# 产品规格承认书

## **SPECIFICATIONS**

客户:					
CUSTOMER:					
产品名称: DESCRIPTION:	Mu	ltilayer chip Antenr	na		
客户型号:					
CUSTOMER PART No:_ 产品型号:					
OUR MODEL NO:	P	ВХ3216НС	01		
日期:					
DATE:					
确认签字, 盖章后请返	回承认书−	一份			
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WITH YOUR APPROVEI	) SIGNATU	RES			
核准	审核	刘飞	制作	刘小美	
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日期					
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TITLE: CHIP2450-3216 Specification	n	DOCUMENT NO.		3216	SPEC REV.

## **PBX3216HC01 Specification**

Operating Temp. : -40 ℃~+85 ℃

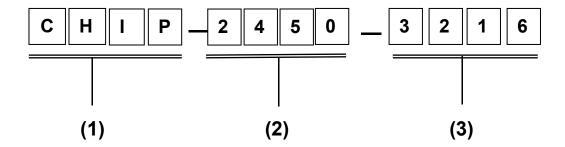
#### 1. FEATURES:

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

#### 2. APPLICATIONS:

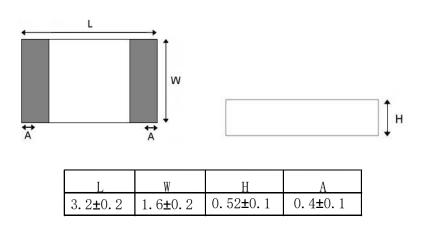
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

#### 3. PRODUCT IDENTIFICATION

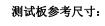


- (1) Product type: Multilayer chip Antenna
- (2) Center Frequency: 2450MHz
- (3) External Dimensions (L×W) (mm): 3.2\*1.6

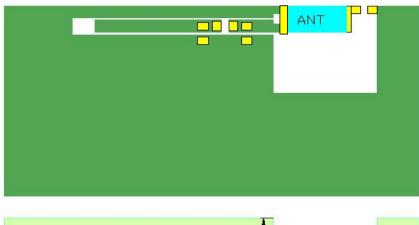
#### 4. SHAPE AND DIMENSIONS:



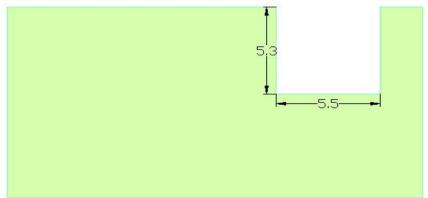
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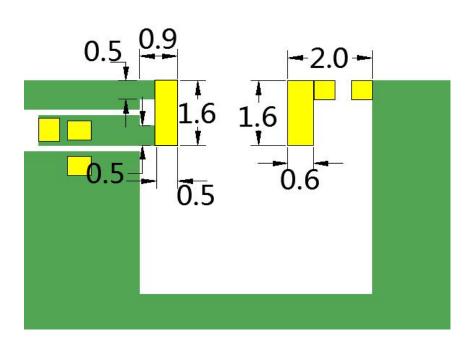


单位: mm



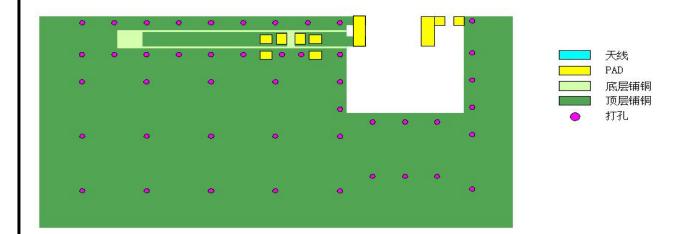




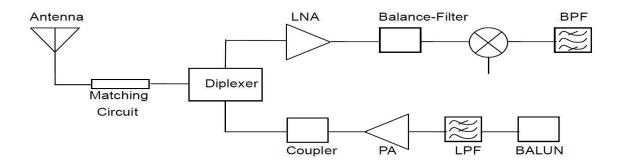


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## 打孔参考示意图



## **APPLICATION GUIDE**



## 5. SPECIFICATIONS:

Test Item	Specification
Bandwidth	2400~2483MHz
Polarization mode	Linear polarization
Maximum gain	2.67dBi
Efficiency	72. 30%
Input impedance	50 Ω

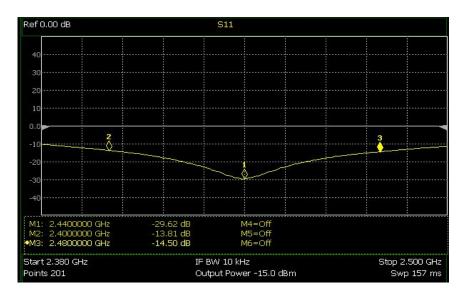
\* Test condition: Test board size 90\*40 mm

Matching circuit: Pi matching circuit will be required

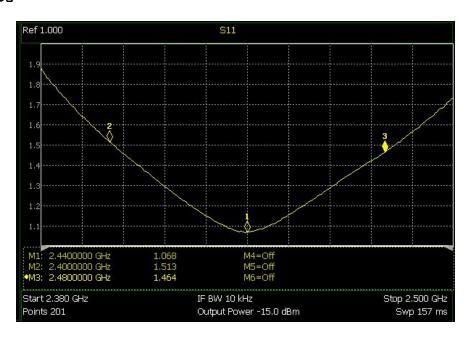
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## 6. Electrical Characteristics:

## 回波损耗



## 驻波比

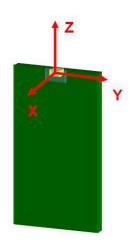


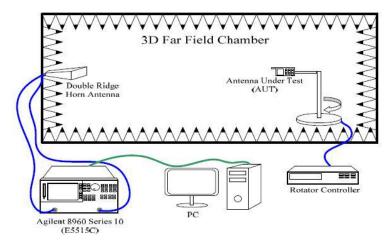
Mark	Frequency	VSWR
1	2400 MHz	1.513
2	2440 MHz	1.068
3	2480 MHz	1. 464

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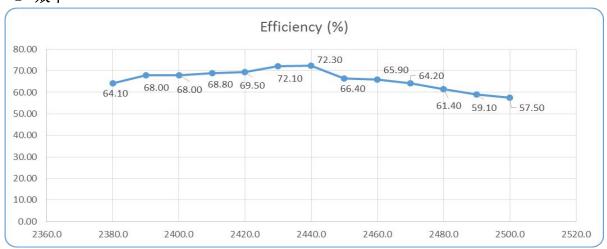
#### **Radiation Pattern**

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.

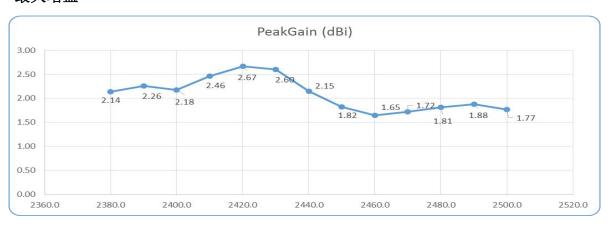




#### ◎ 效率

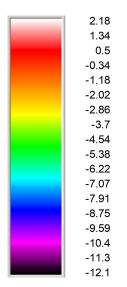


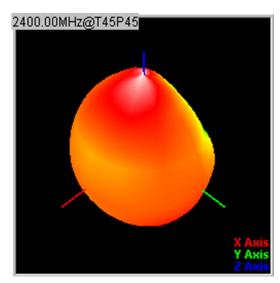
#### 最大增益



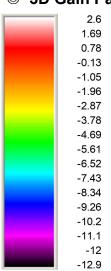
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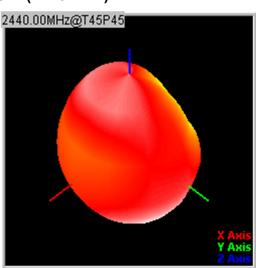
#### ○ 3D Gain Pattern (2400 MHz)



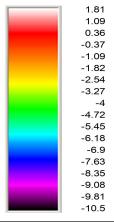


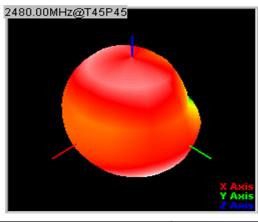
## ○ 3D Gain Pattern (2440 MHz)





## O 3D Gain Pattern (2480 MHz)





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## 7. Environmental Characteristics

## (1) Reliability Test

Item	Condition	Specification
Thermal shock	<ol> <li>30±3 minutes at -40° C±5° C,</li> <li>Convert to +105° C (5 minutes)</li> <li>30±3 minutes at +105° C±5° C,</li> <li>Convert to -40° C (5 minutes)</li> <li>Total 100 continuous cycles</li> </ol>	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: $150^{\circ}$ C $\pm 5^{\circ}$ 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  $0 \sim 30^{\circ}$ 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:

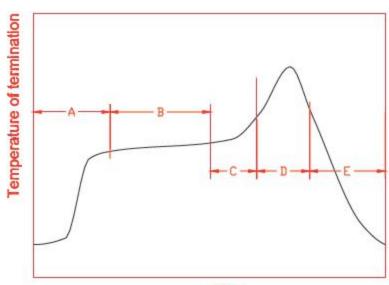
The temperature should be within -40~85°C and humidity should be less than 85% RH.

#### (3) Operating Temperature Range

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

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## 8. Recommended Reflow Soldering



#### Time

	Time	
1 <sup>st</sup> rising temperature	The normal to Preheating temperature	30s to 60s
Preheating	140°C to 160°C	60s to 120s
2 <sup>nd</sup> rising temperature	Preheating to 200°C	20s to 40s
D Main heating	if 220°C	50s∼60s
	if 230°C	40s∼50s
	if 240°C	30s~40s
	if 250°C	20s~40s
	if 260°C	20s~40s
Regular cooling	200°C to 100°C	1°C/s ~ 4°C/s
	Preheating  2 <sup>nd</sup> rising temperature  Main heating	The normal to Preheating temperature  Preheating  2 <sup>nd</sup> rising temperature  Preheating temperature  Preheating to 200°C  if 220°C  if 230°C  if 240°C  if 250°C  if 260°C

<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

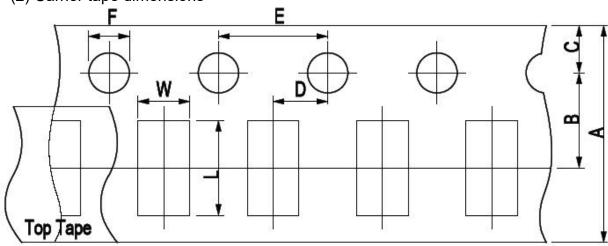
Note that excess of soldering volume will easily get crack the body of this product.

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

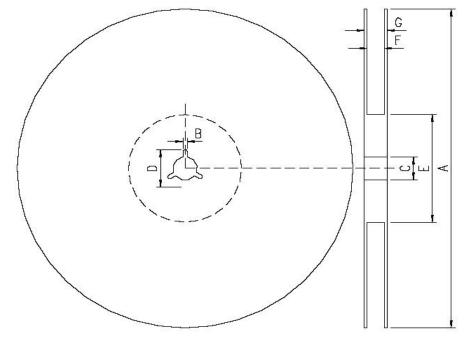
(1) Quantity/Reel: 5000pcs/Reel

(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±0.1	$2.00\pm0.05$	$4.00\pm0.1$	$1.50\pm0.1$	$2.30\pm0.1$	1.55 $\pm$ 0.1

## (3) Taping reel dimensions



Α	178.0±2.0
В	$2.0\pm0.5$
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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