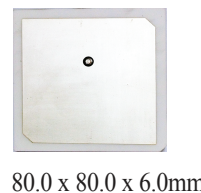


RFID Patch Antenna

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:

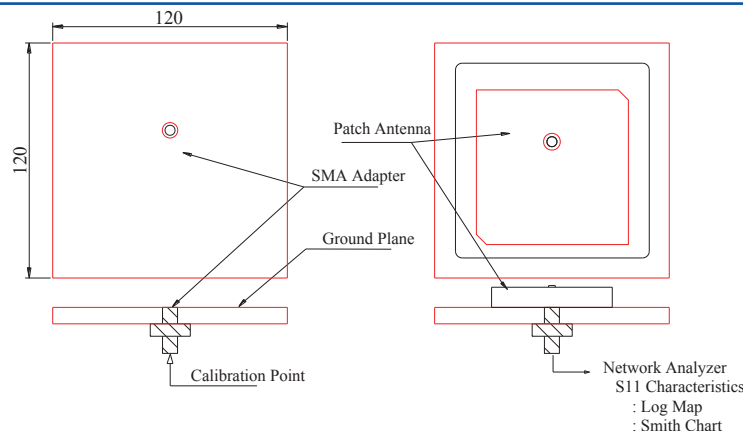
RFID systems for Logistic & Inventory Management of Retail, Pharmaceutical, Automotive Industries; Industrial automation, Contactless smart cards.

STANDARD SPECIFICATIONS:

Parameters	Min.	Typ.	Max.	Units	Note
Receiving Frequency Range	854.0		882.0	MHz	
Center Frequency ^(*)	868			MHz	(On a 120*120mm Ground Plane)
Bandwidth	20			MHz	(Return loss ≤ 10 dB)
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:



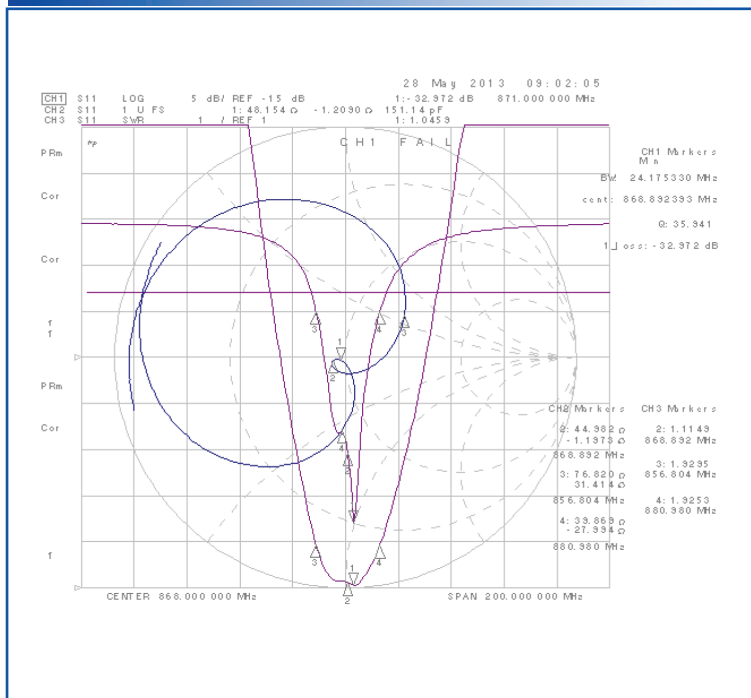
STRUCTURE AND MATERIAL

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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A blank, cream-colored page with a small black circular mark in the center. The page is slightly aged and has a small notch in the top right corner.

SMITH CHART



Technical drawing showing three views of a rectangular component with dimensions and labels.

Front View (Left): A square component with a central circular feature. The date stamp "202101" is visible. The component is labeled "Orange transparent film" and "date".

Side View (Middle): A cross-section view showing the thickness of the component. Dimensions include 2.5 ± 0.2 , 6 ± 0.5 , 0.7_{\max} , and a central hole diameter of $\phi 0.8 \pm 0.1$.

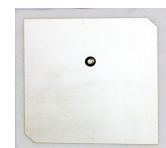
Back View (Right): A square component with a central circular feature. The date stamp "202101" is visible. The component is labeled "4-R4" and "double faced adhesive tape".

Unit: mm

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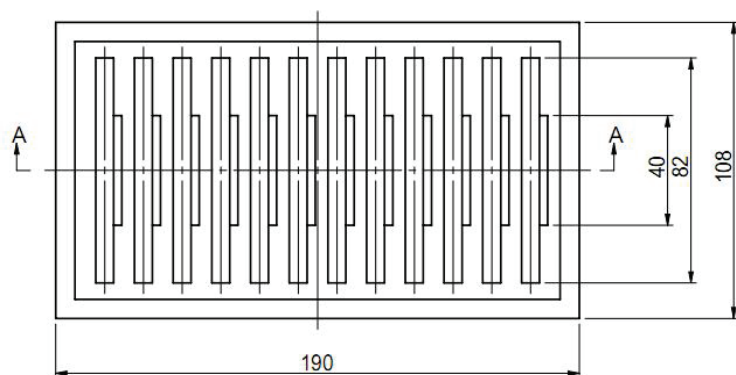
RoHS/RoHS II compliant



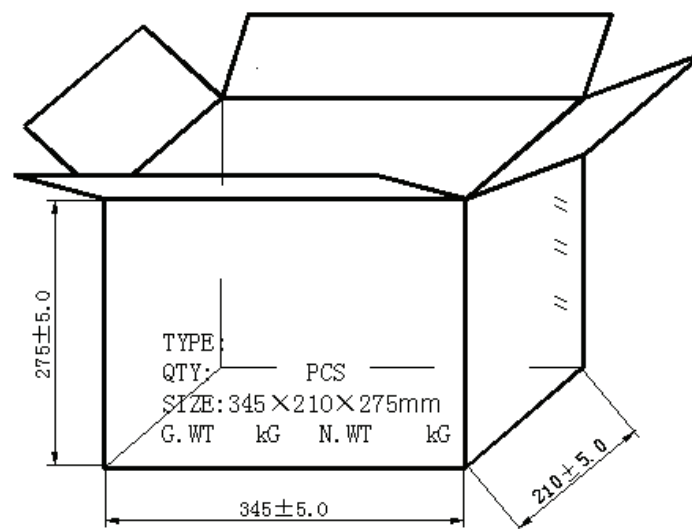
80.0 x 80.0 x 6.0mm

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.
- (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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