

SPECIFICATIONS 规格书

CUSTOMER 客户名称: _____

DESCRIPTION 天线类型: Geomagnetic Antenna

CUSTOMER PART NO 客户编号: _____

OUR MODEL NO 天线型号: **PBX8010MA0X**

DATE 日期: _____

PLEASE RETURN TO US ONE COPY OF “SPECIFICATION FOR APPROVAL”

WITH YOUR APPROVED SIGNATURES 确认签名回传一份

Approved 批准:		Audit 审核:		Making 编制:	
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Customer Acknowledges Signature

客户签名

Date 日期

UNLESS OTHER SPECIFIED TOLERANCES ON:

X=±

X.X=±

X.XX=

ANGLES = ±

HOLE DIA = ±



PENG BAN XING YE

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UNIT: mm

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CHECKED BY: XD

DESIGNED BY: Sera

APPROVED BY: XD

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TITLE: CHIP2450-1608 Specification

DOCUMENT
NO.

8010

SPEC REV.

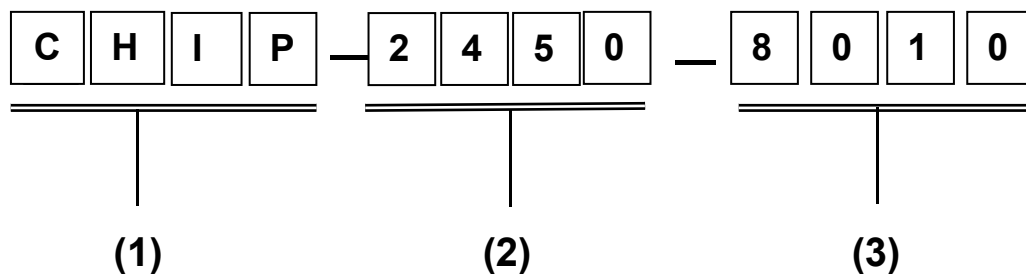
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PBX1608MA0X Specification 规格**1. FEATURES 特性:**

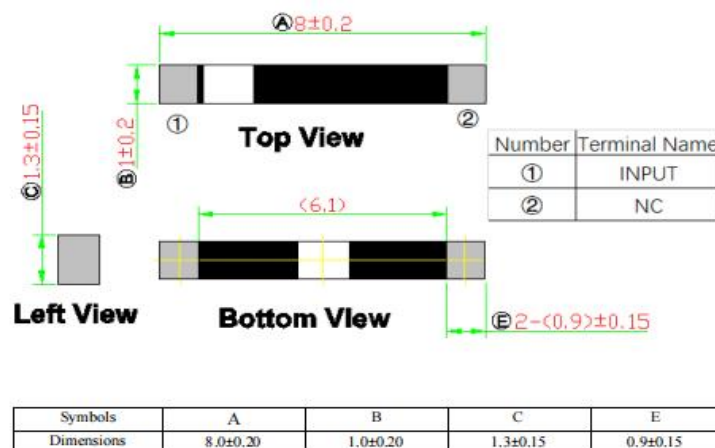
- Light weight, compact 重量轻, 结构紧凑
- Wide bandwidth, low cost 带宽宽, 成本低
- Built-in antenna with high gain 内置高增益天线

2. APPLICATIONS 应用范围:

- Bluetooth, Wireless LAN, Mobile TV 蓝牙, 无线局域网, 移动电视
- Home RF System, etc 家用射频系统等

3. PRODUCT IDENTIFICATION 产品标识

- (1) Product type 产品类型: Multilayer chip Antenna 多层芯片天线
(2) Center Frequency 中心频率: 2450MHz
(3) External Dimensions (L×W) (mm) 外形尺寸 (L×W) (mm) : 8.0*1.0

4. SHAPE AND DIMENSIONS 形状和尺寸:

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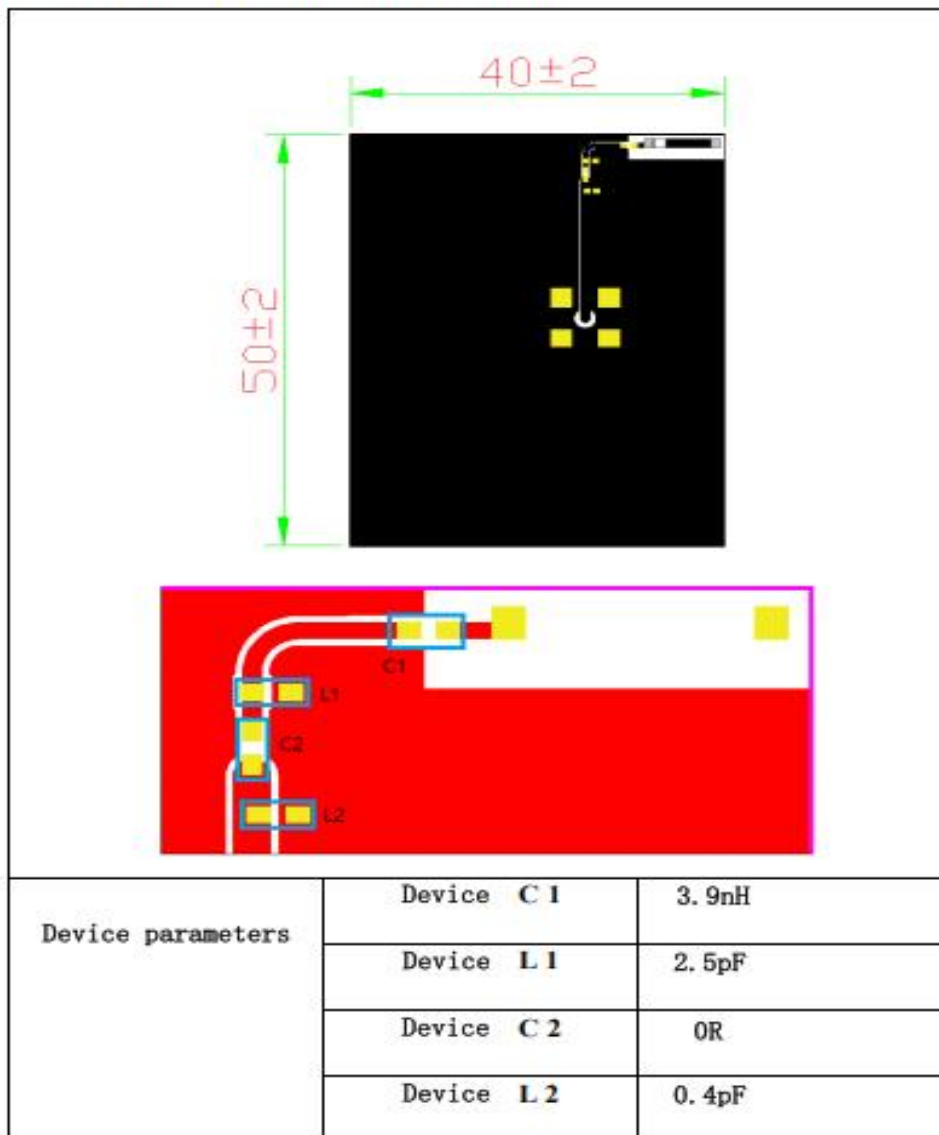
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● Evaluation Board and Matching Circuits



The antenna is optimally placed on the edge of the PCBA; the antenna and its alignment are set on a single layer.

天线放置位置最佳在 PCBA 的边缘天线和它的参数器件对齐被设置在一个单一的图层上

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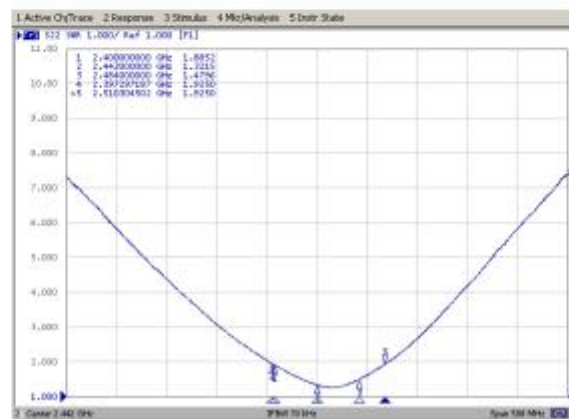
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● Electrical Characteristics

Item	Feature	Specification
1	Central frequency	2400-2500MHz
2	Bandwidth	>100MHz
3	Peak gain	>0.5dBi
4	VSWR	<2.0
5	Polarization	Linear
6	Azimuth beamwidth	Omnidirectional
7	Impedance	50 Ω

NOTE: The specification is defined based on the test board dimension.

(1) VSWR



(2) S-Parameter



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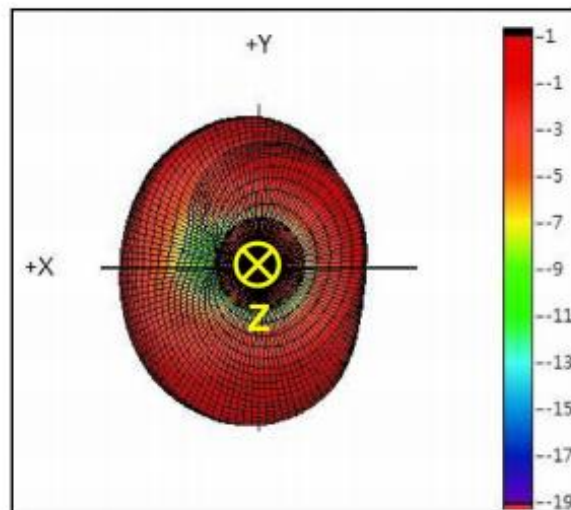
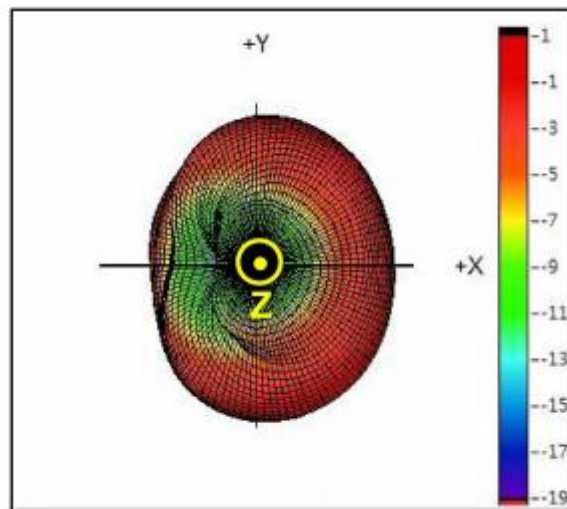
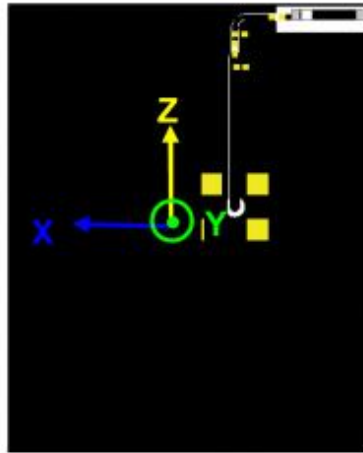
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(3) Radiation Pattern



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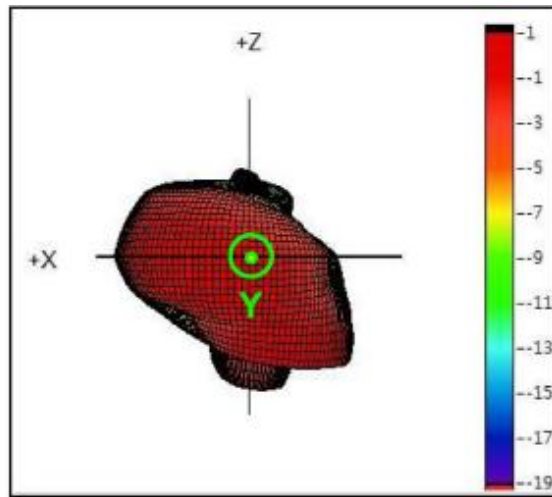
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Frequency	2400 MHz	2450MHz	2500MHz
Peak gain	0.40	0.90	0.40
Efficiency	53.4%	60.7%	51.8%

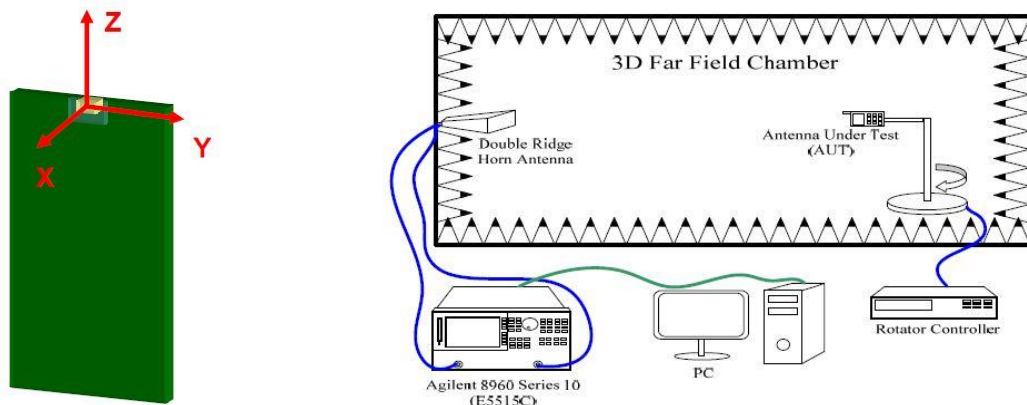
● Dependability Test

Test Temperature	25°C±3°C
Operating Temperature	-25°C~+85°C
Temperature	5~+40°C
Relative Humidity	20~70%HR

3D Radiation Pattern

Radiation Pattern 辐射方向图

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.增益模式是在远场室中测量的。DUT放置在旋转台上，使用标准喇叭天线和矢量网络分析仪采集数据。



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Environmental Characteristics环境特征**(1) Reliability Test 可靠性测试**

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储存条件**(a) At warehouse仓库:**

The temperature should be within 0 ~ 30°C and humidity should be less than 60% RH
温度应控制在0 ~ 30°C，湿度应小于60% RH。

The product should be used within 1 year from the time of delivery.

产品应在交货之日起1年内使用

(b) On board 运输中:

The temperature should be within -40~85°C and humidity should be less than 85% RH.
温度应控制在-40~85°C，湿度应小于85% RH

(3) Operating Temperature Range工作温度范围

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

Recommended Reflow Soldering 推荐回流焊温区设置

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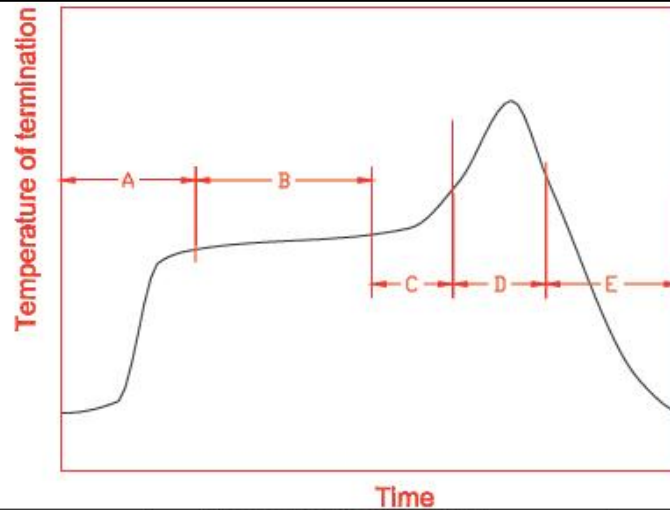
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A	1 st rising temperature	The normal to Preheating temperature	30s to 60s
B	Preheating	140°C to 160°C	60s to 120s
C	2 nd rising temperature	Preheating to 200°C	20s to 40s
D	Main heating	if 220°C	50s~60s
		if 230°C	40s~50s
		if 240°C	30s~40s
		if 250°C	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 电烙铁操作步骤

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

使用电烙铁更换时应注意以下事项

- (a) The tip temperature must be less than 350° C for the period within 3 seconds by using soldering gun under 30 W.

使用30w以下的电烙铁，烙铁嘴尖端温度必须在3秒内低于350° C

- (b) The soldering gun tip shall not touch this product directly.

烙铁嘴不得直接接触本产品

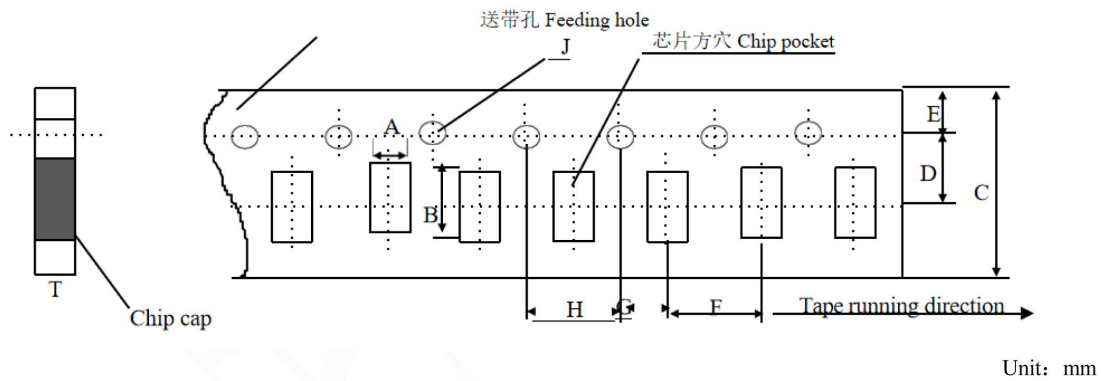
(2) Soldering Volume 焊接体积

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

请注意，过量的焊接量将容易使本产品的主体开裂

Dimensions of paper taping 编带的尺寸:

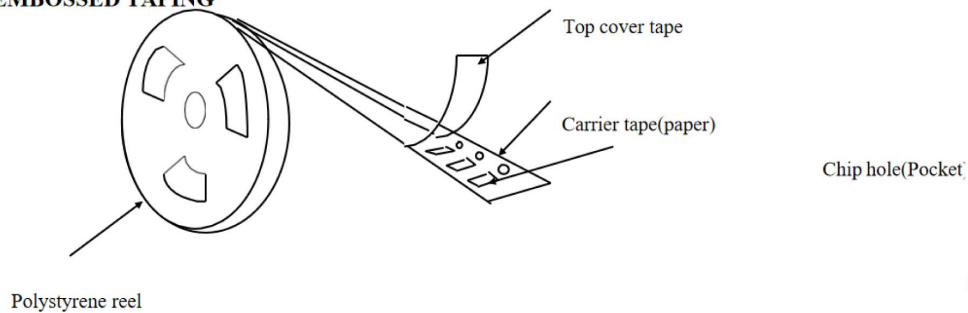
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代号Code 纸带规格 papersize	A	B	C	D*	E	F	G*	H	J	T
尺寸	1.10 ±0.10	1.90 ±0.10	8.00 ±0.10	3.50 ±0.05	1.75 ±0.10	4.00 ±0.10	2.00 ±0.10	4.00 ±0.10	1.50 -0/+0.10	1.10 Max

Reel (4000 pcs/Reel)

EMBOSED TAPING



Storage Period

The guaranteed period for solderability is 6 months (Under deliver package condition).

Temperature:5~40°C /Relative Humidity:20~70%

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