# 产品规格承认书

# **SPECIFICATIONS**

客户:

C	USTOMER: _						
D		V:		双极天线			
_	S户型号: USTOMER PA	PT No.					
	- - 品型号:	MI NO					
•	•	Ю:	P	<b>BX3216MA</b>	01		
	刊期:						
D	ATE:						
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杉	<b>该准</b>		审核	刘飞	制作	刘小美	
	客戶	<sup>)</sup> 承认签6	<b>印</b>				
		日期					
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TLE: CH	IP2450-3216 S	pecification		DOCUMENT NO.		3216	SPEC REV.

#### **PBX3216MA01 Specification**

Operating Temp. : -40 ℃~+85 ℃

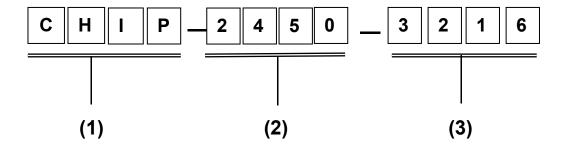
#### 1. FEATURES:

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

#### 2. APPLICATIONS:

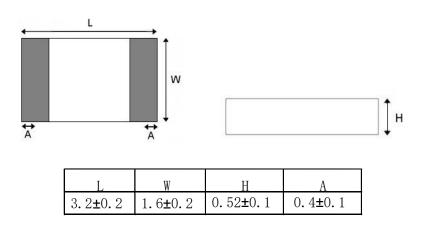
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

#### 3. PRODUCT IDENTIFICATION



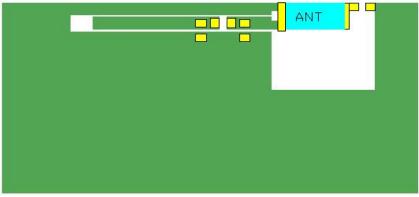
- (1) Product type: Multilayer chip Antenna
- (2) Center Frequency: 2450MHz
- (3) External Dimensions (L×W) (mm): 3.2\*1.6

#### 4. SHAPE AND DIMENSIONS:

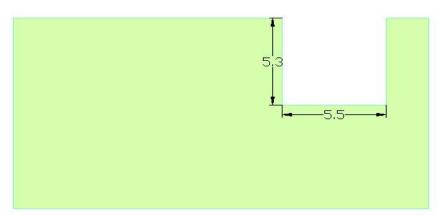


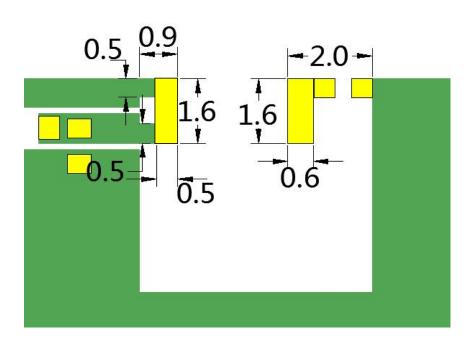
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# 测试板参考尺寸: 单位: mm



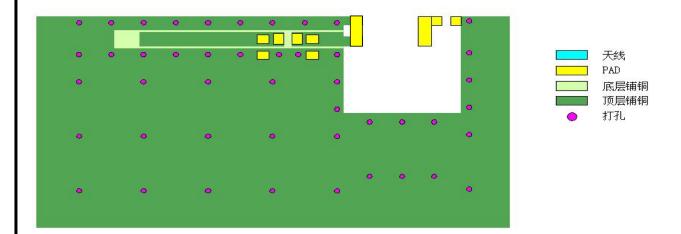




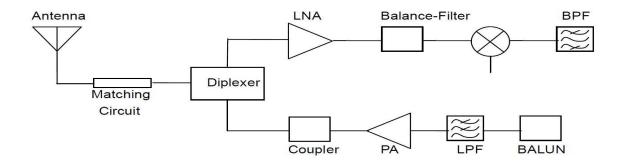


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# 打孔参考示意图



## **APPLICATION GUIDE**



#### 5. SPECIFICATIONS:

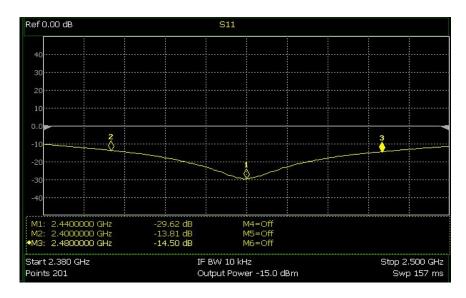
测试项	规格
带宽	2400~2483MHz
极化方式	线极化
*最大增益	2.67dBi
*效率	72. 30%
输入阻抗	50 Ω

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

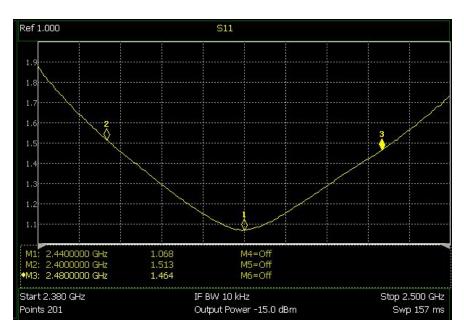
UNLESS OTHER SPECIFIED TOLERANCES ON:		- 8	深圳士品外公训科士士	78 /\ =1	
$X=\pm$ $X.X=\pm$	X.XX =	Pb	深圳市朋伴兴业科技有	限公司	
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## 6. Electrical Characteristics:

# 回波损耗



#### 驻波比

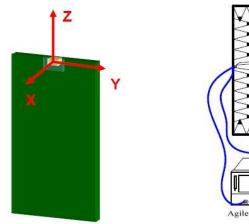


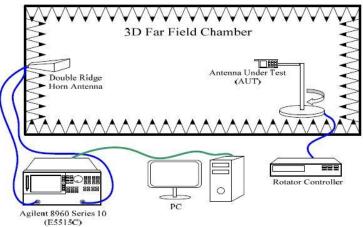
Mark	Frequency	VSWR
1	2400 MHz	1.513
2	2440 MHz	1.068
3	2480 MHz	1. 464

UNLESS OTHER SPECIFIED TOLERANCES ON: $X=\pm$ $X.X=\pm$ $X.XX=$ $ANGLES=\pm$ $HOLEDIA=\pm$		<b>PENGBANXING</b>	深圳市朋伴兴业科技有	限公司	
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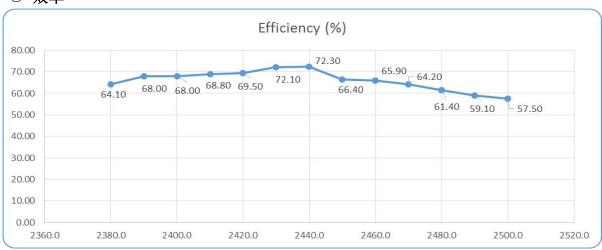
#### **Radiation Pattern**

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.

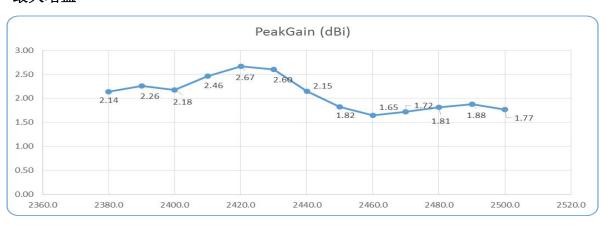




#### ◎ 效率

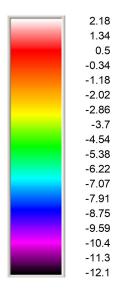


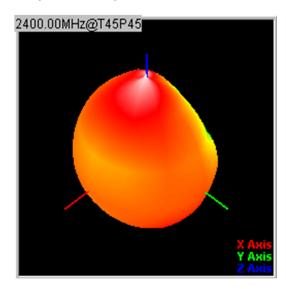
#### 最大增益



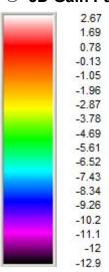
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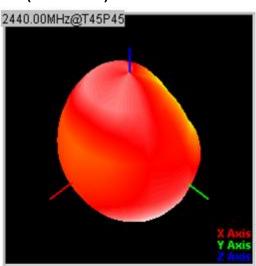
#### O 3D Gain Pattern (2400 MHz)



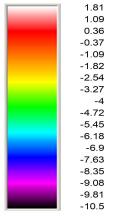


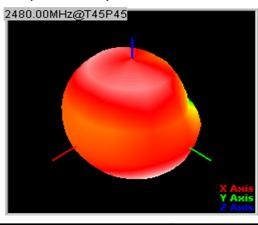
#### O 3D Gain Pattern (2440 MHz)





#### 3D Gain Pattern (2480 MHz)





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#### 7. 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	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±5° C 2. Time: 1000 hours.	No apparent damage Fulfill the electrical spec. after test.
Soldering heat resistance	1. Solder bath temperature : $260\pm5^{\circ}$ C 2. Bathing time: $10\pm1$ 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 $245\pm5^\circ\mathrm{C}$ for $3\pm1$ seconds.	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:

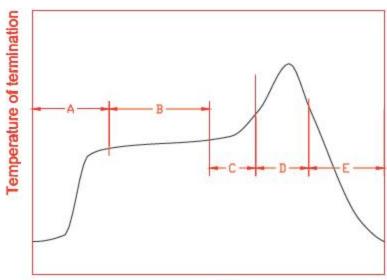
The temperature should be within -40~85°C and humidity should be less than 85% RH.

#### (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 <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
		if 230°C	40s∼50s
D	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

<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

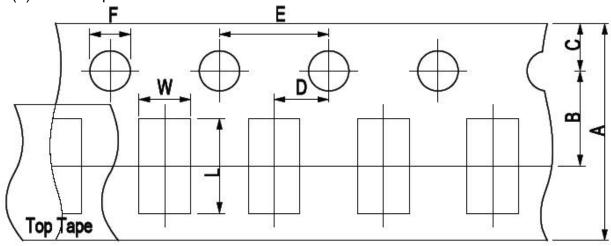
Note that excess of soldering volume will easily get crack the body of this product.

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$X=\pm$ $X.X=\pm$	X.XX =	Pb	深圳市朋伴兴业科技有	限公司
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			3210	P1

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

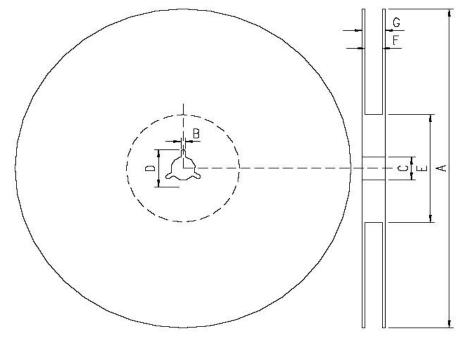
(1) Quantity/Reel: 5000pcs/Reel

(2) Carrier tape dimensions



Type	A	В	С	D	Е	F	L	W
2450-21	$8.00\pm0.3$	$3.50\pm0.05$	1.75 $\pm$ 0.1	$2.00\pm0.05$	$4.00\pm0.1$	1. $50 \pm 0.1$	$2.30\pm0.1$	1.55 $\pm$ 0.1

# (3) Taping reel dimensions



Α	178.0±2.0
В	2.0±0.5
C	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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