
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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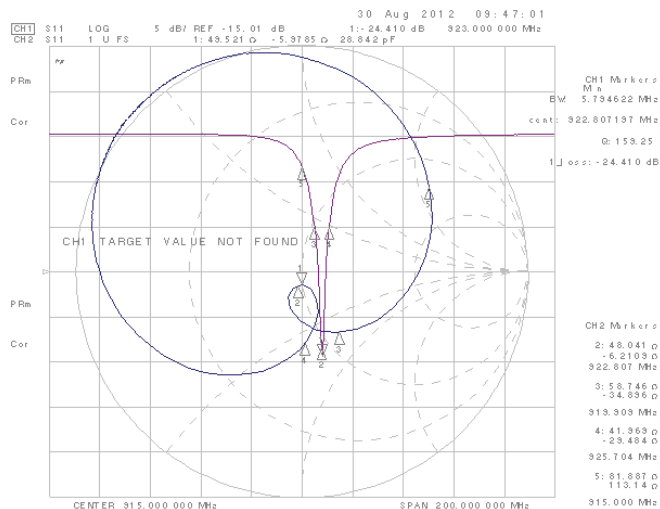
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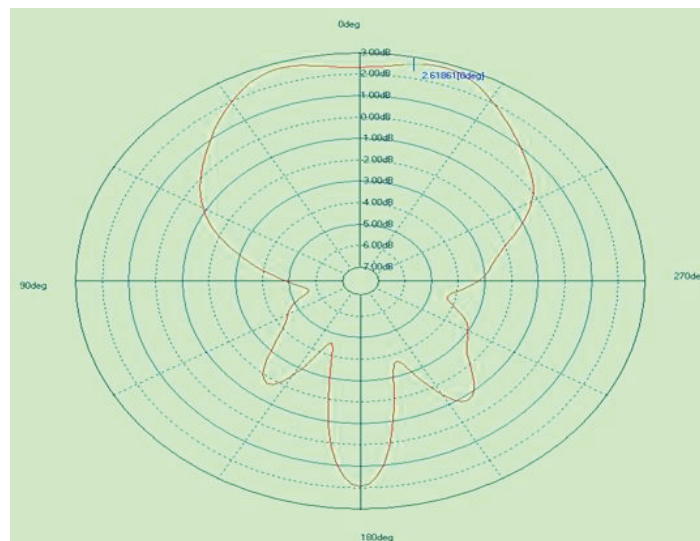


45.0 x 45.0 x 6.0mm

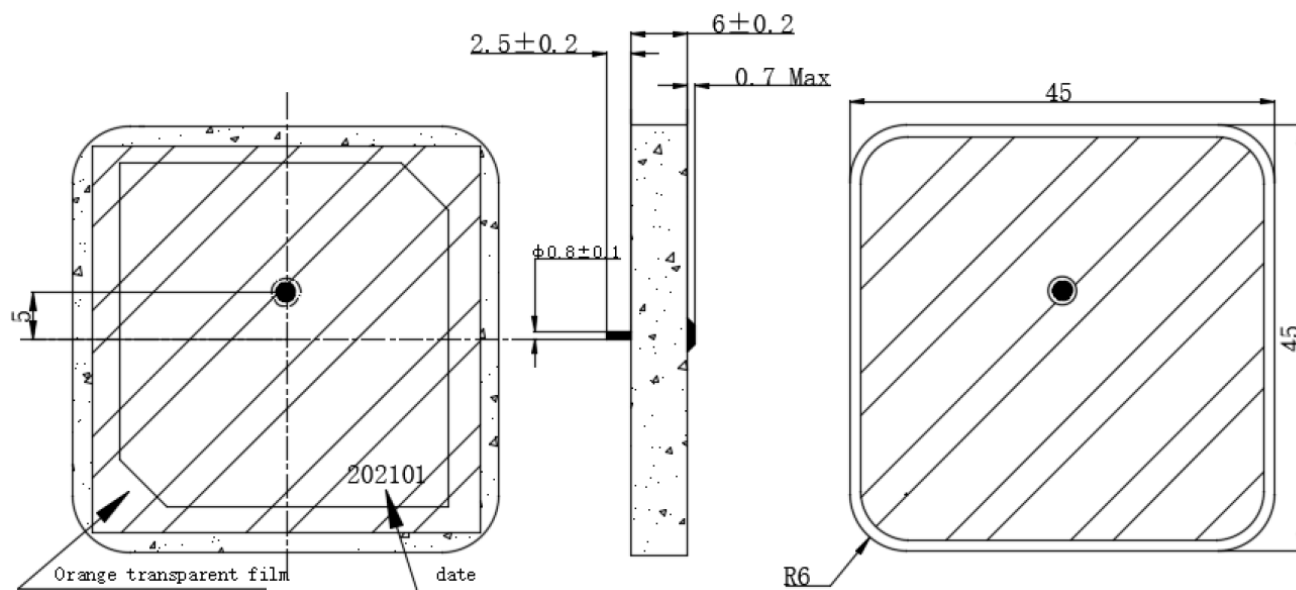
SMITH CHART



RADIATION PATTERN



OUTLINE DIMENSION:



Other Tolerance: ± 0.3 mm

Unit: mm

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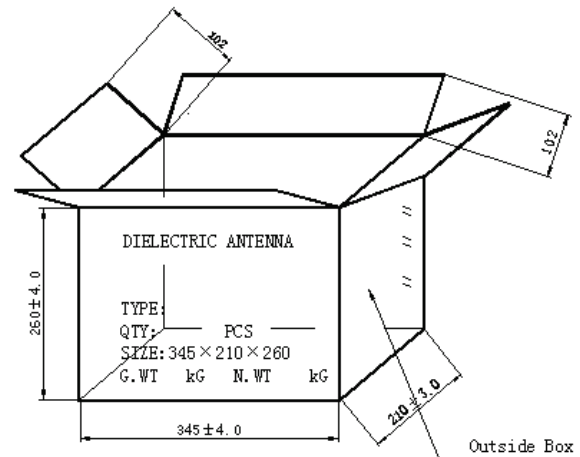
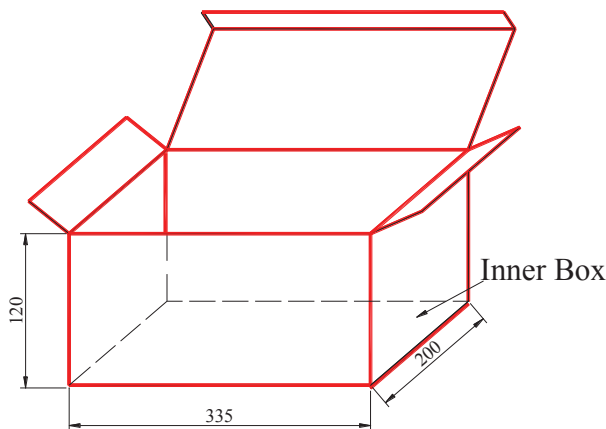
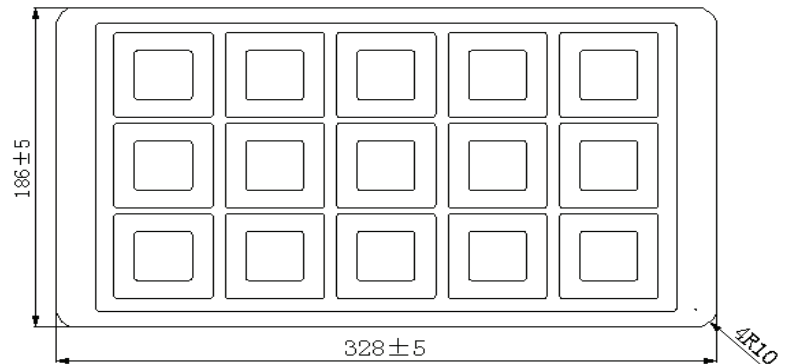
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PACKAGING:

Package Type	Quantity
Tray	15 pcs/tray
Inner Box	150 pcs/box
Outer Box	300 pcs/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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ABRACON IS
ISO9001-2015
CERTIFIED



REVISED: 07/19/2021

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