



样品承认书

Parts Approval Sheet

生产厂商: _____
Supplier

物料名称: BT Ceramic Antenna
Parts Name

适用项目: _____
Applicable Items

Nqi 料号: Nqi-1608-P2450A
Nqi Parts No.

品 牌: Nqi
Brand

样品数量: _____
Quantity

送样日期: _____
Send out Date

文件编号: Nqi-RD-SPEC-20240810
Document No.

承认日期: _____
Approve Date

版 本: V0
Version

Supplier		Customer	
Approved By	Prepared By	Engineering Dept.	Quality Dept.



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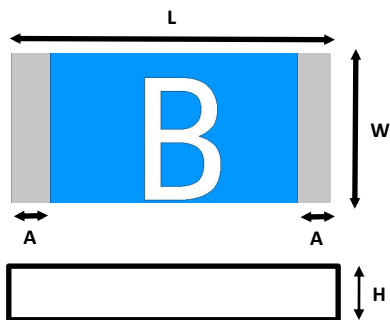
1. Operating frequency

Antenna Frequency for 2400MHz-2500 MHz

2. Applications

For Miniaturized Bluetooth/WIFI2.4System

2.1. Appearance and Dimensions(Unit : mm):



Units:mm

L	W	H	A
1.60±0.20	0.80±0.20	0.40±0.10	0.2±0.07

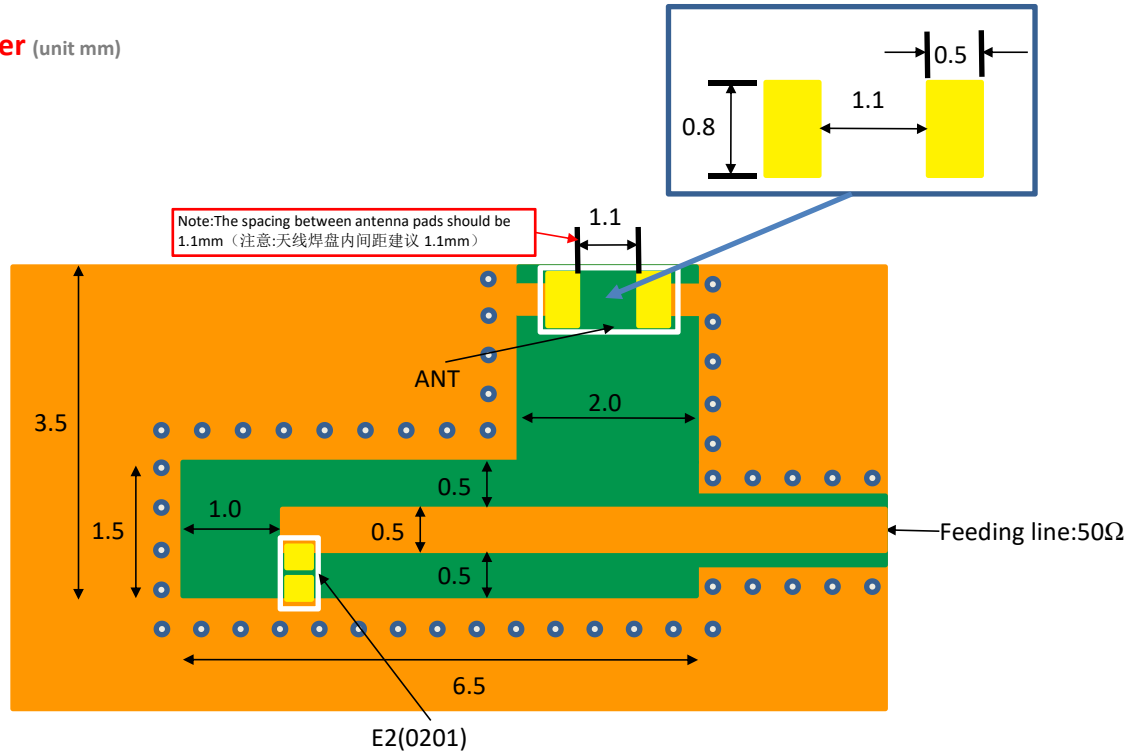
Weight: 0.002g

3. The DEMO Board and Matching Circuits

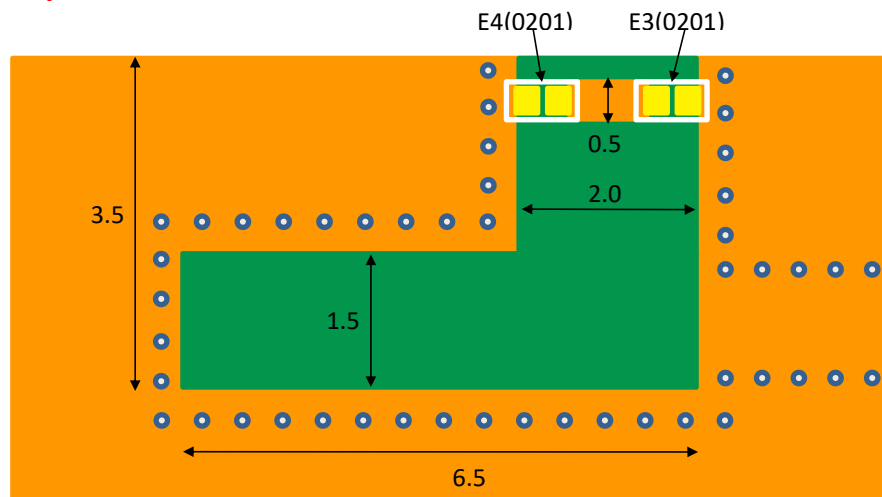
3.1. The DEMO Board

Recommend PCB Layout1;Test condition: Test board size 70*60 mm;

Top Layer (unit mm)



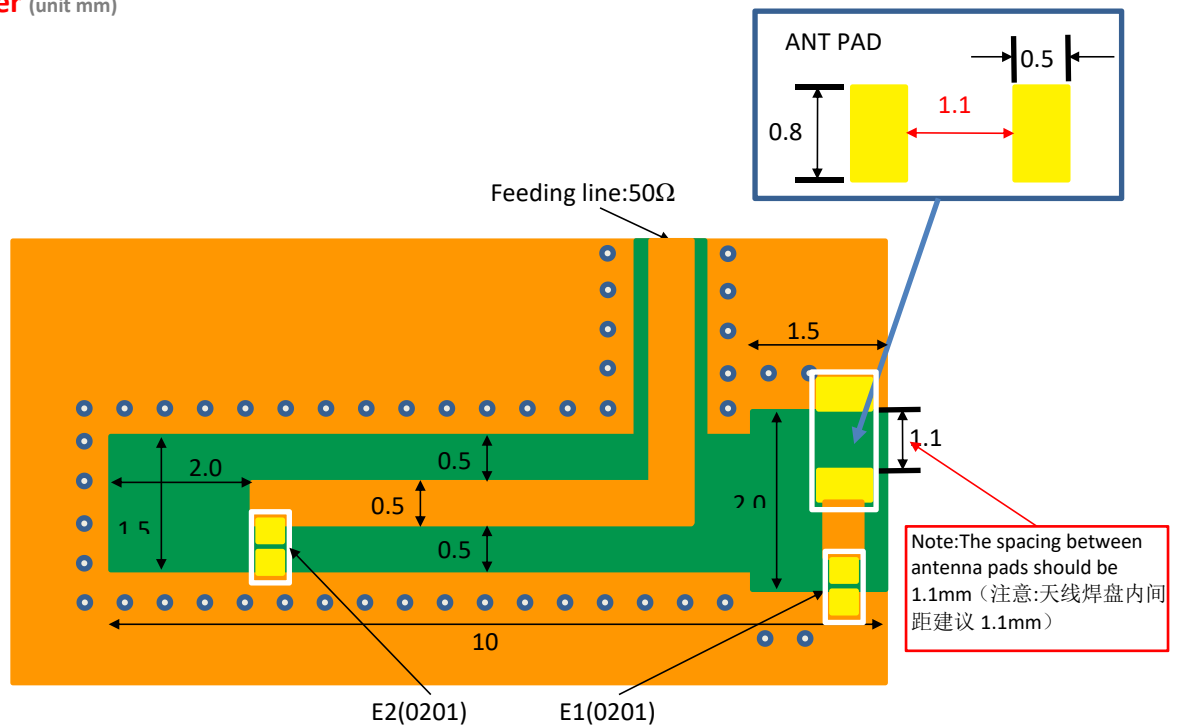
Bottom Layer (unit mm)



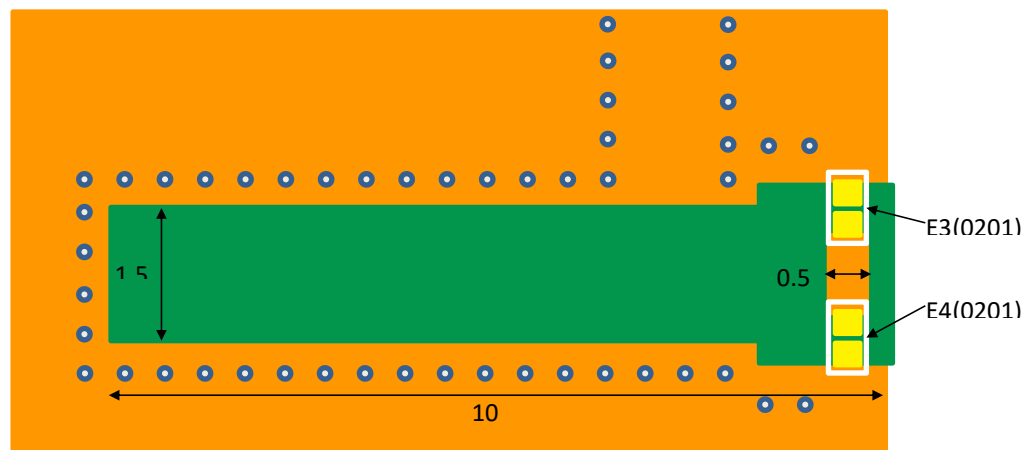


Recommend PCB Layout2;Test condition: Test board size 70*60 mm;

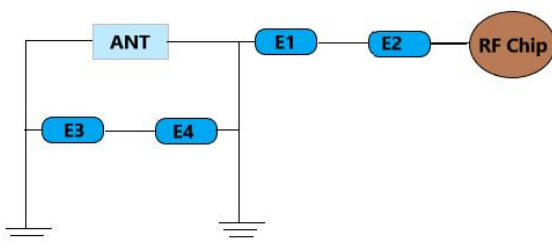
Top Layer (unit mm)



Bottom Layer (unit mm)



3.2. Matching Circuits



系统匹配电路元件建议值(村田)		
System Matching Circuit Component (Murata)		
Location	Description	Tolerance
E1	C/L/R(0201)	±5%
E2	C (0201)	±5%
E3	C (0201)	±5%
E4	C (0201)	±5%

以上使用推荐的匹配值仅限于我司规定尺寸 DEMO 板，中心频率约为 2450MHz。不同电路板、零件供应商及终端整机发生变化时或需要重新优化。

The recommended matching values for the above use are limited to our specified size DEMO board, with a center frequency of approximately 2450mhz.

Different circuit boards, parts suppliers and terminals may need to be heavy when changed.

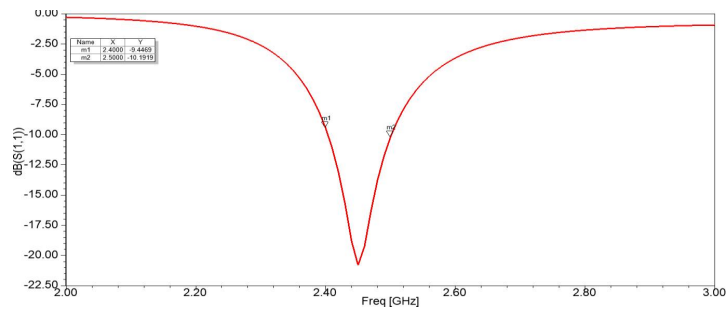


4. Electrical Characteristics(TA=25℃)

Parameter	Specification	Units
Frequency Band	2400~2500	MHz
Polarization	Linear	
Peak Gain	2.78	dBi
Peak Efficiency	80.25	%
Impedance	50	Ω

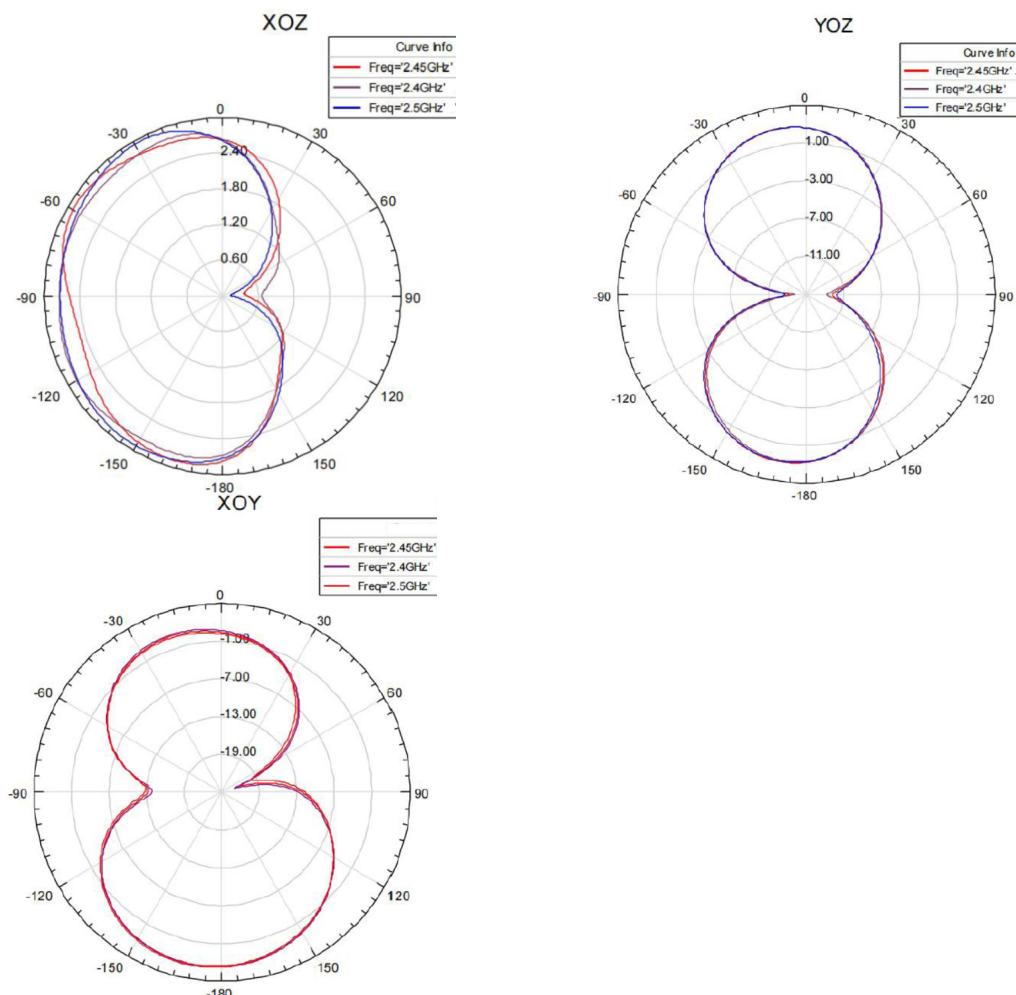
Test condition: Test board size 70*60 mm;
Matching circuit: Pi or Double-L matching circuit will be required.

4.1.S11

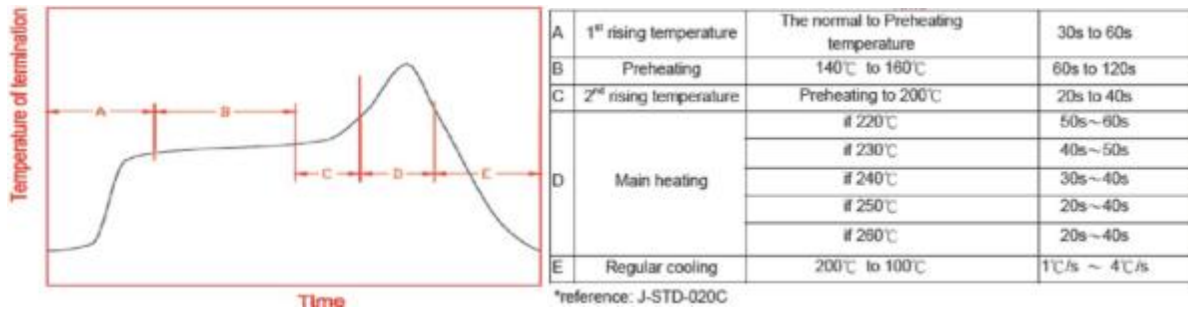


4.2.Efficiency and Gain

Frequency	2400MHz	2450MHz	2500MHz
Avg gain	-1.92	-1.35	-1.56
Peak gain	1.79	2.78	2.66
Efficiency	74.55%	80.25%	76.98%

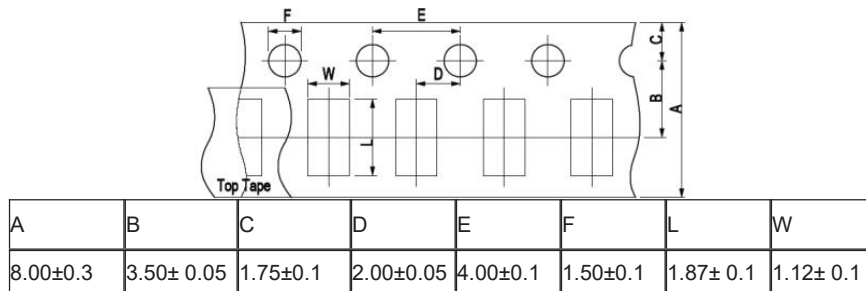


5. Reflow Soldering Standard Condition

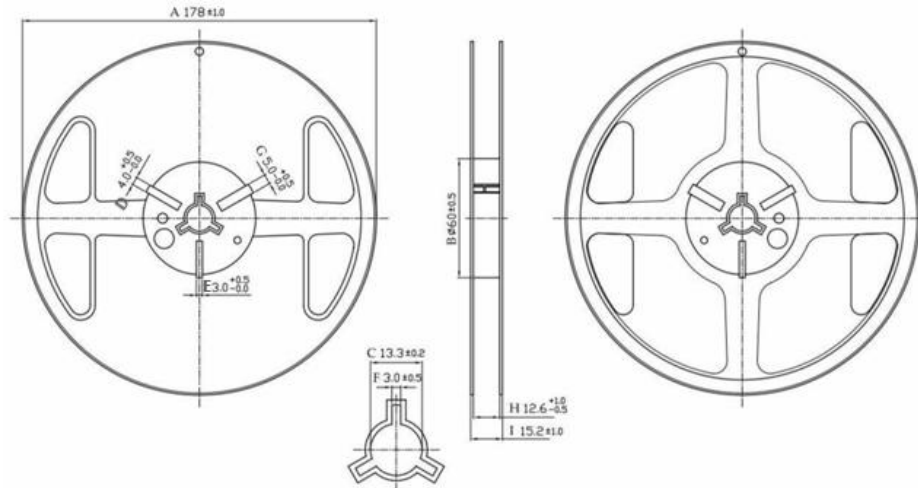


6. Packaging Information

6.1.Tape specification (Unit :mm)



6.2.Reel specification (5000 pcs / Reel, Unit : mm)



6.3.Storage Conditions

(a)At warehouse: The temperature should be within 0 ~ 30℃ and humidity should be less than 60% RH.The product should be used within 1 year from the time of elivery.

(b)On board: The temperature should be within -40 ~85℃ and humidity should be less than 85% RH.

6.4.Operating Conditions

Operating temperature range : -40℃ to +85℃ .



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7. Dependability Test

Item	Condition	Specification
Thermal shock	1. 30±3 minutes at -40 ° C±5 ° C , 2. Convert to +105 ° C (5 minutes) 3. 30±3 minutes at +105 ° C±5 ° C , 4. Convert to -40 ° C (5 minutes) 5 . Total 100 continuous cycles	No apparent damage Fulfill the electrical spec. after test.
Humidity resistance	1. Humidity: 85% R.H.; 2.Temperature: 85±5 ° C; 3 . Time: 1000 hours .	No apparent damage Fulfill the electrical spec. after test.
High temperature resistance	No apparent damage Fulfill the electrical spec. after test.	1 . Temperature: 150 ° C±5 ° C 2 . Time: 1000 hours .
Low temperature resistance	1 . Temperature: -40 ° C±5 ° C; 2 . Time: 1000 hours .	No apparent damage Fulfill the electrical spec. after test.
Soldering heat resistance	1. Solder bath temperature : 260±5°C 2. Bathing time: 10±1 seconds	No apparent damage
Solderability	The dipped surface of the terminal shall be at least 95% covered with solder after dipped in solder bath of 245±5 for 3±1 seconds .	No apparent damage