

## 产品规格承认书

## SPECIFICATIONS

客户:

CUSTOMER: \_\_\_\_\_

产品名称:

DESCRIPTION: \_\_\_\_\_ 单极天线

客户型号:

CUSTOMER PART No: \_\_\_\_\_

产品型号:

OUR MODEL NO: \_\_\_\_\_ **PBX3216DA01**

日期:

DATE: \_\_\_\_\_

确认签字, 盖章后请返回承认书一份

PLEASE RETURN TO US ONE COPY OF "SPECIFICATION FOR APPROVAL"

WITH YOUR APPROVED SIGNATURES

核准		审核	刘飞	制作	刘小美
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客户承认签印	
日期	

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DESIGNED BY: Sera	APPROVED BY: XD	
TITLE: CHIP2450-3216 Specification		DOCUMENT NO. 3216 SPEC REV. P1

## PBX3216DA01 Specification

Operating Temp. : -40°C~+85°C

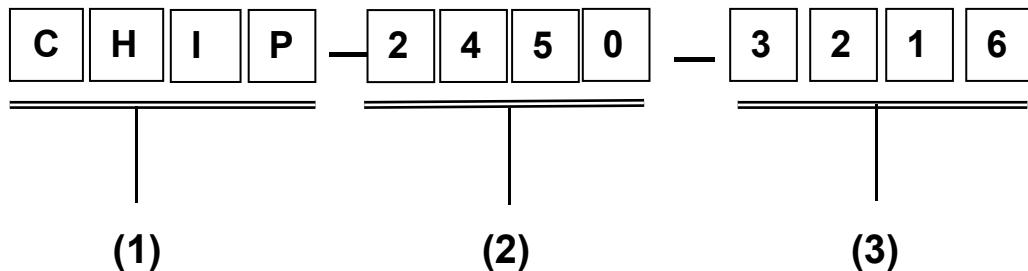
### 1. FEATURES:

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

### 2. APPLICATIONS:

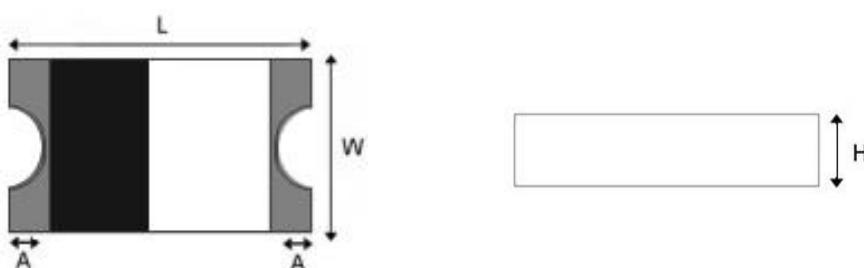
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

### 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:



L	W	H	A
3.2±0.2	1.6±0.2	0.75±0.1	0.4±0.1

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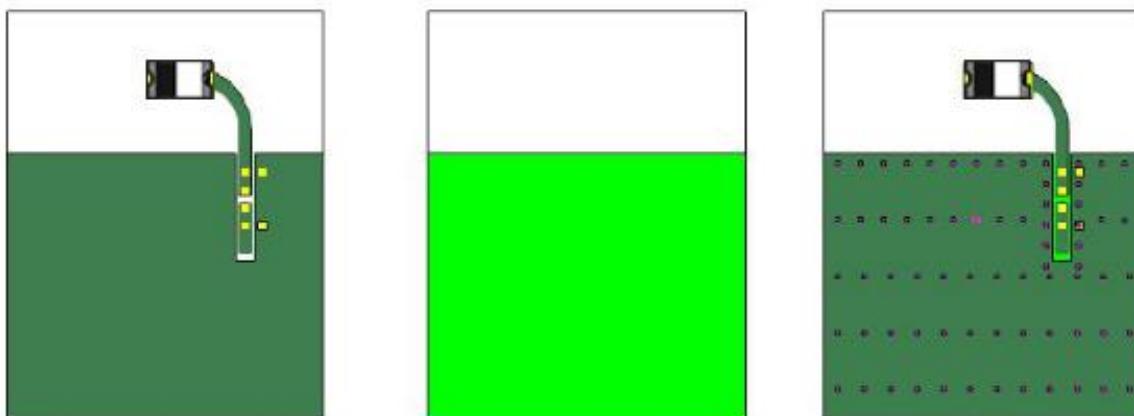
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测试板参考尺寸: (注: 贴片时请将天线白色端朝向芯片)

单位: mm



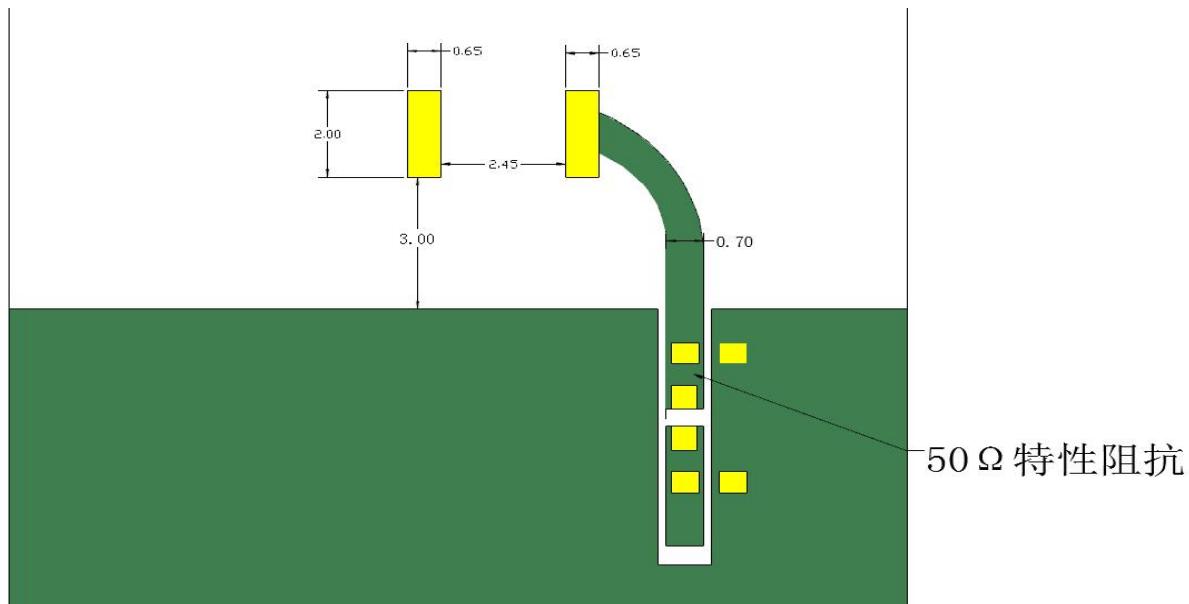
CHIP2450-3216

顶层铺铜

焊盘

底层铺铜

打孔



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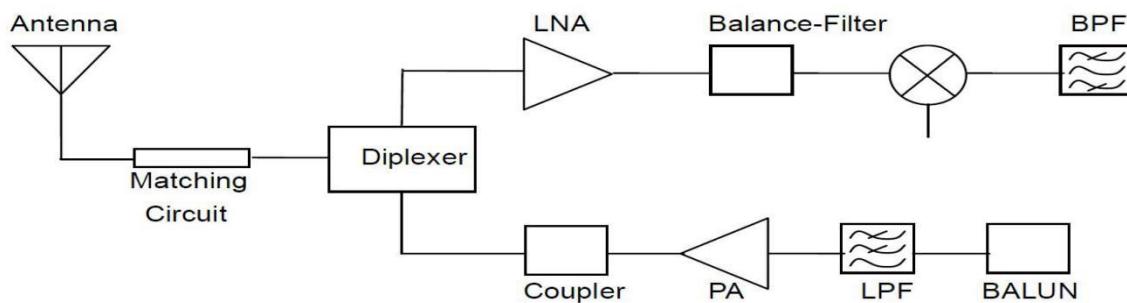
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## APPLICATION GUIDE



## 5. SPECIFICATIONS:

No.	Product number	PBX3216DA01	
1	<b>Central Frequency</b>	2440	MHz
2	<b>Bandwidth</b>	100 (Min.)	MHz
3	<b>Return Loss</b>	-11.96 (Max.)	dB
4	<b>Peak Gain</b>	2.73	dBi
5	<b>Impedance</b>	50	$\Omega$
6	<b>Operating Temperature</b>	-40~+85	°C
7	<b>Maximum Power</b>	5	W
8	<b>Resistance to soldering heat</b>	10 (@260°C)	Sec.
9	<b>Polarization</b>	Linear	
10	<b>Azimuth Beam width</b>	Omni-directional	
11	<b>Termination</b>	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)	2.73	2.58	1.34
Efficiency (%)	65.5	65.22	50.45

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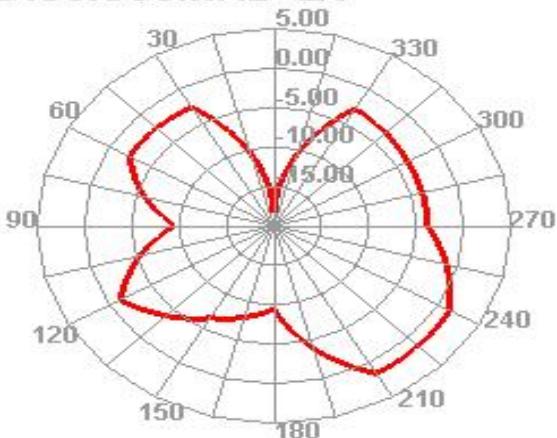
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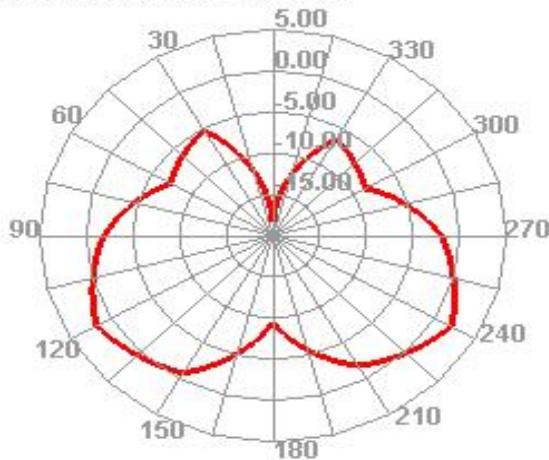
### X-Y Plane

**2450.000MHz E1**



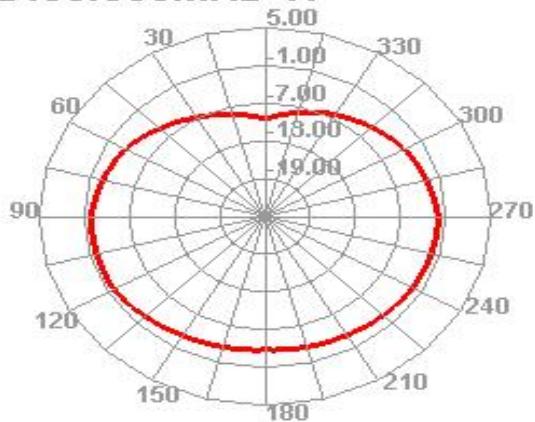
### X-Y Plane

**2450.000MHz E2**



### X-Y Plane

**2450.000MHz H**



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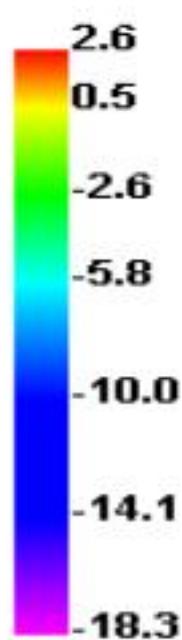
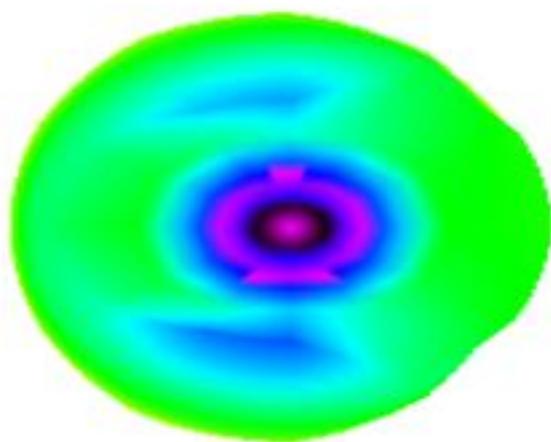
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## 3D Radiation Pattern

**2450.000MHz**



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## 7. Environmental Characteristics

### (1) Reliability Test

Item	Condition	Specification
Thermal shock	1. $30 \pm 3$ minutes at $-40^\circ C \pm 5^\circ C$ , 2. Convert to $+105^\circ C$ (5 minutes) 3. $30 \pm 3$ minutes at $+105^\circ C \pm 5^\circ C$ , 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: $85 \pm 5^\circ C$ 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 : $260 \pm 5^\circ C$ 2. Bathing time: $10 \pm 1$ 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 $245 \pm 5^\circ C$ for $3 \pm 1$ 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:

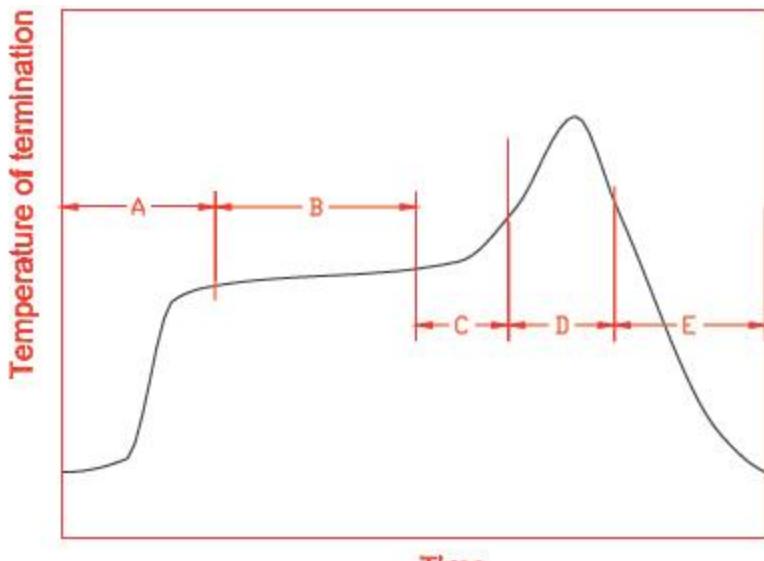
The temperature should be within  $-40 \sim 85^\circ C$  and humidity should be less than 85% RH.

### (3) Operating Temperature Range

Operating temperature range :  $-40^\circ C$  to  $+105^\circ C$ .

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## 8. Recommended Reflow Soldering



		Time	
A	1 <sup>st</sup> rising temperature	The normal to Preheating temperature	30s to 60s
B	Preheating	140°C to 160°C	60s to 120s
C	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
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

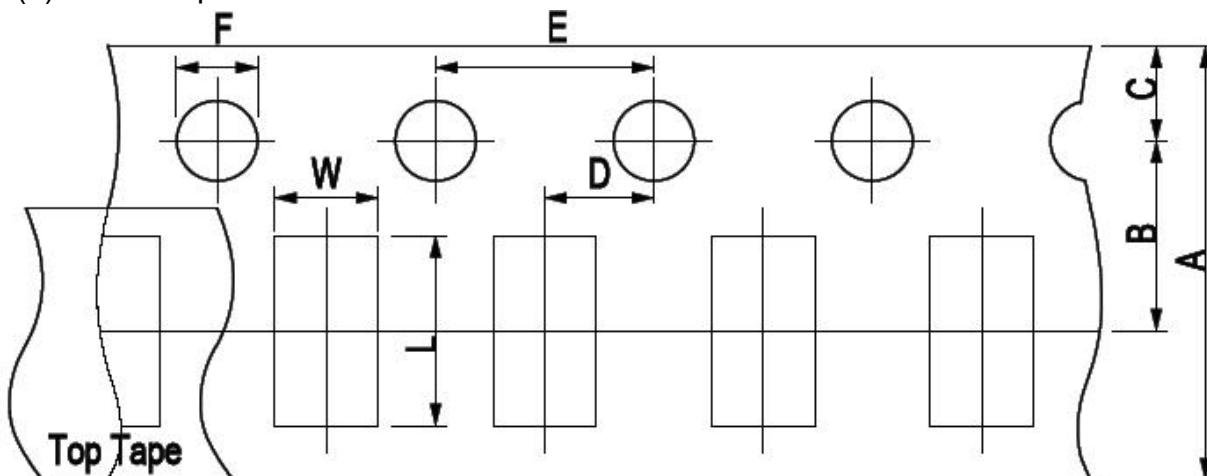
Note that excess of soldering volume will easily get crack the body of this product.

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

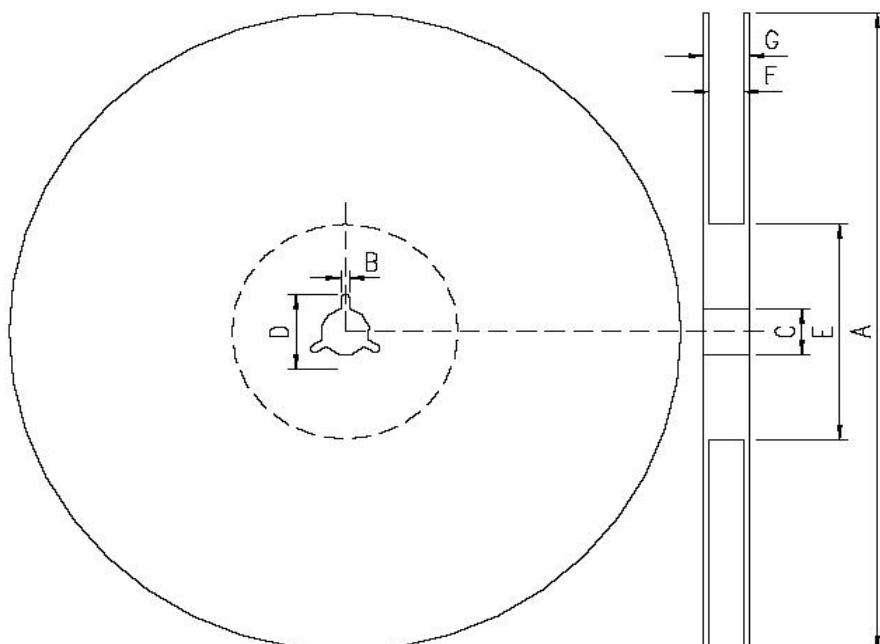
(1) Quantity/Reel: 5000pcs/Reel

(2) Carrier tape dimensions



Type	A	B	C	D	E	F	L	W
2450-21	$8.00 \pm 0.3$	$3.50 \pm 0.05$	$1.75 \pm 0.1$	$2.00 \pm 0.05$	$4.00 \pm 0.1$	$1.50 \pm 0.1$	$2.30 \pm 0.1$	$1.55 \pm 0.1$

(3) Taping reel dimensions



A	$178.0 \pm 2.0$
B	$2.0 \pm 0.5$
C	$13.0 \pm 0.5$
D	$21.0 \pm 0.8$
E	$62.0 \pm 1.5$
F	$9.0 \pm 0.5$
G	$13.0 \pm 1.0$

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