# 产品规格承认书

## **SPECIFICATIONS**

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产品名			<b>出工</b> 4		
DESCRII 客户型·					
	ヲ・ ER PART No:				
产品型·					
	DEL NO:	F	PBX3216I	DA01	
日期:					
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**DOCUMENT** 

NO.

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UNIT: mm

 $HOLEDIA = \pm$ 

CHECKED BY: XD

**APPROVED BY: XD** 

 $ANGLES = \pm$ 

DRAWN BY : Sera
DESIGNED BY: Sera

TITLE: CHIP2450-3216 Specification

SCALE: N/A

深圳市朋伴兴业科技有限公司

SPEC REV.

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3216

## **PBX3216DA01 Specification**

Operating Temp. : -40 ℃~+85 ℃

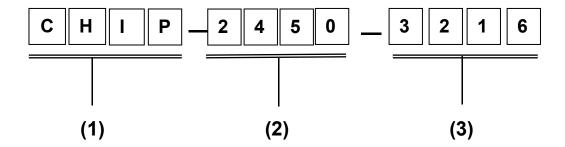
#### 1. FEATURES:

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

#### 2. APPLICATIONS:

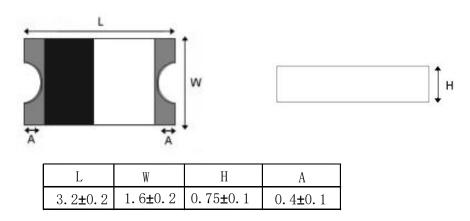
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

### 3. PRODUCT IDENTIFICATION



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

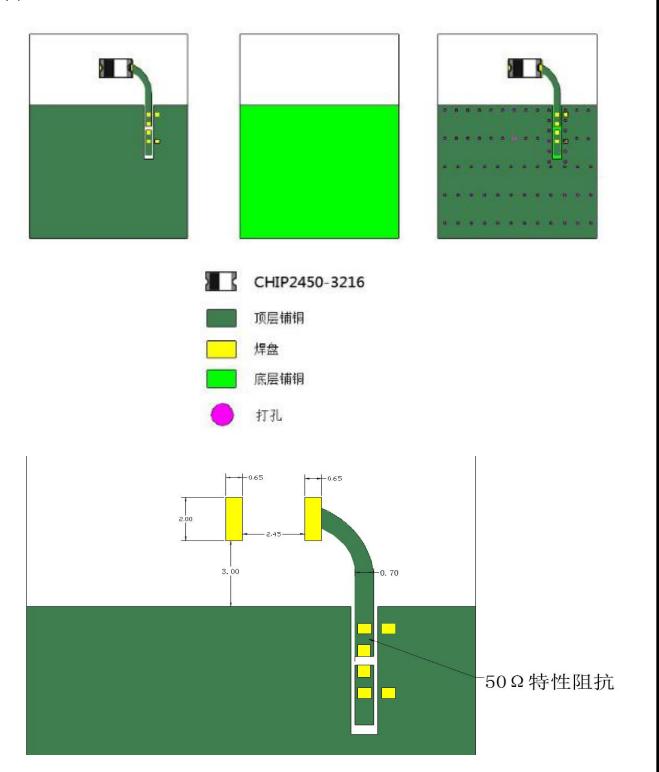
## 4. SHAPE AND DIMENSIONS:



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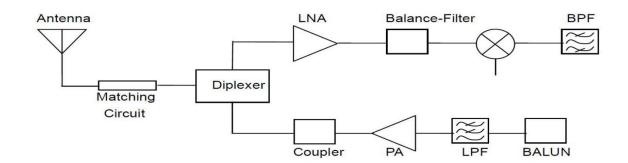
测试板参考尺寸: (注:贴片时请将天线白色端朝向芯片)

单位: mm



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## APPLICATION GUIDE

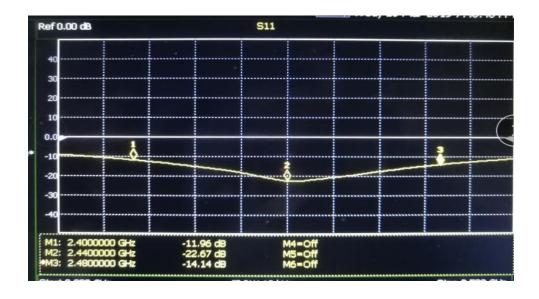


## 5. SPECIFICATIONS:

	+		
No.	Product number	PBX3216DA01	
1	Central Frequency	2440	MHz
2	Bandwidth	100 (Min.)	MHz
3	Return Loss	-11.96 (Max.)	dB
4	Peak Gain	2.73	dBi
5	Impedance	50	Ω
6	Operating Temperature	-40~+85	C
7	Maximum Power	5	w
8	Resistance to soldering heat	10 (@260℃)	Sec.
9	Polarization	Linear	
10	Azimuth Beam width	Omni-directional	
11	Termination	Sn (leadless)	

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## 6. Electrical Characteristics:



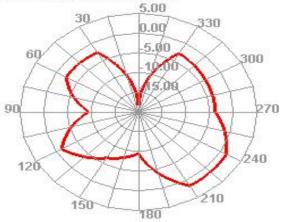


Frequency (MHz)	2400	2450	2500
Avg. Gain (dBi)	-1.83	-1.86	-2.97
Peck Gain (dBi)	2.7	2.58	1.34
Efficiency (%)	65.5	65.22	50.45

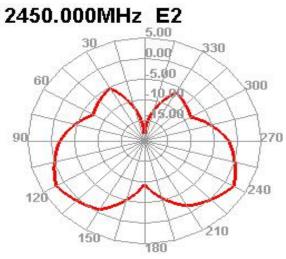
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## X-Y Plane

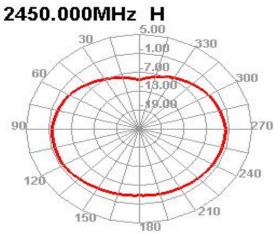




## X-Y Plane

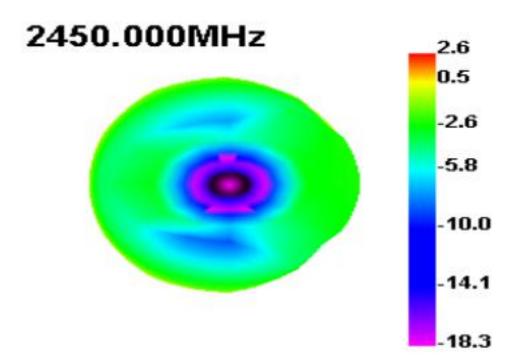


## X-Y Plane



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## **3D Radiation Pattern**



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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.
	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 : $260\pm5^{\circ}$ 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:

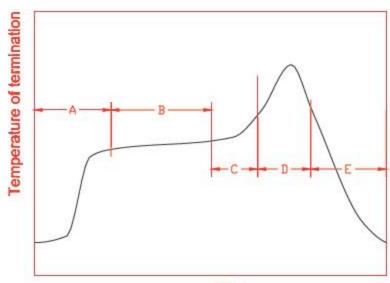
The temperature should be within -40~85°C and humidity should be less than 85% RH.

## (3) Operating Temperature Range

Operating temperature range :  $-40^{\circ}$ 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
	) Main heating	if 230°C	40s∼50s
D		if 240°C	30s~40s
		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

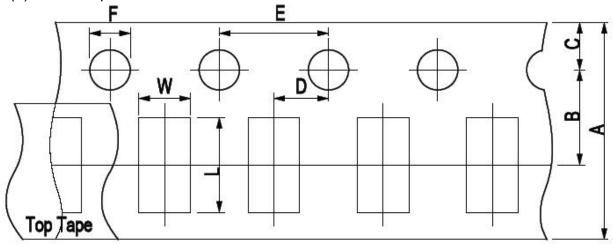
Note that excess of soldering volume will easily get crack the body of this product.

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

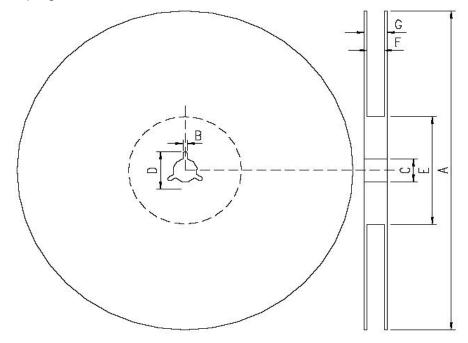
(1) Quantity/Reel: 5000pcs/Reel

(2) Carrier tape dimensions



Type	A	В	С	D	Е	F	L	W
2450-21	$8.00\pm0.3$	$3.50\pm0.05$	$1.75\pm0.1$	$2.00\pm0.05$	$4.00\pm0.1$	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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SCALE: N/A	UNIT: mm		
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