

2JL20

915 MHz ISM Surface Mount

Key Features

- 915 MHz ISM
- 902-928 MHz
- Surface Mount
- Easy to Integrate
- Compact Size
- Ceramic Material
- Ground Plane Dependent
- Dimensions 10 x 3.2 x 0.5 mm



1. Antenna and electrical specifications

Parameters	915 MHz ISM Antenna
Standards	ZigBee, ISM, SigFox, LoRa
Band (MHz)	915
Frequency (MHz)	902-928
Return Loss (dB)	~-8.8
VSWR	~3.1:1
Efficiency (%)	~58.3
Peak Gain (dBi)	~-0.2
Average Gain (dB)	~-2.5
Impedance (Ohm)	50
Polarisation	Linear
Radiation Pattern	Omni-Directional
Max. Input Power (W)	25

Antenna Measurement Conditions:

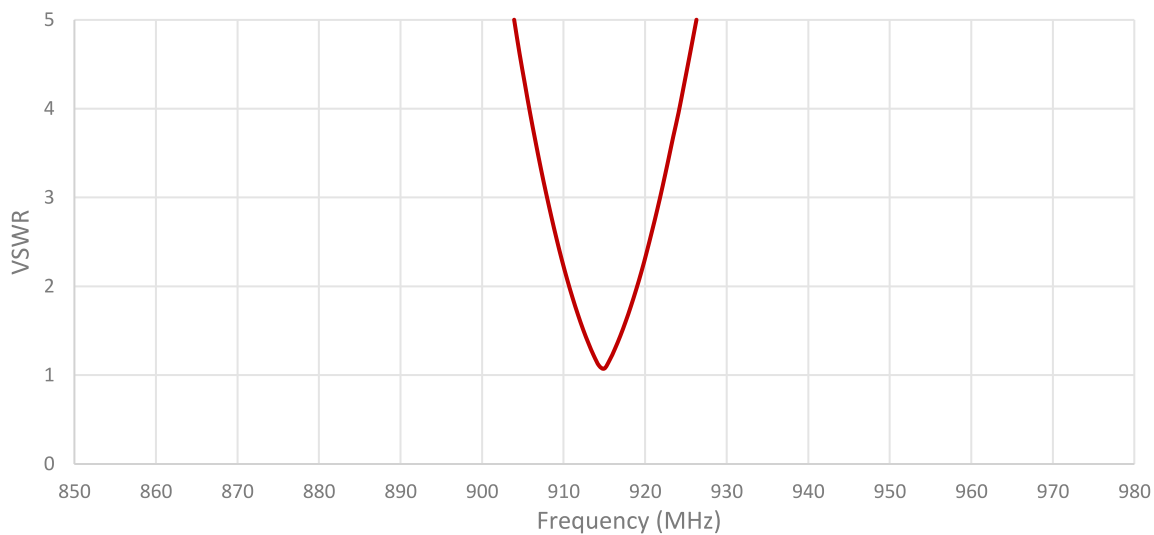
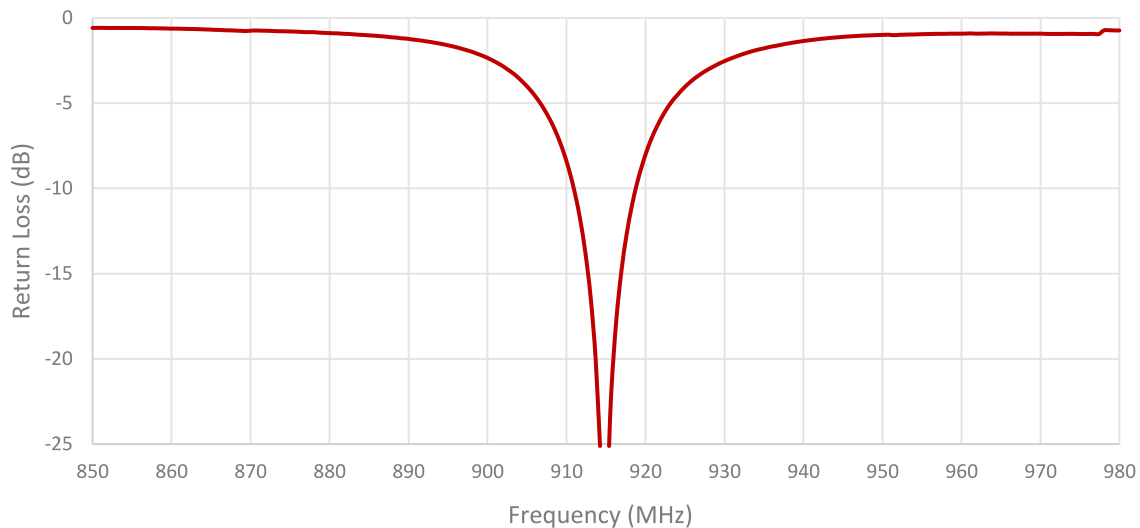
Mounted on ground plane of 80 x 40 mm

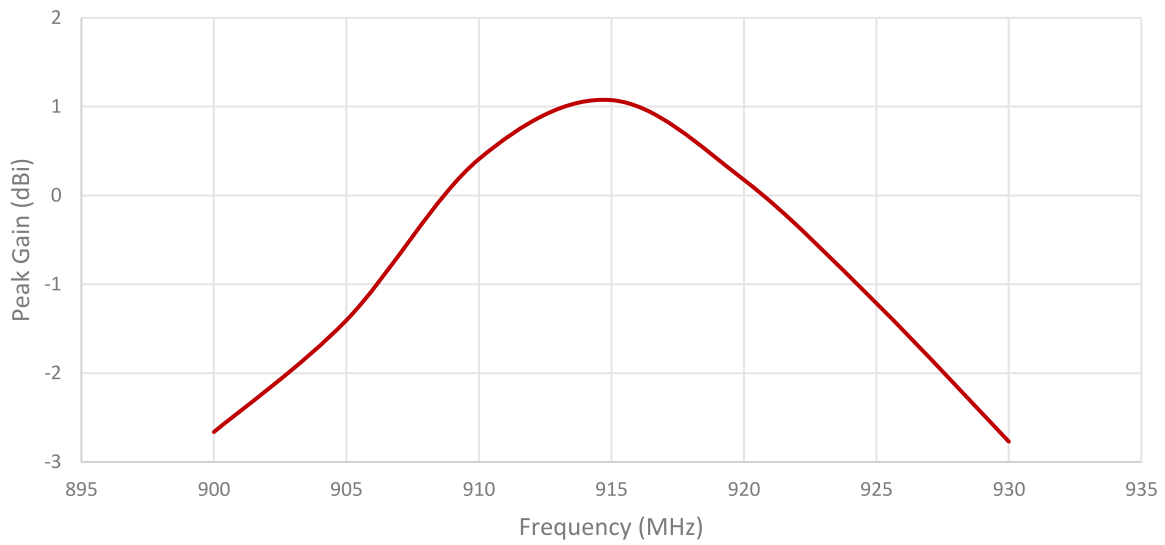
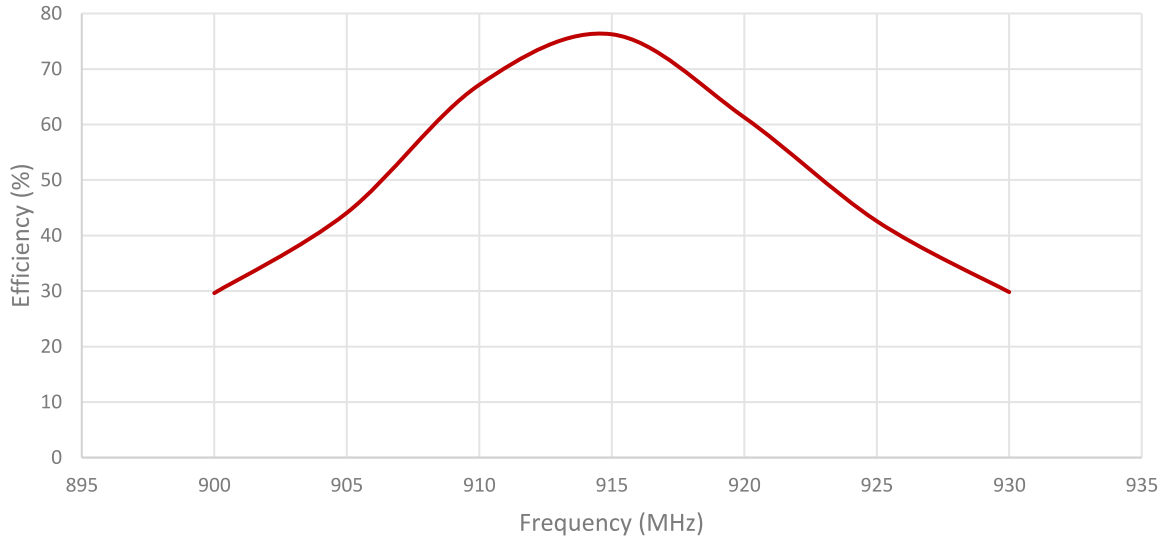
Measured in Certified CTIA 3D Anechoic Chamber

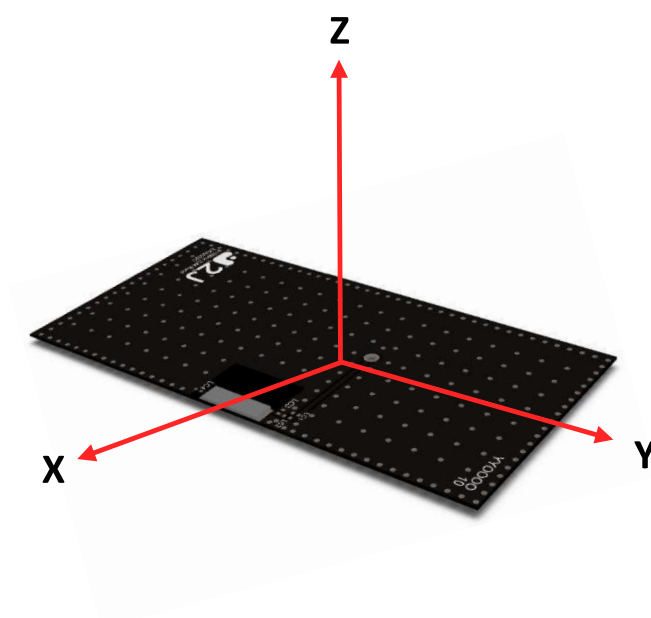
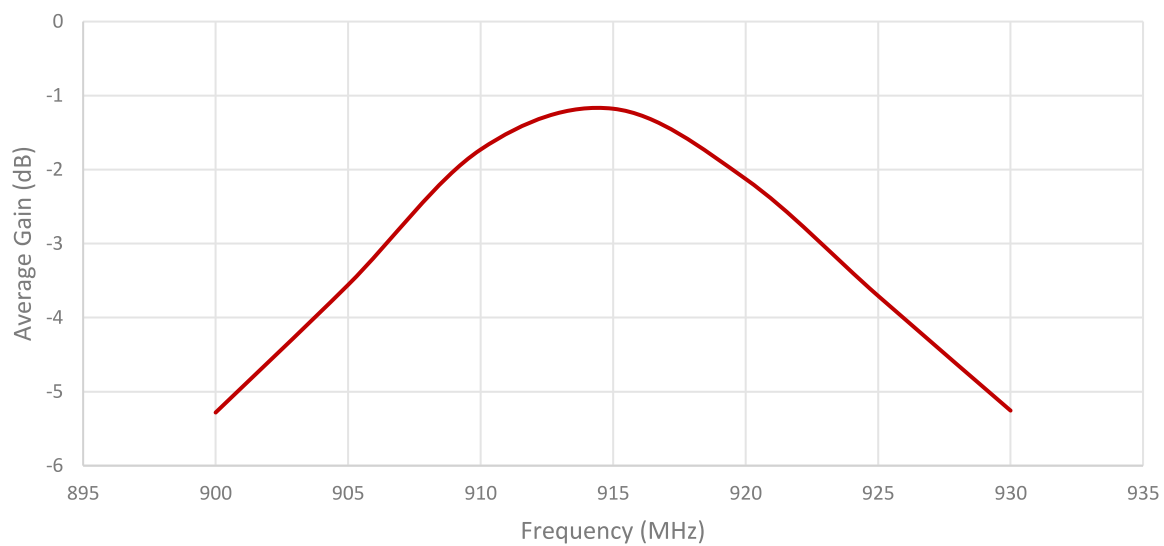
2. Mechanical and environmental specifications

Specifications	2JL20
Mounting Type	Surface Mount
Dimensions (mm)	10 x 3.2 x 0.5
Material	Ceramic
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS

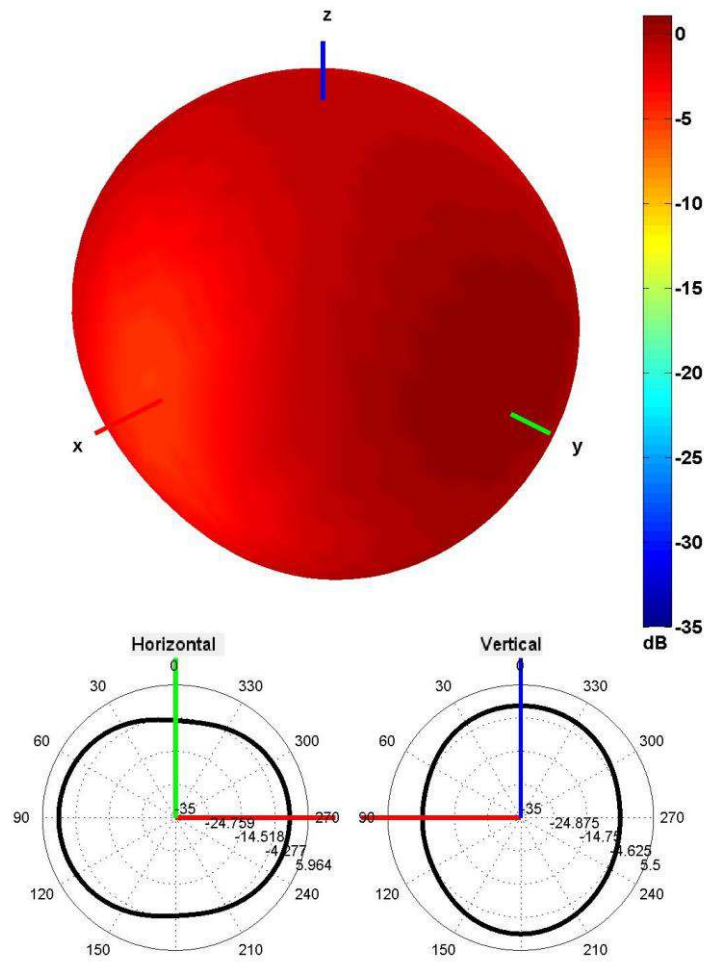
3. Antenna parameters





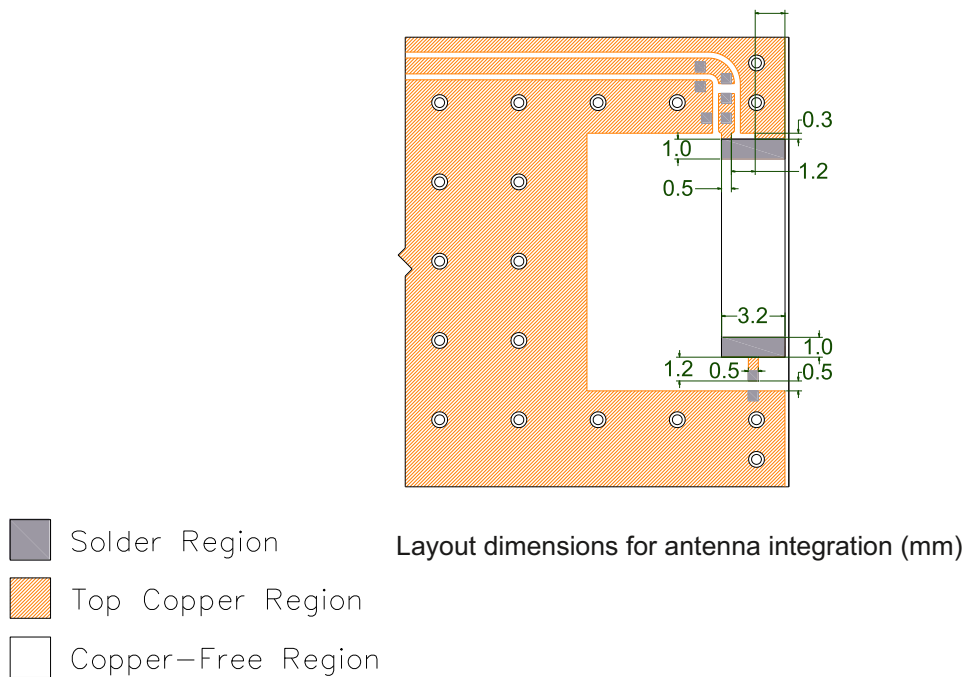
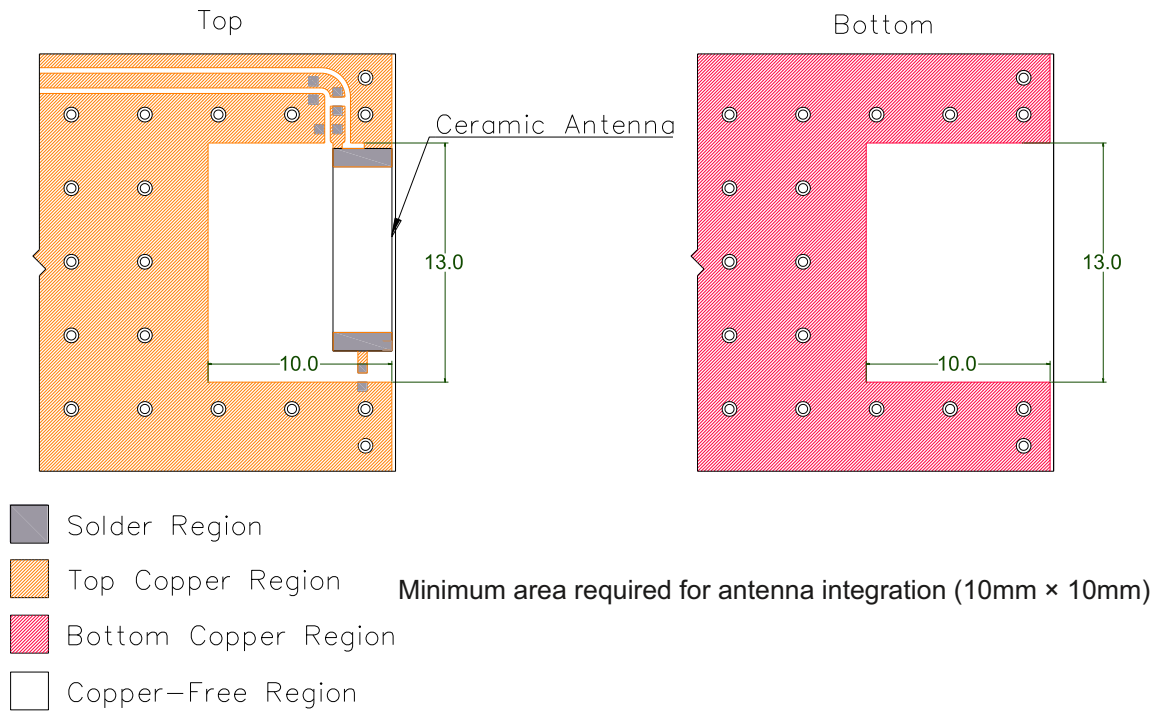


Radiation pattern reference

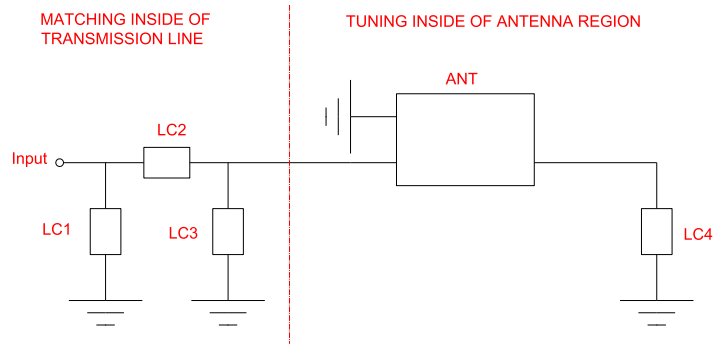


915 MHz Radiation pattern

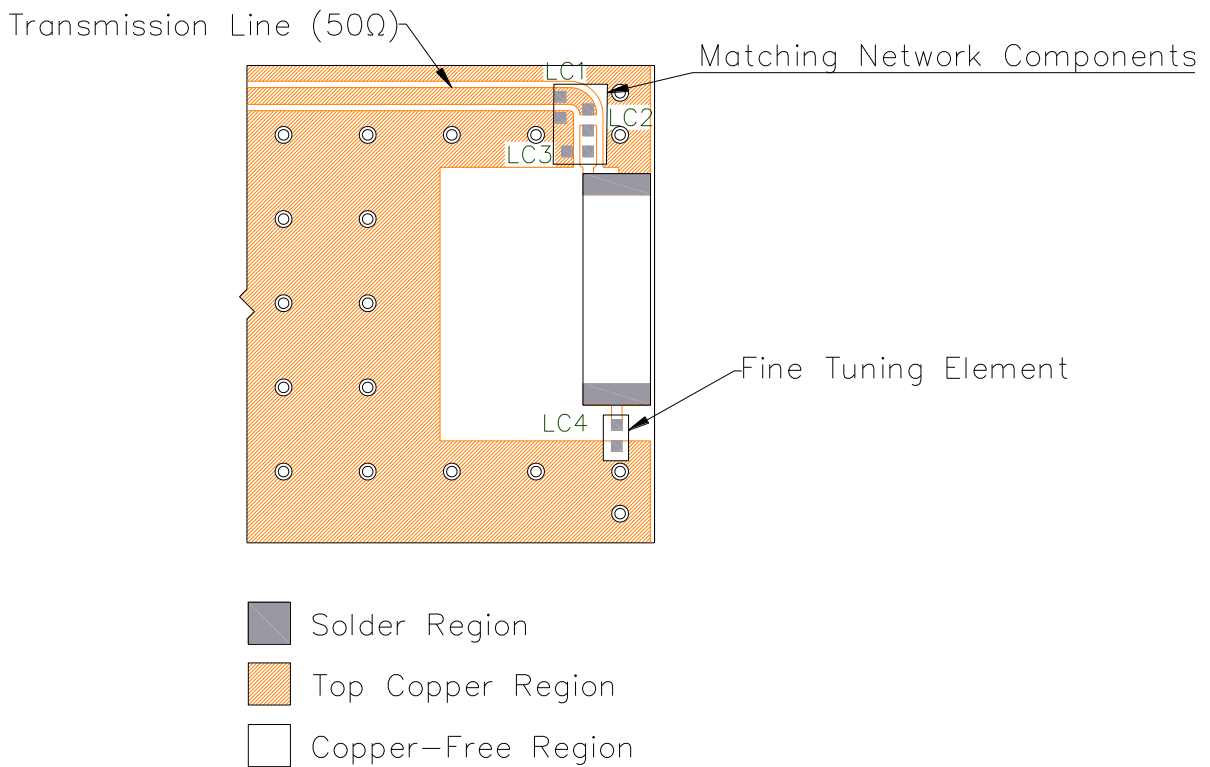
4. PCB Layout



5. Matching Components



Matching Network Schematic



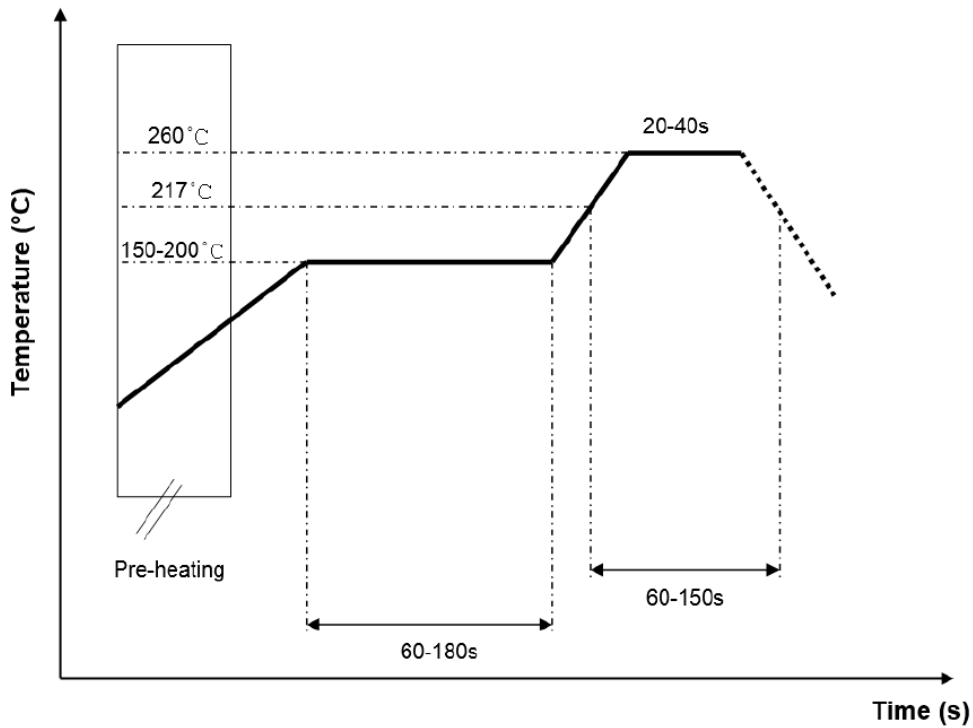
Matching network drawing (LC1=5.6pF±0.05pF, LC2=0 Ohm, LC3=OPEN, LC4=10pF±0.05pF)



3D View of matching components and recommended values

Matching network drawing (LC1=5.6pF±0.05pF, LC2=0 Ohm, LC3=OPEN, LC4=10pF±0.05pF)

REFLOW TEMPERATURE PROFILE



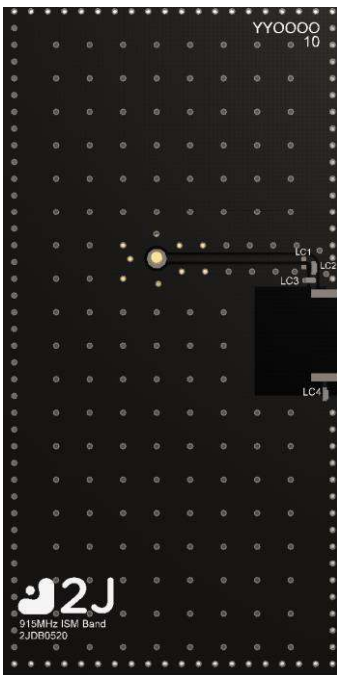
6. Evaluation Board

80mm x 40mm

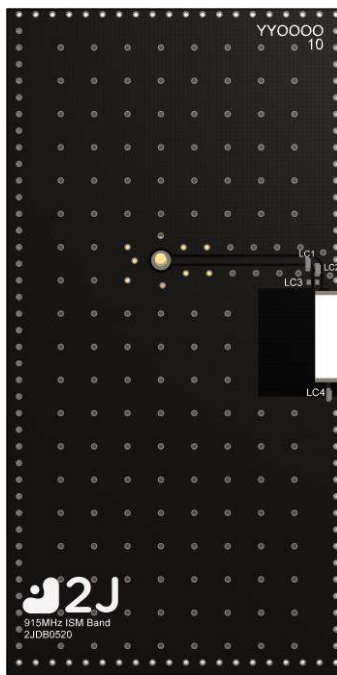
80mm x 40mm

80mm x 40mm

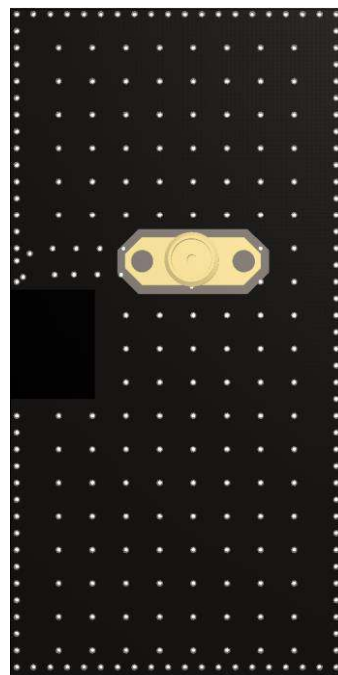
80mm x 10.8mm
(PCB: 0.8mm, Antenna: 0.5mm,
Connector: 9.5mm)



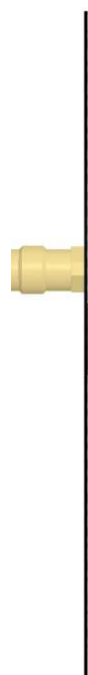
Front View without Antenna



Front View with Antenna

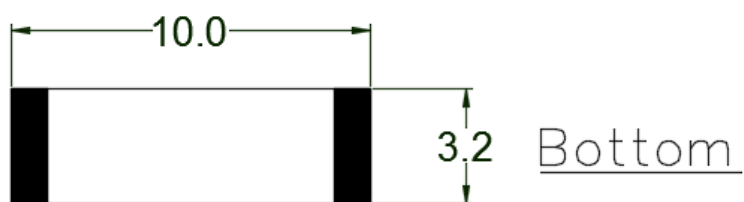


Back View

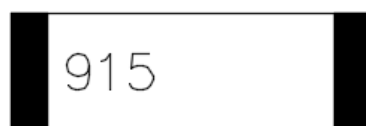


Side View

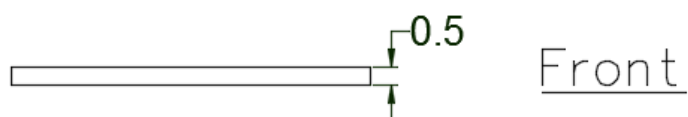
7. Antenna drawings



Feed Point

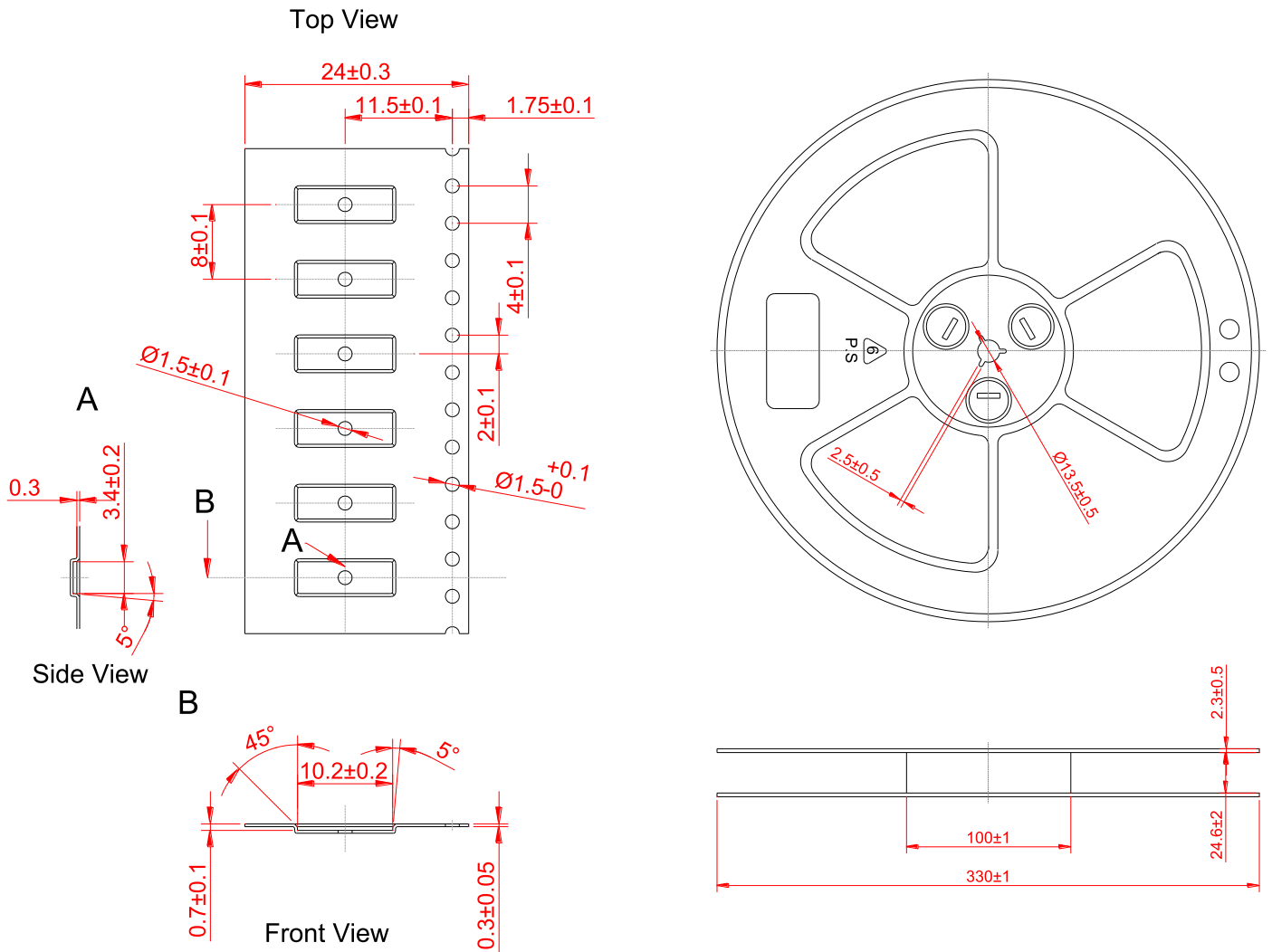


Top



Dimensions for ceramic antenna 10 x 3.2 x 0.5 mm

8. Tape and Reel Information



Tape and Reel Specifications

9. Packaging

PACKAGING SPECIFICATION

Antenna	2JL20
REEL	
Max Quantity per Reel	3000
REEL BOX	
Reels per Box	1
Max Quantity per Box	3000
Reel Box Dimensions (cm)	18 x 18 x 3.6
Reel Box Weight (Kg)	1.1
CARTON	
Reels per Carton	2
Max Quantity per Carton	30000
Reel Carton Dimensions (cm)	40.5 x 24.7 x 22.5
Reel Carton Weight (Kg)	11

Storage Conditions:

- Storage Temperature Range: -40 °C to +85 °C
- Oxidizable material. Store for 12 months in vacuum sealed bag.
- Repack material after use by re-sealing package.

10. Antenna Images

