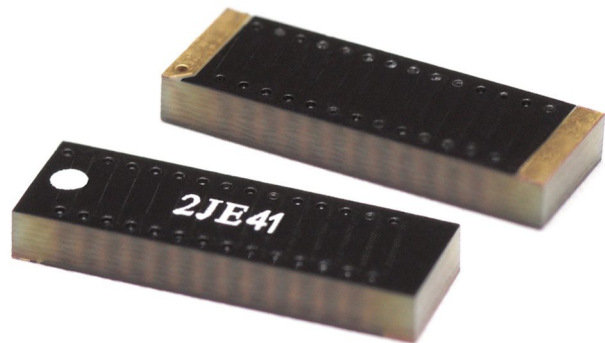


## 2JE41

### 868 MHz ISM Surface Mount

#### Key Features

- 868 MHz ISM
- 863-870 MHz
- Surface Mount
- Easy to Integrate
- Compact Size
- Fiberglass Material
- Ground Plane Dependent
- Dimensions 12 x 4 x 1.6 mm



## 1. Antenna and electrical specifications

Parameters	868 MHz ISM Antenna
<b>Standards</b>	ZigBee, ISM, SigFox, LoRa, Helium
<b>Band (MHz)</b>	868
<b>Frequency (MHz)</b>	863-870
<b>Return Loss (dB)</b>	~-13.9
<b>VSWR</b>	~1.5:1
<b>Efficiency (%)</b>	~52.4
<b>Peak Gain (dBi)</b>	~2.2
<b>Average Gain (dB)</b>	~-2.8
<b>Impedance (Ohm)</b>	50
<b>Polarisation</b>	Linear
<b>Radiation Pattern</b>	Omni-Directional
<b>Max. Input Power (W)</b>	1

### Antenna Measurement Conditions:

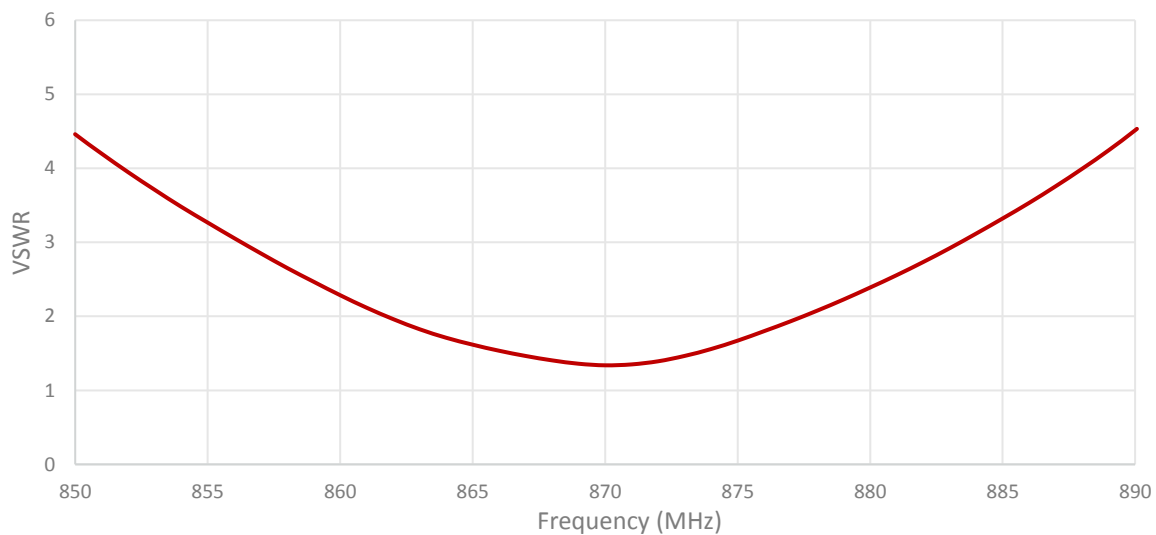
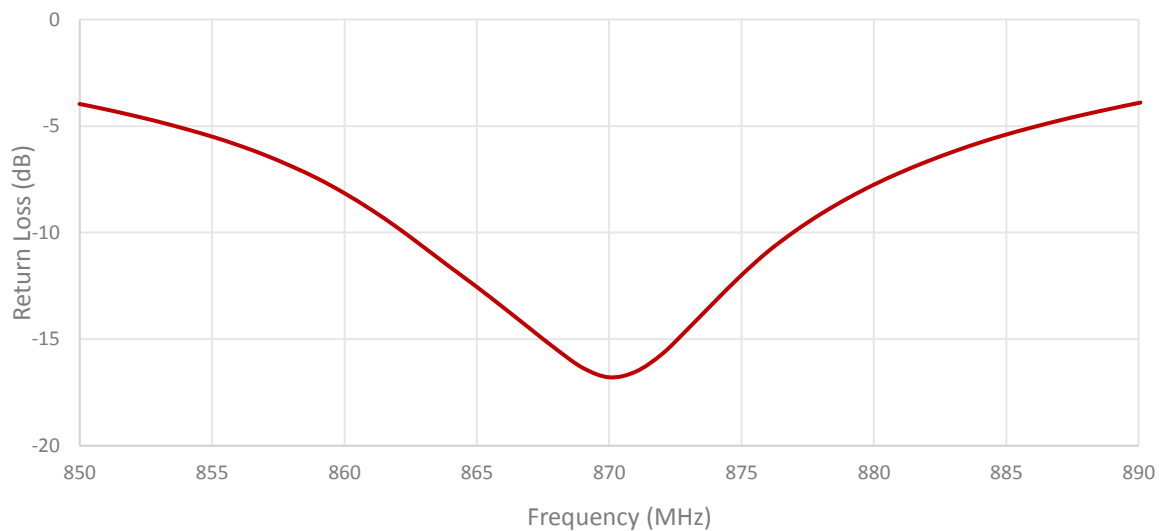
Mounted on ground plane of 50 x 90 mm

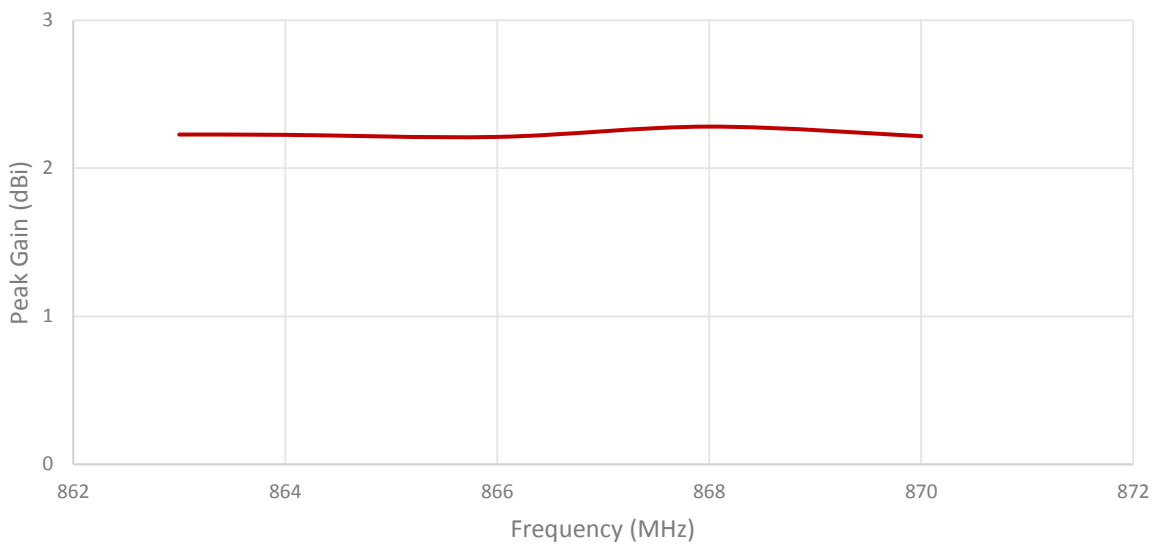
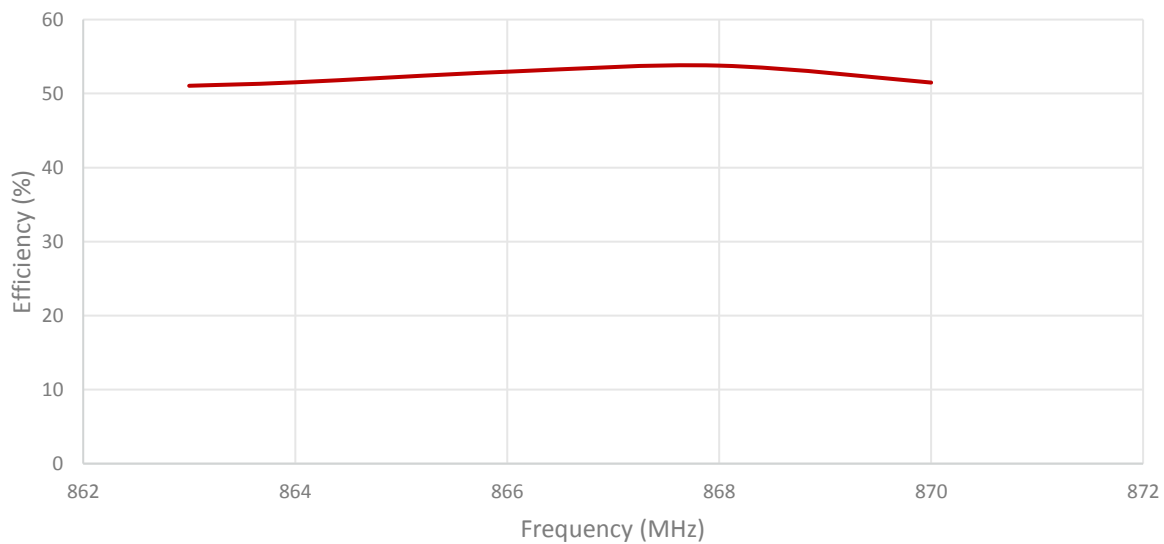
Measured in Certified CTIA 3D Anechoic Chamber

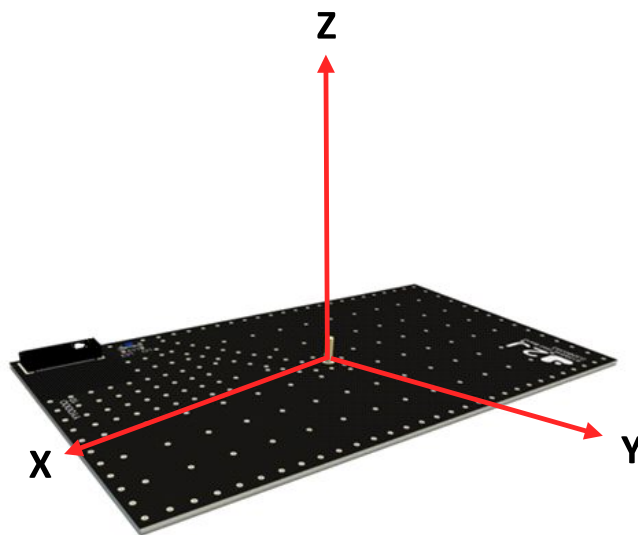
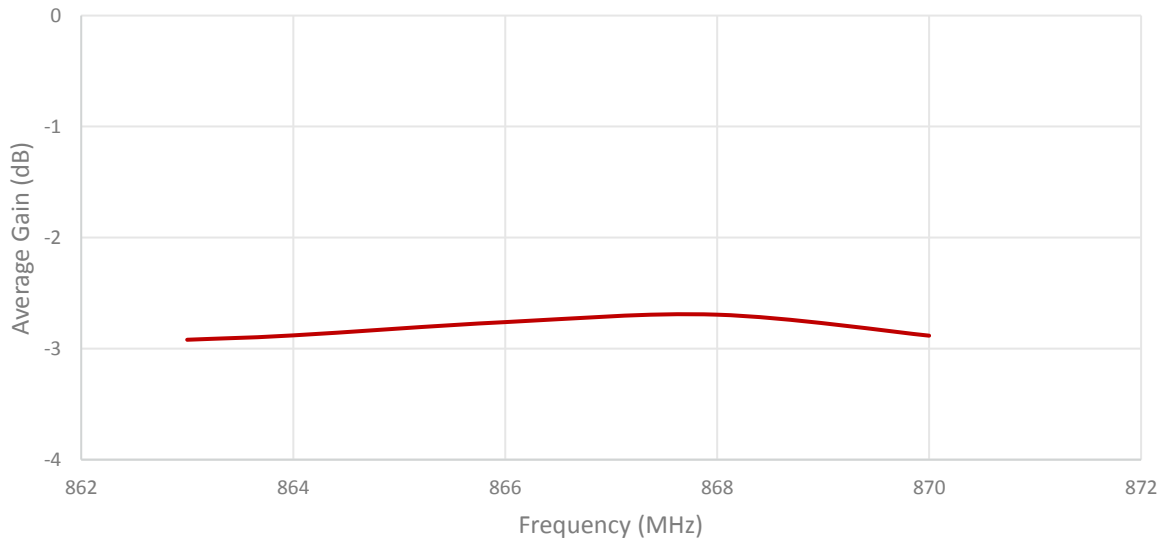
## 2. Mechanical and environmental specifications

Specifications	2JE41
<b>Mounting Type</b>	Surface Mount
<b>Dimensions (mm)</b>	12 x 4 x 1.6
<b>Material</b>	Fiberglass
<b>Operating Temperature (C)</b>	-40 to +85
<b>Storage Temperature (C)</b>	-40 to +85
<b>Substance Compliance</b>	RoHS
<b>Typical Shear Force Test</b>	10Kgf according to IEC62137-1-2:2007

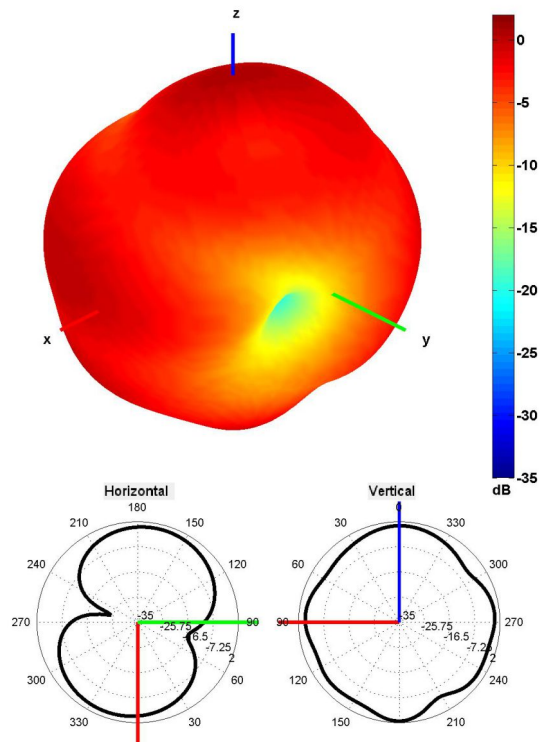
### 3. Antenna parameters





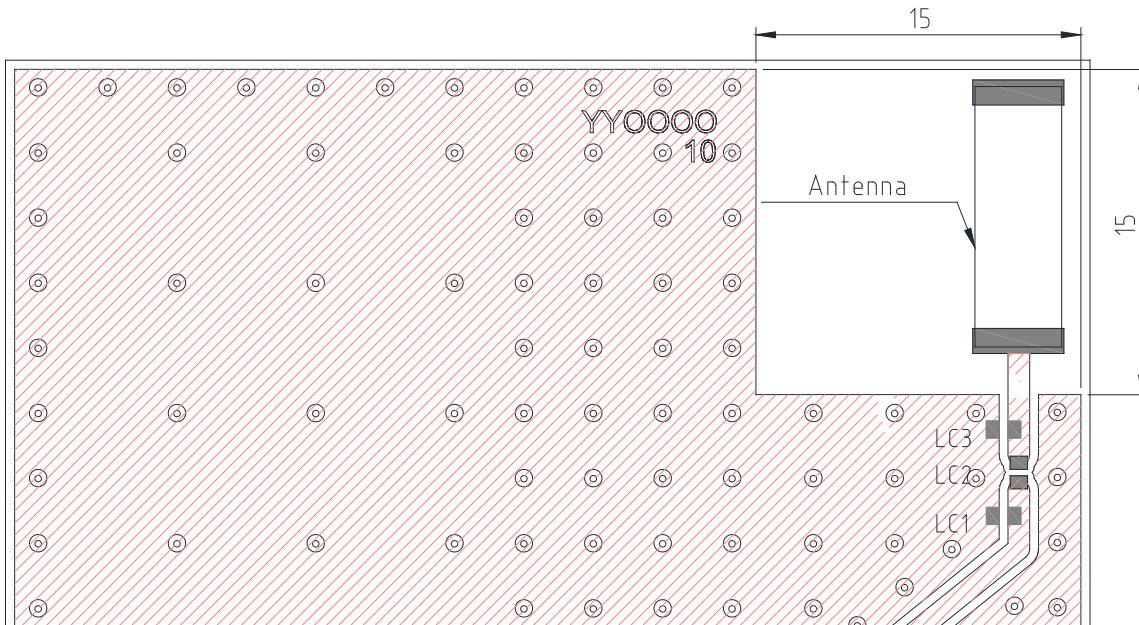


Radiation pattern reference



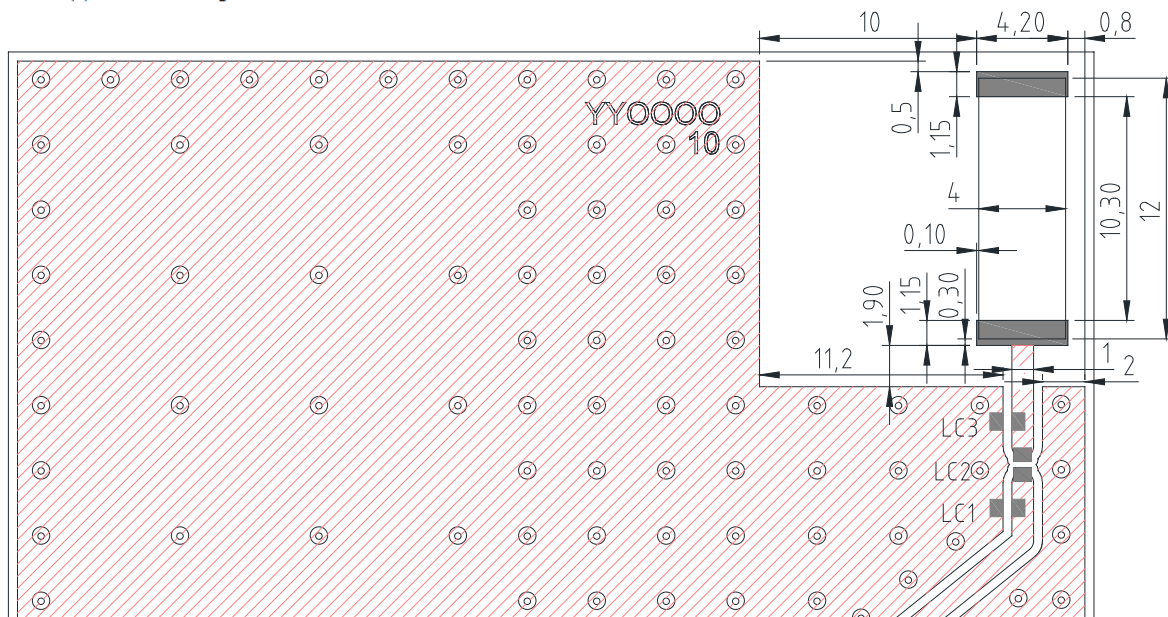
868 MHz Radiation pattern

## 4. PCB Layout



Minimum area required for antenna integration (15mm × 15mm)

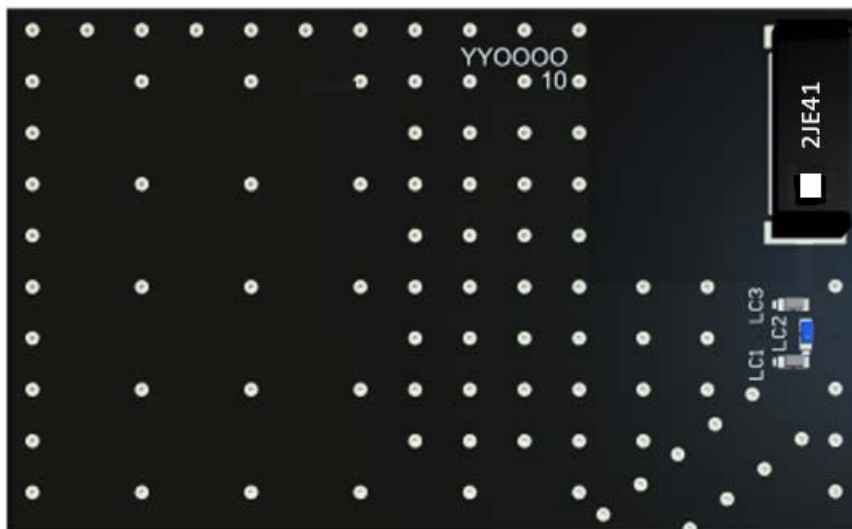
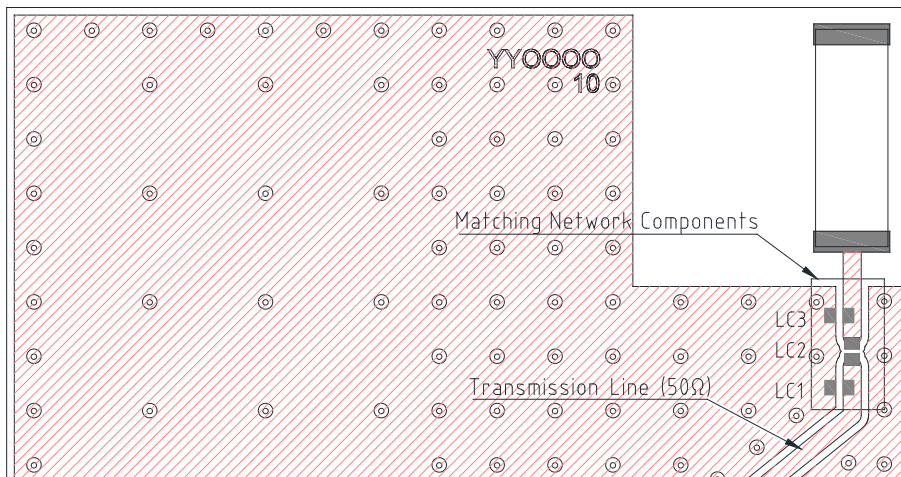
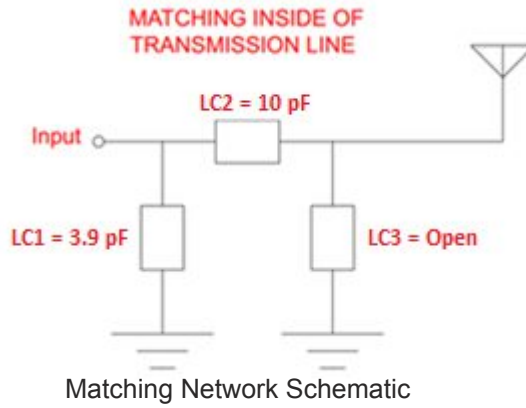
- Solder Region
- Copper Region
- Copper-Free Region



Layout dimensions for antenna integration (mm)

- Solder Region
- Copper Region
- Copper-Free Region

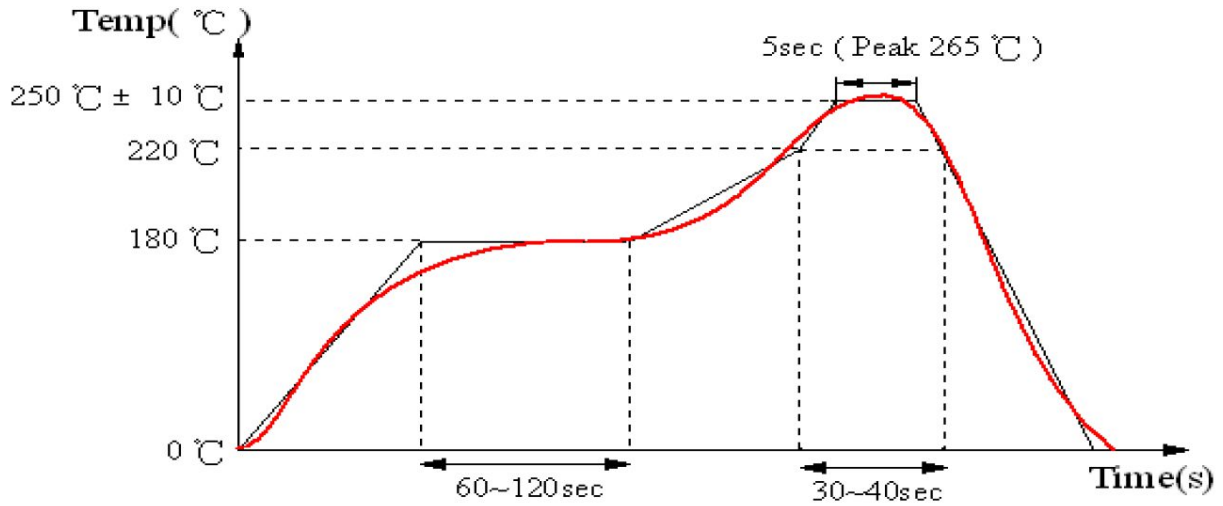
## 5. Matching Components



3D View of matching components and recommended values (LC1=3.9 pF, LC2=10 pF, LC3=DNP)



**REFLOW TEMPERATURE PROFILE**



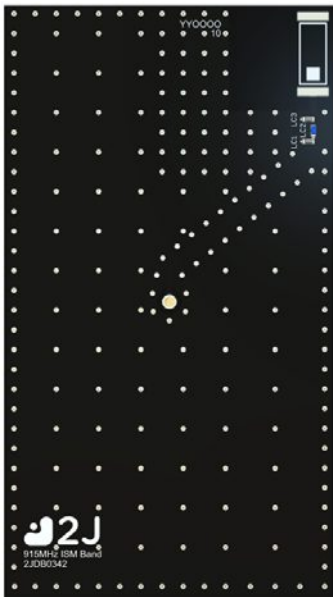
**6. Evaluation Board**

90mm x 50mm

90mm x 50mm

90mm x 50mm

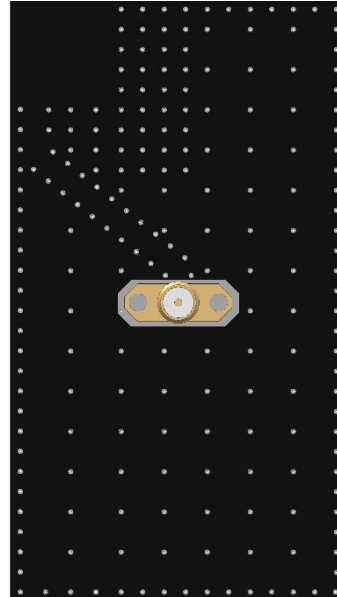
90mm x 11.9mm  
(PCB: 0.8mm, Antenna: 1.6mm,  
Connector: 9.5mm)



Front View without Antenna



Front View with Antenna

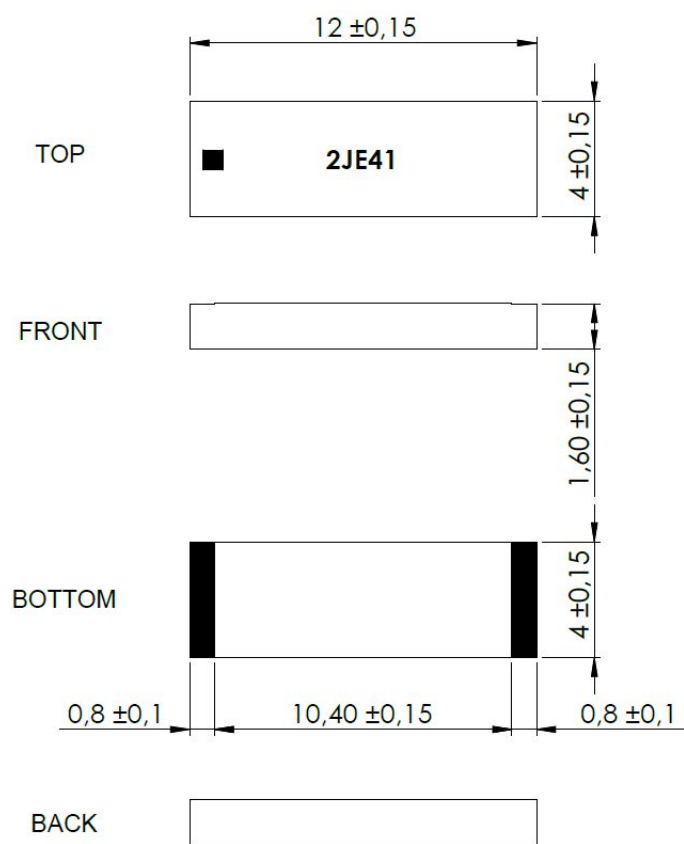


Back View



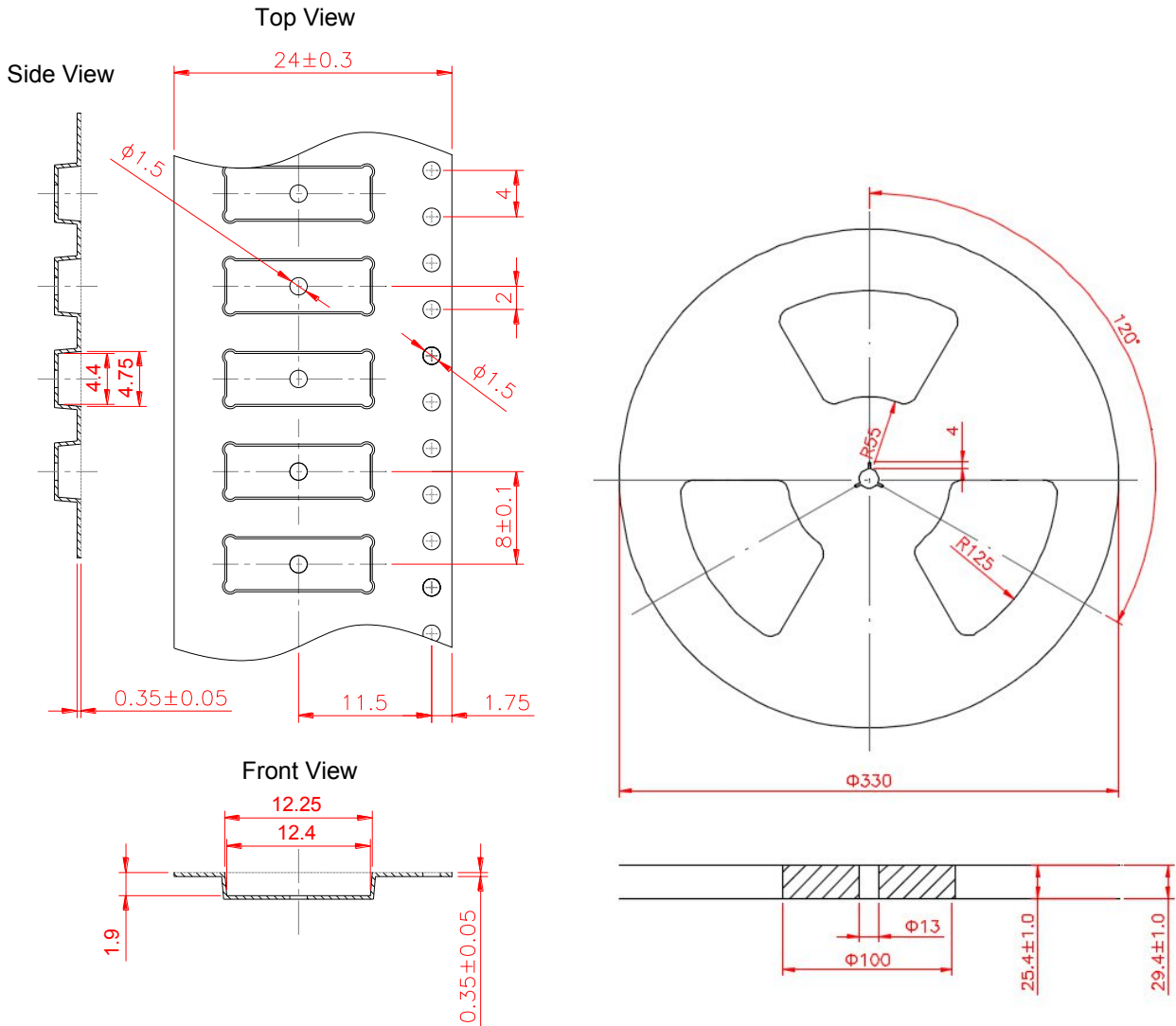
Side View

## 7. Antenna drawings



fiberglass antenna body (mm)

## 8. Tape and Reel Information



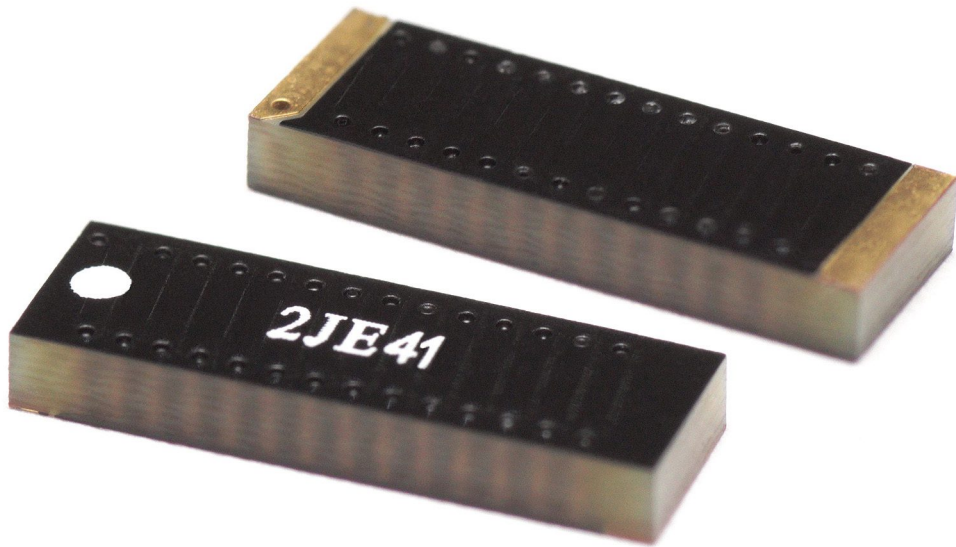
Tape and Reel Specifications

## 9. Packaging

### PACKAGING SPECIFICATION

<b>Antenna</b>	2JE41
<b>REEL</b>	
<b>Max Quantity per Reel</b>	2,000
<b>REEL BOX</b>	
<b>Reels per Box</b>	1
<b>Reel Box Dimensions (cm)</b>	35.5 x 35.5 x 4.0
<b>Reel Box Weight (Kg)</b>	0.68
<b>CARTON</b>	
<b>Reels per Carton</b>	4
<b>Max Quantity per Carton</b>	8,000
<b>Reel Carton Dimensions (cm)</b>	38.5 x 36.5 x 21
<b>Reel Carton Weight (Kg)</b>	2.72

10. Antenna Images



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Antennas](#) category:*

*Click to view products by [2J](#) manufacturer:*

Other Similar products are found below :

[930-033-R](#) [EXE902SM](#) [APAMPG-117](#) [66089-2406](#) [A09-F8NF-M](#) [A09-F5NF-M](#) [RGFRA1903041A1T](#) [108-00016-050](#) [W3525BW100](#)  
[SIMNA-868](#) [SIMNA-915](#) [SIMNA-433](#) [W1049B090](#) [TRABT1560](#) [WTL2449CQ1-FRSMM](#) [CPL9C](#) [0600-00060](#) [Y4503](#) [PAL90209H-FNF](#)  
[GD53-25](#) [C37](#) [MAF94051](#) [S9025PLSMF](#) [EXD420PL](#) [QWFTB120](#) [MAF94300](#) [FG4403](#) [MIKROE-2393](#) [GPSCPMM00](#) [ANTDOM-05-01-](#)  
[WPM](#) [ANT-WP868SMA-Y](#) [EXW30BNX](#) [RAD-ISM-2459-ANT-FOOD-6-0-](#) [S4908WBFNM](#) [GD57-21](#) [108-20131-010](#) [108-00032-010](#)  
[C27S](#) [CBNC58](#) [EXH160MXI](#) [EXH160SFK](#) [MD10-004](#) [EXC902SM](#) [CB27](#) [ABFT](#) [BB4502NR](#) [B4502N](#) [S4908WBFNF](#) [ANT-](#)  
[GSMGPSPUKS](#) [60210](#)