

2JL67

GNSS/L1L2L5L6 Surface Mount

Key Features

GPS/GLONASS/BeiDou/QZSS/Galileo/
/IRNSS/SBAS/L1L2L5L6

- 1176-1606 MHz

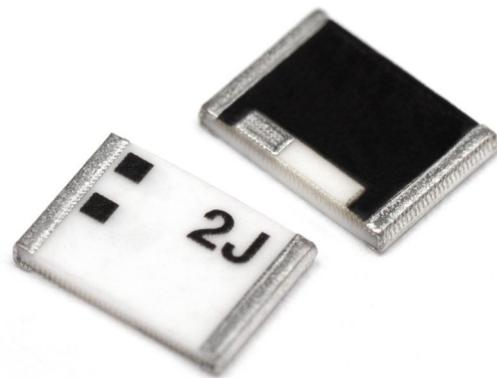
Surface Mount

High Performance

Ceramic Material

Ground Plane Dependent

Dimensions 5.2 × 3.7 × 0.7 mm



1. Antenna and electrical specifications

Parameters	GNSS Antenna			
	GPS/Glonass/BeiDou/QZSS/Galileo/IRNSS/SBAS/L1L2L5L6			
Technologies	GPS/Glonass/BeiDou/QZSS/Galileo/IRNSS/SBAS/L1L2L5L6			
Bandwidth (MHz)	1176-1208	1227-1246	1268-1279	1561-1606
Bands	L5	L2	L6	L1
Frequency (MHz)	1176.45, 1207.14	1227.6, 1246.00	1268.52, 1278.75	1561.09, 1575.42, 1602
Standards	GPS(L5), BeiDou(B2a, B2b), QZSS(L5), Galileo(E5a), IRNSS(L5)	GPS(L2C), GLONASS(L2OF), QZSS(L2C)	GPS(L6), BeiDou(B3), QZSS(L6), Galileo(E6)	GPS(L1C), GLONASS(L1OF), BeiDou(B1), QZSS(L1C), Galileo(E1), SBAS (L1)
Return Loss (dB)	~-11.4	~-7.4	~-4.4	~-18.9
VSWR	~2.0:1	~2.5:1	~4.1:1	~1.3:1
Efficiency (%)	~70.6	~72.6	~65.0	~78.9
Passive Peak Gain (dBi)	~-2.9	~-3.7	~-2.5	~-2.5
Average Gain (dB)	~-1.5	~-1.4	~-2.0	~-1.0
Impedance (Ohms)	50			
Radiation Pattern	Hemispherical			
Polarization	Linear			

Antenna Measurement Conditions:

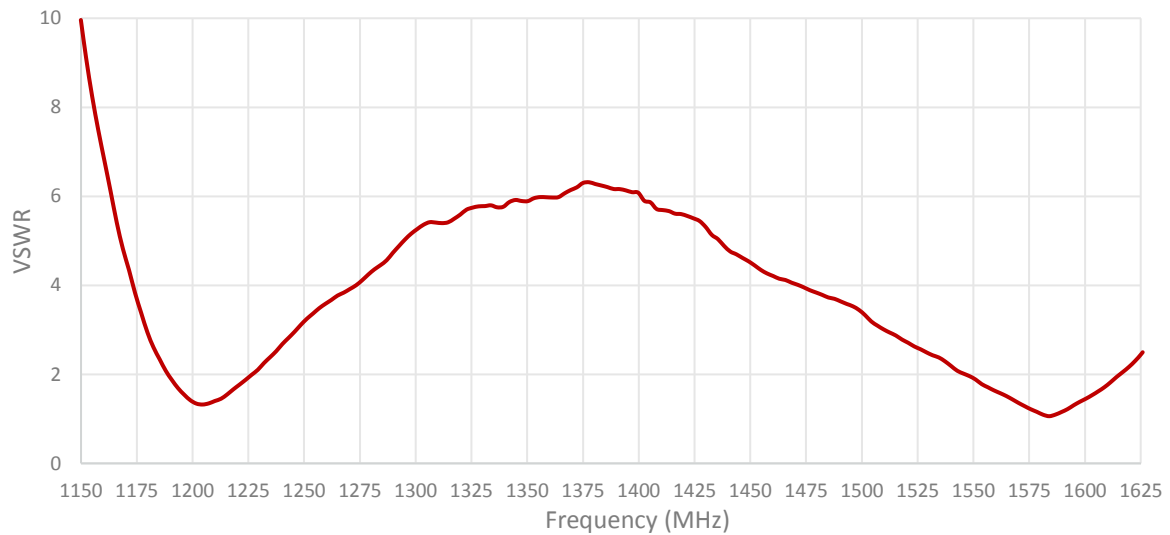
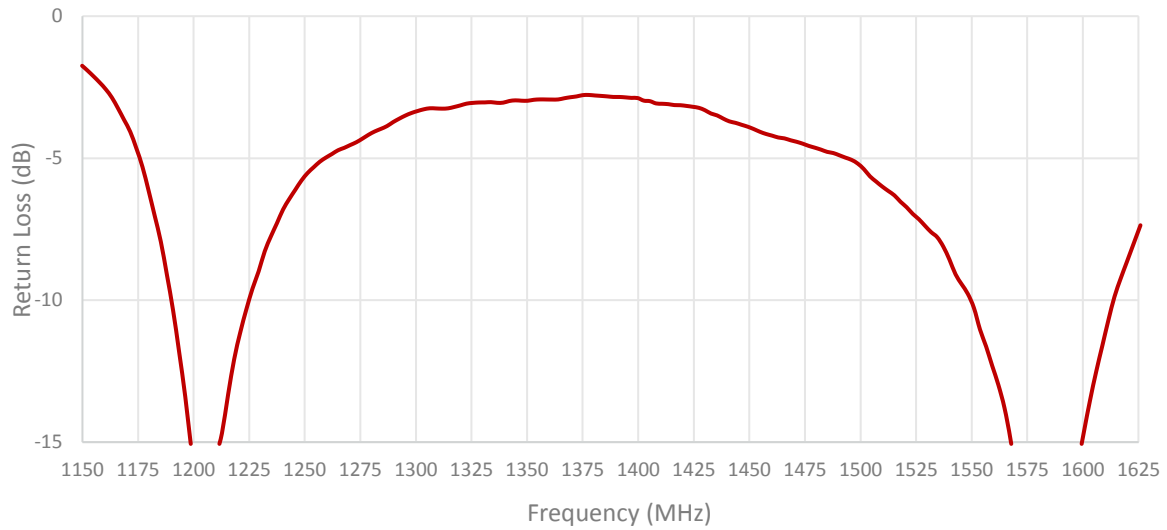
Mounted on ground plane of 80 x 40 mm

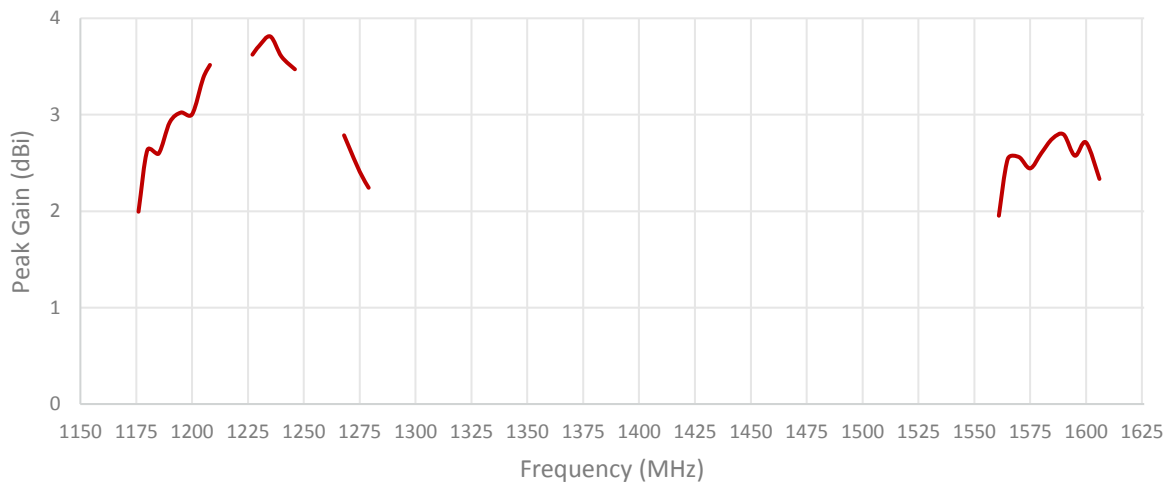
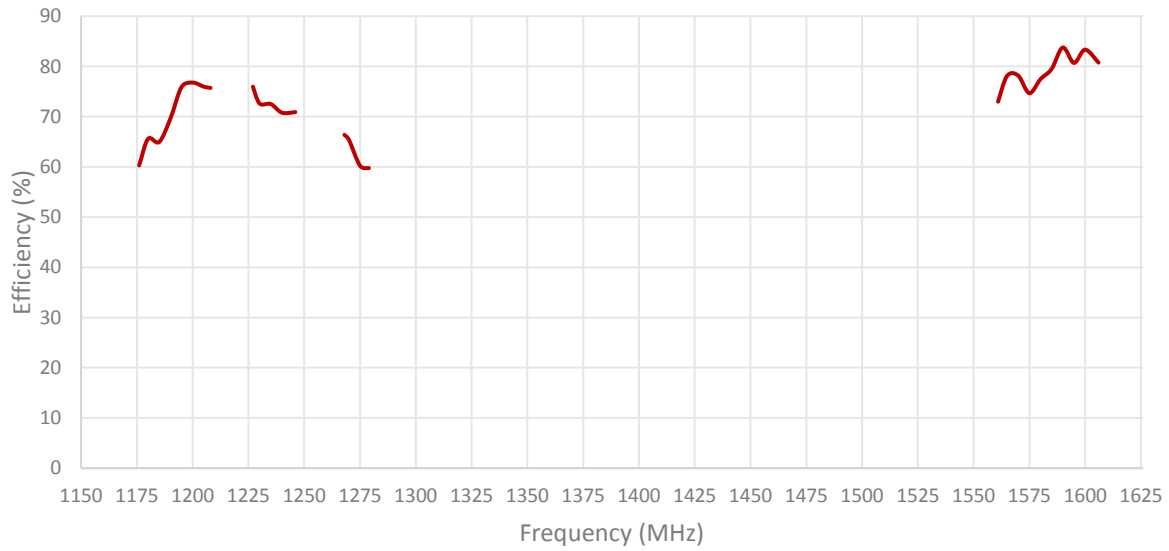
Measured in Certified CTIA 3D Anechoic Chamber

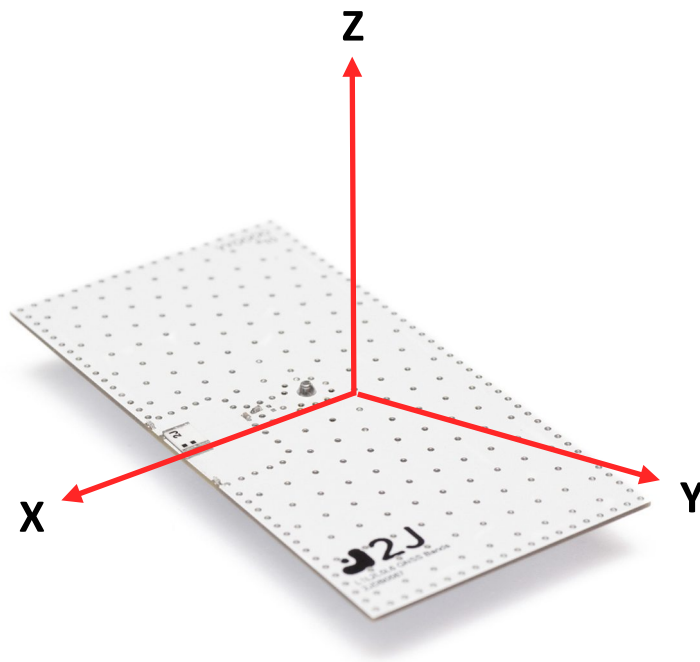
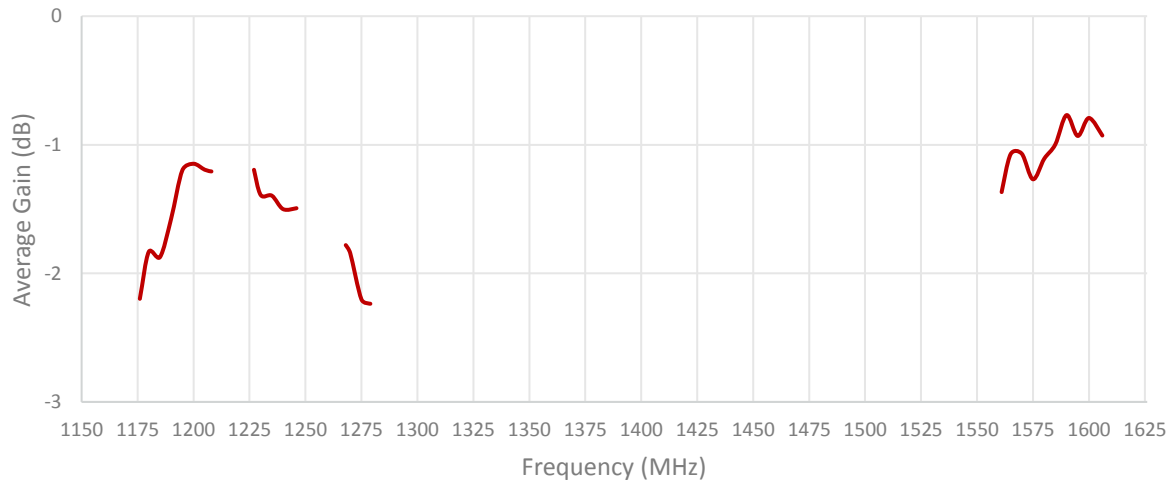
2. Mechanical and environmental specifications

Specifications	2JL67
Mounting Type	Surface Mount
Dimensions (mm)	5.2 × 3.7 × 0.7
Material	Ceramic
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS

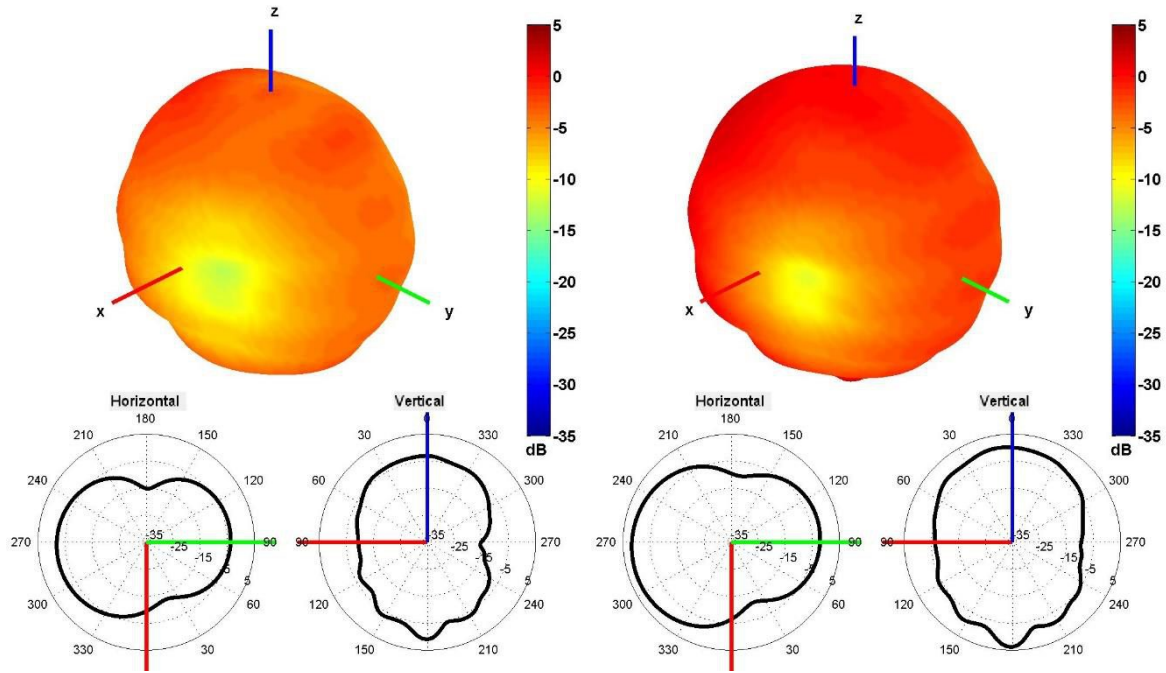
3. Antenna parameters



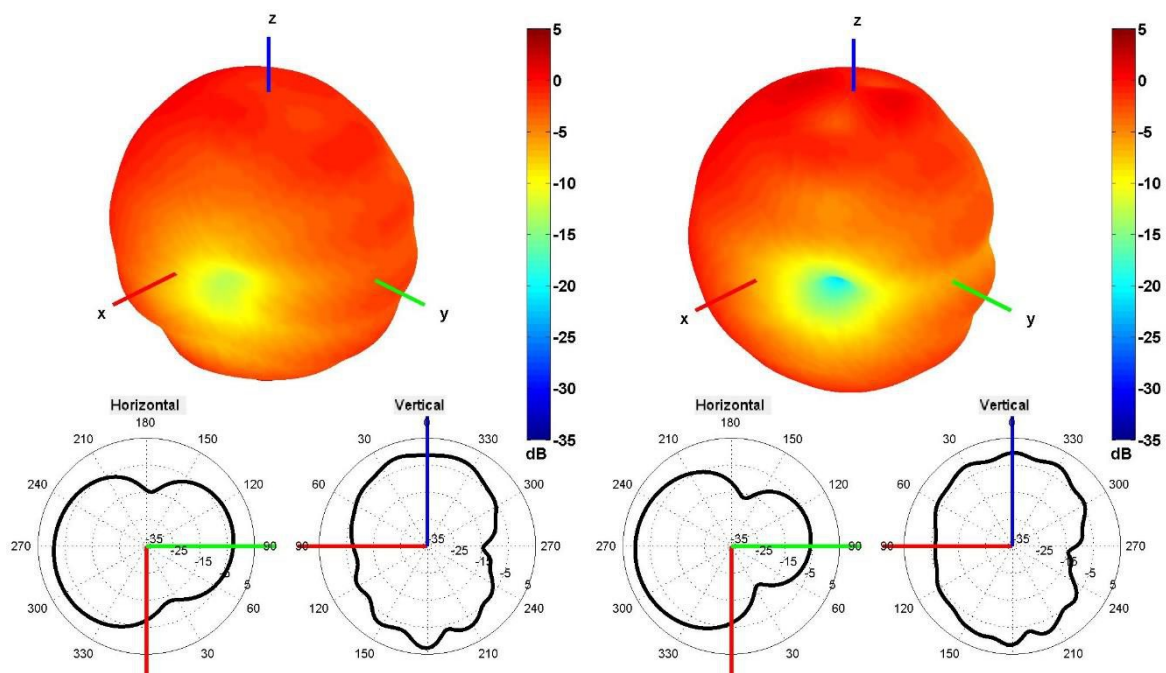




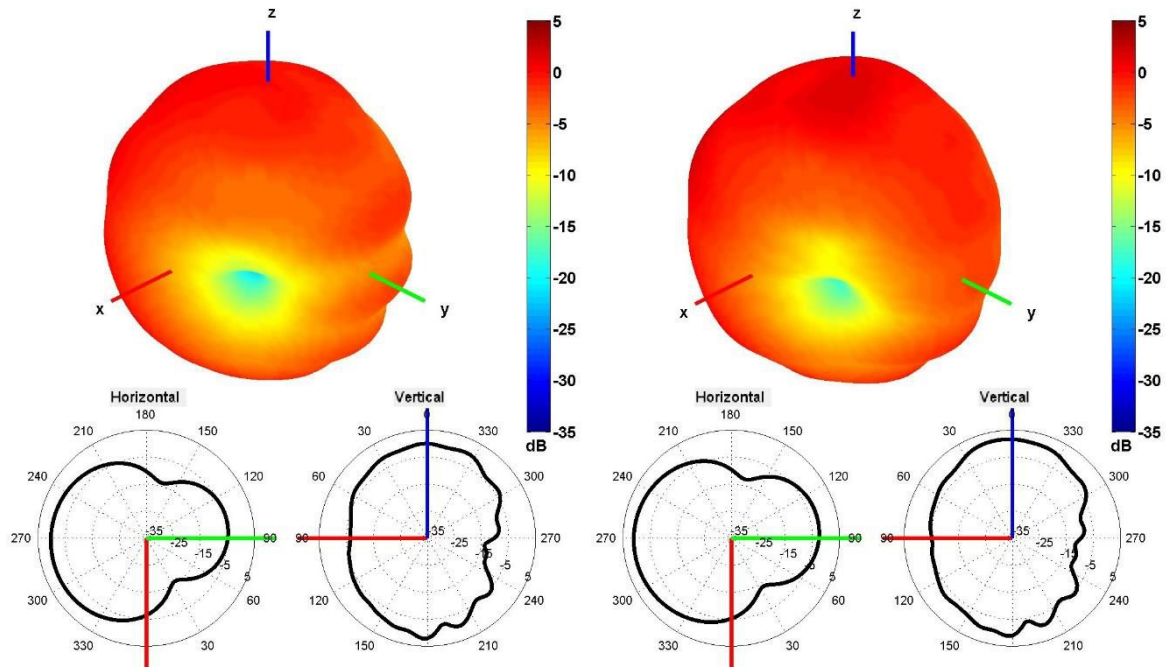
Radiation pattern reference



1176 AND 1227 MHz Radiation pattern

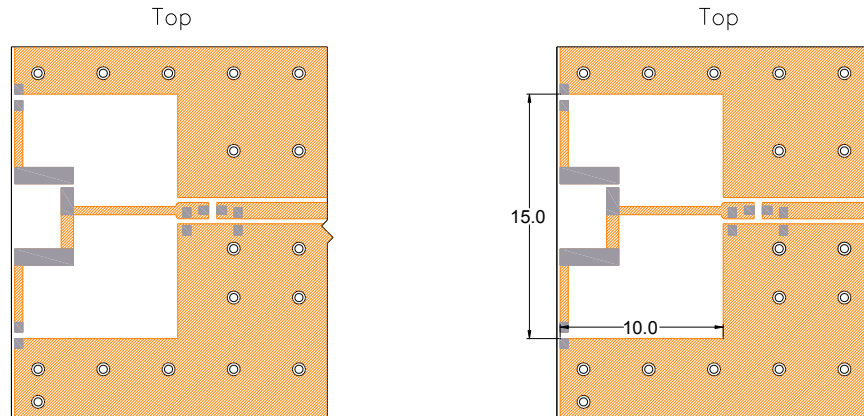


1268 AND 1561 MHz Radiation pattern



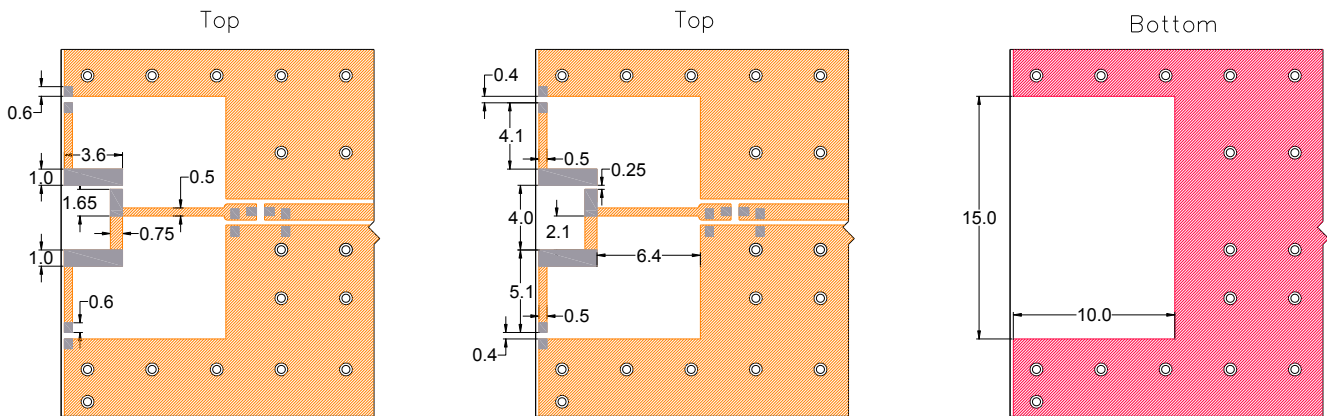
1575 AND 1602 MHz Radiation pattern

4. PCB Layout



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

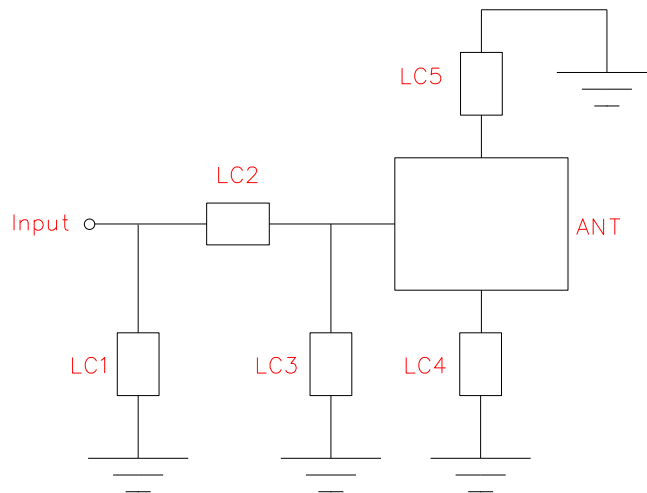
Minimum area required for antenna integration



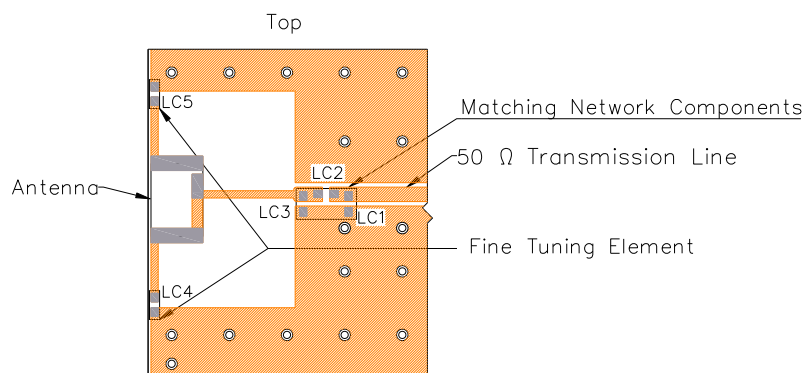
- Solder Region
- Top Copper Region
- Bottom Copper Region
- Copper-Free Region




Layout dimensions for antenna integration (mm)

5. Matching Components

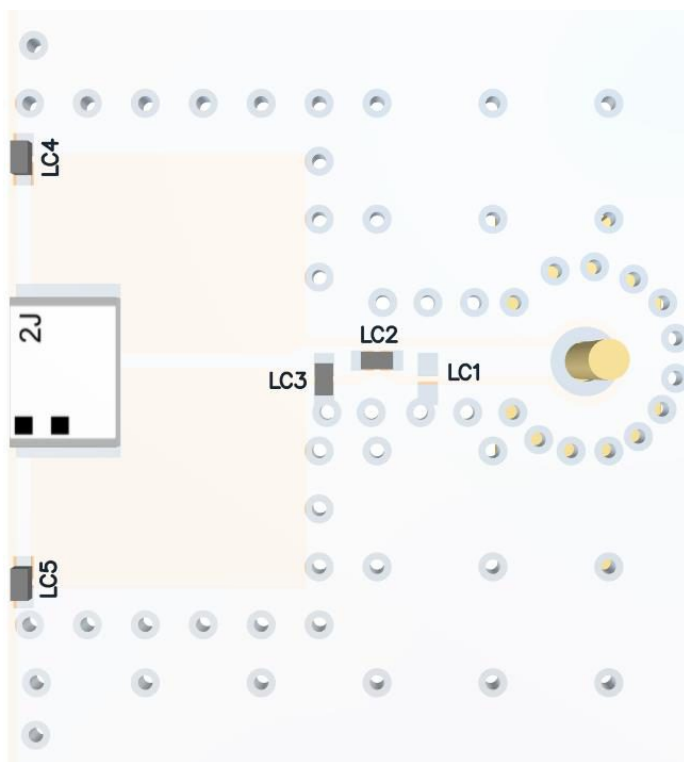


Matching Network Schematic



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

Matching network drawing (LC1=OPEN, LC2=1.2pF±0.05pF, LC3=0.9pF ±0.05pF, LC4=0.7pF ±0.05pF, LC5=1.4pF ±0.05pF)

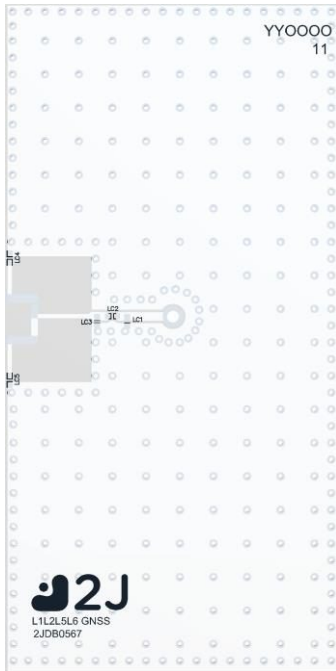


3D View of matching components and recommended values

(LC1=OPEN, LC2=1.2pF \pm 0.05pF, LC3=0.9pF \pm 0.05pF, LC4=0.6pF \pm 0.05pF, LC5=1.4pF \pm 0.05pF)

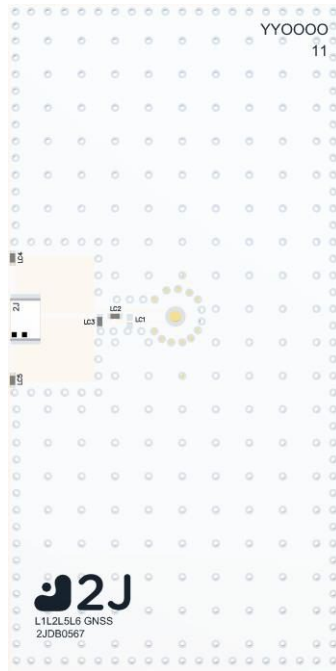
6. Evaluation Board

80mm x 40mm



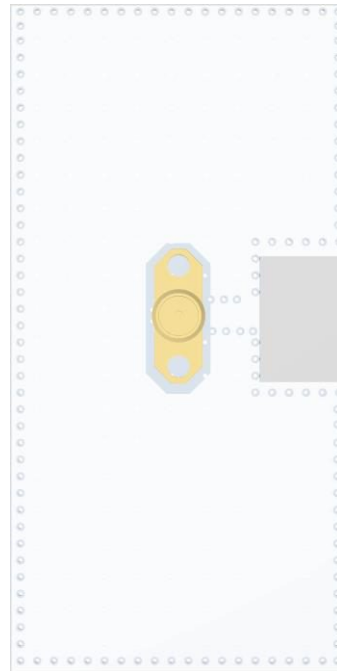
Front View without Antenna

80mm x 40mm



Front View with Antenna

80mm x 40mm



Back View

80mm x 11mm
(PCB: 0.8mm, Antenna: 0.7mm,
Connector: 9.5mm)



Side View

7. Packaging

PACKAGING SPECIFICATION

Antenna	2JL67
REEL	
Max Quantity per Reel	2000
REEL BOX	
Reels per Box	1
Max Quantity per Box	2000
Reel Box Dimensions (cm)	35.5 x 33.5 x 4
Reel Box Weight (Kg)	0.68
CARTON	
Reels per Carton	4
Max Quantity per Carton	8,000
Reel Carton Dimensions (cm)	38.5 x 36.5 x 21
Reel Carton Weight (Kg)	2.72

Storage Conditions:

(a) At warehouse:

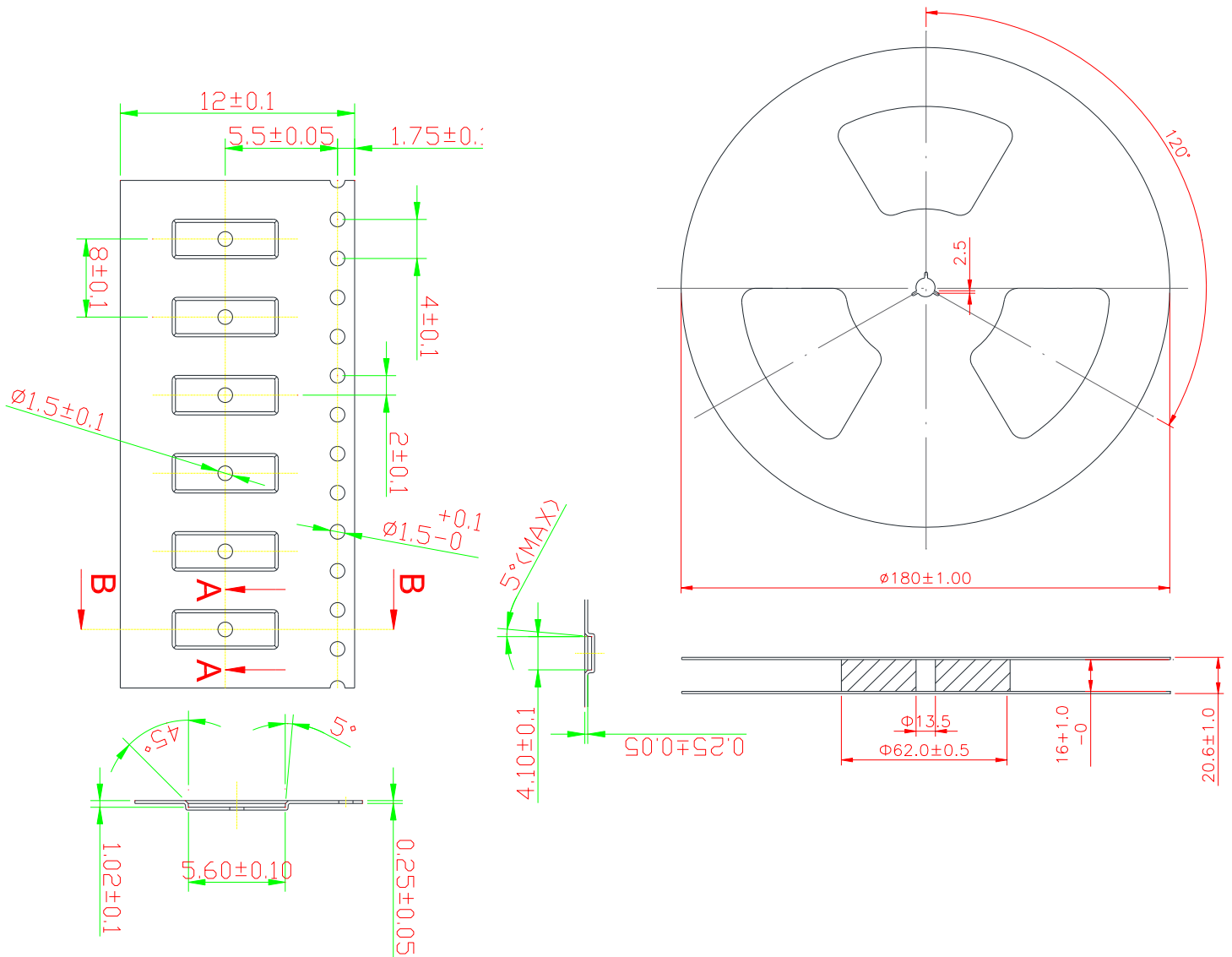
The temperature should be within 0 ~ 30°C and humidity should be less than 60% RH.

The product should be used within 1 year from the time of delivery.

(b) On board:

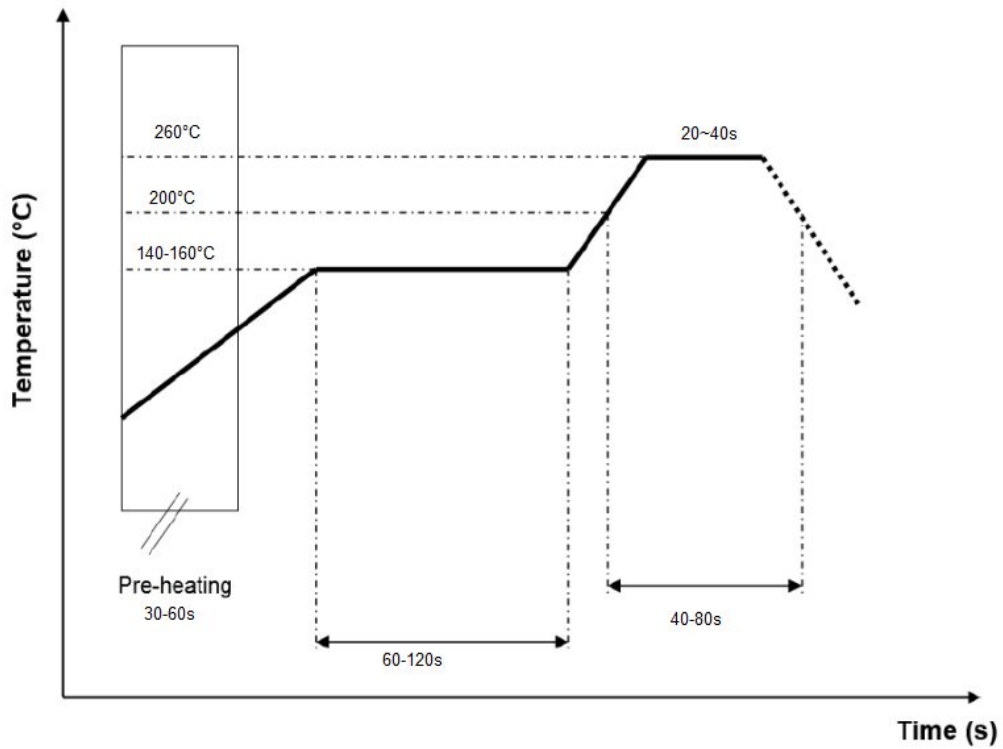
The temperature should be within -40 ~ 85°C and humidity should be less than 85% RH

8. Tape and Reel Information

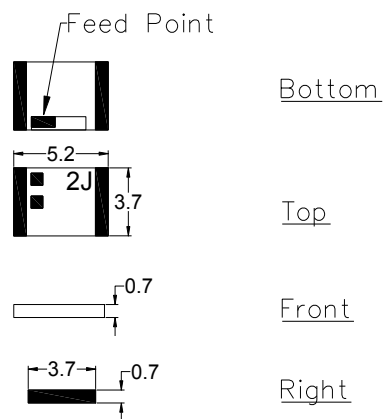


Tape and Reel Specifications

9. Reflow Temperature Profile



10. Antenna drawings



Dimensions for ceramic antenna 5.2 x 3.7 x 0.7 mm

11. Antenna Images

