

2JE04

CELLULAR SMT Fiberglass

Key Features

CELLULAR

- 824-960 MHz

- 1710-2170 MHz

Embedded Antenna

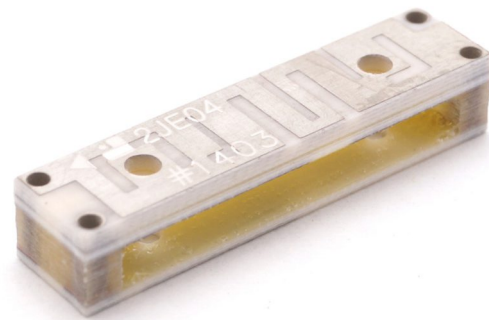
Low Cost

High Performance

Surface Mount

Ground Plane Dependent

Dimensions 24 x 5.5 x 4.4 mm



1. Antenna and electrical specifications

Parameters	CELLULAR Antenna	
Standards	2G and 3G	
Band (MHz)	850/900	1700/1800/1900/2100
Frequency (MHz)	824-960	1710-2170
Return Loss (dB)	<=-6	<=-6
VSWR	<=3:1	<=3:1
Efficiency (%)	~55	~45
Peak Gain (dBi)	~1	~3
Average Gain (dB)	~-2.6	~-3.4
Impedance (Ohm)	50	
Polarisation	Linear	
Radiation Pattern	Omni-Directional	
Max. Input Power (W)	25	

Antenna Measurement Conditions:

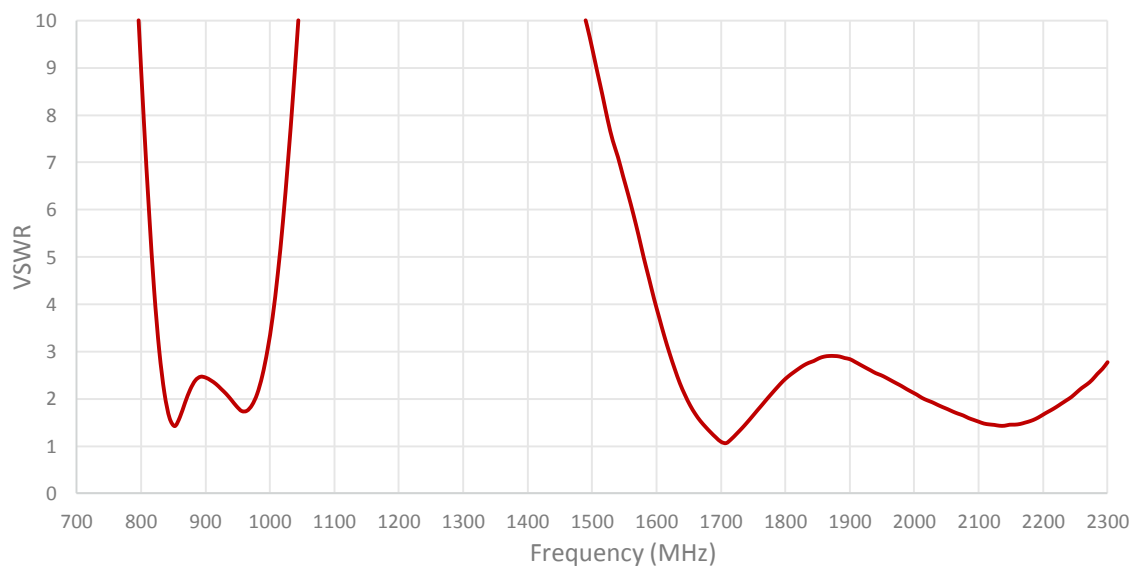
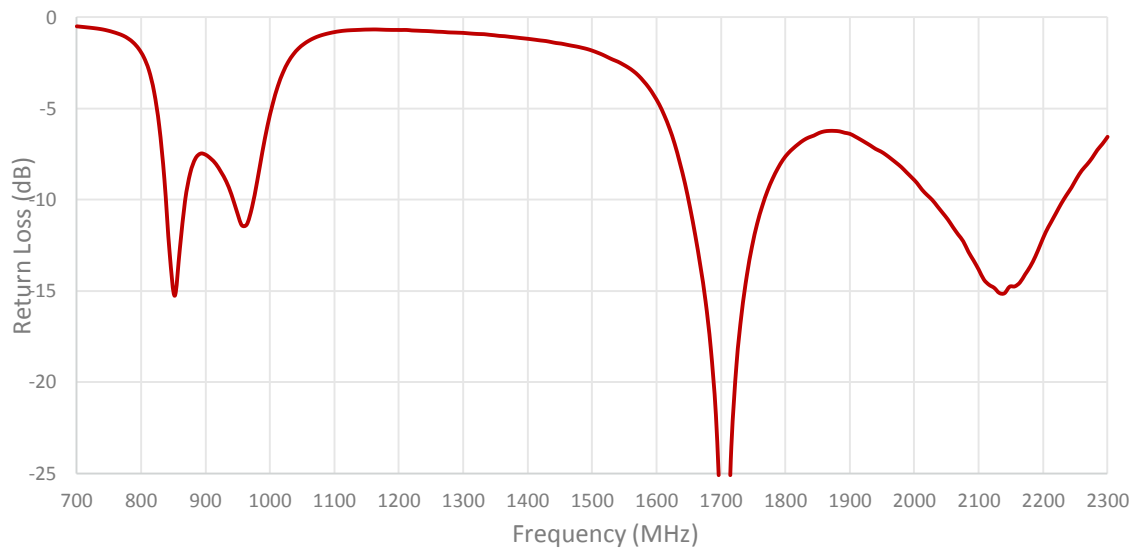
Mounted on Ground Plane of 95x40 mm

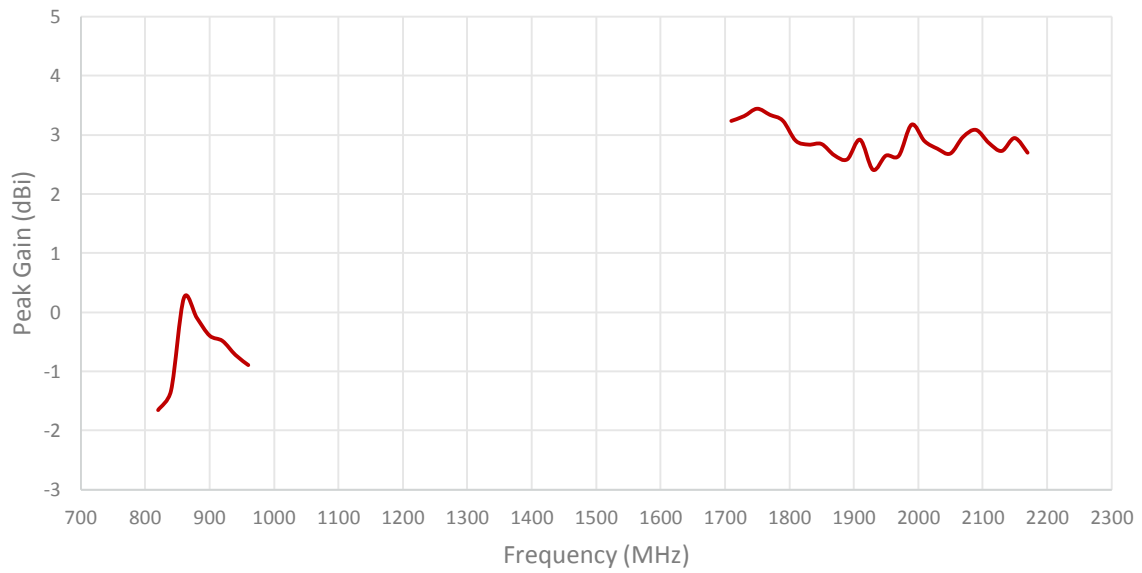
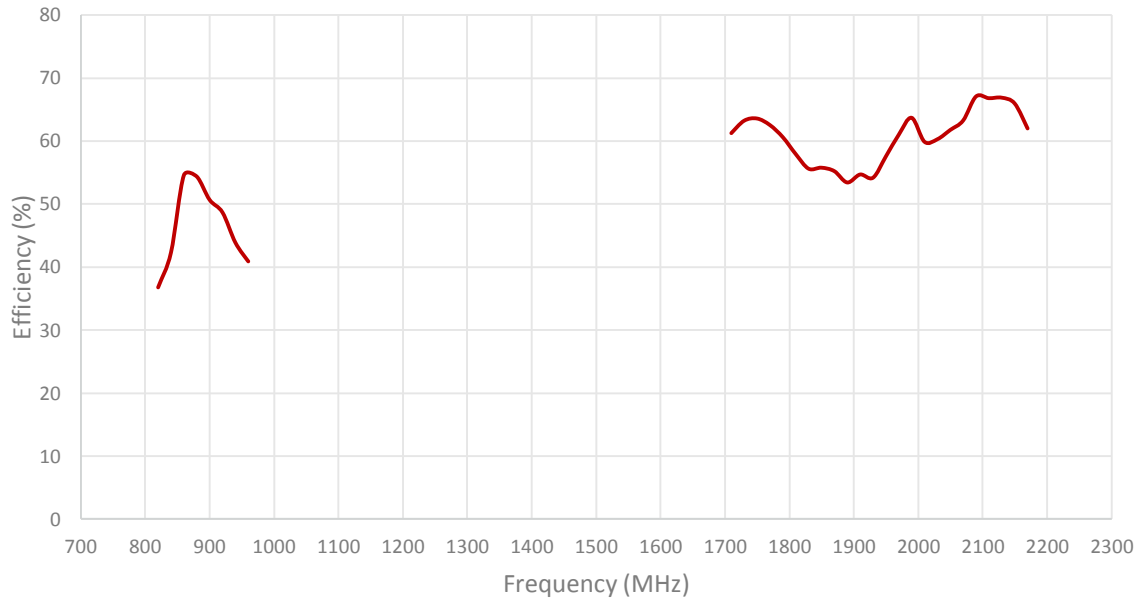
Measured in Certified CTIA 3D Anechoic Chamber

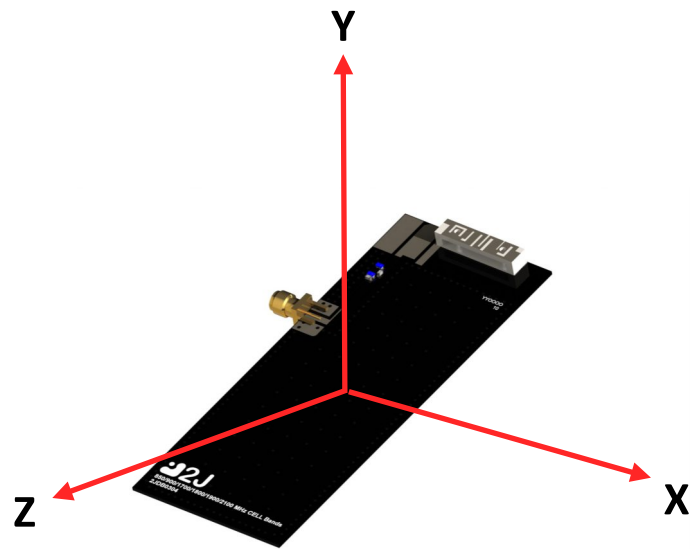
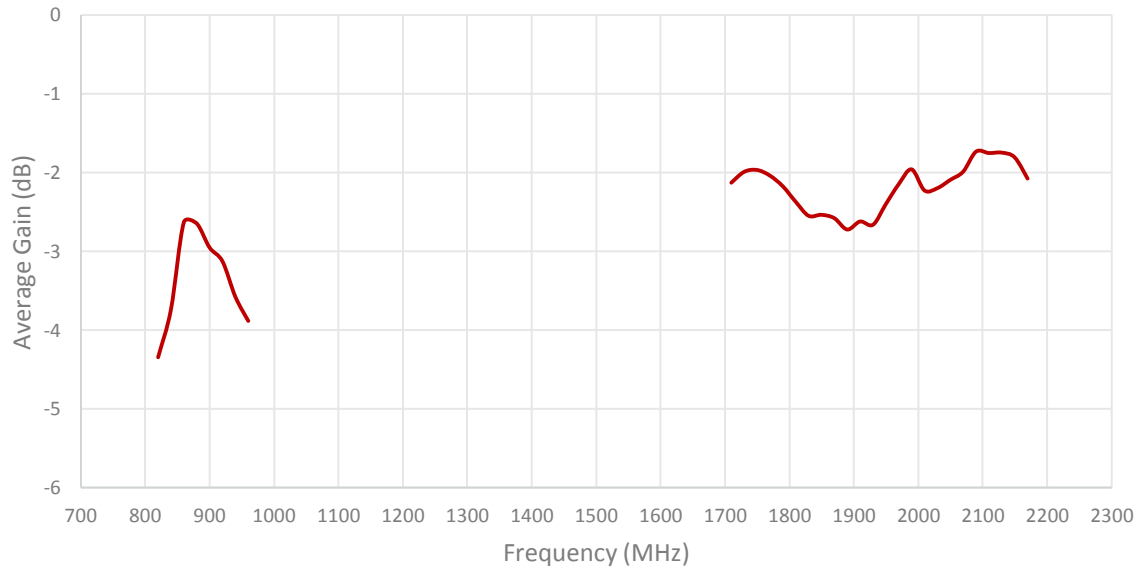
2. Mechanical and environmental specifications

Specifications	2JE04
Mounting Type	Surface Mount
Dimensions (mm)	24 x 5.5 x 4.4
Material	SMT Fiberglass
Operating Temperature (C)	-40 to +105
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS

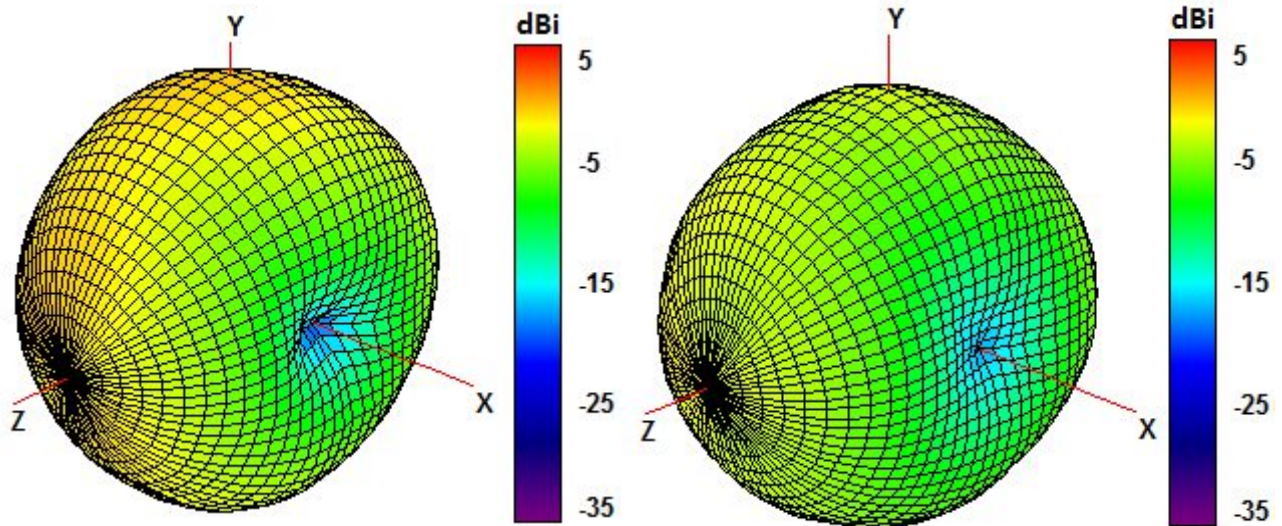
3. Antenna parameters



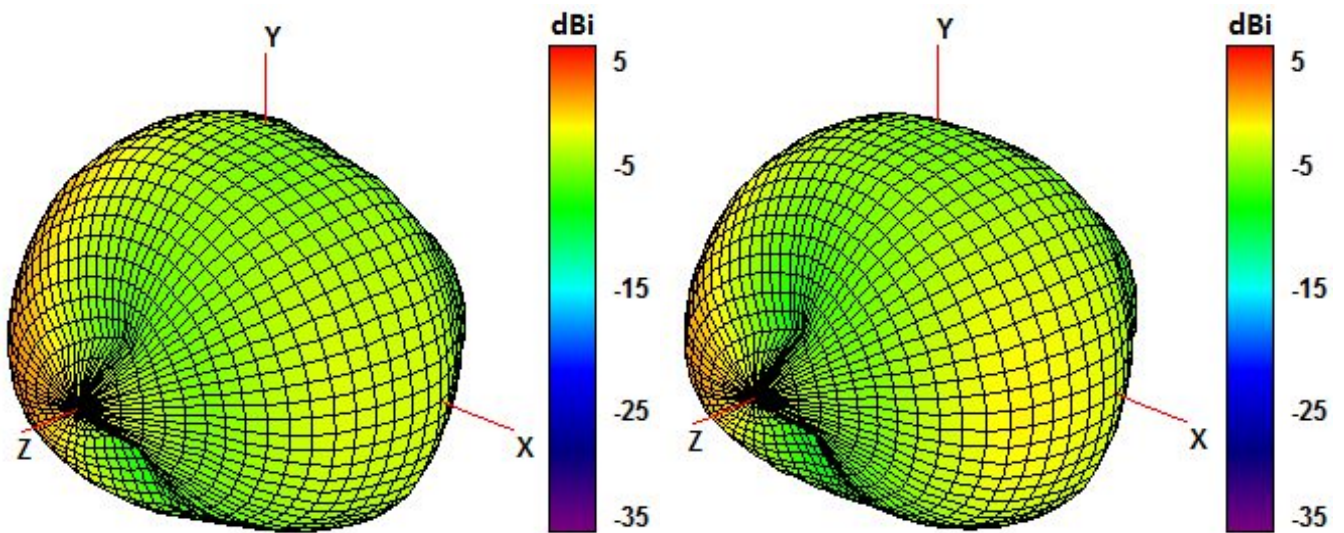




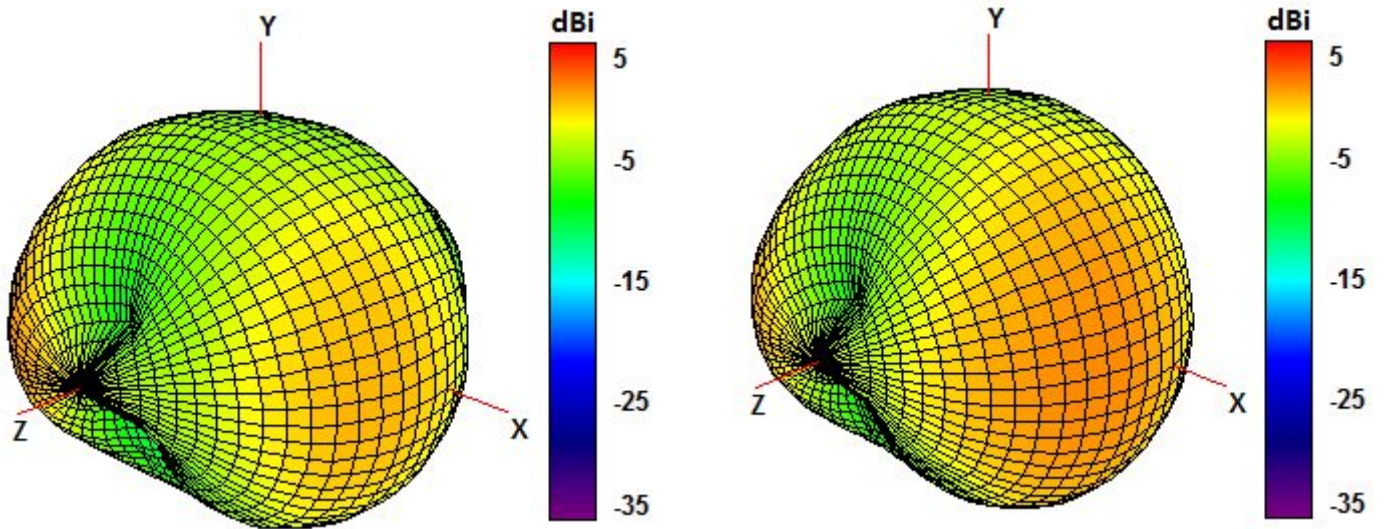
Radiation pattern reference



850 and 940 MHz Radiation pattern

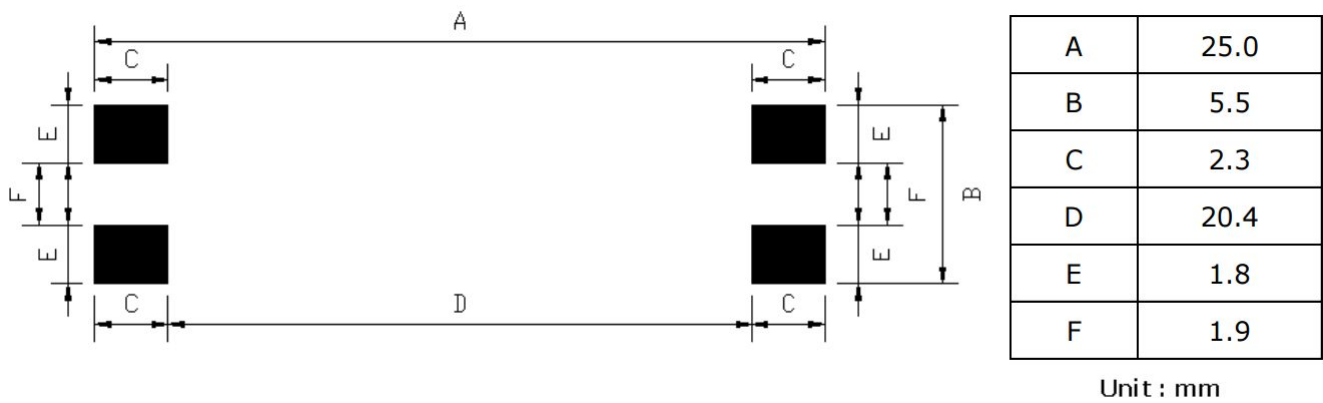


1750 and 1850 MHz Radiation pattern

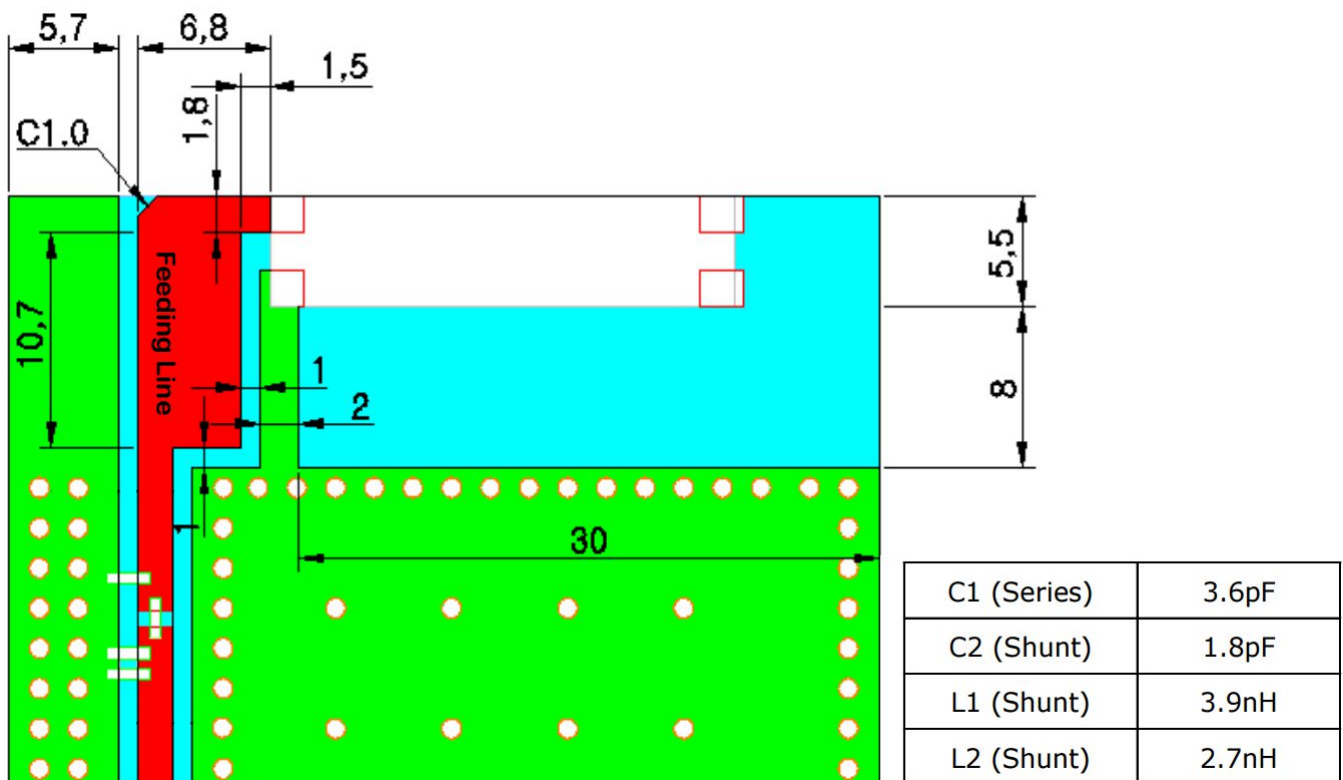


1950 and 2100 MHz Radiation pattern

4. PCB Layout and Matching Network



Solder Pads

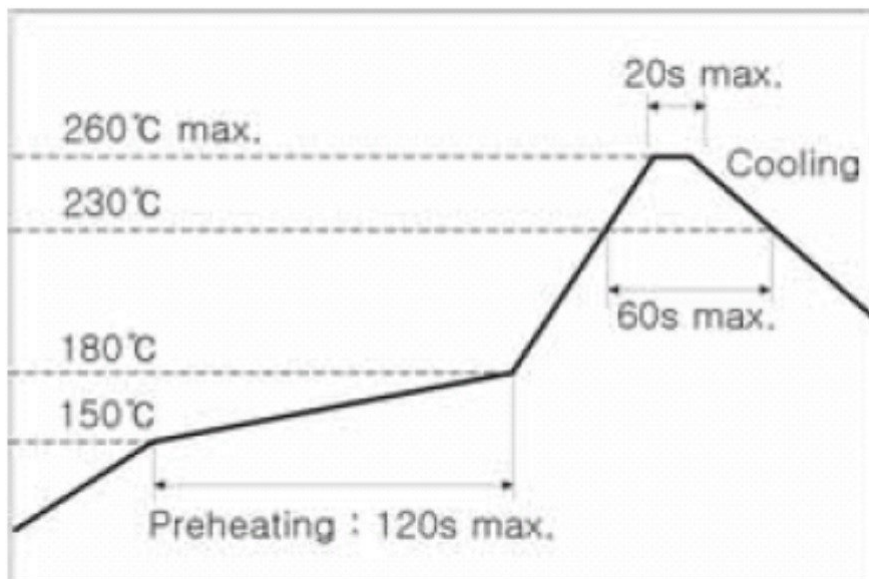


Layout and matching network

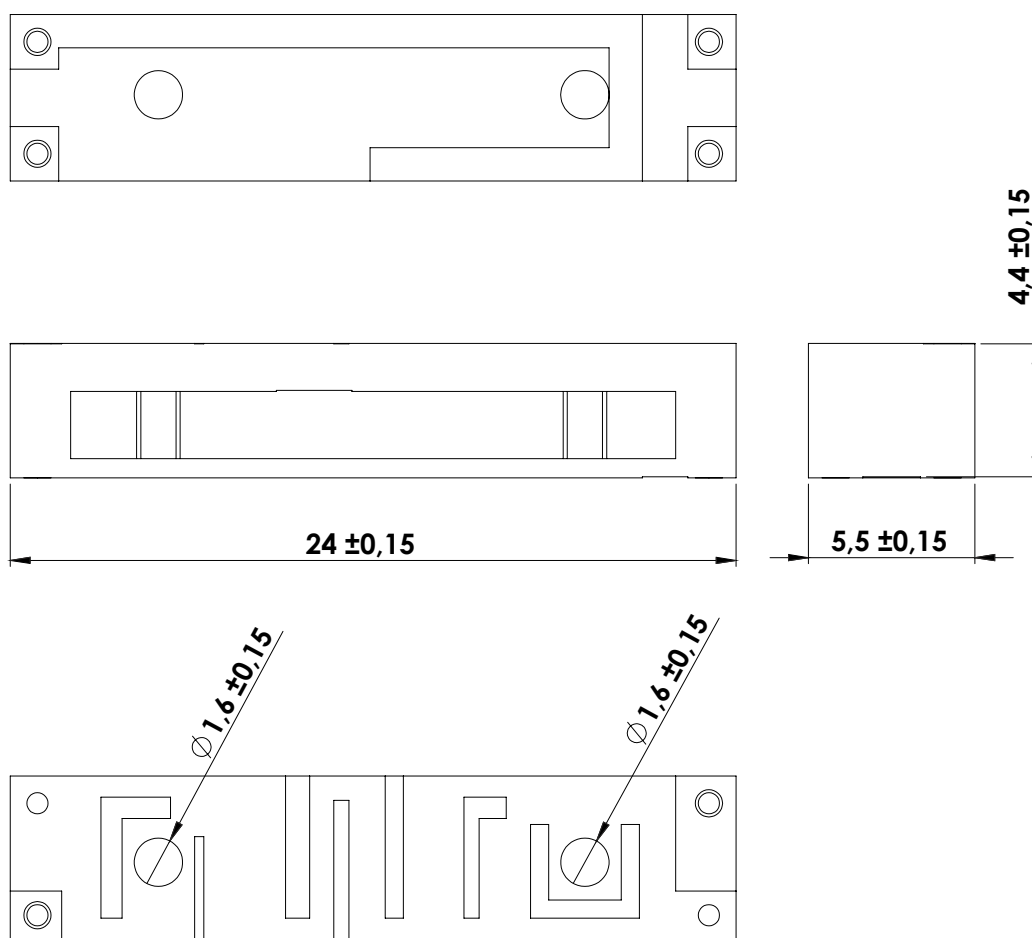
REFLOW TEMPERATURE PROFILE

Recommended Reflow Profile

- | | |
|---|---|
| 1 | Recommended Solder Paste: Sn/Ag/Cu:96.5/3.0/0.5. |
| 2 | This product is designed for reflow soldering only. |
| 3 | Do not use flow (wave) soldering. |
| 4 | Use non-activated flux (Cl content 0.2% max.). |
| 5 | Follow the recommended soldering conditions to avoid damage. |
| 6 | Reflow-cycle is max. 3 times. |



5. Antenna drawings



5. Antenna Images

