



SPECIFICATION

**Wi-Fi / Bluetooth / Zigbee – 2.4 GHz
Chip Antenna**



Model No. : UTCB02



1. General Description

1.1 Electrical Properties

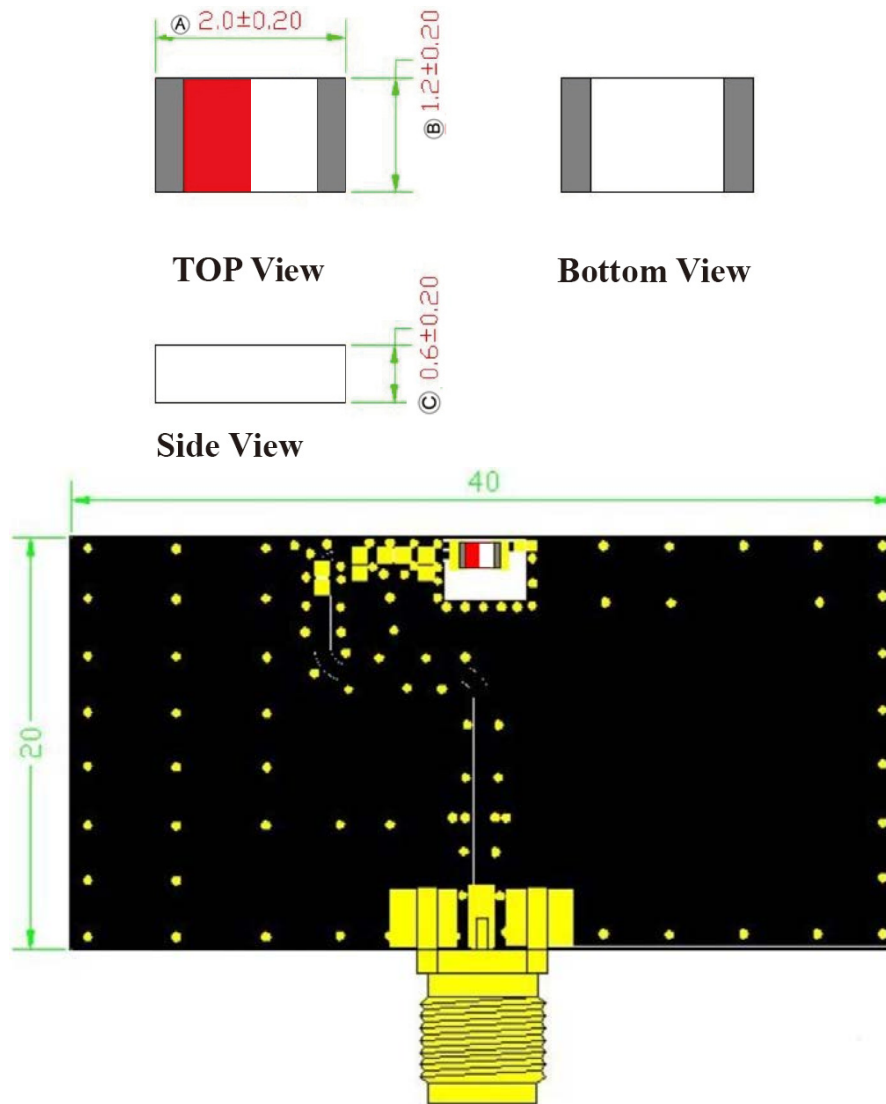
Parameter	Description
Frequency Band	2400~2485 MHz
Nominal Impedance	50 Ω
Polarization	Linear
V.S.W.R.	<2:1
Efficiency	62 %
Average Gain	-2.1 dBi
Peak Gain	2 dBi
※With 40 x 20 mm Evaluation Board	

1.2 Mechanical Properties

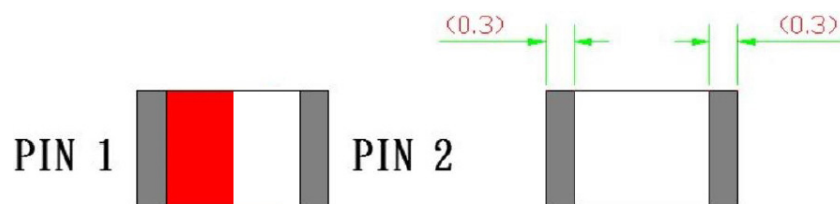
Parameter	Description
Dimensions	2*1.2*0.6 mm
Operating Temperature	-40°C~105°C
Storage Temperature (With Packing Sealed)	-5°C~40°C

2. Appearance

2.1 Dimensions Of Antenna And Evaluation Board (Unit : mm)



2.2 PIN Definitions

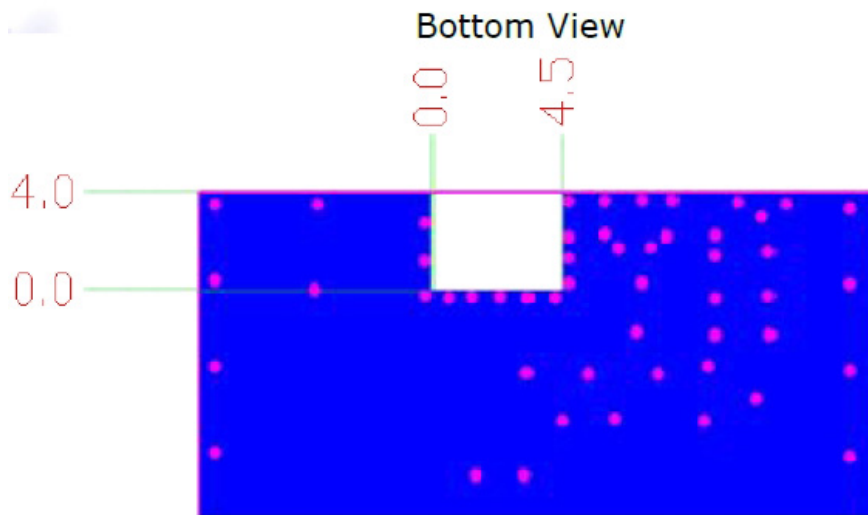
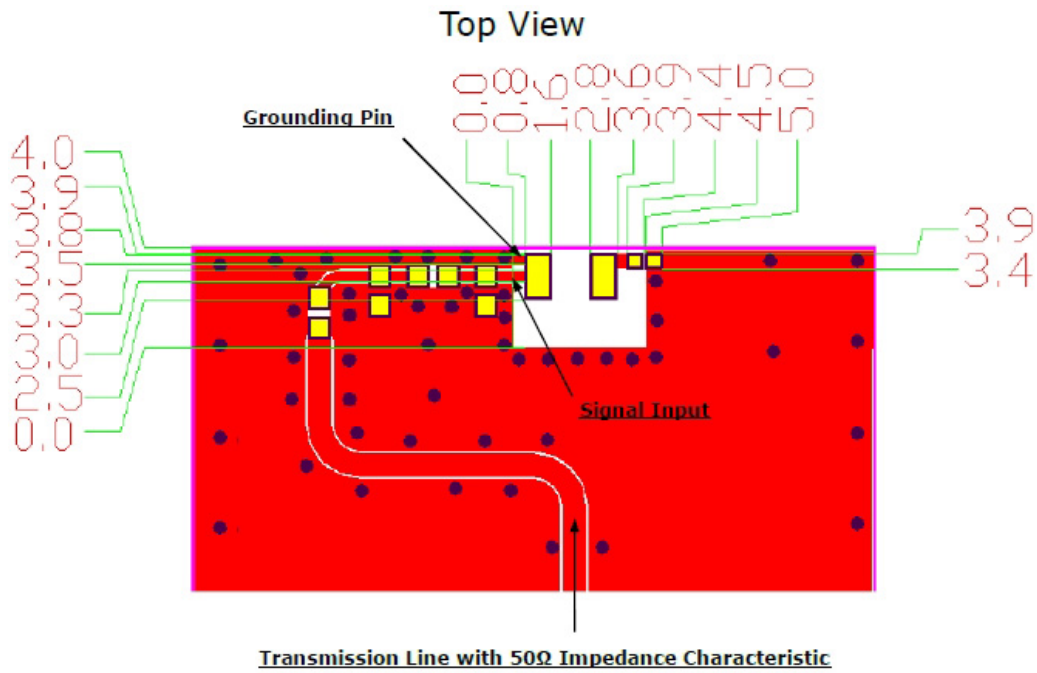


Item	PIN 1	PIN 2
Terminal	Signal Input	Tuning / Signal Output

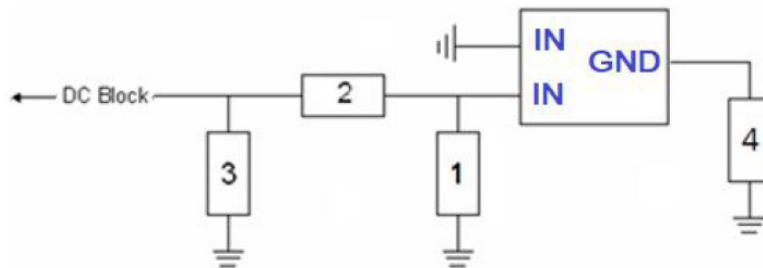
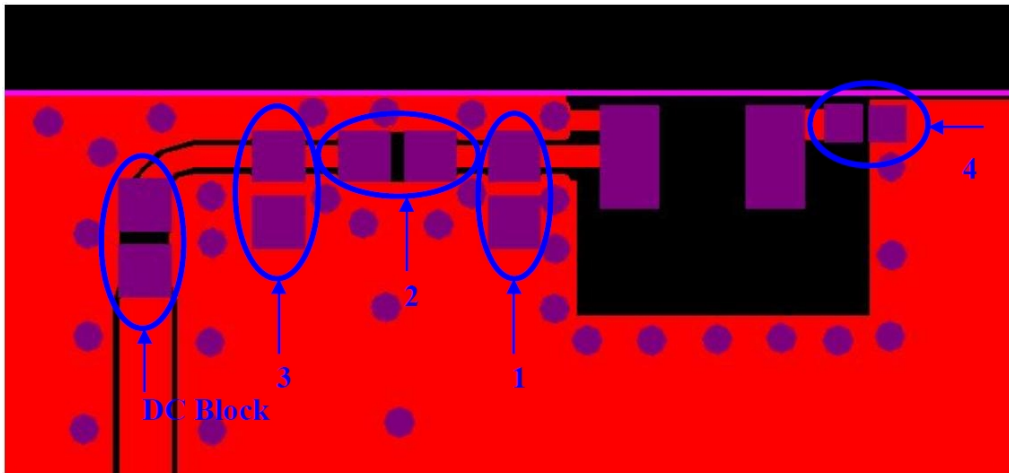
3. Layout Guide (Unit : mm)

The solder land pattern (yellow marking areas) is shown as below.
 Recommendation on matching circuit will be provided according to customer's installation conditions.

With 40 x 20 mm Evaluation Board



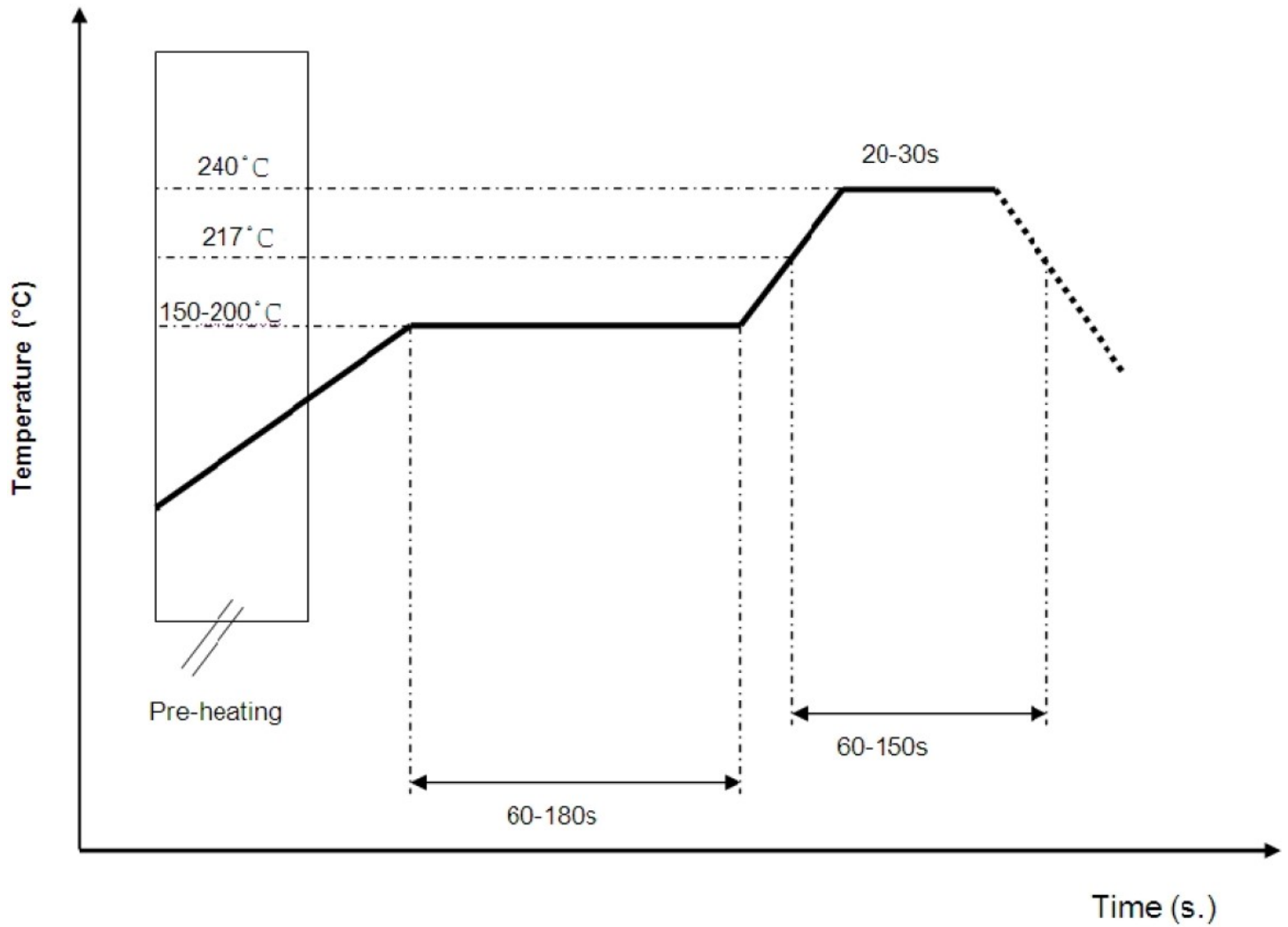
4. Frequency Tuning And Matching Circuit



System Matching Circuit Component			
Location	Description	Vendor	Tolerance
1	N/C	-	-
2	5.0 pF (0402)	MURATA	±0.05 pF
3	0.8 pF (0402)	MURATA	±0.05 pF
4	2.7 pF (0201)	MURATA	±0.05 pF
DC Block	22 pF (0402)	MURATA	±5%

※These are typical reference values which may need to be changed when circuit boards or part vendors are different.

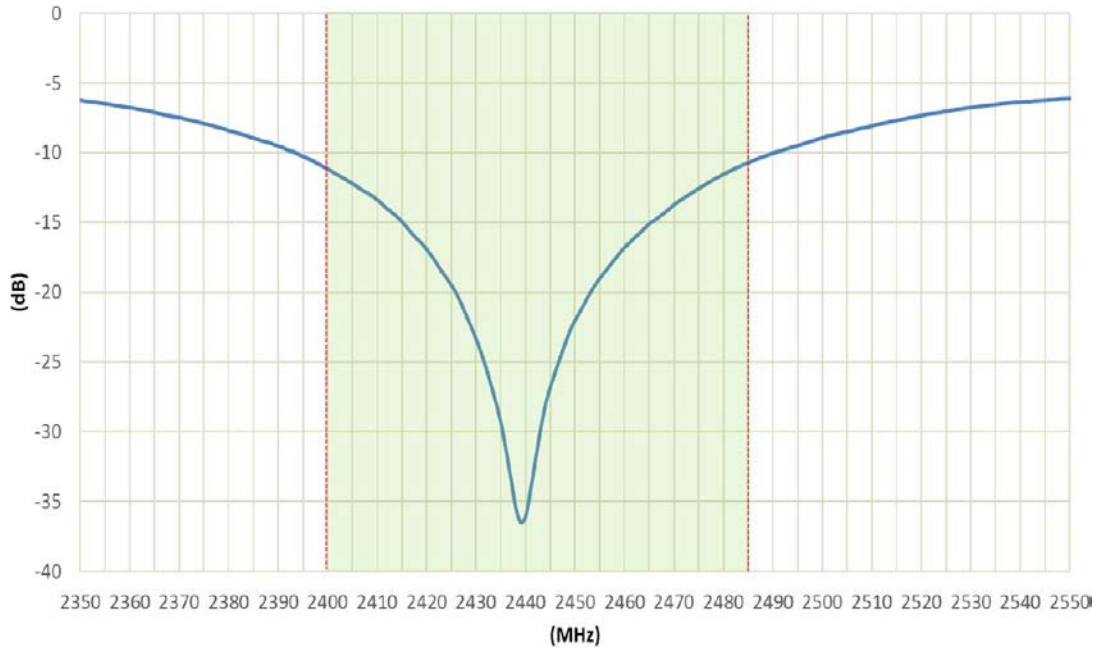
5. Soldering Conditions



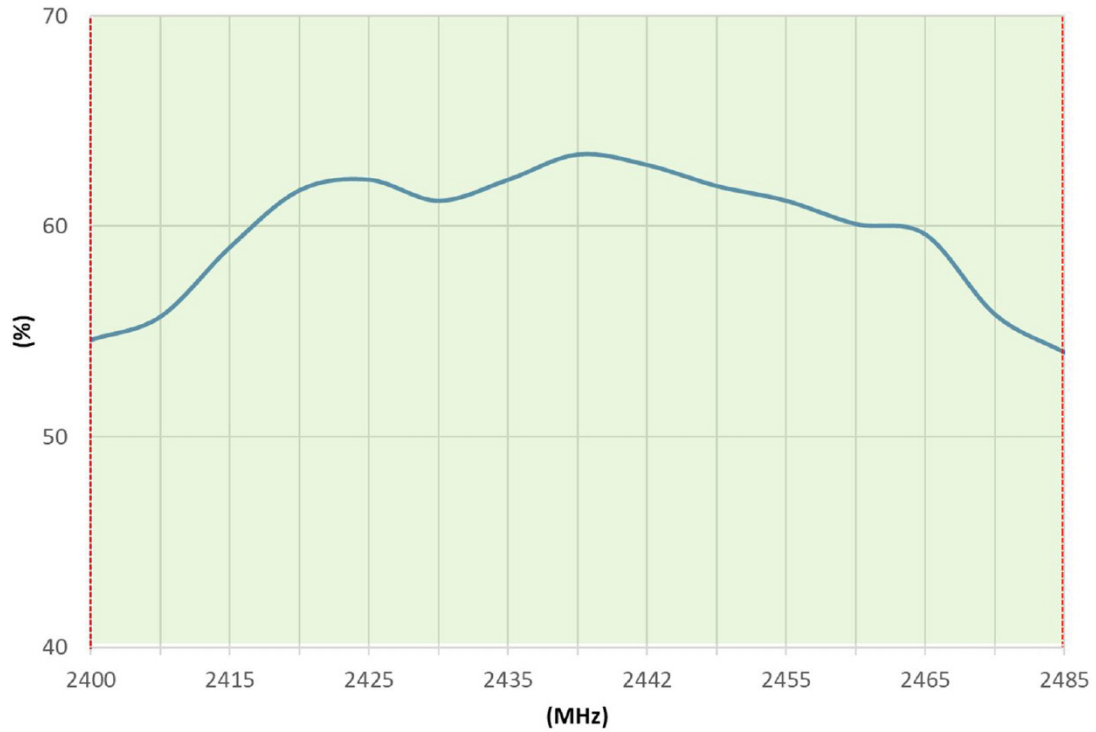
※Recommended solder paste alloy : SAC305(Sn96.5/Ag3/Cu0.5) Lead free solder paste.

6. Performance

6.1 Return Loss

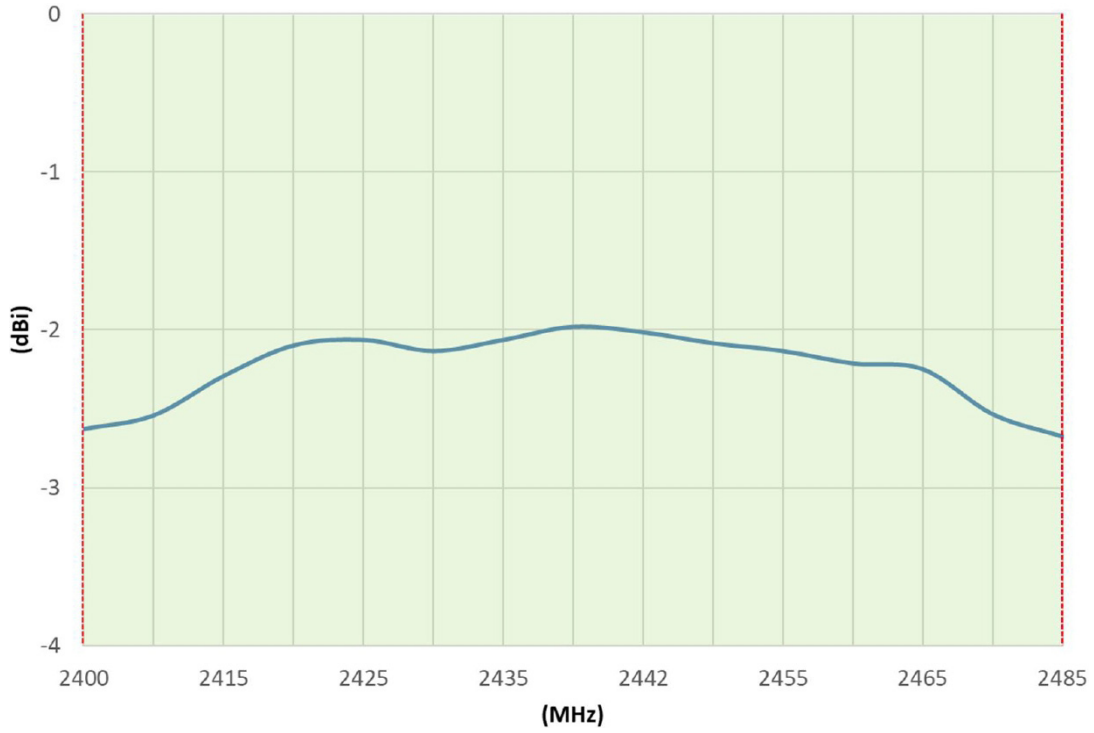


6.2 Efficiency

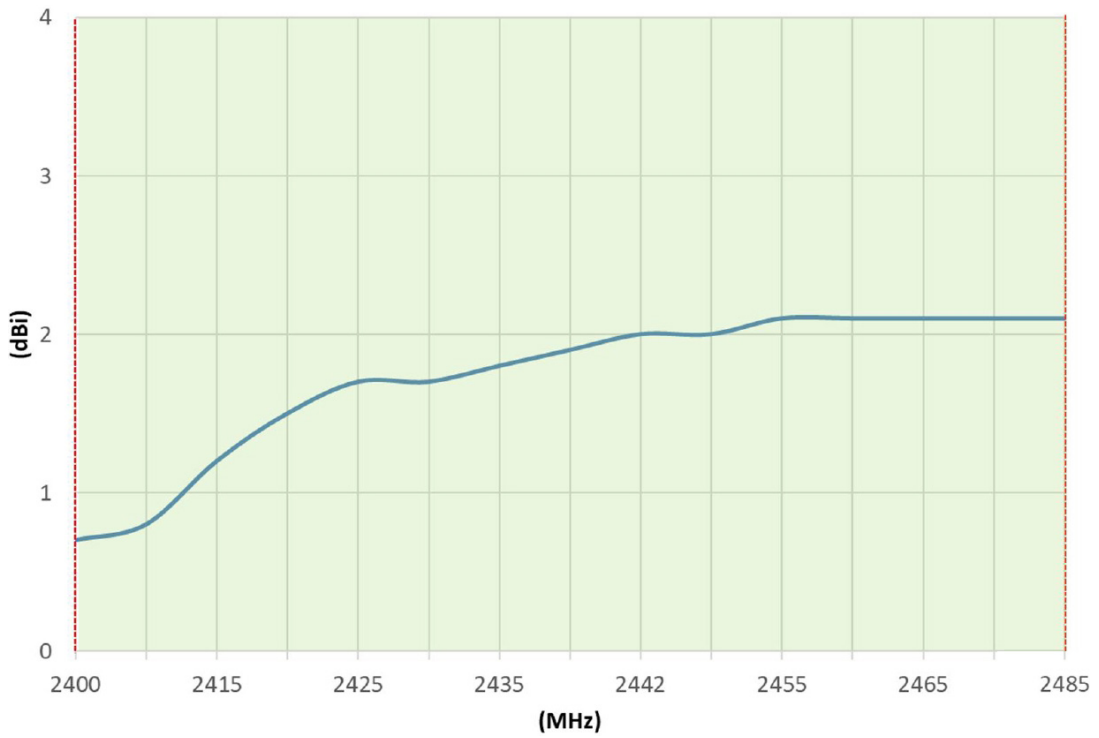




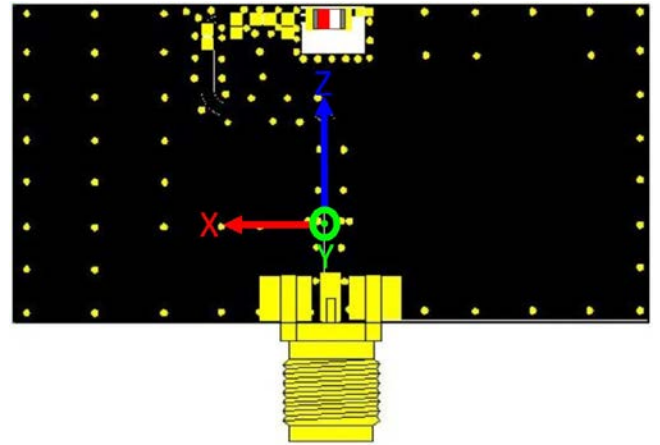
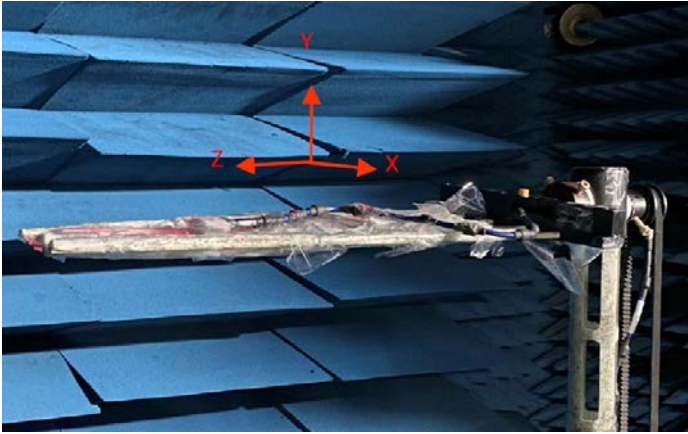
6.3 Average Gain



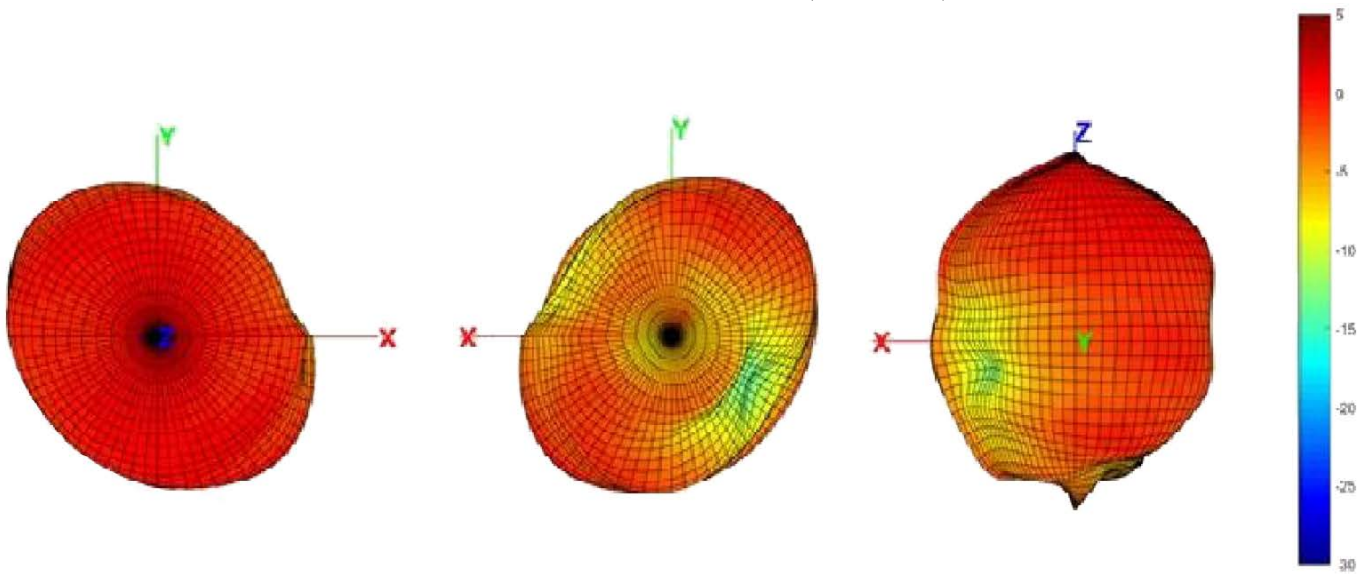
6.4 Peak Gain



6.5 3D Radiation Pattern

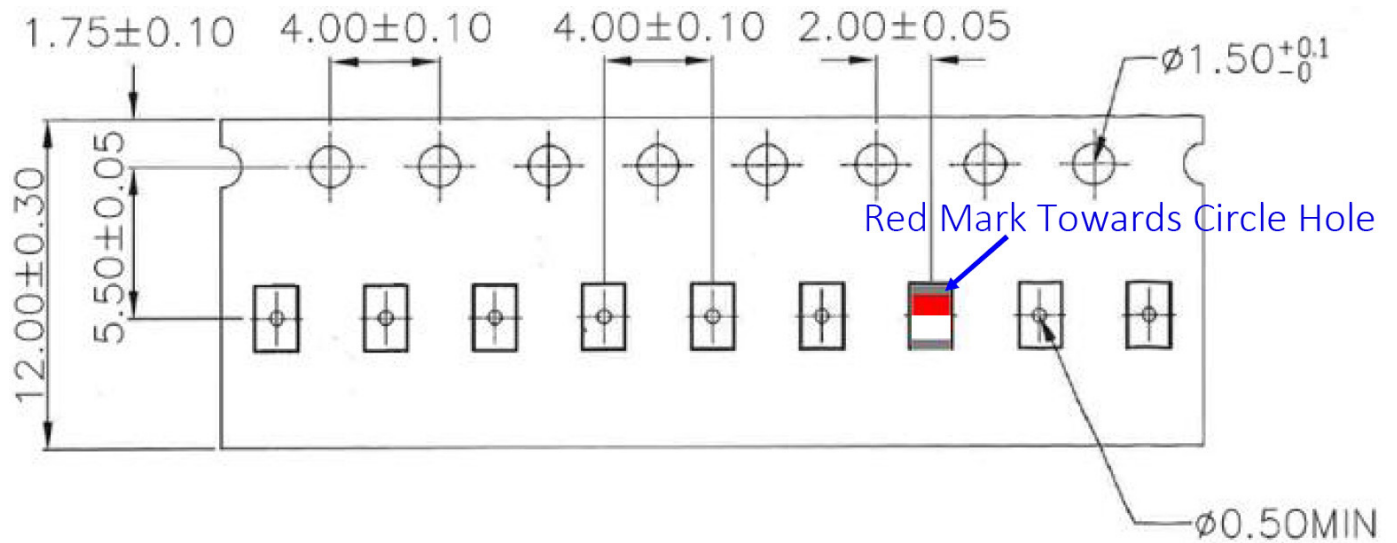


3D Gain Pattern @ 2450 MHz (Unit : dBi)

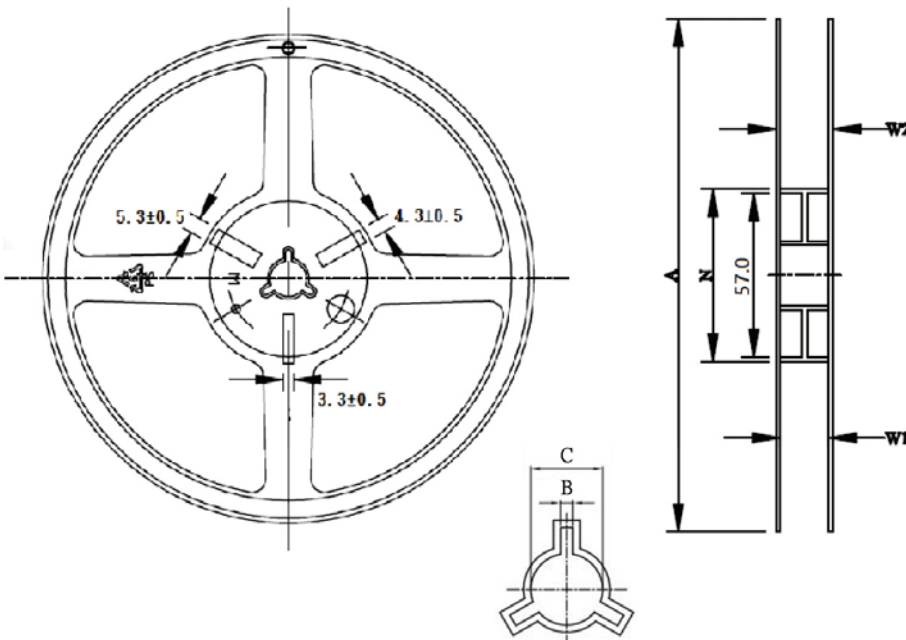


7. Packing

- Tape :



- Reel : 5,000 pcs



Feature	Specifications	Tolerances
A	178.0	± 1.0
B	2.7	± 0.5
C	13.3	± 0.5
N	60.0	± 0.5
W1	13.7	± 0.5
W2	16.1	± 0.5