# 产品规格承认书

## **SPECIFICATIONS**

客户:

Cl	USTOMER: _						
产	"品名称:						
DF	ESCRIPTION	:		SMD ANT			
客	子户型号:						
Cl	USTOMER PAI	RT NO:					
产	产品型号:						
JO	UR MODEL N	0:	P	BX1608MA	01		
日	刊期:						
D <i>F</i>	ATE:			2021/09/01			
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### **PBX1608MA01 Specification**

Operating Temp. : -40 ℃~+85 ℃

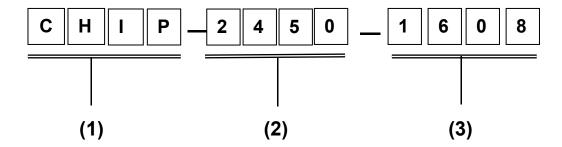
#### 1. FEATURES:

- Light weight, compact
- Wide bandwidth, low cost
- Built-in antenna with high gain

#### 2. APPLICATIONS:

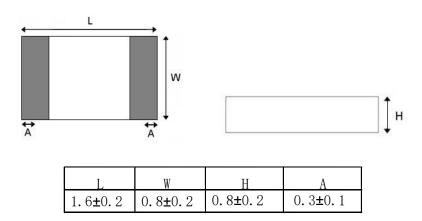
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

#### 3. PRODUCT IDENTIFICATION



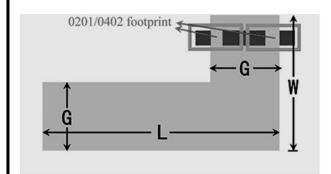
- (1) Product type: SMD Antenna
- (2) Center Frequency: 2450MHz
- (3) External Dimensions (L×W) (mm): 1.6\*0.8

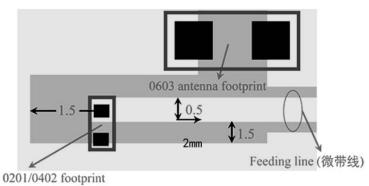
## 4. SHAPE AND DIMENSIONS:

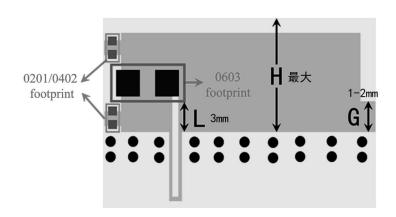


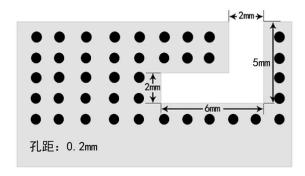
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●单位: mm







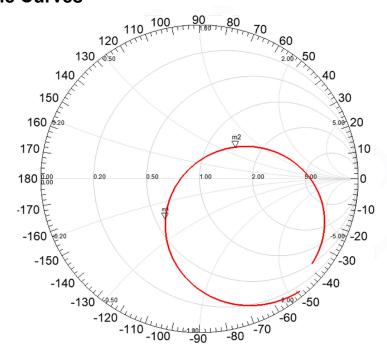


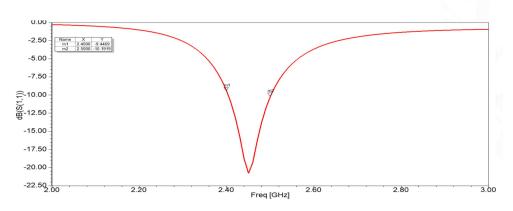
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## **Electrical Characteristics**

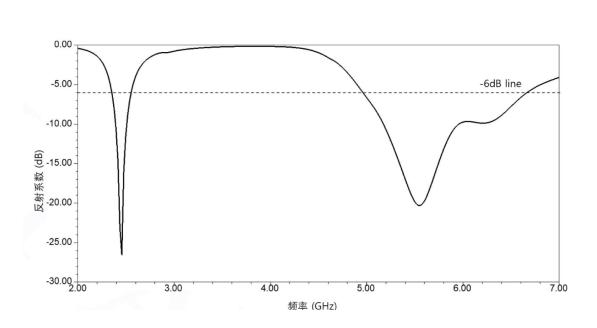
	Feature	Specification
1	Central frequency	2.45GHz&5.5GHz
2	Bandwidth	>100MHz
3	Peak gain	>3dBi
4	VSWR	<2
5	Polarization	Linear
6	Azimuth beamwidth	Omnidirectional
7	Impedance	50 Ω

## **Characteristic Curves**



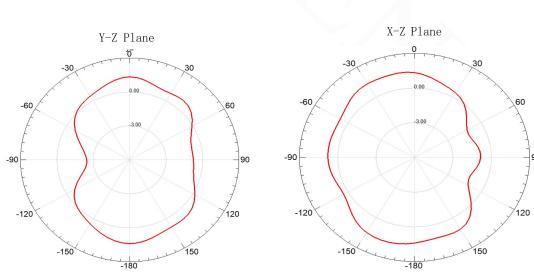


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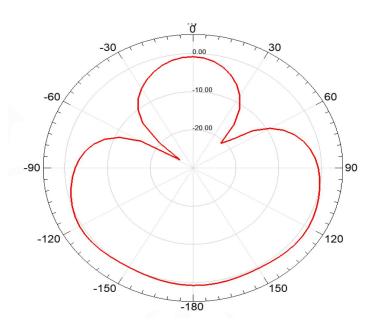


## **Radiation Pattern**

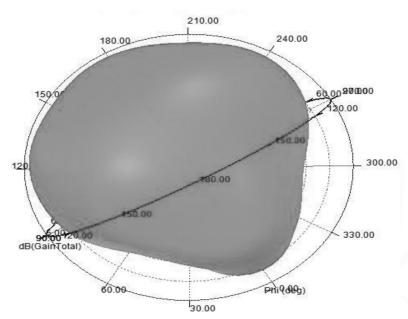




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## **3D Radiation Pattern**

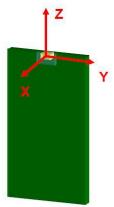


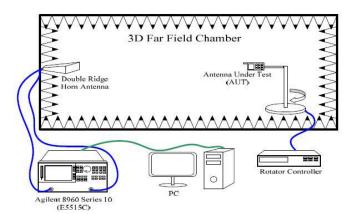
Frequency	2450MHz	5500MHz
Avg. gain	-0.85	-1.30
Peak gain	3.0	3.5
Efficiency	82%	78%

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#### **Radiation Pattern**

The Gain pattern is measured in FAR-field chamber. DUT is placed on the table of rotator,a standard horn antenna and Vector Network Analyzer is used to collect data.





#### **Environmental Characteristics**

#### (1) Reliability Test

Item	Condition	Specification
Thermal shock	1. $30\pm3$ minutes at $-40^{\circ}$ C $\pm5^{\circ}$ C, 2. Convert to $+105^{\circ}$ C (5 minutes) 3. $30\pm3$ minutes at $+105^{\circ}$ C $\pm5^{\circ}$ C, 4. Convert to $-40^{\circ}$ C (5 minutes) 5. Total 100 continuous cycles	No apparent damage Fulfill the electrical spec. after test.
Humidity resistance	<ol> <li>Humidity: 85% R.H.</li> <li>Temperature: 85±5° C</li> <li>Time: 1000 hours.</li> </ol>	No apparent damage Fulfill the electrical spec. after test.
High temperature resistance	1. Temperature: 150° C±5° C 2. Time: 1000 hours.	No apparent damage Fulfill the electrical spec. after test.
Low temperature resistance	1. Temperature: $-40^{\circ}$ C $\pm 5^{\circ}$ C 2. Time: 1000 hours.	No apparent damage Fulfill the electrical spec. after test.
Soldering heat resistance	1. Solder bath temperature : $260\pm5^{\circ}\!$	No apparent damage
Solderability	The dipped surface of the terminal shall be at least 95% covered with solder after dipped in solder bath of $245\pm5^\circ\!$	No apparent damage

#### (2) Storage Condition

#### (a) At warehouse:

The temperature should be within  $0 \sim 30^{\circ}\text{C}$  and humidity should be less than 60% RH. The product should be used within 1 year from the time of delivery.

#### (b) On board:

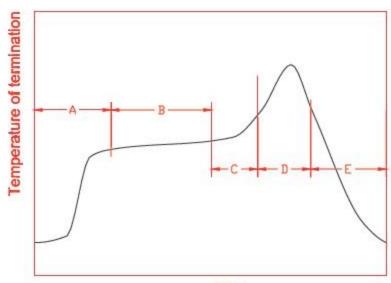
The temperature should be within -40~85°C and humidity should be less than 85% RH.

#### (3) Operating Temperature Range

Operating temperature range :  $-40^{\circ}$ C to  $+105^{\circ}$ C.

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## 8. Recommended Reflow Soldering



#### Time

Α	1 <sup>st</sup> rising temperature	The normal to Preheating temperature	30s to 60s
В	Preheating	140°C to 160°C	60s to 120s
С	2 <sup>nd</sup> rising temperature	Preheating to 200°C	20s to 40s
		if 220°C	50s∼60s
D		if 230°C	40s~50s
	Main heating	if 240°C	30s~40s
	5-7-0-2-5-0-2-5-5-5-5-5-0	if 250°C	20s~40s
		if 260°C	20s~40s
E	Regular cooling	200°C to 100°C	1°C/s ~ 4°C/s
_	2.000		

<sup>\*</sup>reference: J-STD-020C

#### (1) Soldering Gun Procedure

Note the follows, in case of using solder gun for replacement.

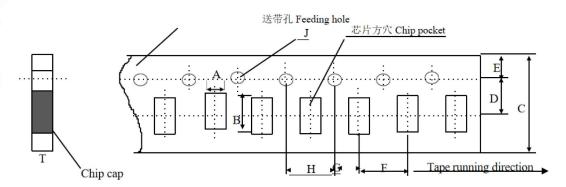
- (a) The tip temperature must be less than  $350^{\circ}\,$  C for the period within 3 seconds by using soldering gun under 30 W.
- (b) The soldering gun tip shall not touch this product directly.

#### (2) Soldering Volume

Note that excess of soldering volume will easily get crack the body of this product.

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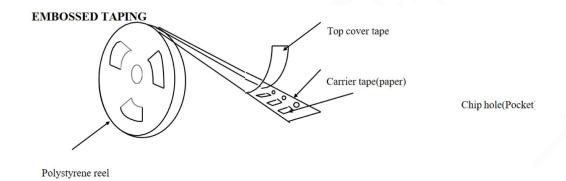
## Dimensions of paper taping:



Unit: mm

代号Code 纸带规格 papersize	A	В	С	D*	E	F	G*	Н	J	Т
尺寸	1.10	1.90	8.00	3.50	1.75	4.00	2.00	4.00	1.50	1.10
	±0.10	±0.10	±0.10	±0.05	±0.10	±0.10	±0.10	±0.10	-0/+0.10	Max

Reel (4000 pcs/Reel)



## **Storage Period**

The guaranteed period for solderability is 6 months (Under deliver package condition). Temperature:  $5\sim40^{\circ}\text{C}$  /Relative Humidity:  $20\sim70\%$ 

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