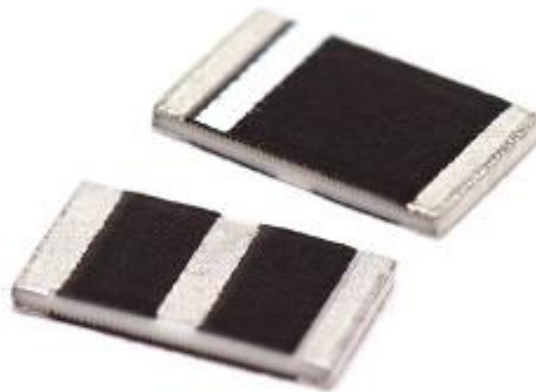


AMC-ANT-2JL10

868MHz ISM ceramic surface mount ceramic antenna

Features

- 868MHz ISM
 - 863 - 870MHz
- Surface mount
- Easy to integrate
- Compact size
- Ceramic material
- Ground plane dependent
- Dimensions: 5 x 3 x 0.5mm



1. Antenna and electrical specifications

Parameters	868MHz ISM antenna
Standards	ZigBee, ISM, Sigfox, LoRa
Band (MHz)	868
Frequency (MHz)	863 - 870
Return Loss (dB)	~-14.4
VSWR	~1.6:1
Efficiency (%)	~43.7
Peak Gain (dBi)	~1.0
Average Gain (dB)	~-3.7
Impedance (Ohms)	50
Polarisation	Linear
Radiation Pattern	Omni-directional
Max. Input Power (W)	10

Antenna measurement conditions:

Mounted on ground plane of 80 x 40mm

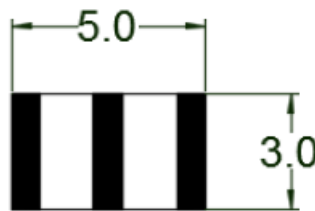
Measured in certified CTIA 3D anechoic chamber



2. Mechanical and environmental specifications

Mounting Type	Surface mount
Dimensions (mm)	5 x 3 x 0.5
Material	Ceramic
Operating Temperature (°C)	-40 to +85
Storage Temperature (°C)	-40 to +85
Substance Compliance	RoHS

Bottom



Top

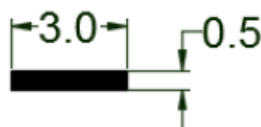


Feed Point

Front



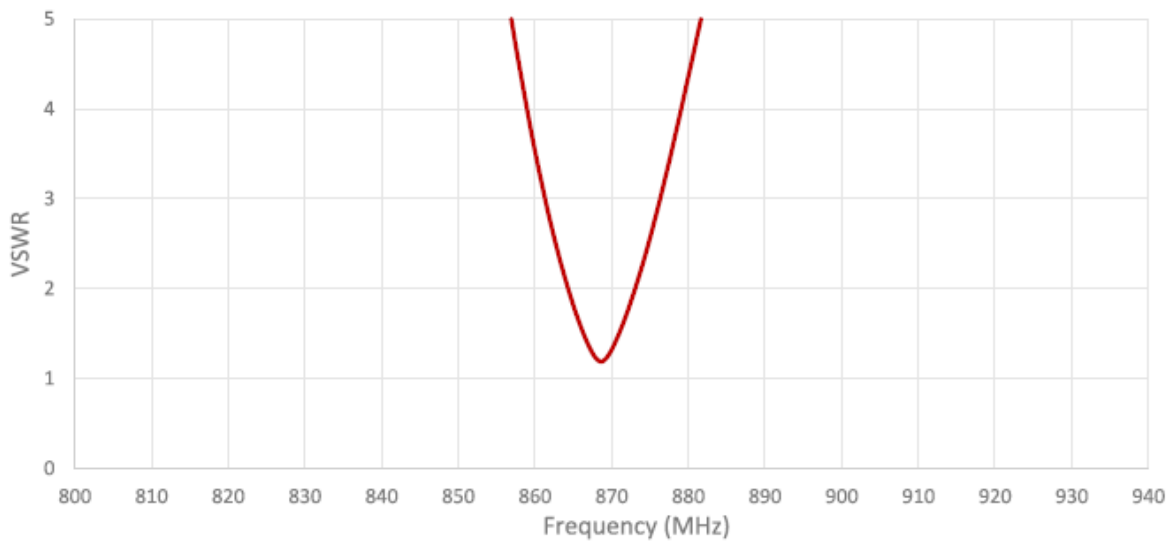
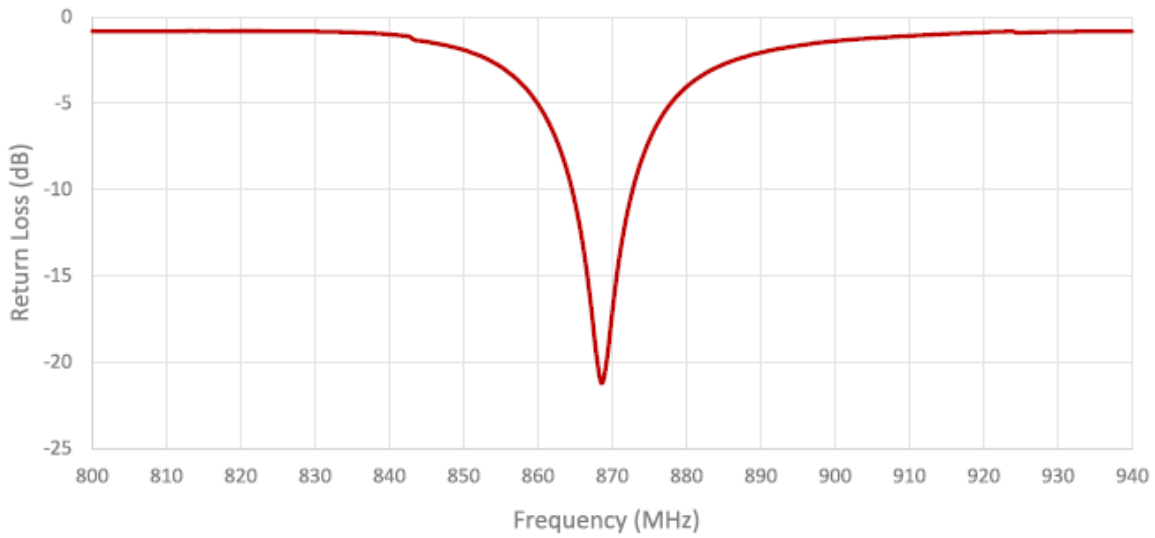
Right

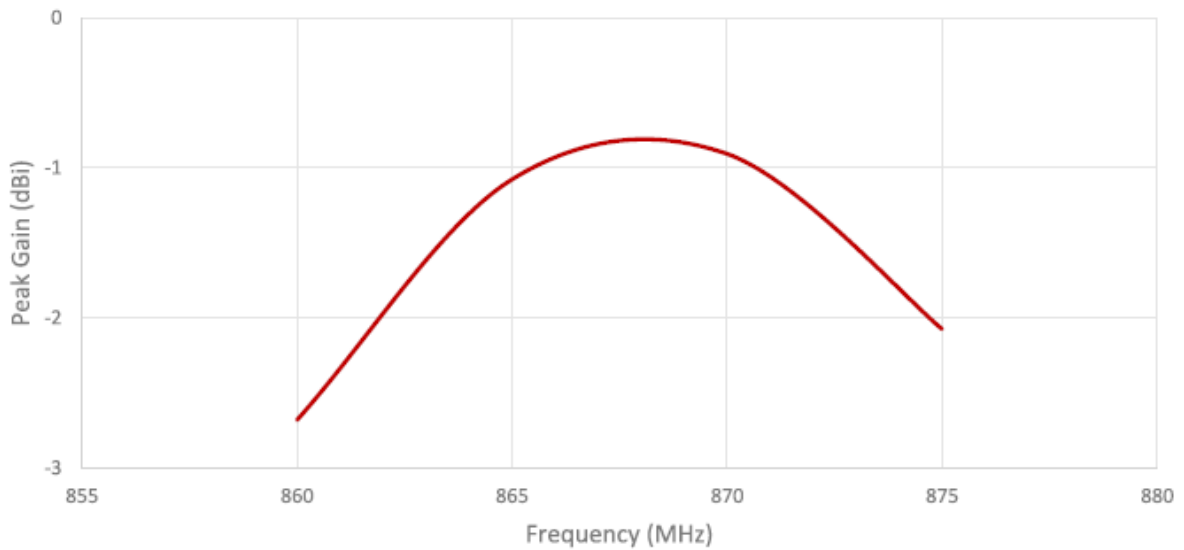
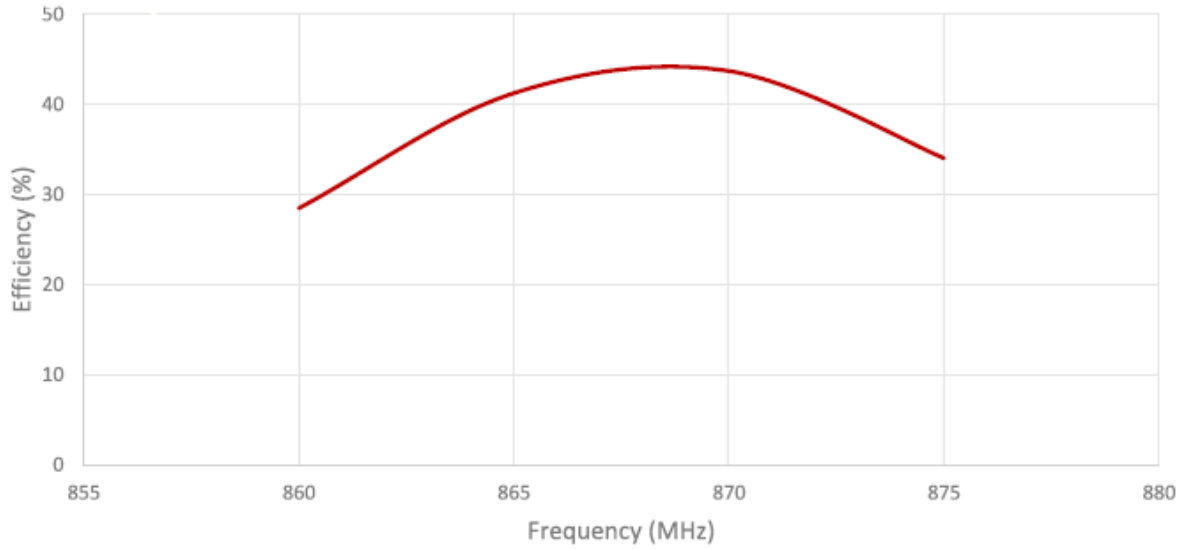


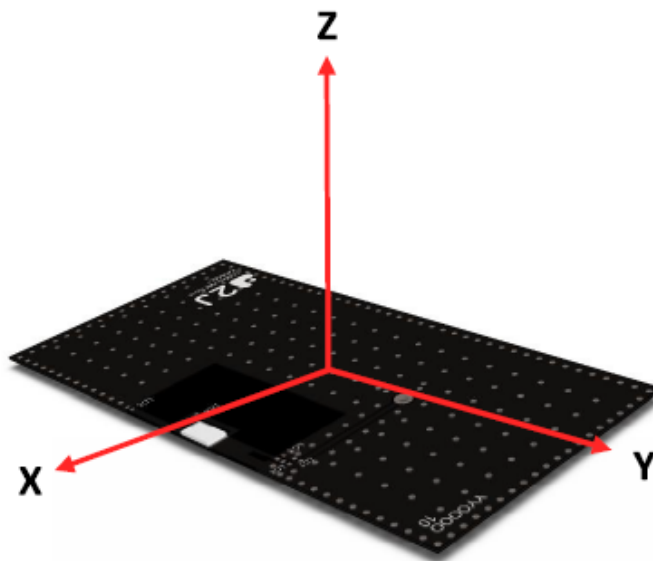
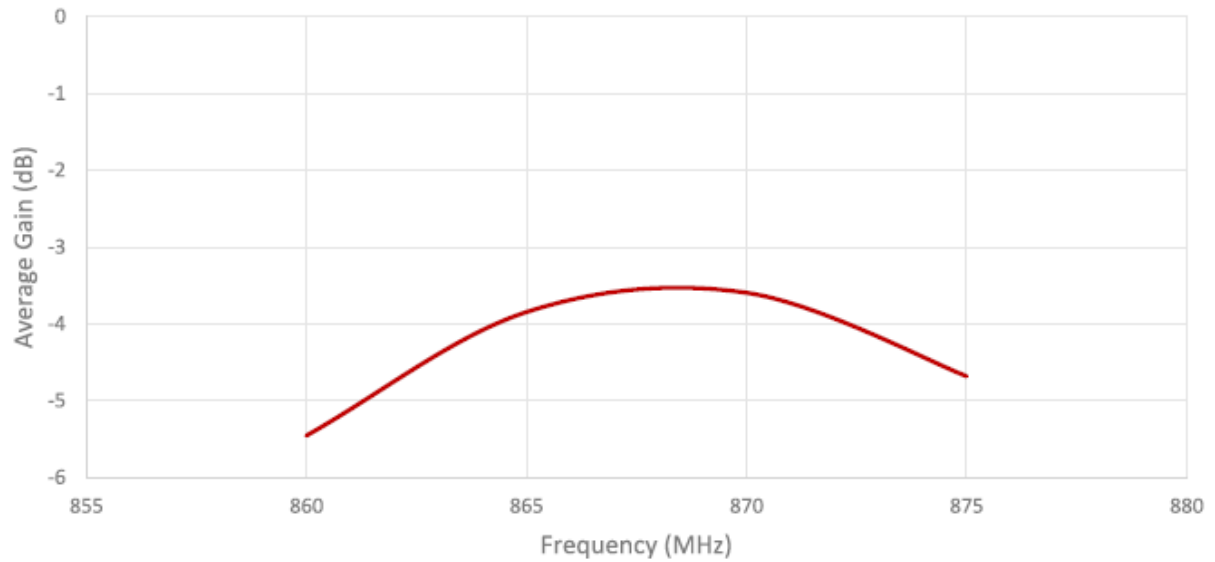
Dimensions for ceramic antenna 5 x 3 x 0.5 mm



3. Antenna parameters

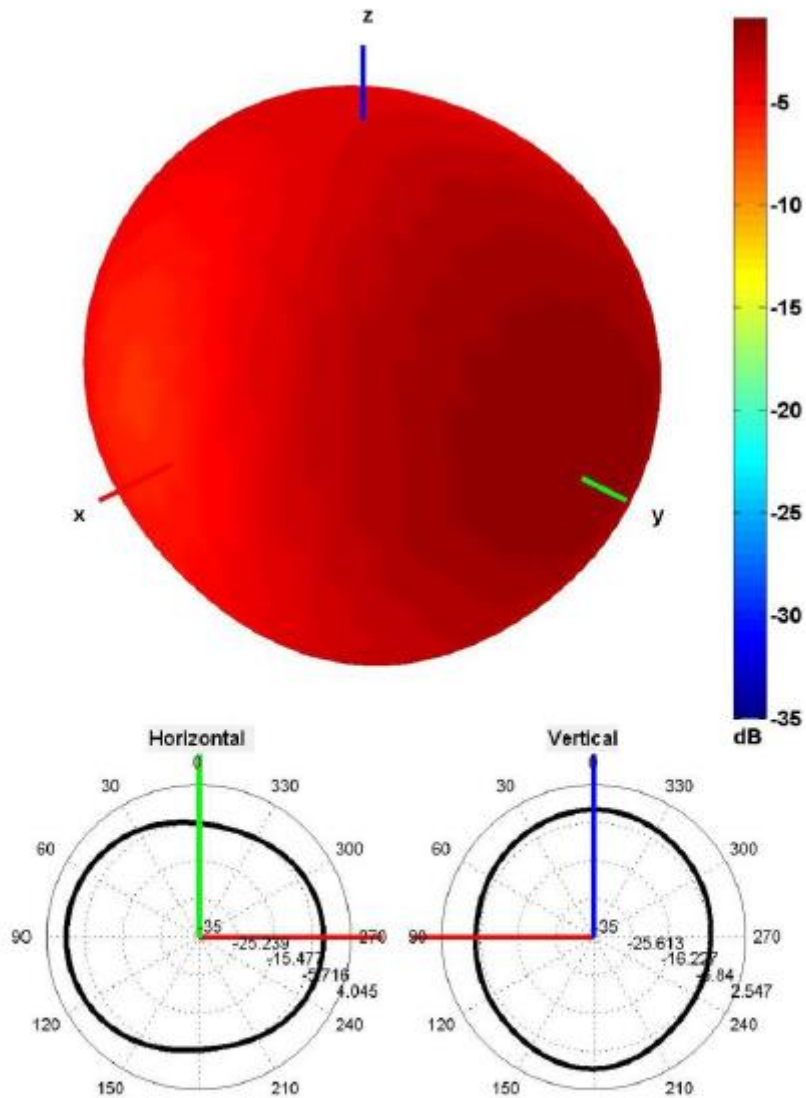






Radiation pattern reference

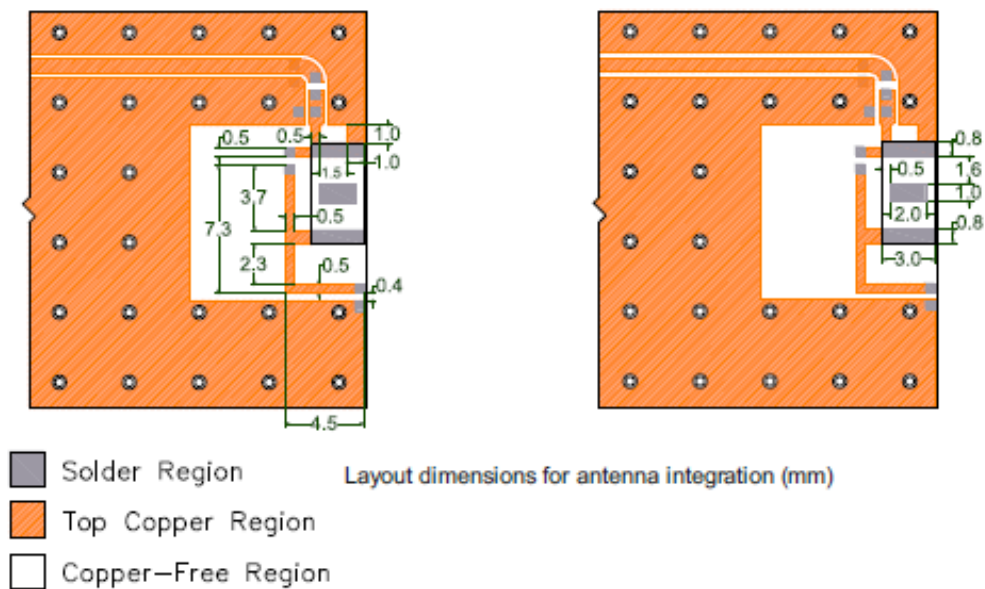
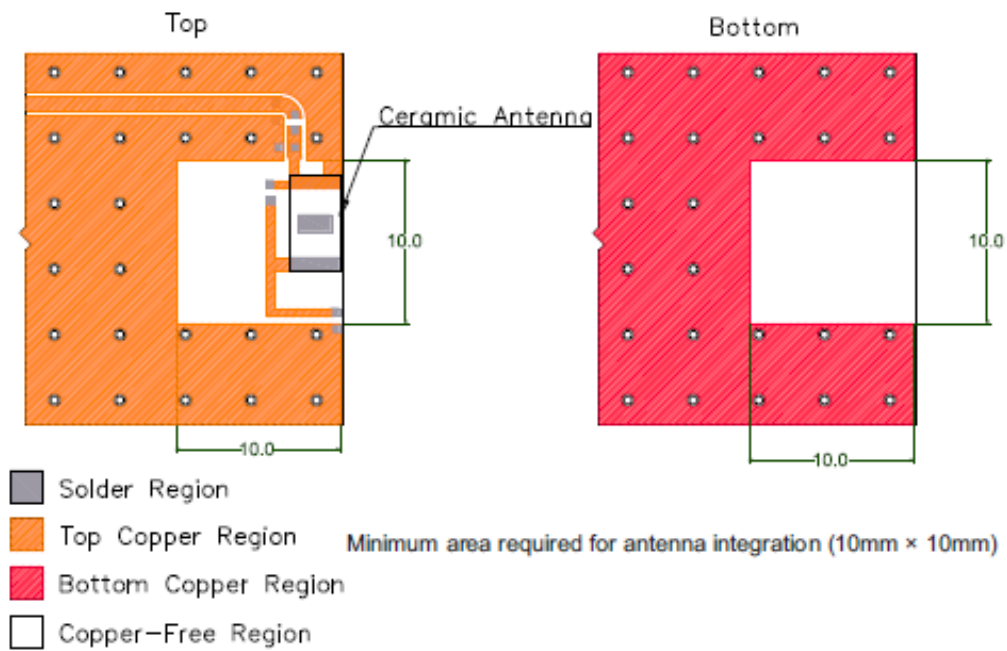




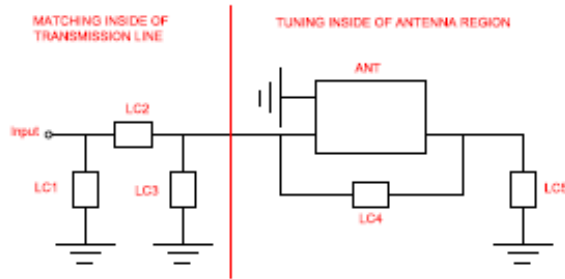
868 MHz Radiation pattern



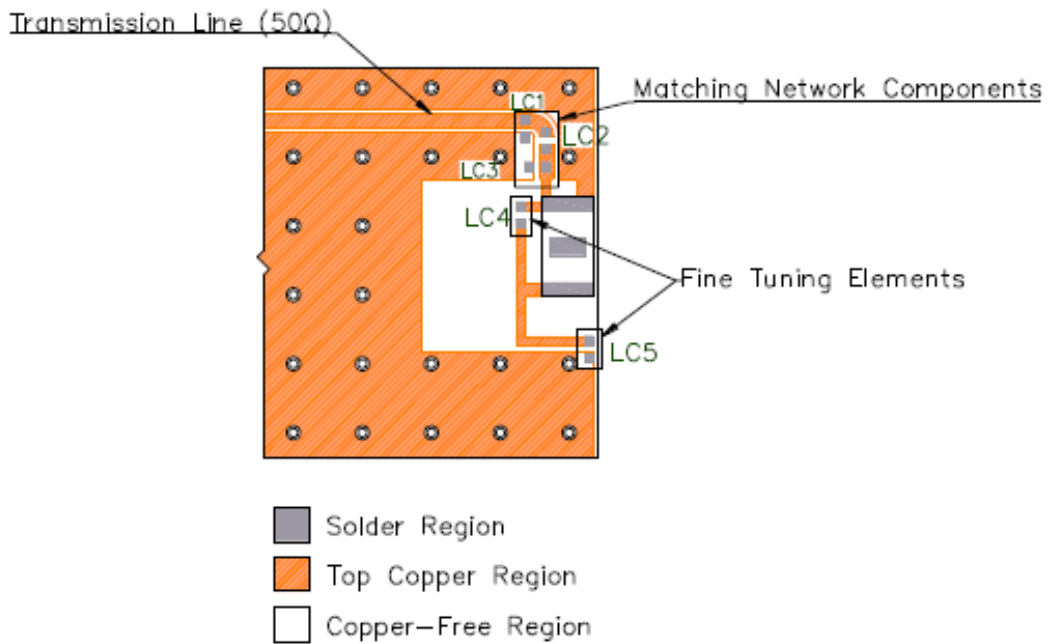
4. PCB layout



5. Matching components

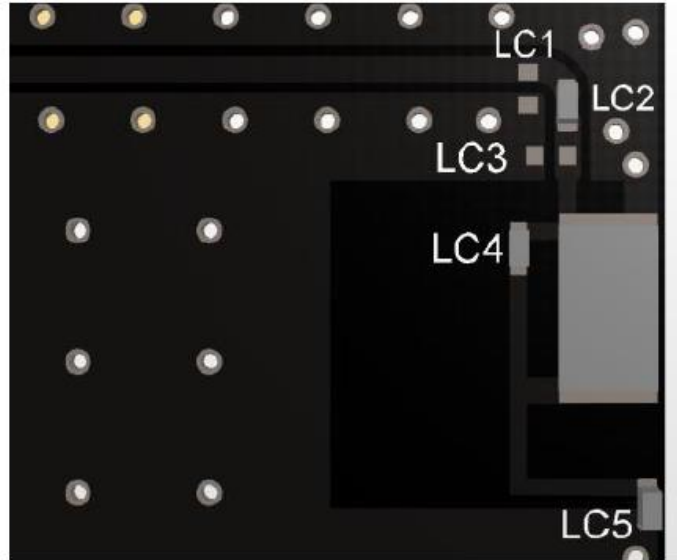


Matching Network Schematic



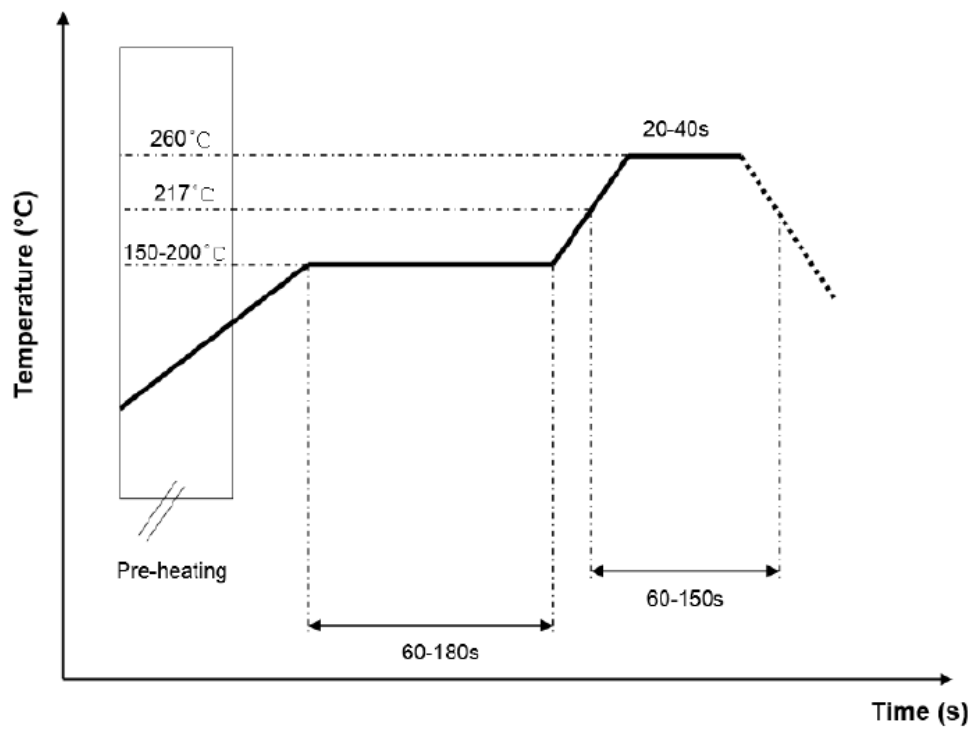
Matching network drawing (LC1=OPEN, LC2=0 Ohm, LC3=OPEN, LC4=2.7pF±0.05pF, LC5=3.6pF±0.05pF)



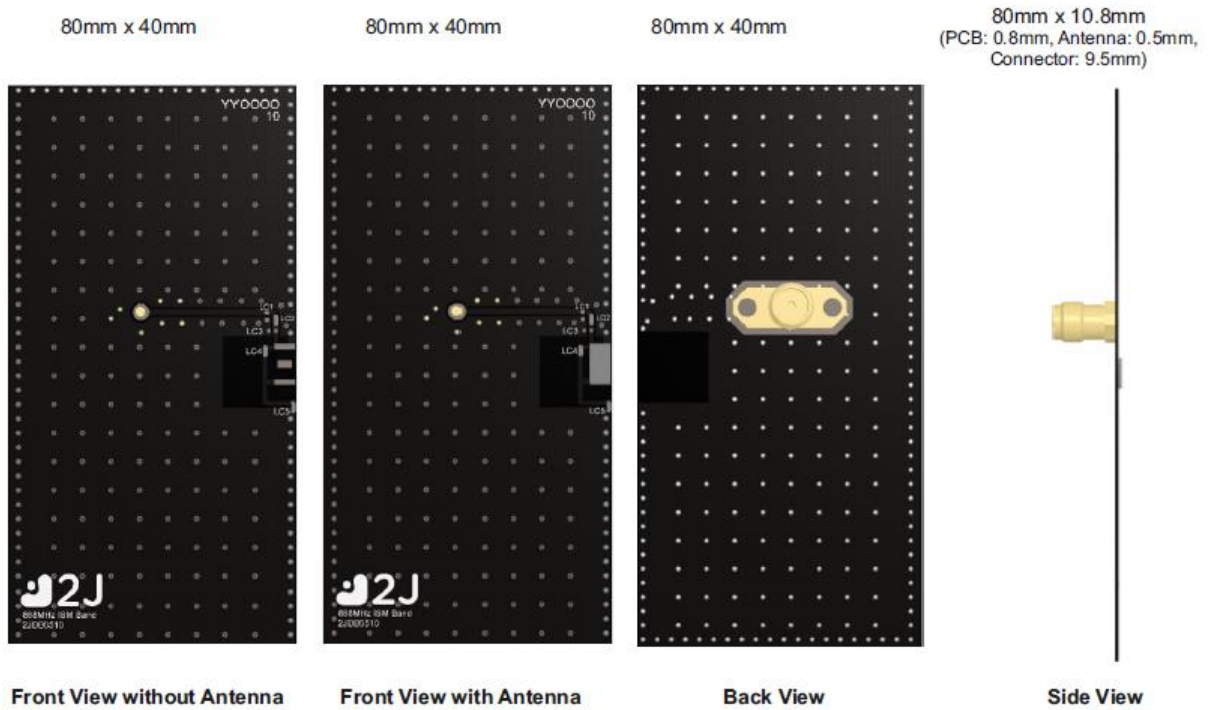


Matching network drawing (LC1=OPEN, LC2=0 Ohm, LC3=OPEN, LC4=2.7pF±0.05pF, LC5=3.6pF±0.05pF)

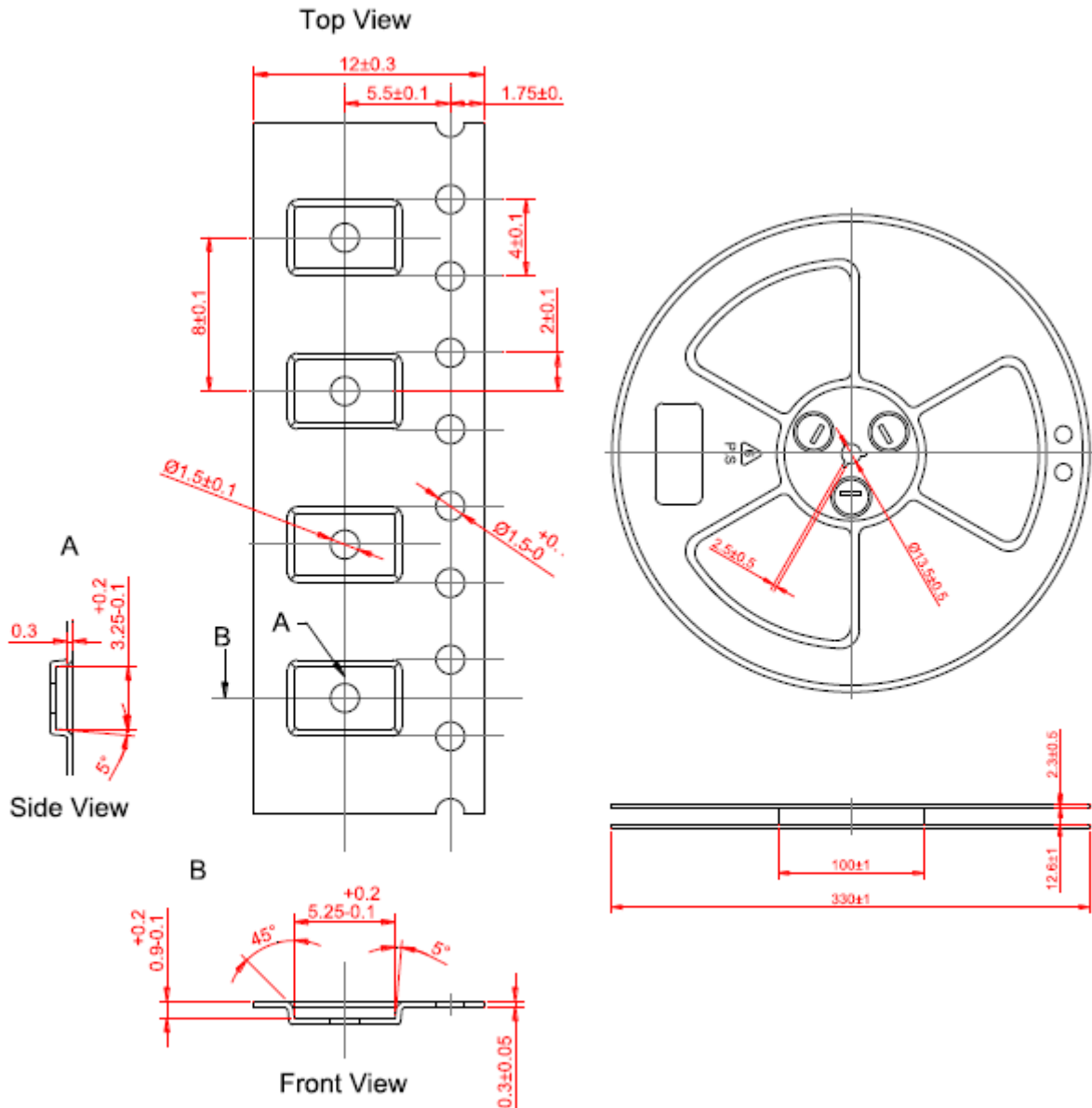
REFLOW TEMPERATURE PROFILE



6. Evaluation Board – AMC-ANT-2JDB0510



7. Tape and Reel Information



Tape and Reel Specifications



8. Packaging

PACKAGING SPECIFICATION

Antenna	2JL10
REEL	
Max Quantity per Reel	6000
REEL BOX	
Reels per Box	2
Max Quantity per Box	12000
Reel Box Dimensions (cm)	18 x 18 x 3.6
Reel Box Weight (Kg)	0.7
CARTON	
Reels per Carton	2
Max Quantity per Carton	120,000
Reel Carton Dimensions (cm)	40.5 x 24.7 x 22.5
Reel Carton Weight (Kg)	7

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.

