

产品规格承认书

SPECIFICATIONS

客户:

CUSTOMER: _____

产品名称:

DESCRIPTION: Chip Antenna

客户型号:

CUSTOMER PART NO: _____

产品型号:

OUR MODEL NO: **PBX1608MC01**

日期:

DATE: _____

确认签字, 盖章后请返回承认书一份

PLEASE RETURN TO US ONE COPY OF "SPECIFICATION FOR APPROVAL"

WITH YOUR APPROVED SIGNATURES

客户承认 CUSTOMER APPROVED		

工 程 部 R&D CENTER		
承认 APPROVAL	确认 CHECKED	制作 DRAWN
Ray	Tennyson	Snow

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TITLE: CHIP2450-1608 Specification		DOCUMENT NO.	1608
			SPEC REV. P1

PBX1608MC01 Specification

1. Features:

- Stable and reliable in performances
- Low profile, compact size
- RoHS compliance
- SMT processes compatible

2. APPLICATIONS:

- ISM 2.4 GHz applications
- ZigBee/BLE applications
- Bluetooth earphone systems
- Hand-held devices when WiFi/Bluetooth functions are needed, e.g., Smart phones
- IEEE802.11 b/g/n
- Wireless PCMCIA cards or USB dongles

3. Part Number Information

AN
1608
S
24
LS

A
B
C
D
E

A	Product Series	Antenna
B	Dimension L x W	1.6X0.8mm (+-0.2mm)
C	Antenna type	S:Chip antenna
D	Working Frequency	2.4 ~ 2.5GHz
E	Product type	LS

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4. Product dimensions:

1608 Chip Antenna

Figure	Symbol	Dimension (mm)
<p>The diagram shows a rectangular chip antenna with a central blue area and two grey electrode areas on the left and right sides. Dimension L is the length of the central area, W is the width, T is the thickness, and A is the width of the electrodes.</p>	L (长)	1.5 ± 0.10
	W (宽)	0.8 ± 0.10
	T (厚度)	0.50 ± 0.10
	A (电极宽度)	0.2 ± 0.10

5. Electrical Specification:

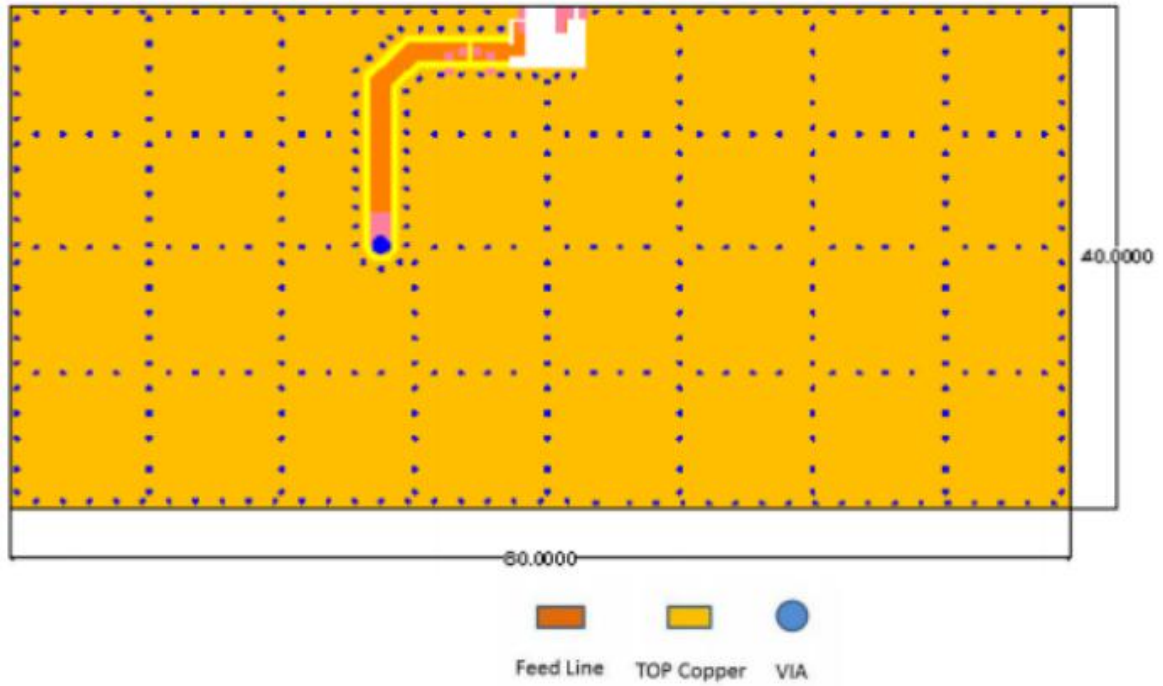
Specification		
Part Number	AN1608S24LS	
Central Frequency	2450	MHz
Bandwidth	120 (Min.)	MHz
Return Loss	-6.5 (Max)	dB
Peak Gain	1.66	dBi
Impedance	50	Ohm
Operating Temperature	-40~+85	C
Maximum Power	4	W
Resistance to Soldering Heats	10 (@ 260C)	sec.
Polarization	Linear	
Azimuth Beamwidth	Omni-directional	
Termination	Ni / Sn (Leadless)	

Remark : Bandwidth & Peak Gain was measured under evaluation board of next page

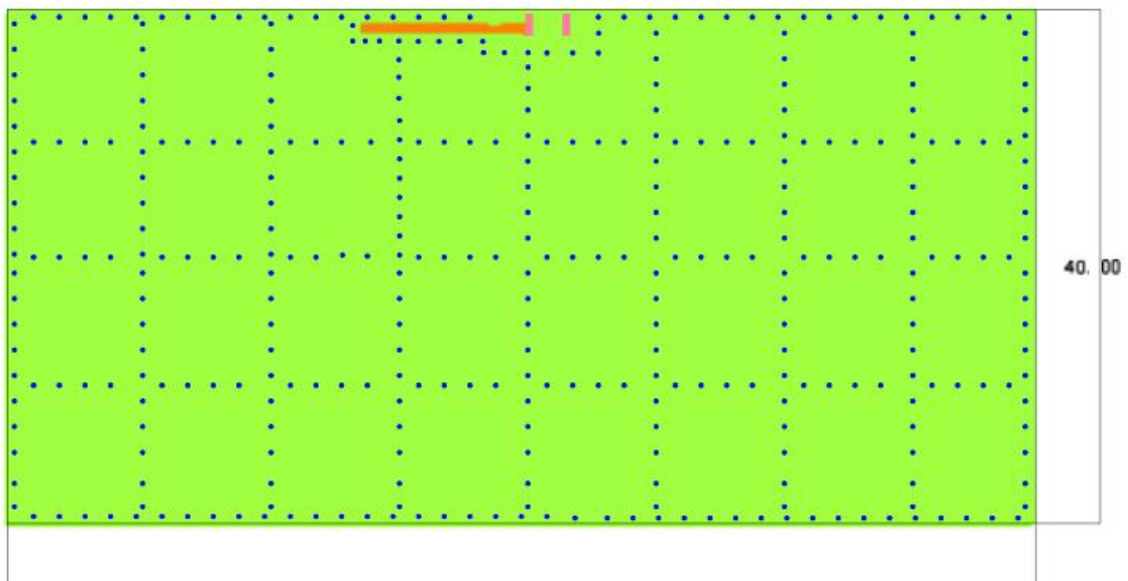
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6. 1608 双极天线推荐 PCB

Evaluation Board Dimension



2nd Evaluation Board Dimension



匹配元件建议使用村田 ±1%以下的电感、电容

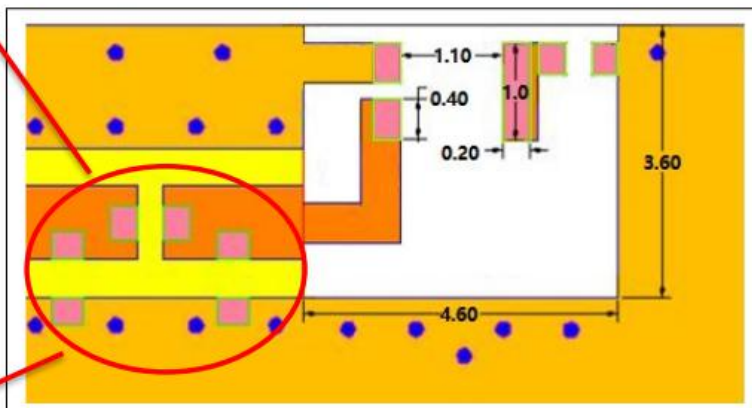
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净空区域 (Size=4.6*3.6mm)

Antenna Clearance area

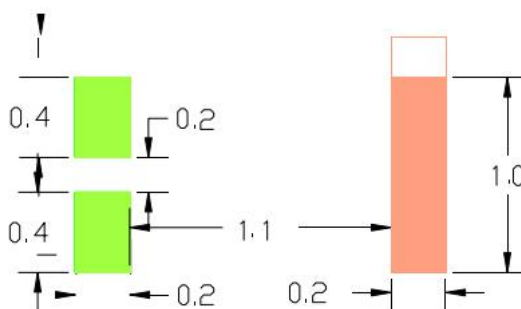


50 ohm transmission Line

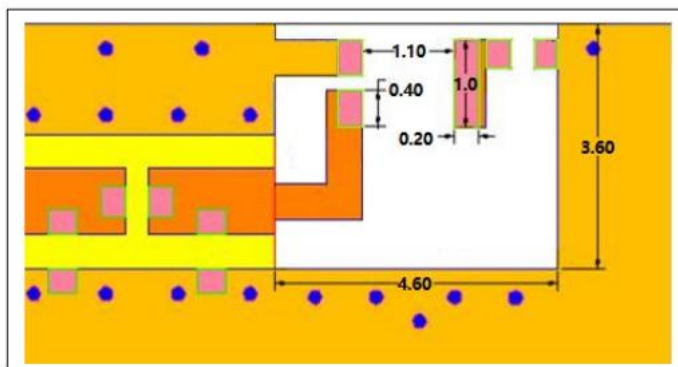


Matching Circuit

FootPrint (Unit : mm)



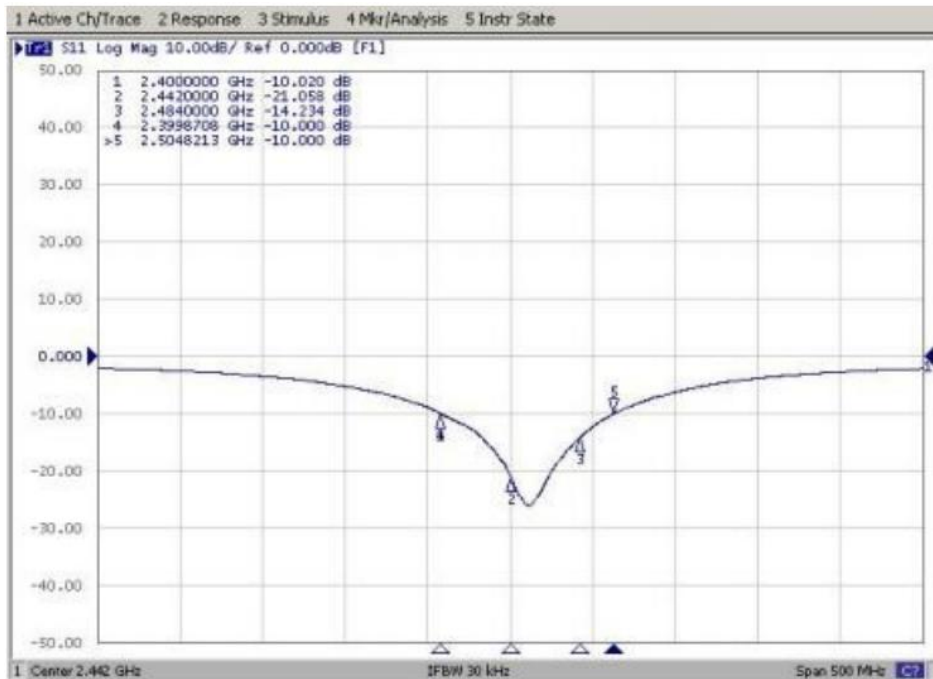
2 Layout Dimensions in Clearance area (Size=8.0*3.0mm)



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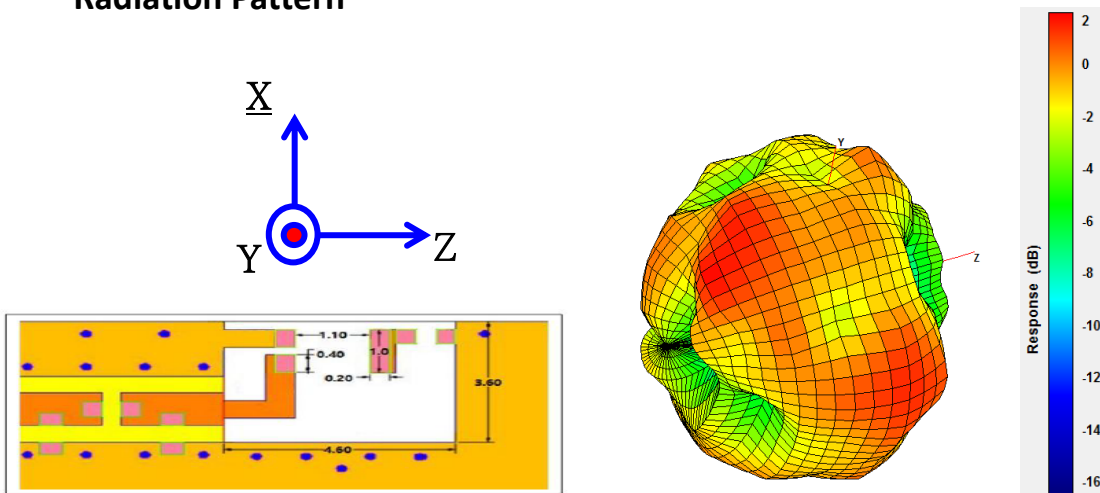
7. Measurement Results

Return Loss



7.2 Radiation Pattern

Radiation Pattern



	Efficiency	Peak Gain
2400MHz	47.65 %	1.66 dBi
2450MHz	45.27 %	1.18 dBi
2500MHz	43.32 %	1.07 dBi

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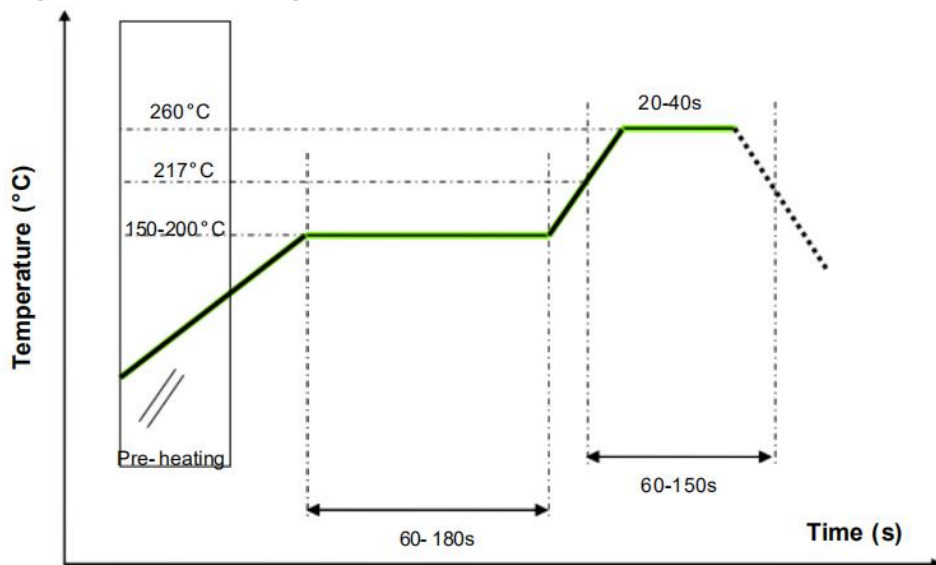
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8. Reliability and Test Conditions

Test item	Test condition / Test method	Specification
Solderability JIS C 0050-4.6 JESD22-B102D	*Solder bath temperature : $235 \pm 5^{\circ}\text{C}$ *Immersion time : 2 ± 0.5 sec Solder : Sn3Ag0.5Cu 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) IEC 60068-2-58	*Solder bath temperature : $260 \pm 5^{\circ}\text{C}$ *Leaching immersion time : 30 ± 0.5 sec Solder : SN63A	Loss of metallization on the edges of each electrode shall not exceed 25%.
Bending test JIS C 0051- 7.4.1	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 1mm/s and then pressure shall be maintained for 5 ± 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 under the operational temperature range within $-40 \sim 85^{\circ}\text{C}$.
Resistance to soldering heat JIS C 0050-5.4	*Preheating temperature : $120 \sim 150^{\circ}\text{C}$, 1 minute. *Solder temperature : $270 \pm 5^{\circ}\text{C}$ *Immersion time : 10 ± 1 sec Solder : Sn3Ag0.5Cu 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 under the operational temperature range within $-40 \sim 85^{\circ}\text{C}$. Loss of metallization on the edges of each electrode shall not exceed 25%.

9. Soldering and Mounting



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P1

10. Storage and Transportation Information

Storage Conditions

To maintain the solderability of terminal electrodes:

1. Temperature and humidity conditions: - 10~ 40C and 30~70% RH.
2. Recommended products should be used within 6 months from the time of delivery.
3. The packaging material should be kept where no chlorine or sulfur exists in the air.

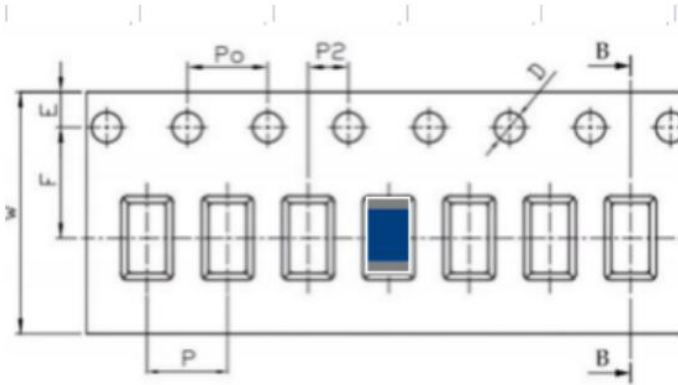
Transportation Conditions

1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
3. Bulk handling should ensure that abrasion and mechanical shock are minimized.

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- 11. Packing
- (1) Quantity/Reel: 5000 pcs/Reel
- (2) Plastic tape:

a. Tape Drawing

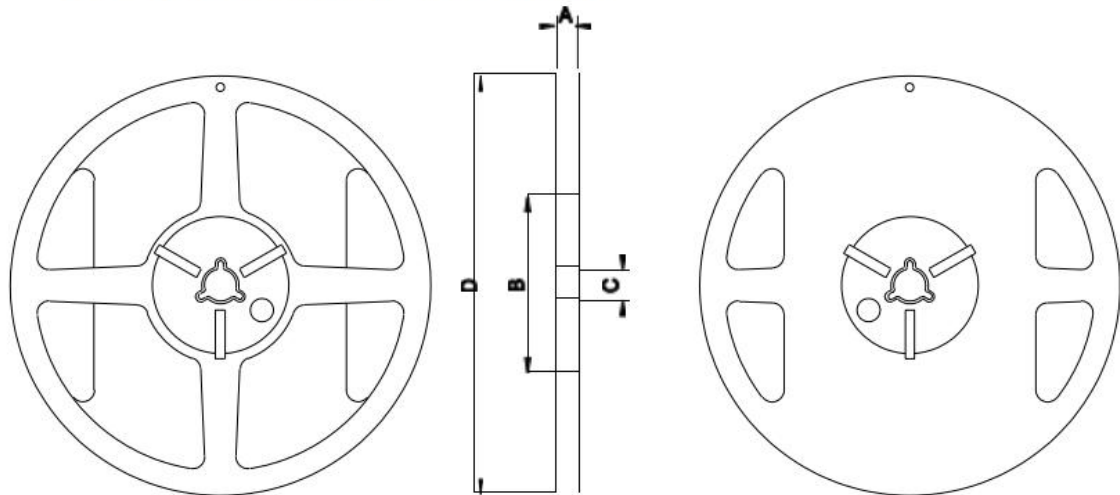


b. Tape Dimensions (unit: mm)

Feature	Specifications	Tolerances
W	8.00	±0.30
P	4.00	±0.10
E	1.75	±0.10
F	3.50	±0.10
P2	2.00	±0.10
D	1.50	+0.10 -0.00
P0	4.00	±0.10
10P0	40.00	±0.20

c. Reel Drawing

Reel Specification: (7", Φ180 mm)



7" x 8 mm

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