



样品承认书

Parts Approval Sheet

生产厂商: 国质信网络
Supplier

物料名称: **BT 陶瓷天线**
Parts Name

型号/规格: NQI-2012-P2450F
Type/Spec

客户料号:
Parts No.

品 牌: NQI
Brand

样品数量: 20PCS
Quantity

送样日期: 2021.07.21
Send out Date

文件编号:
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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Revision history

序号	版本	日期	修改状态
1	V0	2021-07-17	首版
2			
3			
4			
5			
6			



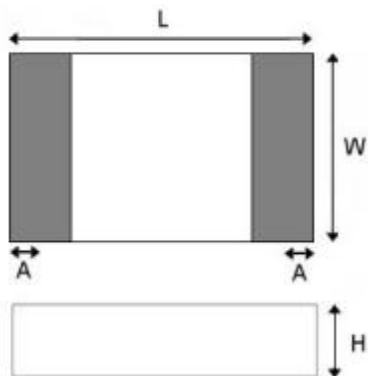
1. Operating frequency

Antenna Frequency for 2400-2500 MHz

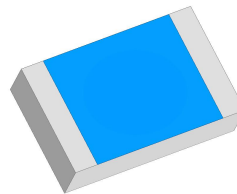
2. Applications

For Miniaturized Bluetooth/WIFI System

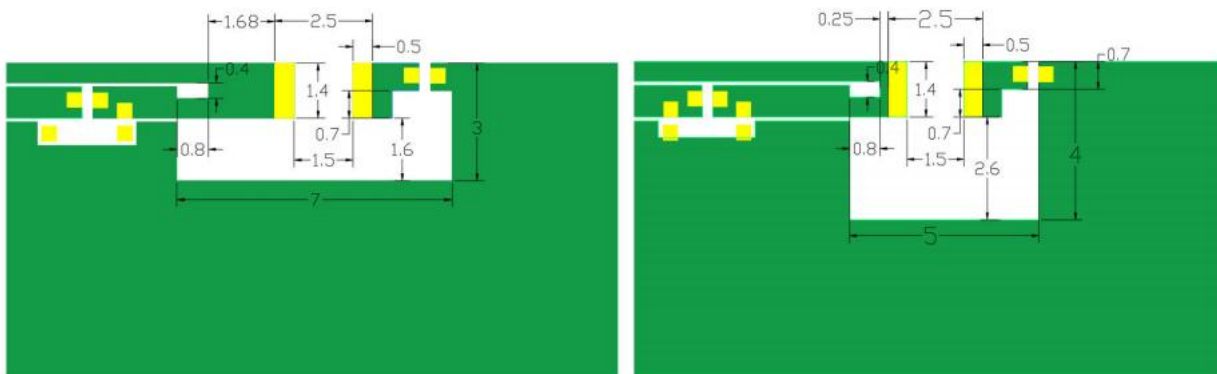
2.1. Appearance and Dimensions(Unit : mm):



L	W	H	A
2.0 ± 0.3	1.2 ± 0.3	0.55 ± 0.1	0.25 ± 0.1



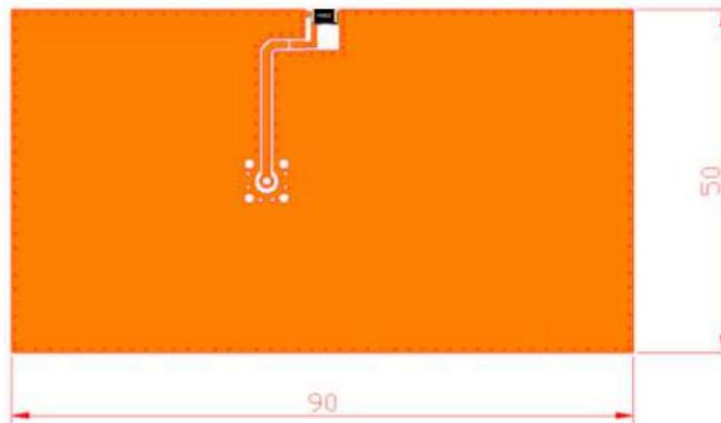
2.2. PCB Top Layout (Unit : mm)



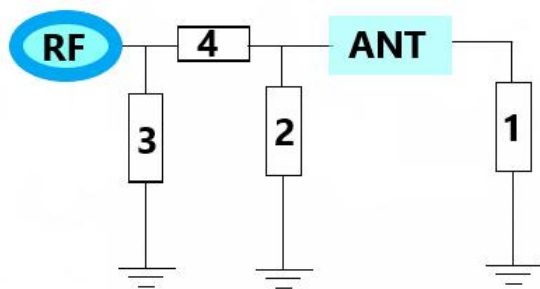


3. The DEMO Board and Matching Circuits

3.1. The DEMO Board



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
1	1-4.7NH(0201)	±5%
2	0.5-3pF(0201)	±5%
3	NF	±5%
4	1-6.2nH(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。

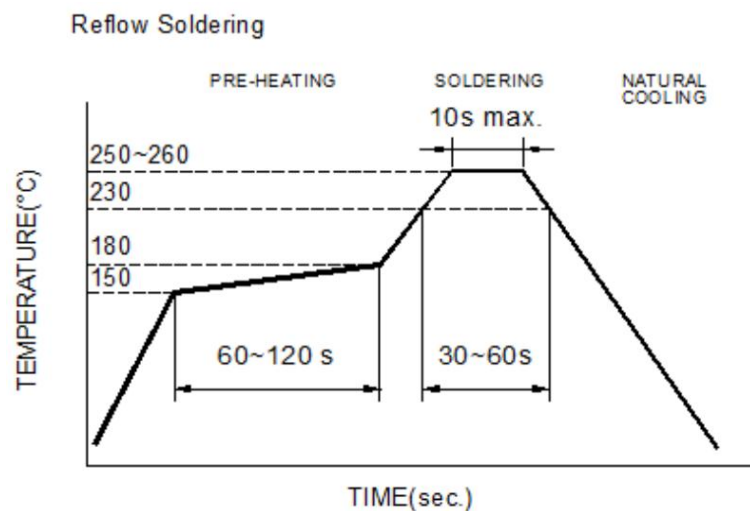
The recommended matching values for the above use are limited to our specified size DEMO board, with a center frequency of approximately 2450mhz. Different circuit boards, parts suppliers and terminals may need to be heavy when changed.



4. Electrical Characteristics

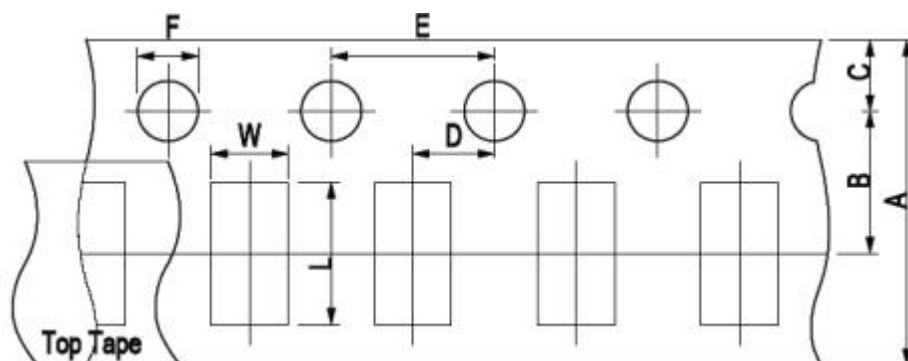
Outline Dimensions	2.0*1.2*0.55mm	
Central Frequency	2450	MHz
Bandwidth	100	MHz
VSWR	<2	
Efficiency	68.8	%
Peak Gain	2.18	dBi
Impedance	50	Ω
Polarization	Linear	
Azimuth Beamwidth	Omni-directional	

5. Reflow Soldering Standard Condition



6. Packaging Information

6.1. Tape specification(Unit : mm)

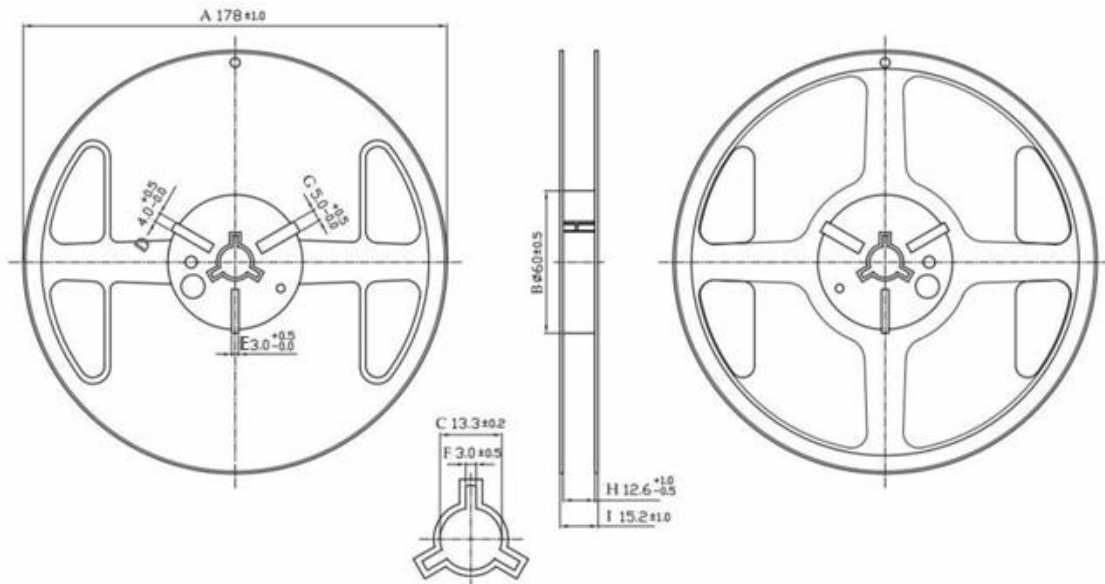




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A	B	C	D	E	F	L	W
8.00±0.3	3.50± 0.05	1.75±0.1	2.00±0.05	4.00±0.1	1.50±0.1	2.30± 0.1	1.55± 0.1

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



Index	A	B	C	D	E
Dimension (mm)	178±1. 0	φ60±0. 5	13. 3±0. 2	4. 0+0. 5/-0	3. 0+0. 3/-0
Index	F	G	H	I	
Dimension (mm)	3. 0±0. 5	5+0. 5/-0	12. 6+1/-0. 5	15. 2±1	

6.3.Storage Conditions

- Oxidizable Material, 12 months in vacuum sealed bag, please repack within 168 hours by re-seal the package treatment after using.
- Recommended products should be used within 6 months form the time of delivery.
- Storage Temperature Range : <30 degree C, and Humidity : <60%RH.
- The packaging material should be kept where no chlorine or sulfur exists in the air.
- Products should be storage in thewarehouse without heat shock,vibration,direct sunlight and so on.



7. Dependability Test

Test item	Test condition / Test method	Specification
Solderability IEC 60068-2-58 GB/T2423.28	*Solder bath temperature: 240±5°C *Immersion time: 2±0.5 sec Solder: Sn96.5Ag3.0Gu0.5 for lead-free.	At least 95% of a surface of each terminal electrode must be covered by fresh solder.
Leaching (Resistance to dissolution of metallization) JIS C5101	*Solder bath temperature: 260±5°C *Leaching immersion time: 10±1 sec Solder : Sn96.5 Ag3.0 Gu0.5 for lead-free.	Loss of metallization on the edges of each electrode shall not exceed 25%.
Resistance to soldering heat IEC 60068-2-58 GB/T2423.28	*Preheating temperature: 120~150°C, 1 minute. *Solder temperature: 260±5°C *Immersion time: 10±1 sec Solder: Sn96.5Ag3.0Gu0.5 for lead-free Measurement to be made after keeping at room temperature for 24±2 hrs.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature. Loss of metallization on the edges of each electrode shall not exceed 25%.
Drop Test IEC 60068-2-32 GB/T2423.8 Customer's specification	*Height: 50 cm *Test Surface: Rigid surface of concrete or steel. *Times: 6 surfaces for each units; 2 times for each side.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature.
Vibration IEC 60068-2-6 GB/T 2423.10	*Frequency: 10Hz~55Hz~10Hz(1min) *Total amplitude: 1.5mm *Test times: 6hrs.(Two hrs each in three mutually perpendicular directions)	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature.
Adhesive Strength of Termination IEC60068-2-21 GB/T 2423.6	*Pressurizing force: 5N(≤0603); 10N(>0603) *Test time:10±1 sec	No remarkable damage or removal of the termination.



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Bending test IEC 60068-2-21 GB/T 2423.29	The middle part of substrate shall be pressurized by means of the pressurizing rod at a rate of about 1 mm/s per second until the deflection becomes 2mm and then pressure shall be maintained for 10±1 sec. Measurement to be made after keeping at room temperature for 24±2 hours.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature.
Temperature cycle IEC60068-2-14 GB/T 2423.22	30 minutes at -40°C±2°C. 10~15 minutes at room temperature. 30minutes at +85°C±2°C. 10~15 minutes at room temperature. Total 100 continuous cycles Measurement to be made after keeping at room temperature for 24±2 hrs.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature.
High temperature IEC 60068-2-2 GB/T2423.2	*Temperature: 85±2°C. *Test duration: 500+24/-0 hours. Measurement to be made after keeping at room temperature for 24±2 hrs.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics.
Humidity (steady conditions) IEC60068-2-3 GB/T 2423.3	*Humidity: 85±5%R.H. *Temperature: 85±2°C. *Time: 500+24/-0 hrs. Measurement to be made after keeping at room temperature for 24±2 hrs ※ 200hrs measuring the first data then 300hrs data.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature.
Low temperature IEC 60068-2-1 GB/T2423.1	*Temperature: -40±2°C. *Test duration: 500+24/-0 hours Measurement to be made after keeping at room temperature for 24±2 hrs.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature.