

深圳市朋伴兴业科技有限公司

地址：深圳市龙华区民治大道民泰大厦 1016 室

电话：0755-29486410 传真：0755-83582856

# 产品规格承认书

## SPECIFICATIONS

编号	
品名	PBX5621MA01
客户型号	
制作	刘小美
审核	刘飞
日期	2019.11.18

客户承认签印	
日期	

UNLESS OTHER SPECIFIED TOLERANCES ON:

X=±      X.X=±      X.XX=  
 ANGLES = ±      HOLE DIA = ±



深圳市朋伴兴业科技有限公司

SCALE: N/A      UNIT: mm  
 DRAWN BY: Sera      CHECKED BY: ZL  
 DESIGNED BY: Sera      APPROVED BY: ZL

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE:	DOCUMENT NO.	SPEC REV.
		P1

# PBX5621MA01 Specification

Operating Temp. : -40°C~+85°C

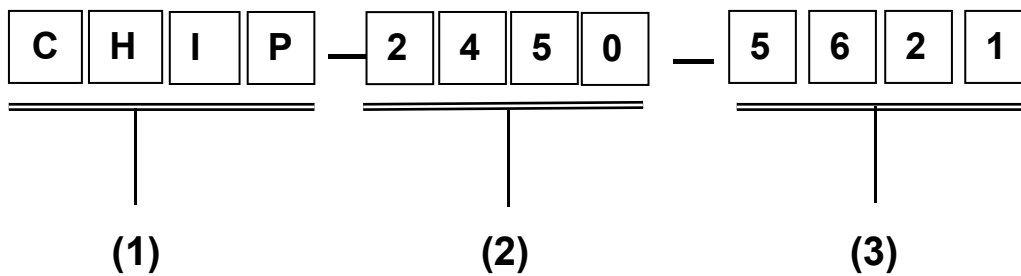
## 1. FEATURES:

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

## 2. APPLICATIONS:

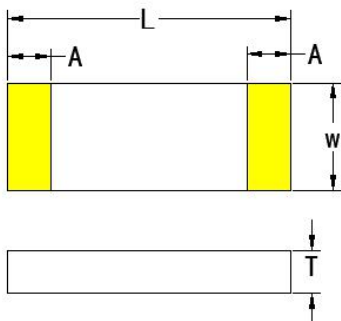
- Bluetooth, Wireless LAN, Mobile TV
- Home RF system, etc

## 3. PRODUCT IDENTIFICATION



- (1) Product type: Multilayer chip Antenna  
 (2) Center Frequency: 2450MHz  
 (3) External Dimensions (L×W) (mm): 5.6\*2.1

## 4. SHAPE AND DIMENSIONS:



Unit:mm	L	W	A	T
CHIP-5621	5.6±0.2	2.15±0.1	0.45±0.1	1.15±0.1

UNLESS OTHER SPECIFIED TOLERANCES ON:

X=±      X.X=±      X.XX=±  
 ANGLES = ±      HOLE DIA = ±



深圳市朋伴兴业科技有限公司

SCALE: N/A

UNIT: mm

DRAWN BY : Sera

CHECKED BY: ZL

DESIGNED BY: Sera

APPROVED BY: ZL

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

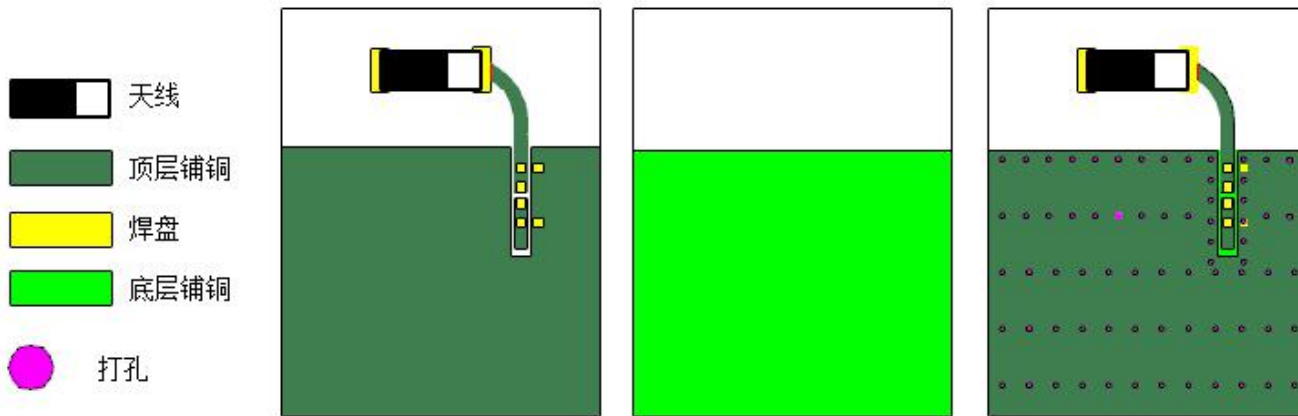
TITLE:

DOCUMENT NO.

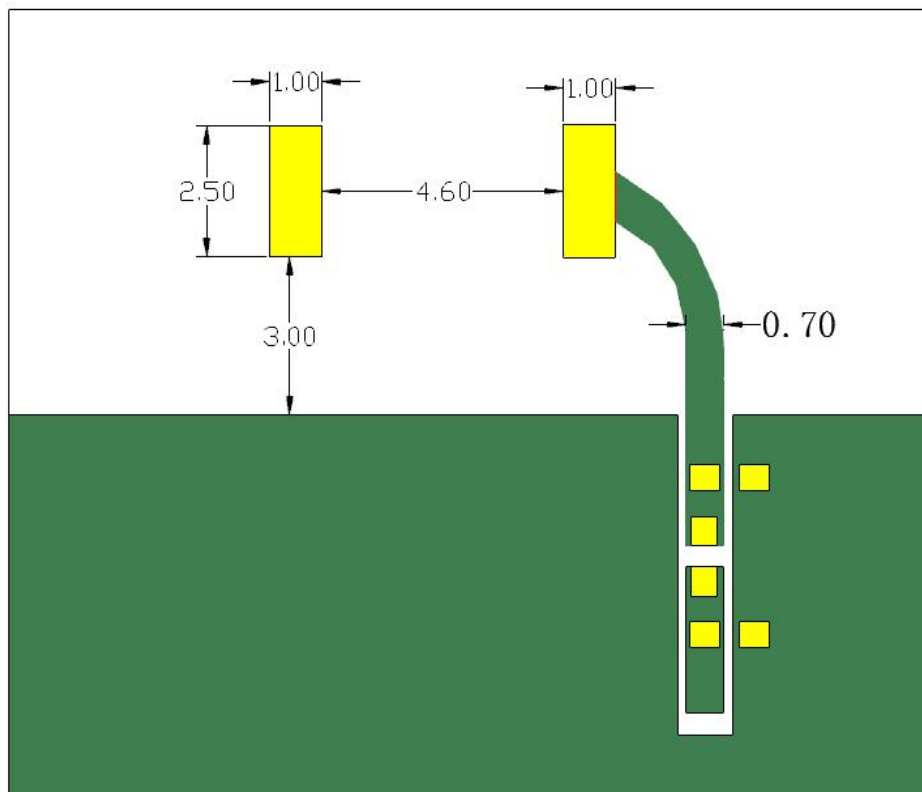
SPEC REV. P1

测试板参考尺寸:

单位: mm



PBX5621MA01 焊盘尺寸:



UNLESS OTHER SPECIFIED TOLERANCES ON:

X=±      X.X=±      X.XX=  
 ANGLES = ±      HOLE DIA = ±



深圳市朋伴兴业科技有限公司

SCALE: N/A

UNIT: mm

DRAWN BY: Sera

CHECKED BY: ZL

DESIGNED BY: Sera

APPROVED BY: ZL

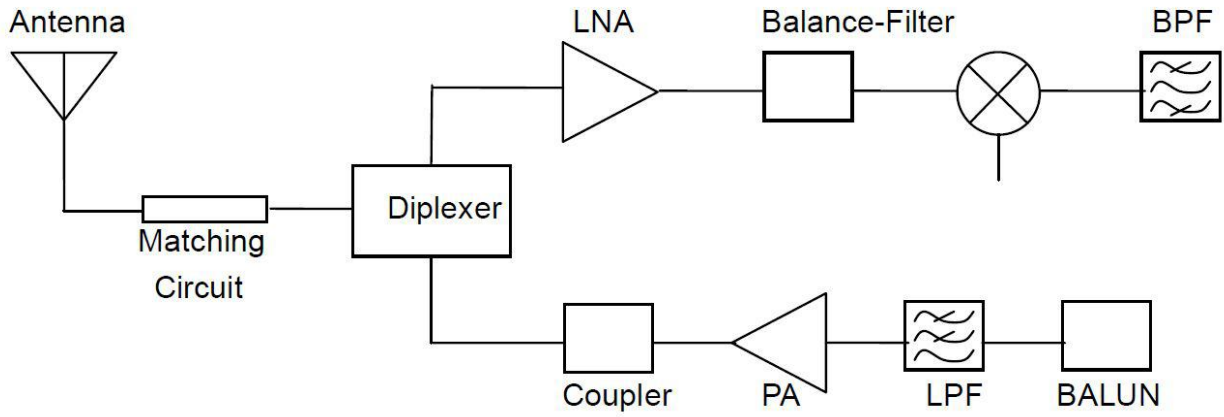
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE:

DOCUMENT NO.

SPEC REV. P1

**APPLICATION GUIDE**



**5. SPECIFICATIONS:**

测试项	规格
应用频段	2400-2500MHz
极化方式	线极化
*最大增益	5dBi
*效率	70.10%
输入阻抗	50 Ω

\* Test condition: Test board size 86\*50 mm

Matching circuit: Pi matching circuit will be required

**6. Electrical Characteristics :**

回波损耗



UNLESS OTHER SPECIFIED TOLERANCES ON:

X=±      X.X=±      X.XX=  
 ANGLES = ±      HOLE DIA = ±



深圳市朋伴兴业科技有限公司

SCALE: N/A

UNIT: mm

DRAWN BY : Sera

CHECKED BY: ZL

DESIGNED BY: Sera

APPROVED BY: ZL

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

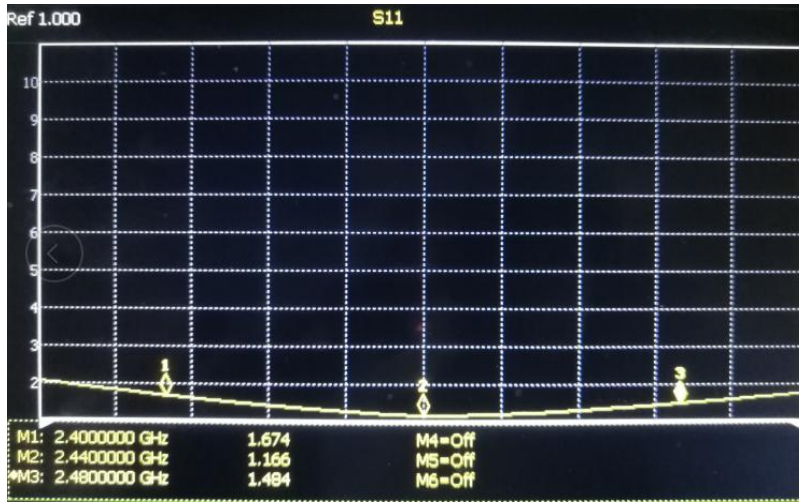
TITLE:

DOCUMENT NO.

SPEC REV. P1



驻波比



Mark	Frequency	VSWR
1	2400 MHz	1.674
2	2440 MHz	1.166
3	2480 MHz	1.484

UNLESS OTHER SPECIFIED TOLERANCES ON:  
 X=±      X.X=±      X.XX=  
 ANGLES = ±      HOLE DIA = ±



深圳市朋伴兴业科技有限公司

SCALE: N/A  
 DRAWN BY: Sera  
 DESIGNED BY: Sera

UNIT: mm  
 CHECKED BY: ZL  
 APPROVED BY: ZL

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

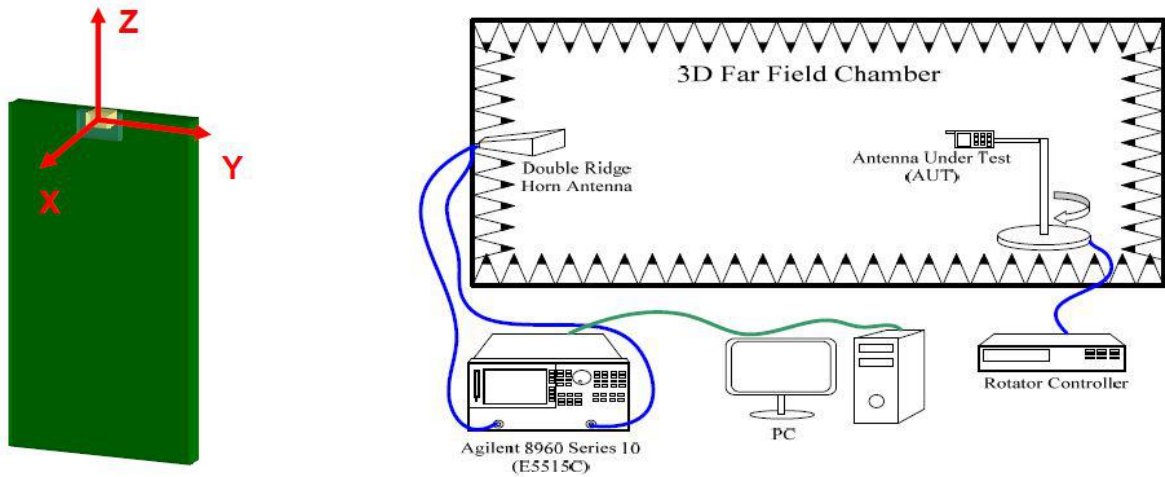
TITLE:

DOCUMENT NO.

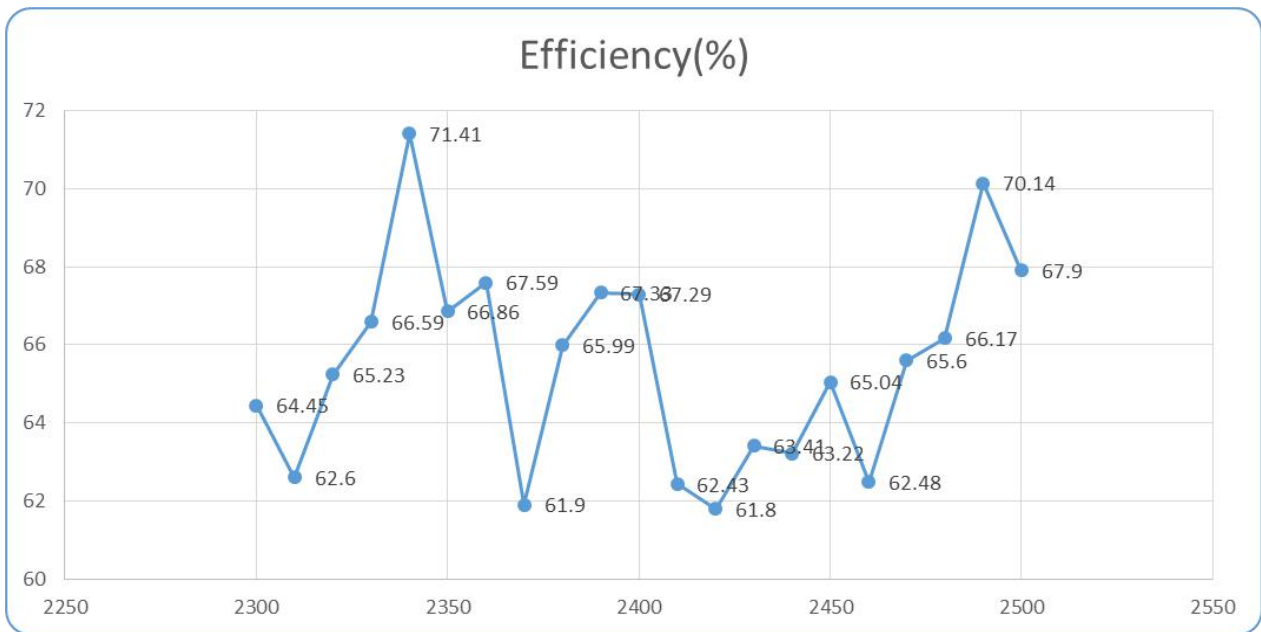
SPEC REV. P1

### 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



UNLESS OTHER SPECIFIED TOLERANCES ON:  
 $X = \pm$        $X.X = \pm$        $X.XX =$   
**ANGLES =  $\pm$**       **HOLE DIA =  $\pm$**

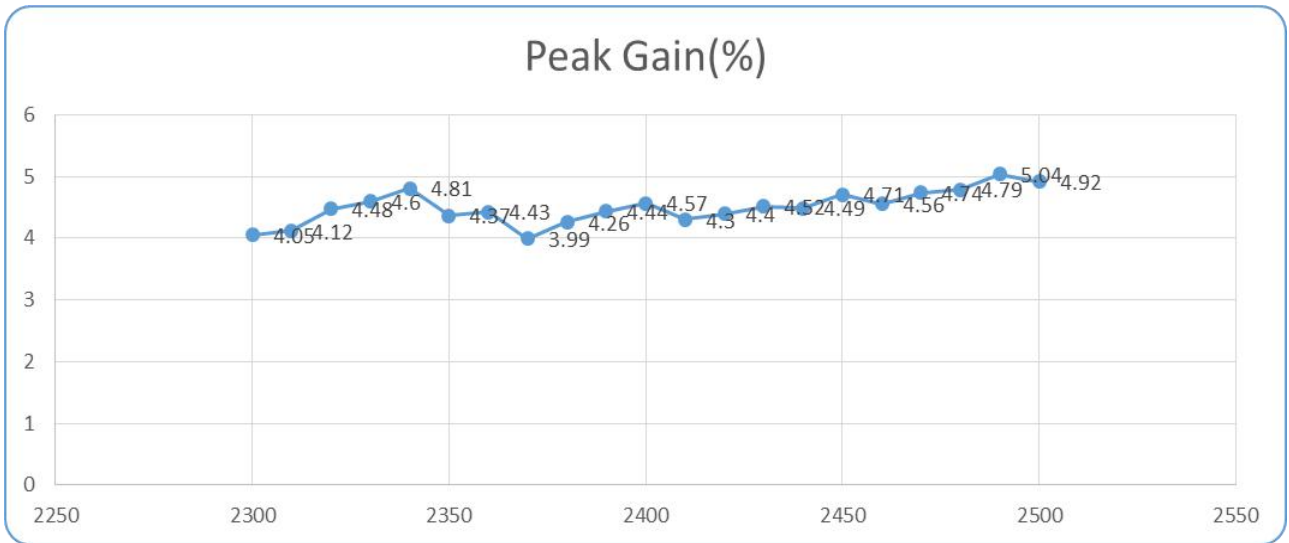
 深圳市朋伴兴业科技有限公司

SCALE: N/A      UNIT: mm  
 DRAWN BY: Sera      CHECKED BY: ZL  
 DESIGNED BY: Sera      APPROVED BY: ZL

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

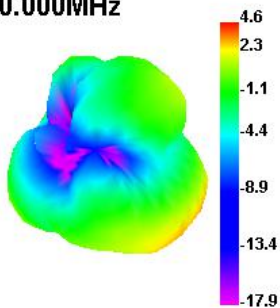
TITLE:	DOCUMENT NO.	SPEC REV.
		P1

◎ 最大增益

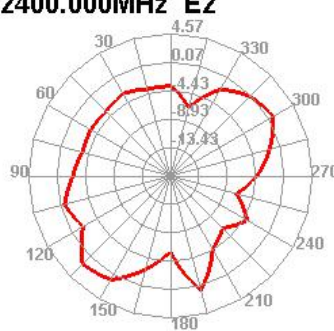


◎ 3D Gain Pattern (2400 MHz)

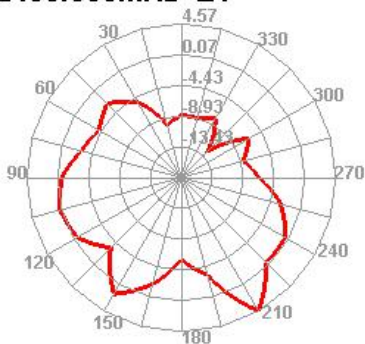
2400.000MHz



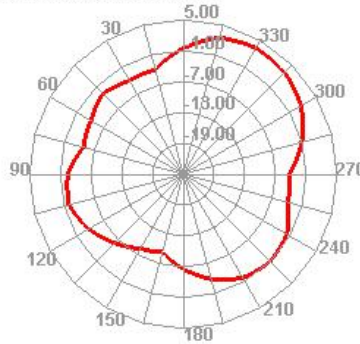
2400.000MHz E2



2400.000MHz E1



2400.000MHz H



UNLESS OTHER SPECIFIED TOLERANCES ON:

X=±      X.X=±      X.XX=  
 ANGLES = ±      HOLE DIA = ±



深圳市朋伴兴业科技有限公司

SCALE: N/A

UNIT: mm

DRAWN BY : Sera

CHECKED BY: ZL

DESIGNED BY: Sera

APPROVED BY: ZL

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

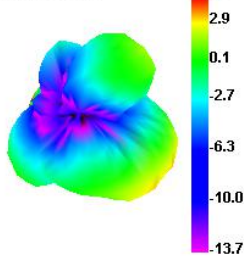
TITLE:

DOCUMENT NO.

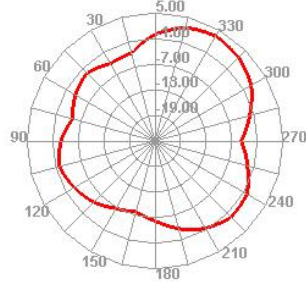
SPEC REV. P1

◎ 3D Gain Pattern (2450 MHz)

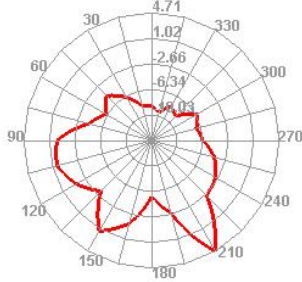
2450.000MHz



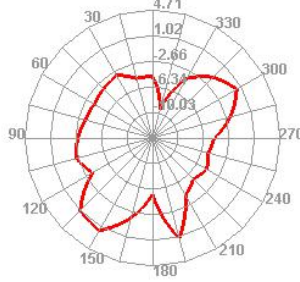
2450.000MHz H



2450.000MHz E1

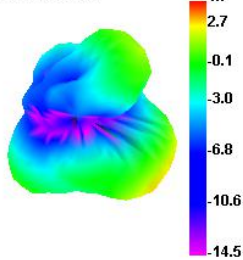


2450.000MHz E2

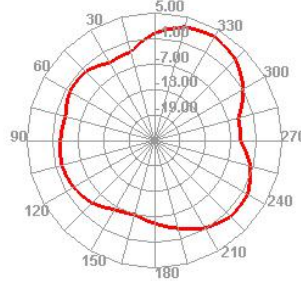


◎ 3D Gain Pattern (2510 MHz)

2510.000MHz



2510.000MHz H



UNLESS OTHER SPECIFIED TOLERANCES ON:

X=±      X.X=±      X.XX=  
 ANGLES = ±      HOLE DIA = ±



深圳市朋伴兴业科技有限公司

SCALE: N/A

UNIT: mm

DRAWN BY : Sera

CHECKED BY: ZL

DESIGNED BY: Sera

APPROVED BY: ZL

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

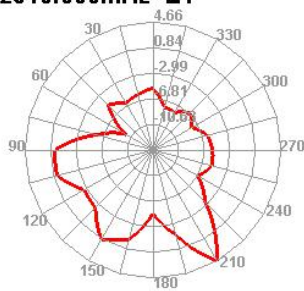
TITLE:

DOCUMENT NO.

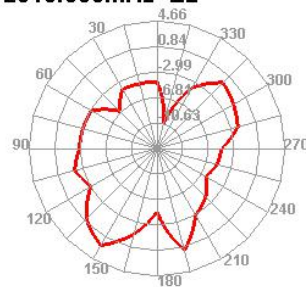
SPEC REV. P1



2510.000MHz E1



2510.000MHz E2



## 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±5° 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±5°C 2. Bathing time: 10±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±5°C for 3±1 seconds.	No apparent damage

### (2) Storage Condition

#### (a) At warehouse:

The temperature should be within 0 ~ 30°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.

UNLESS OTHER SPECIFIED TOLERANCES ON:

X=±      X.X=±      X.XX=  
 ANGLES = ±      HOLE DIA = ±



深圳市朋伴兴业科技有限公司

SCALE: N/A

UNIT: mm

DRAWN BY : Sera

CHECKED BY: ZL

DESIGNED BY: Sera

APPROVED BY: ZL

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE:

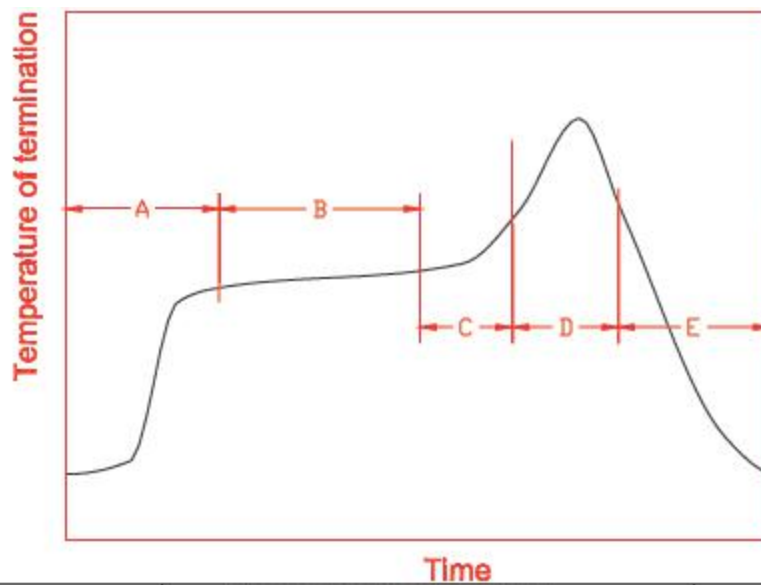
DOCUMENT NO.

SPEC REV. P1

**(3) Operating Temperature Range**

Operating temperature range : -40°C to +105°C.

**8. Recommended Reflow Soldering**



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

UNLESS OTHER SPECIFIED TOLERANCES ON:

X=±      X.X=±      X.XX=  
 ANGLES = ±      HOLE DIA = ±



深圳市朋伴兴业科技有限公司

SCALE: N/A

UNIT: mm

DRAWN BY : Sera

CHECKED BY: ZL

DESIGNED BY: Sera

APPROVED BY: ZL

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE:

DOCUMENT NO.

SPEC REV. P1

**(1) Soldering Gun Procedure**

Note the follows, in case of using solder gun for replacement.

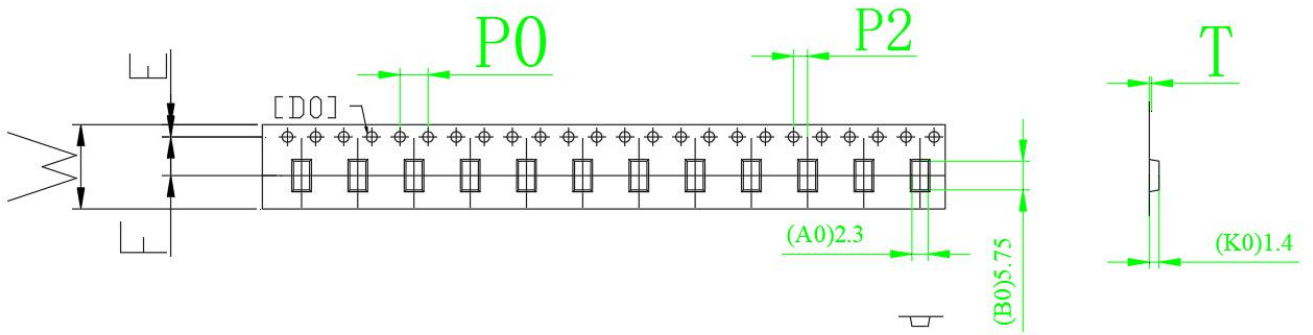
- (a) The tip temperature must be less than 350°C for the period within 3 seconds by using soldering gun under 30 W.
- (b) The soldering gun tip shall not touch this product directly.

**(2) Soldering Volume**

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

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

(1) Quantity/Reel: 3000pcs/Reel



ITEM	W	A0	B0	K0	K1	P	F	E	S0	D0	D1	P0	P2	T
DIM	12.00	2.30	5.75	1.40	0.00	8.00	5.50	1.75	52.40	1.50	0.00	4.00	2.00	0.30

UNLESS OTHER SPECIFIED TOLERANCES ON:  
 X=±      X.X=±      X.XX=  
 ANGLES = ±      HOLE DIA = ±



深圳市朋伴兴业科技有限公司

SCALE: N/A  
 DRAWN BY : Sera  
 DESIGNED BY: Sera

UNIT: mm  
 CHECKED BY: ZL  
 APPROVED BY: ZL

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF PBXY TECHNOLOGY Limited AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE:

DOCUMENT NO.

SPEC REV. P1