

2JL30_CU17570

2.4GHz ISM Surface Mount



FEATURES

- Surface Mount
- High Performance
- Ceramic Material
- Ground Plane Dependent
- 2.4GHz ISM (2410-2490 MHz)
- 3.2 x 1.6 x 0.5 mm

ANTENNA AND ELECTRICAL SPECIFICATIONS

Parameters	2.4 GHz ISM Antenna
Standards	WiFi, BT, ZigBee, ISM
Band (MHz)	2400
Frequency(MHz)	2410-2490
Return Loss (dB)	~-21.5
VSWR	~1.3:1
Efficiency (%)	~63.0
Peak Gain (dBi)	~1.1
Average Gain (dB)	~-2.0
Impedance (Ohm)	50
Polarization	Linear
Radiation Pattern	Omni-Directional
Max Input Power (W)	25

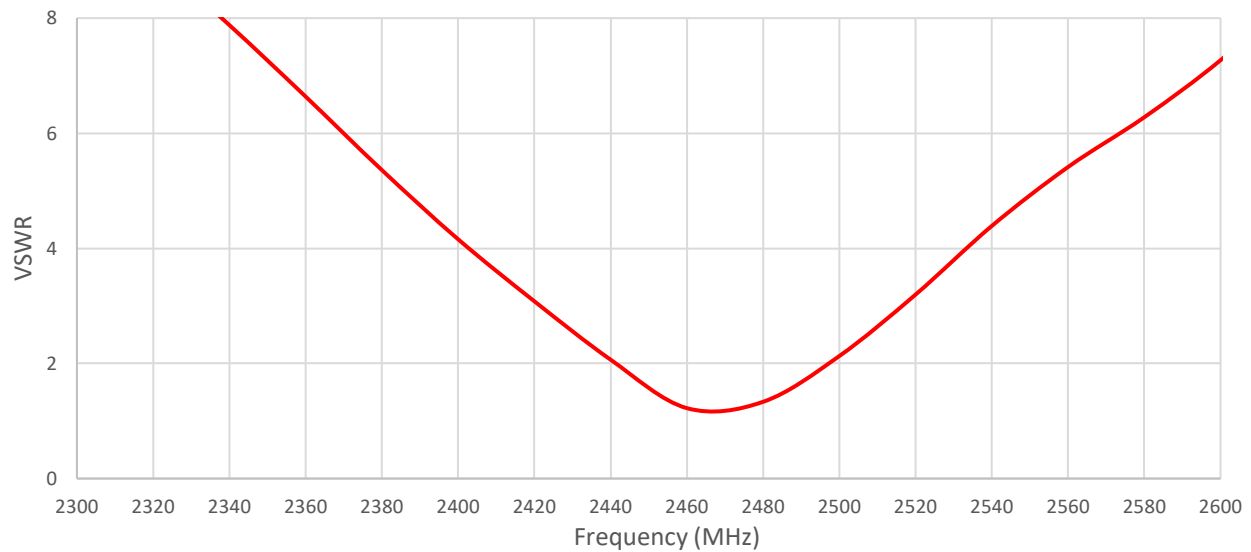
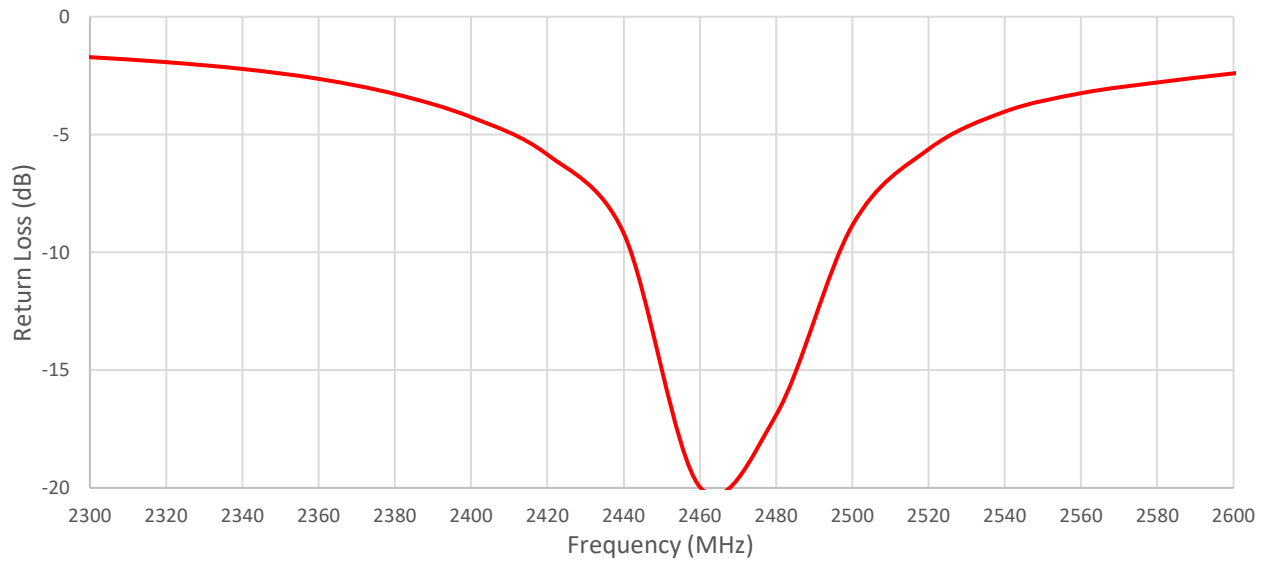
Antenna Measurement Conditions

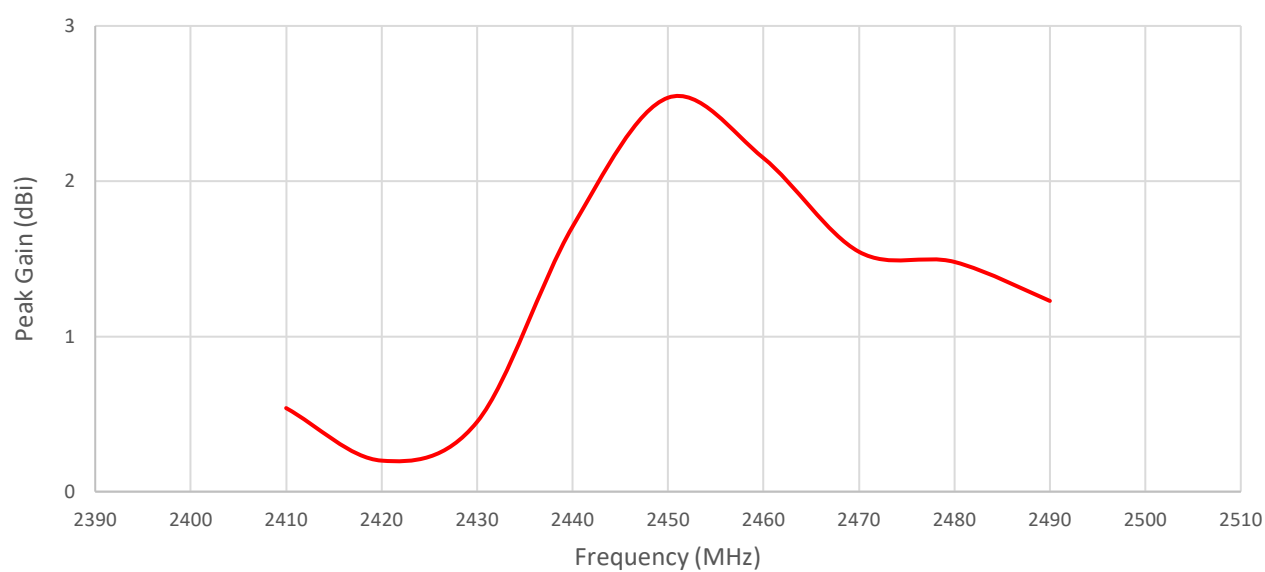
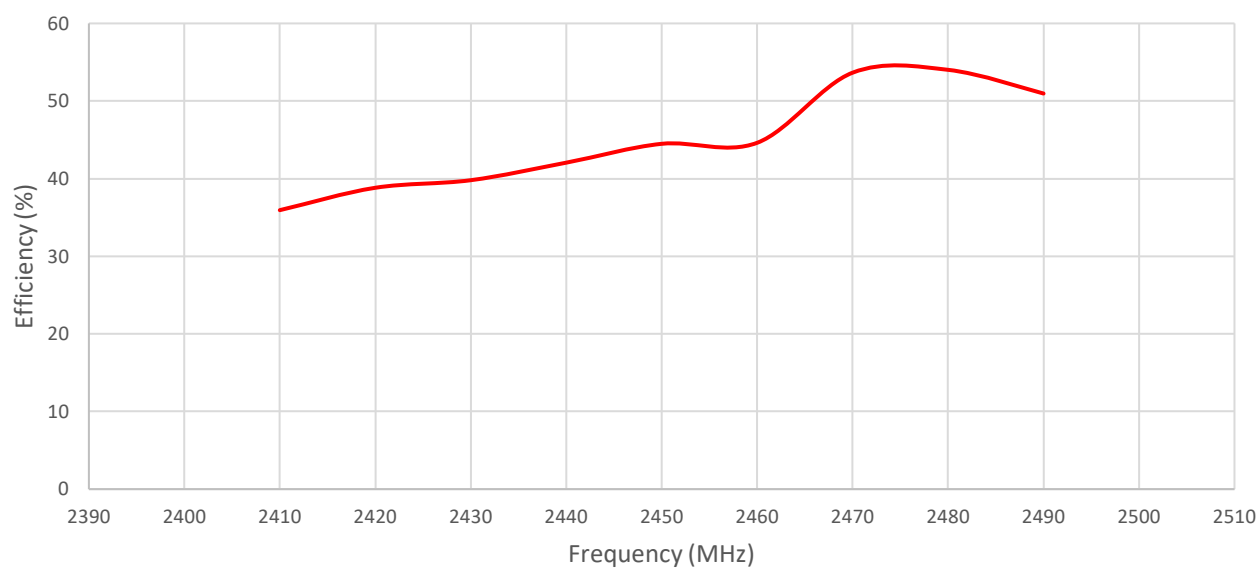
Mounted on Node Device from Somewear®
Measured in Certified CTIA 3D Anechoic Chamber

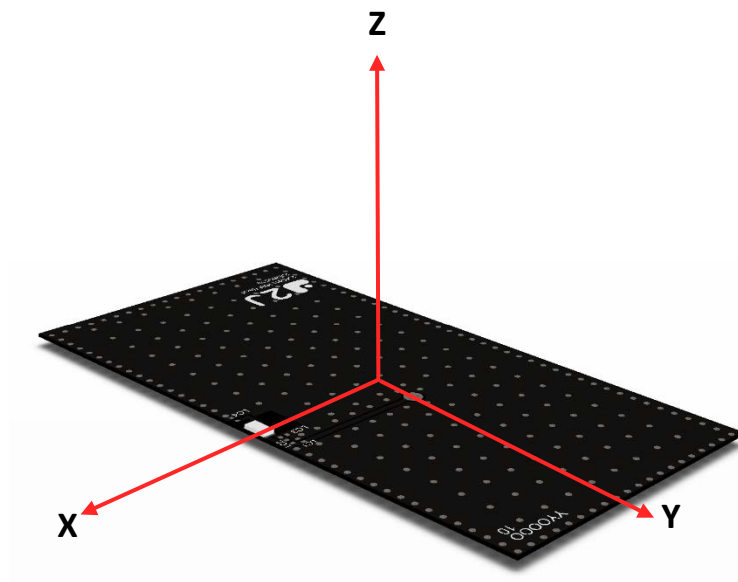
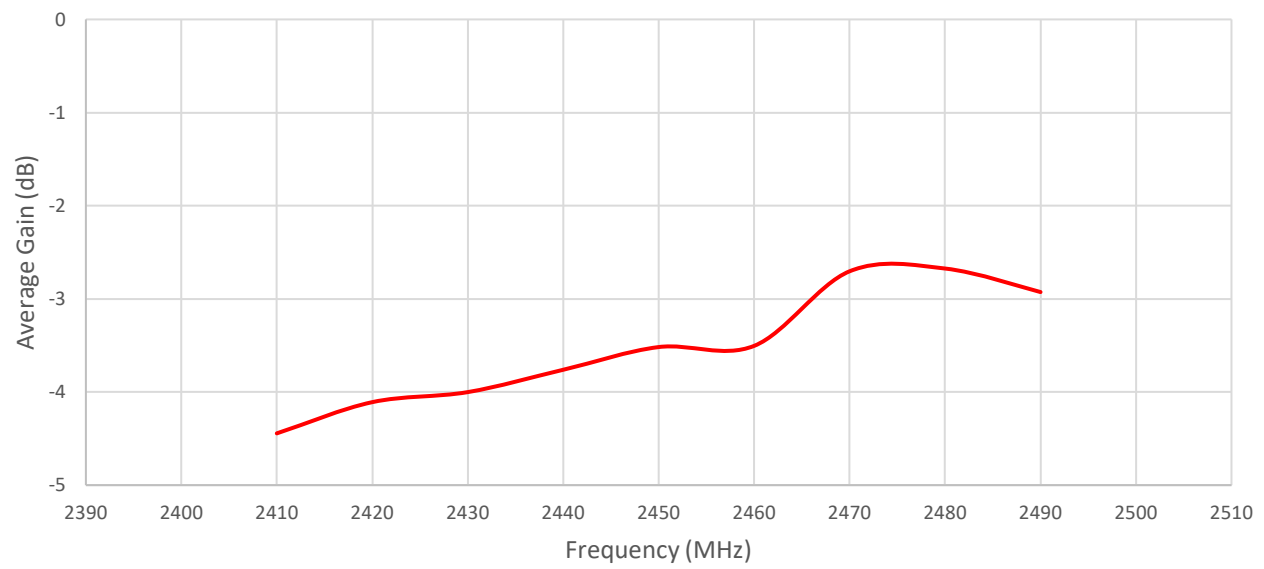
MECHANICAL AND ENVIRONMENTAL SPECIFICATIONS

Specifications	2JL30_CU17570
Mounting Type	Surface Mount
Dimensions (mm)	3.2 x 1.6 x 0.5
Material	Ceramic
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS

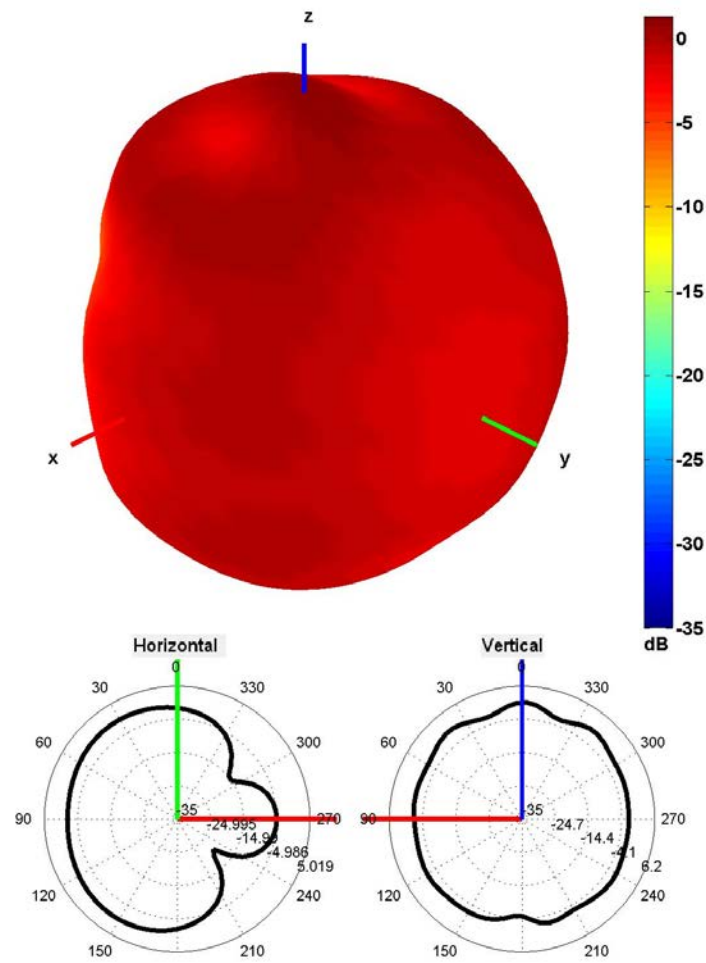
ANTENNA PARAMETERS





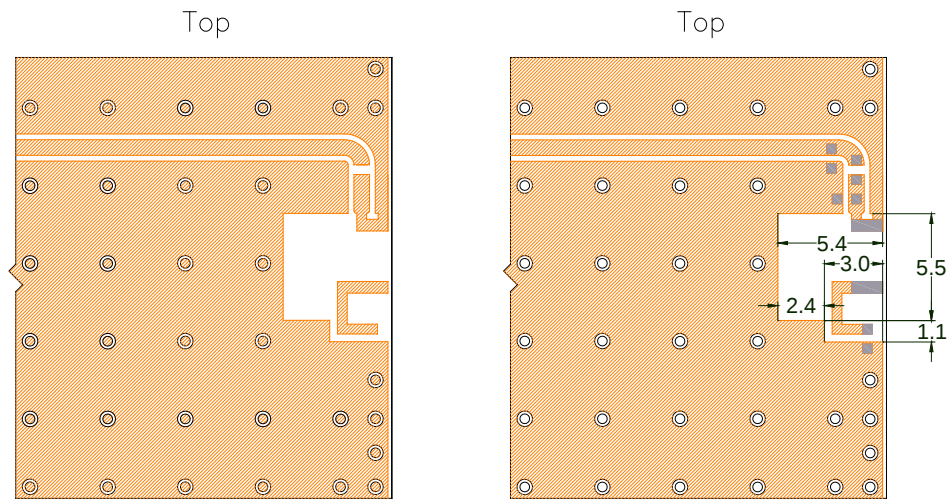


RADIATION PATTERN REFERENCE



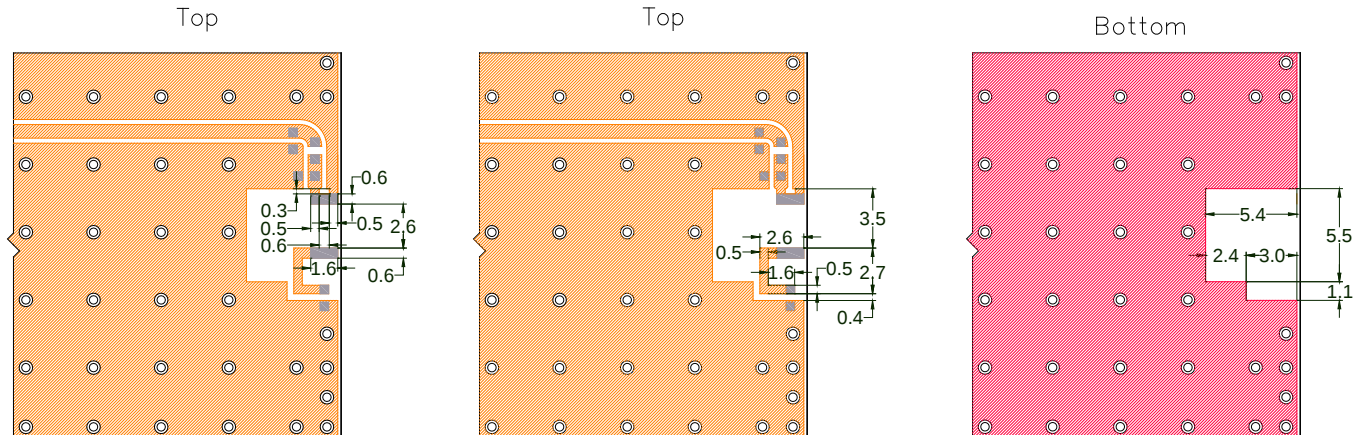
2450 MHz RADIATION PATTERN

PCB LAYOUT



-  Solder Region
-  Top Copper Region
-  Copper-Free Region

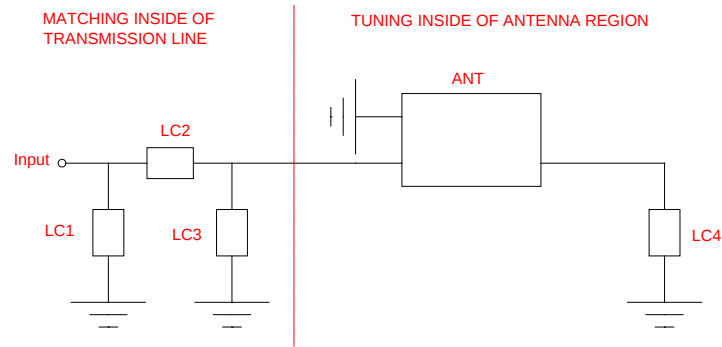
Minimum area required for antenna integration



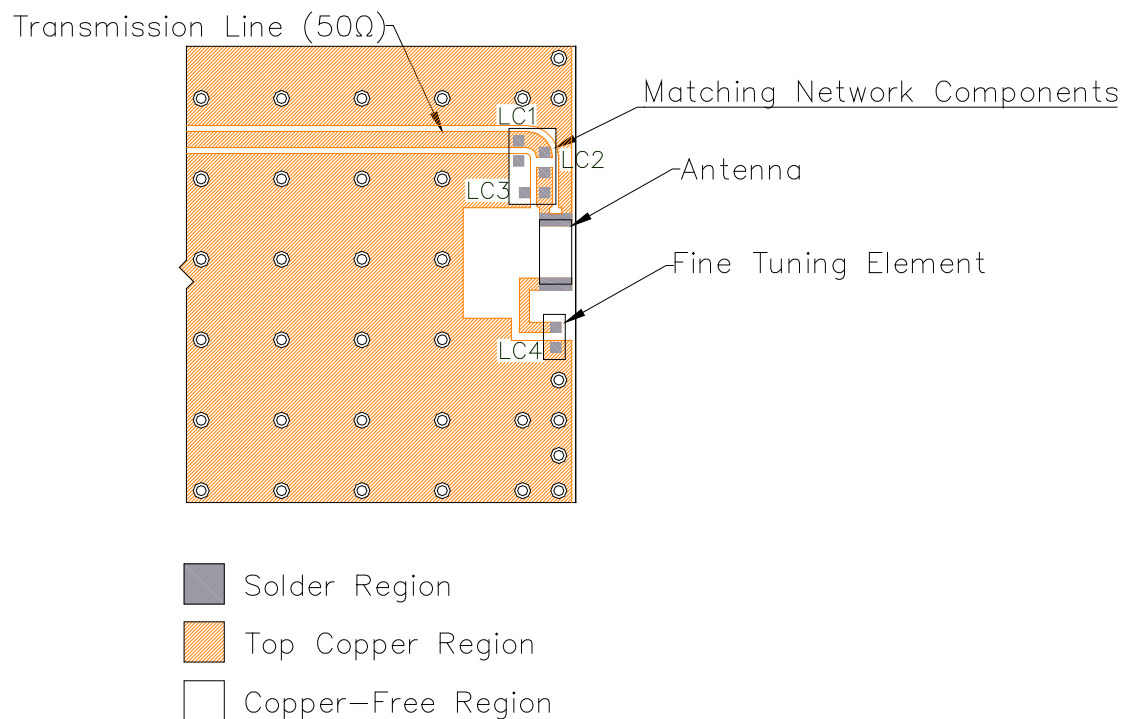
-  Solder Region
-  Top Copper Region
-  Bottom Copper Region
-  Copper-Free Region

Layout dimensions for antenna integration (mm)

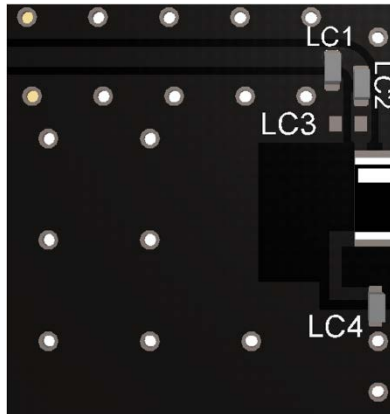
MATCHING COMPONENTS



Matching Network Schematic



Matching network drawing (LC1=0.2pF ±0.05pF, LC2=5.6nH ±0.1nH , LC3=OPEN, LC4=0.8pF ±0.05pF)

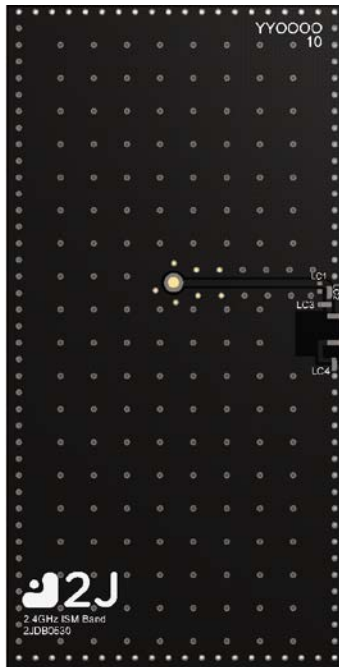


3D View of matching components and recommended values

(LC1=0.2pF $\pm$ 0.05pF, LC2=5.6nH $\pm$ 0.1nH , LC3=OPEN, LC4=0.8pF $\pm$ 0.05pF)

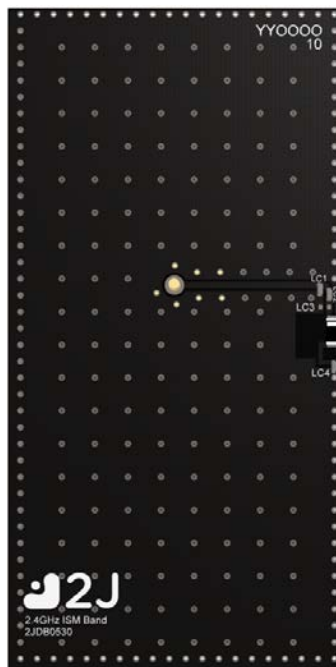
EVALUATION BOARD

80mm x 40mm



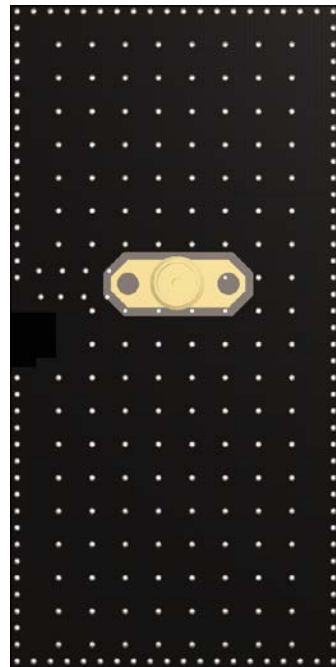
Front View without Antenna

80mm x 40mm



Front View with Antenna

80mm x 40mm



Back View

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

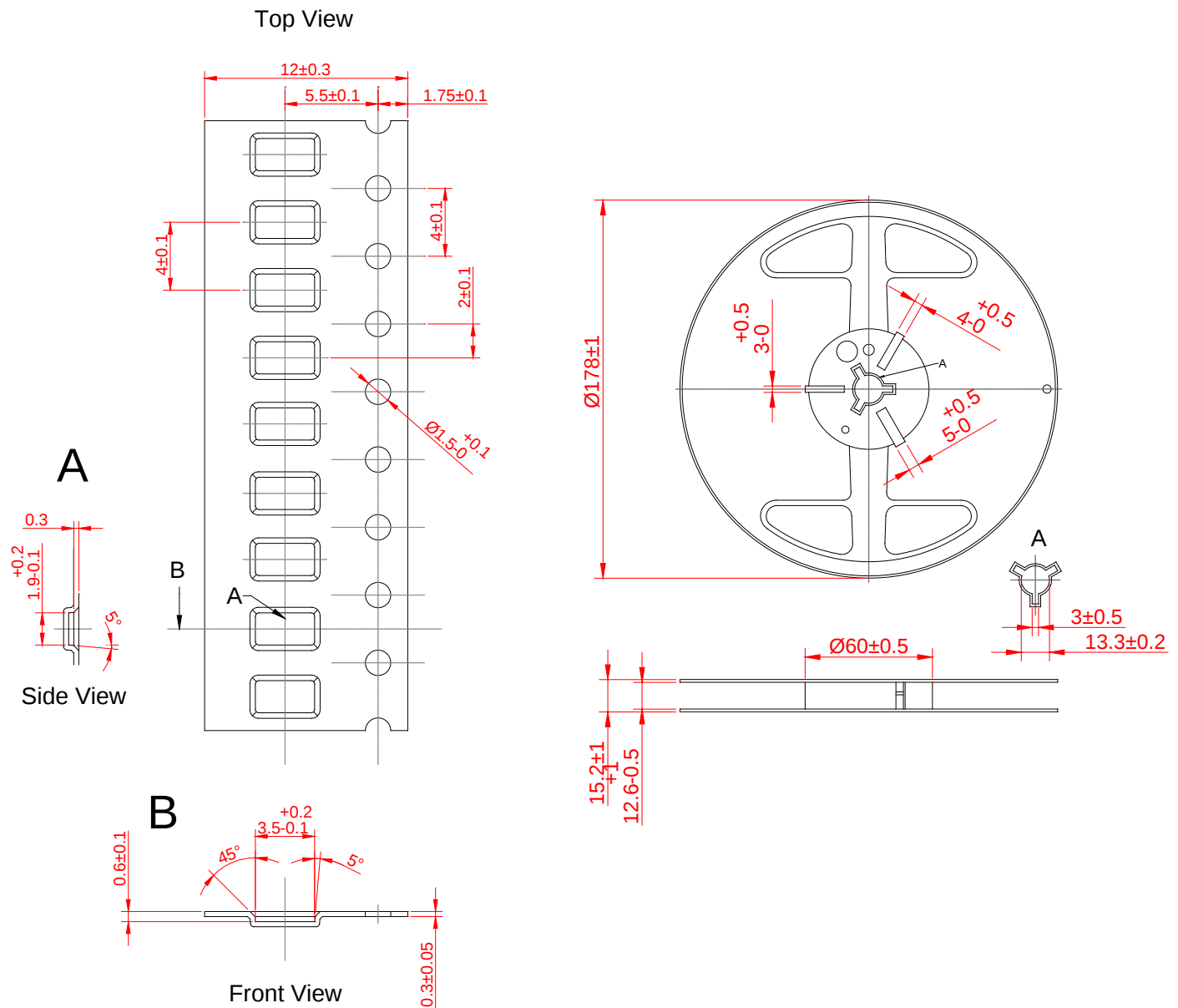


Side View

PACKAGING

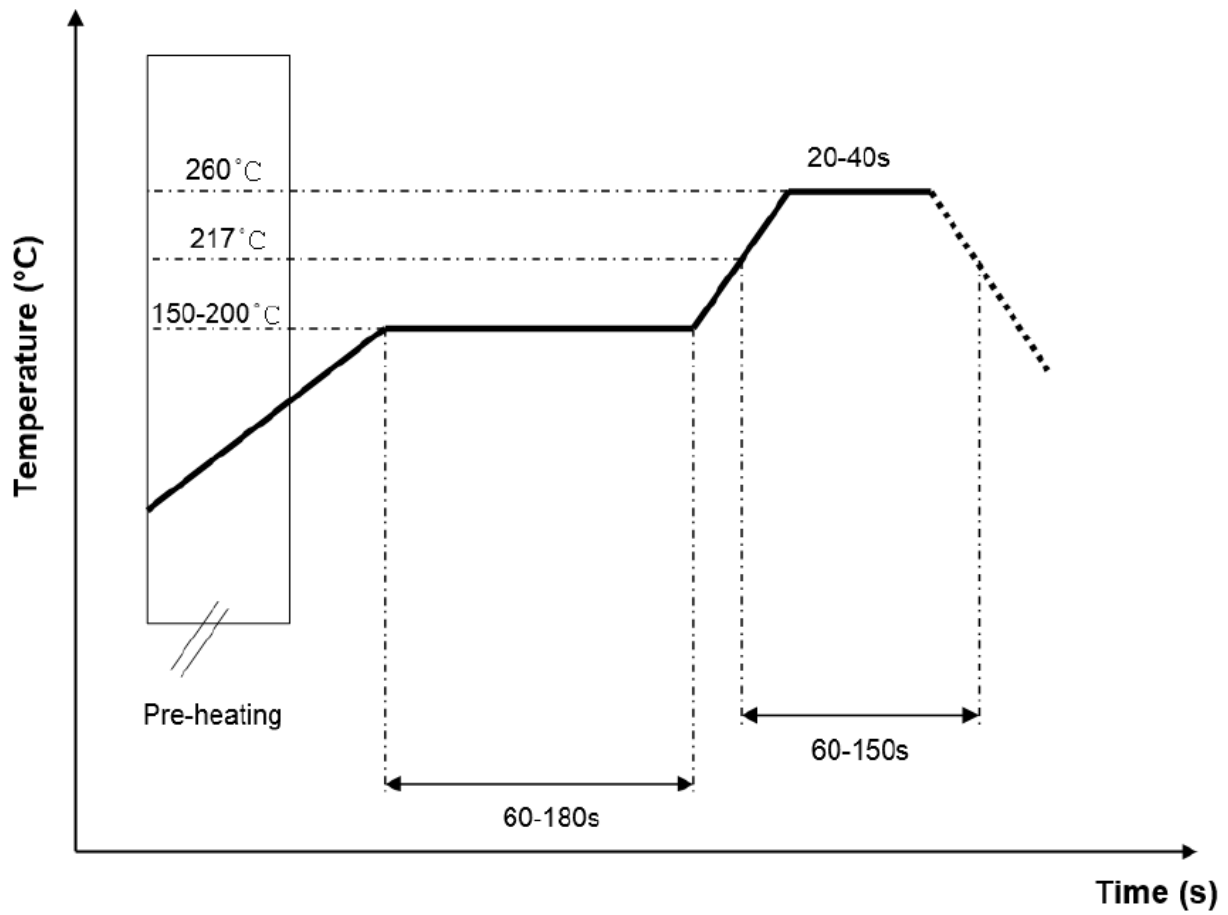
PACKAGING SPECIFICATION	
Antenna	2JL30
REEL	
Quantity per Reel	6,000
BOX	
Reels per Box	2
Max Quantity per Box	12,000
Box Dimensions (cm)	18 x 18 x 3.6
Box Weight (Kg)	0.7
INNER CARTON	
Boxes per Inner Carton	5
Max Quantity per Inner Carton	60,000
Inner Carton Dimensions (cm)	22.5 x 19.3 x 19.5
Inner Carton Weight (Kg)	3.5
CARTON	
Inner Cartons per Carton	2
Max Quantity per Carton	120,000
Carton Dimensions (cm)	40.5 x 24.7 x 22.5
Carton Weight (Kg)	7

TAPE AND REEL INFORMATION

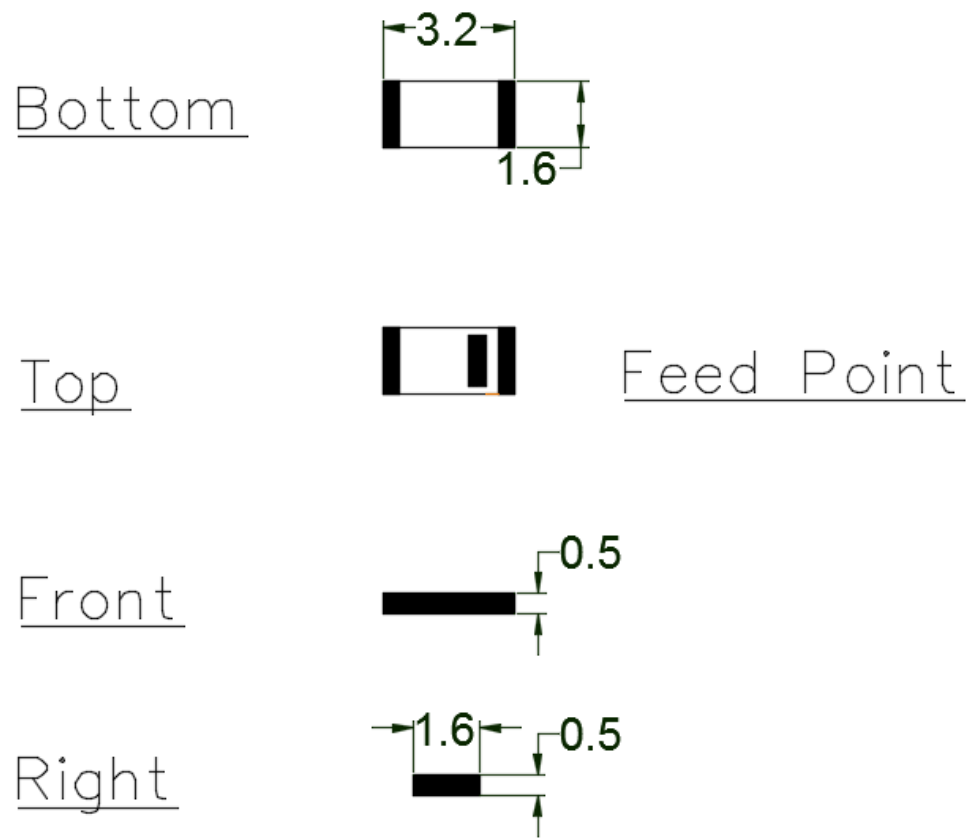


Tape and Reel Specifications

REFLOW TEMPERATURE PROFILE



ANTENNA DRAWINGS



Dimensions for ceramic antenna (3.2mm x 1.6mm x 0.5mm)

ANTENNA IMAGES

