Shenzhen Penbang Xingye Technology Co., Ltd.

广东省深圳市龙华区民治街道 1970科技小镇4栋608室 Room 608, Building 4, 1970 Science and Technology Town, Minzhi Street, Longhua District, Shenzhen City, Guangdong Province

产品规格承认书

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	CUSTOM	ER:								
	产品名	称:								
	DESCRI	PTION:				蓝牙天线				
	客户型	•								
	CUSTOM 产品型		No:							
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NO.

3216

TITLE: CHIP2450-3216 Specification

PBX3216MC02 Specification

Operating Temp. : -40 ℃~+85 ℃

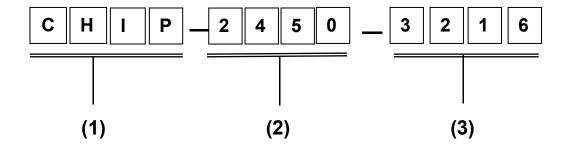
1. FEATURES:

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

2. APPLICATIONS:

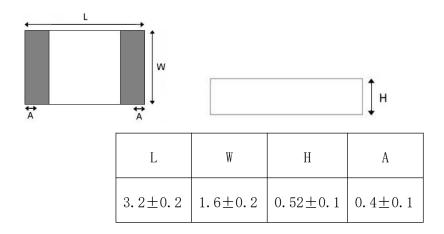
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

3. PRODUCT IDENTIFICATION



- (1) Product type: Multilayer chip Antenna
- (2) Center Frequency: 2450MHz
- (3) External Dimensions (L×W) (mm): 3.2*1.6

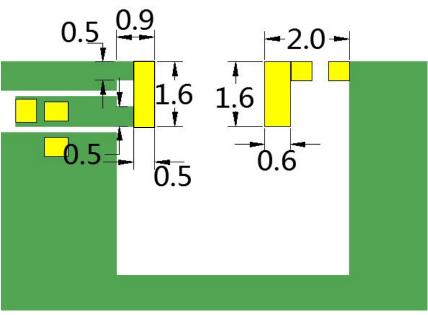
4. SHAPE AND DIMENSIONS:



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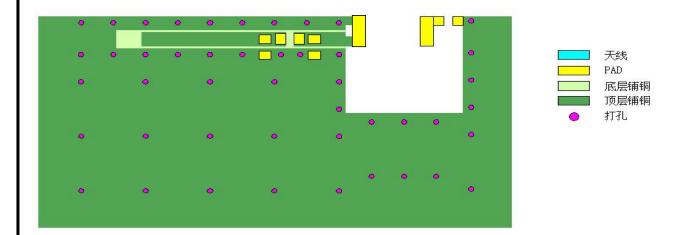
测试板参考尺寸: 单位: mm ANT

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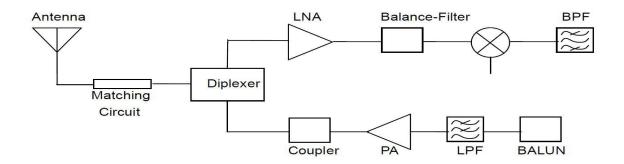


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打孔参考示意图



APPLICATION GUIDE



5. SPECIFICATIONS:

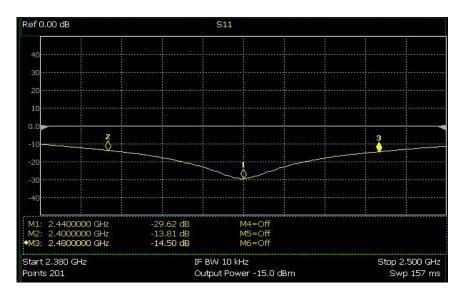
测试项	规格
带宽	2400~2483MHz
极化方式	线极化
*最大增益	2.67dBi
*效率	72. 30%
输入阻抗	50 Ω

* Test condition: Test board size 90*40 mm Matching circuit: Pi matching circuit will be required

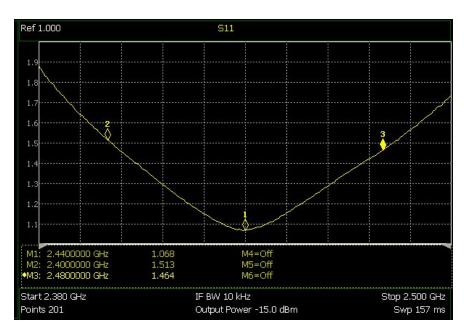
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6. Electrical Characteristics:

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驻波比

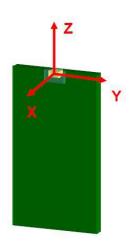


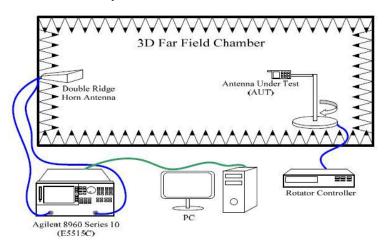
Mark	Frequency	VSWR
1	2400 MHz	1.513
2	2440 MHz	1.068
3	2480 MHz	1. 464

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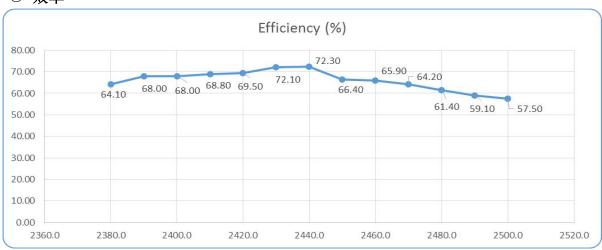
Radiation Pattern

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.

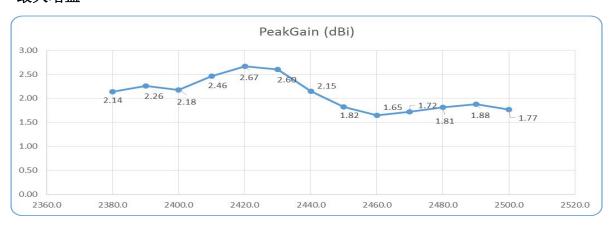




◎ 效率

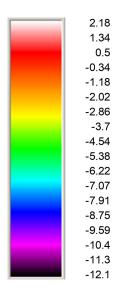


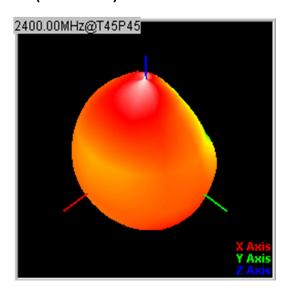
最大增益



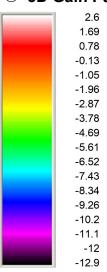
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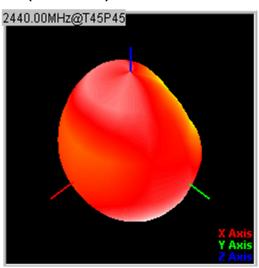
O 3D Gain Pattern (2400 MHz)



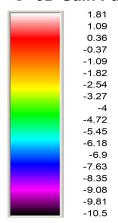


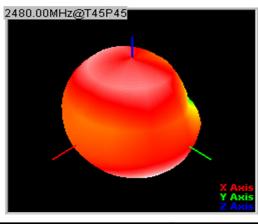
○ 3D Gain Pattern (2440 MHz)





O 3D Gain Pattern (2480 MHz)





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7. Environmental Characteristics

(1) Reliability 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: $85\pm5^{\circ}$ C 3. Time: 1000 hours.	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° 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 ± 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 $245\pm5^\circ\!$	No apparent damage

(2) Storage Condition

(a) At warehouse:

The temperature should be within $0 \sim 30^{\circ}$ 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:

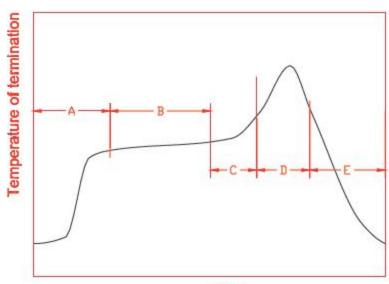
The temperature should be within -40~85°C and humidity should be less than 85% RH.

(3) Operating Temperature Range

Operating temperature range : -40° \mathbb{C} to +105° \mathbb{C} .

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8. Recommended Reflow Soldering



Time

Α	1 st rising temperature	The normal to Preheating temperature	30s to 60s
В	Preheating	140°C to 160°C	60s to 120s
С	2 nd rising temperature	Preheating to 200°C	20s to 40s
		if 220°C	50s~60s
		if 230°C	40s∼50s
D	Main heating	if 240°C	30s~40s
	5-10-2 1-1	if 250°C	20s~40s
		if 260°C	20s~40s
E	Regular cooling	200°C to 100°C	1°C/s ~ 4°C/s

^{*}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° 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

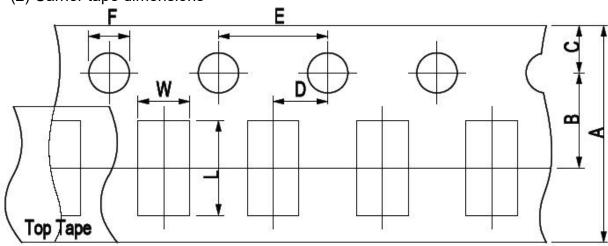
Note that excess of soldering volume will easily get crack the body of this product.

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9. Taping Package and Label Marking: (unit: mm)

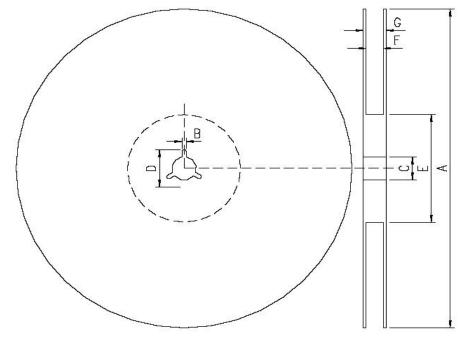
(1) Quantity/Reel: 5000pcs/Reel

(2) Carrier tape dimensions



Type	A	В	С	D	Е	F	L	W
2450-21	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

(3) Taping reel dimensions



Α	178.0±2.0
В	2.0 ± 0.5
С	13.0±0.5
D	21.0±0.8
Ε	62.0±1.5
F	9.0±0.5
G	13.0±1.0

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