# 产品规格承认书

## **SPECIFICATIONS**

客户:							
CUSTOM	IER:						
产品名 DESCRI	称: PTION:		В	luetooth Ar	ntenna		
客户型	-	N NT .					
产品型		NO:					
OUR MC	DEL NO:			PBX3216N	ИР01		
日期: DATE:			6	2020/12/22			
DATE.				2020/12/22			
确认签字	,盖章后	请返回	承认书一位	份			
PLEASE	E RETURN	TO US	ONE COPY	Y OF "SPEC	IFICATI(	ON FOR APPROVA	L <b>"</b>
WITH Y	OUR APF	PROVED	SIGNATURI	ES			
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#### **PBX3216MP01 Specification**

Operating Temp. : -40 ℃~+85 ℃

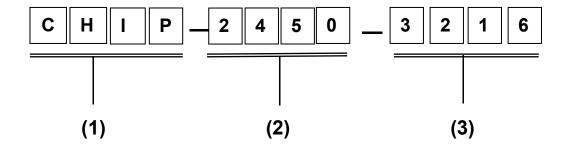
#### 1. FEATURES:

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

#### 2. APPLICATIONS:

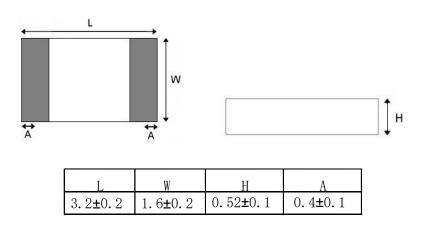
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

#### 3. PRODUCT IDENTIFICATION



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

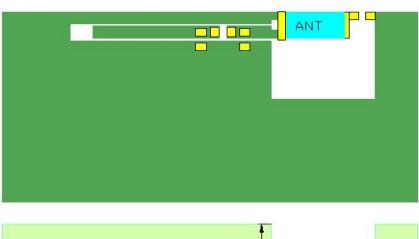
#### 4. SHAPE AND DIMENSIONS:



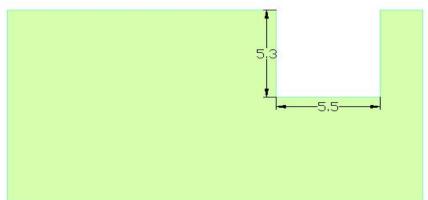
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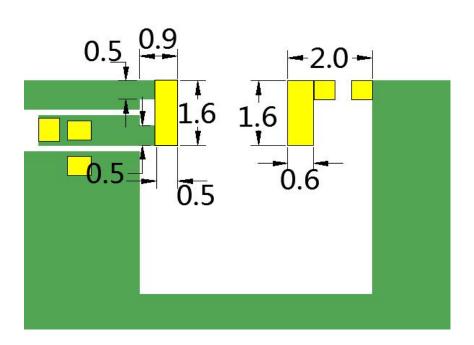
#### 测试板参考尺寸:

单位: mm









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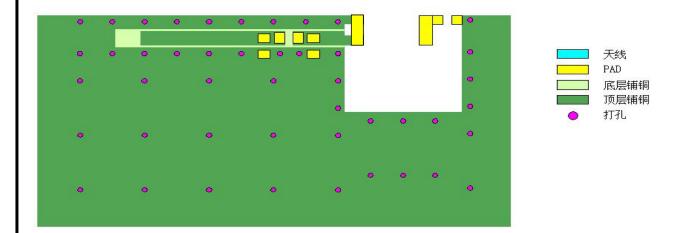
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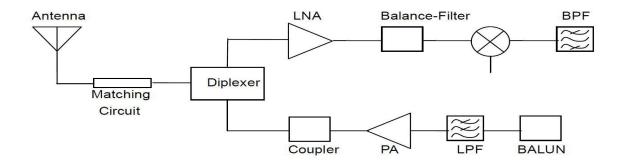
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## 打孔参考示意图



## **APPLICATION GUIDE**



#### 5. SPECIFICATIONS:

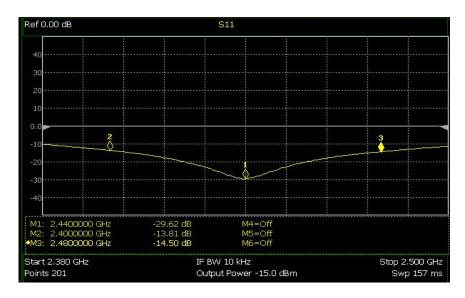
Test Item	Specification
带宽 BW	2400~2483MHz
极化方式Polarization	线极化 Linear polarization
*最大增益 Peak Gain	2.67dBi
*效率 Efficiency	72. 30%
输入阻抗 Input impedance	50 Ω

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

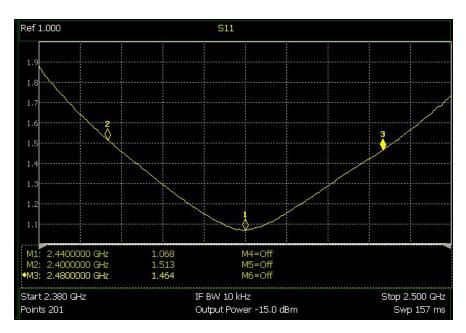
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## 6. Electrical Characteristics:

## 回波损耗



#### 驻波比

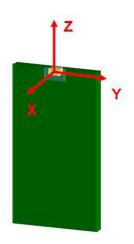


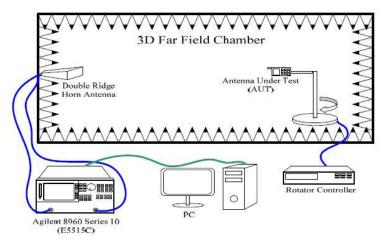
Mark	Frequency	VSWR
1	2400 MHz	1.513
2	2440 MHz	1.068
3	2480 MHz	1.464

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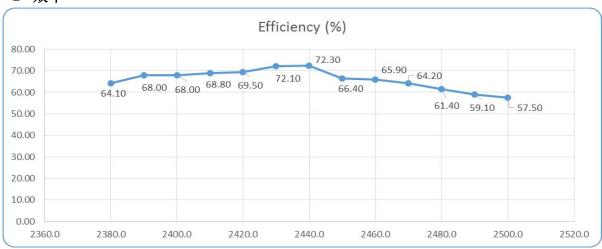
#### **Radiation Pattern**

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.

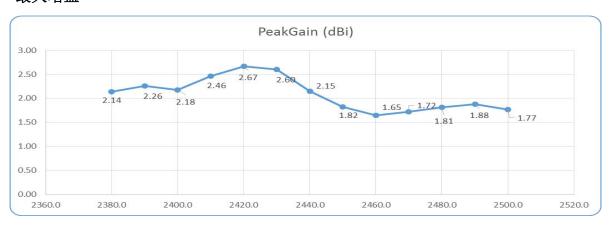




#### ◎ 效率

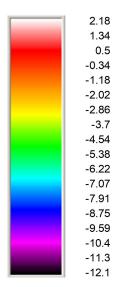


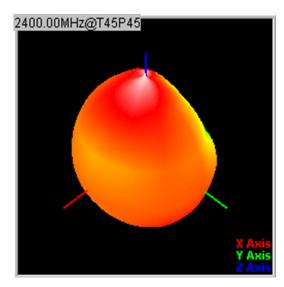
#### 最大增益



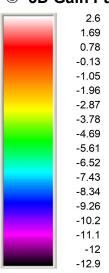
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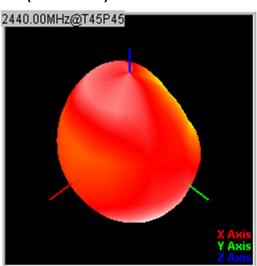
#### 3D Gain Pattern (2400 MHz)



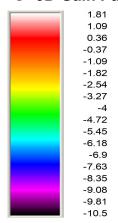


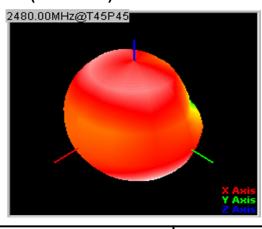
#### O 3D Gain Pattern (2440 MHz)





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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: $-40^{\circ}$ 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 : $260\pm5$ °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 $245\pm5^\circ\!$	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:

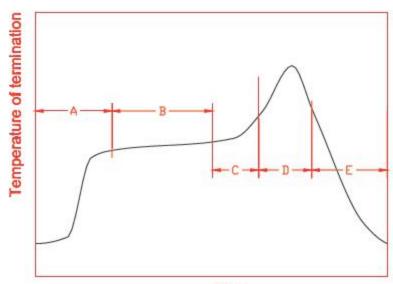
The temperature should be within -40~85°C and humidity should be less than 85% RH.

#### (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
	0.000	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

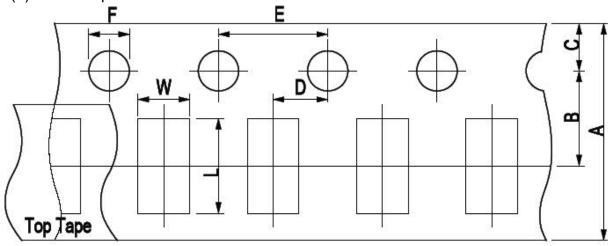
Note that excess of soldering volume will easily get crack the body of this product.

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

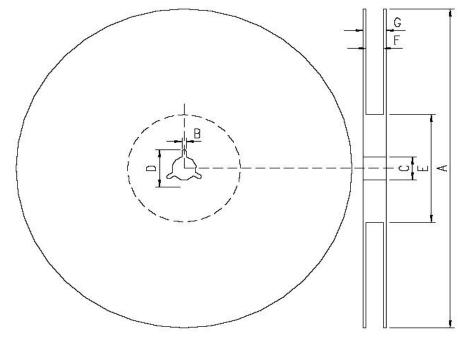
(1) Quantity/Reel: 5000pcs/Reel

(2) Carrier tape dimensions



Type	A	В	С	D	Е	F	L	W
2450-21	$8.00 \pm 0.3$	$3.50\pm0.05$	$1.75\pm0.1$	$2.00\pm0.05$	$4.00 \pm 0.1$	$1.50 \pm 0.1$	$2.30\pm0.1$	$1.55 \pm 0.1$

## (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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