

产品规格承认书

SPECIFICATIONS

客户:

CUSTOMER: _____

产品名称:

DESCRIPTION: _____ Bipolar antenna

客户型号:

CUSTOMER PART NO: _____

产品型号:

OUR MODEL NO: _____ **PBX2012MA08**

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

Approved		Audit		Making	
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Customer Acknowledges Signature	
Date	

UNLESS OTHER SPECIFIED TOLERANCES ON: X=± X.X=± X.XX=± A N G L E S = ± H O L E D I A = ±		 PENG BAN XING PengBanXingYe ShenZhen Technology Co. , Ltd	
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TITLE: CHIP2450-2012 Specification		DOCUMENT NO.	SPEC REV.
		2012	P1

PBX2012MA08 Specification

Operating Temp. : -40°C~+85°C

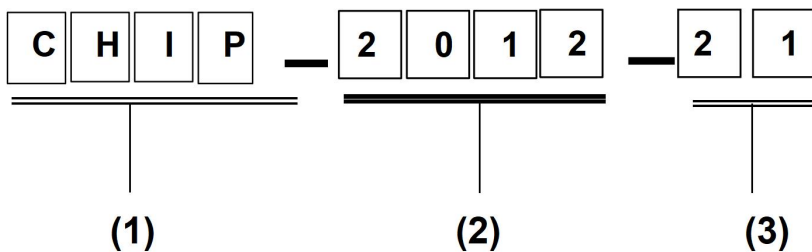
1. FEATURES:

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

2. APPLICATIONS:

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

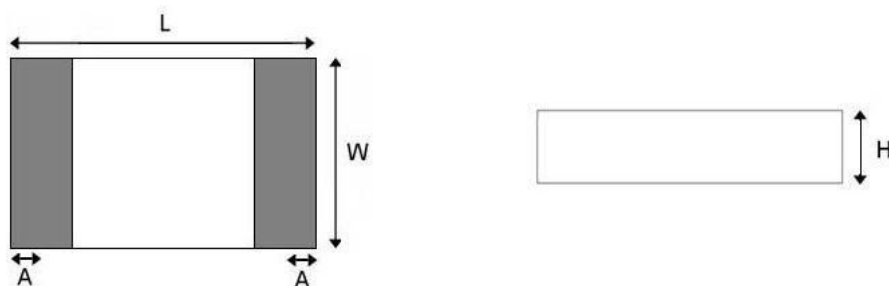
3. PRODUCT IDENTIFICATION



(1) Product type: Multilayer chip Antenna

(2) External Dimensions (L×W) (mm): 2.0*1.2

4. SHAPE AND DIMENSIONS: (Unit: mm)



L	W	H	A
2.0±0.2	1.2±0.2	0.55±0.1	0.4±0.1

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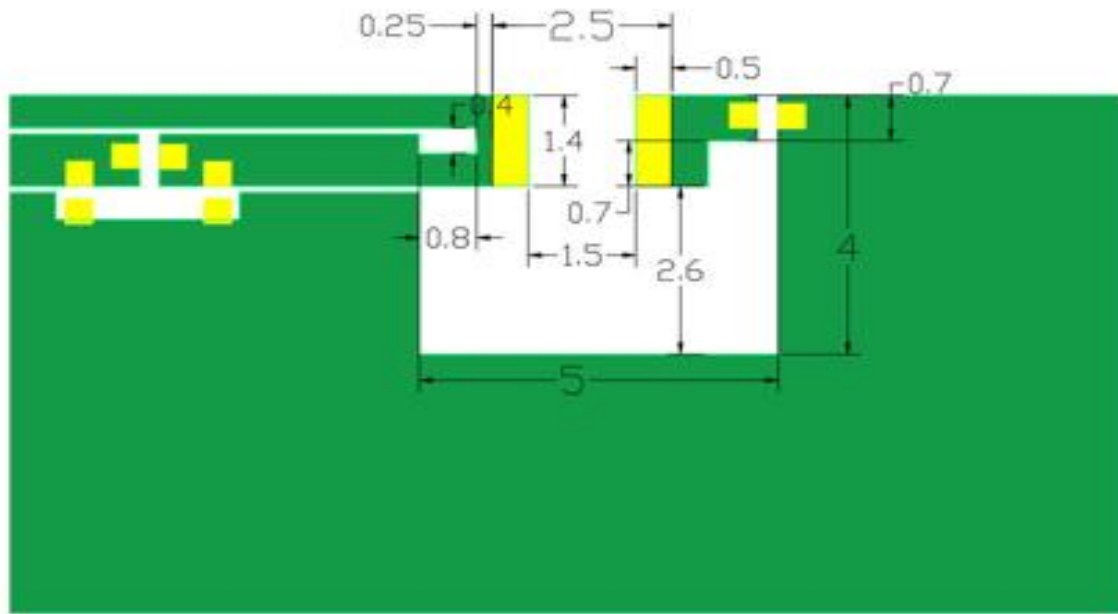
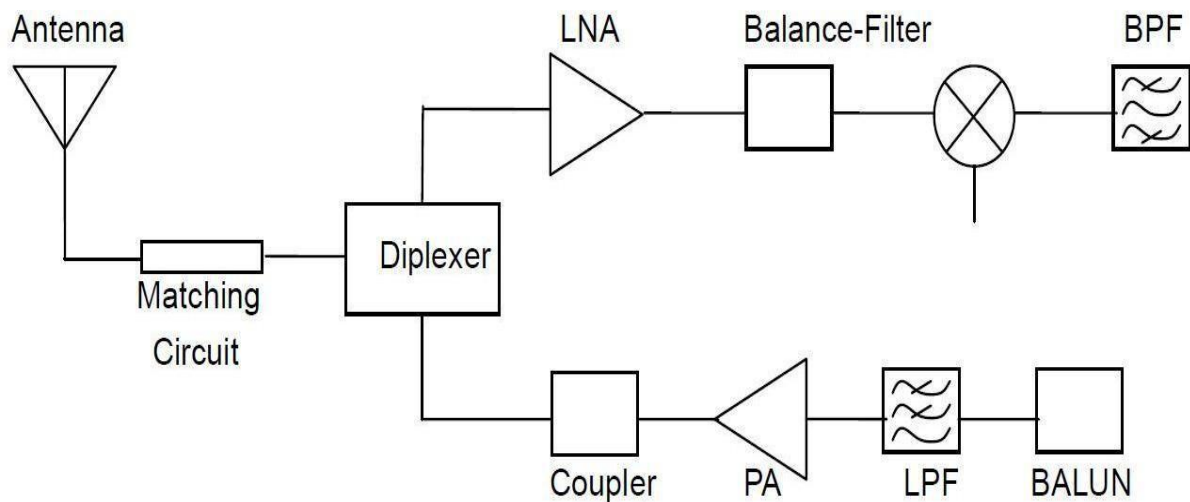
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EVALUATION BOARD**APPLICATION GUIDE**

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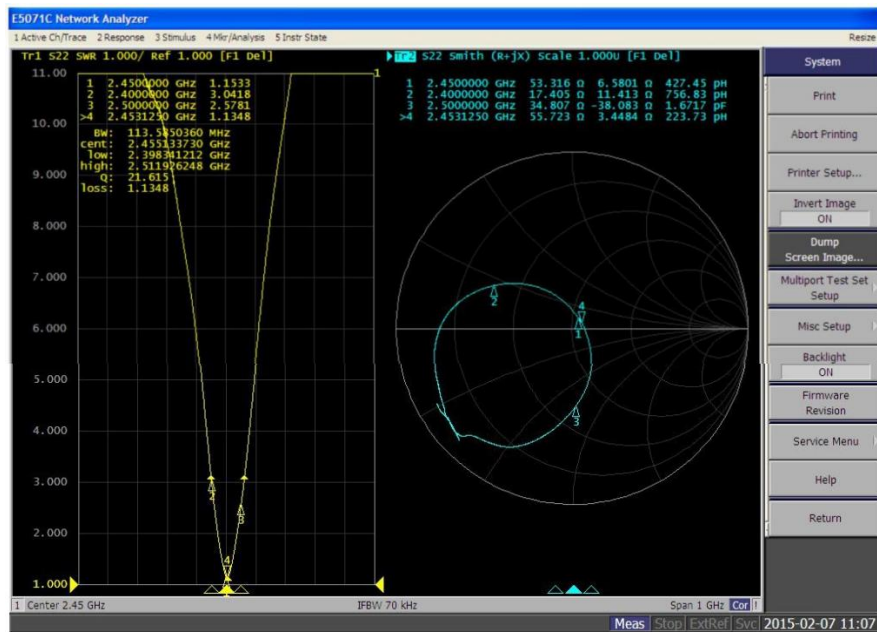
5. SPECIFICATIONS:

Test Item	Specifications
Bandwidth	2400-2500MHz
Polarization mode	Linear polarization
* Maximum gain	2.8dBi
* Efficiency	72.30%
Input Impedance	50 Ω

* Test condition: Test board size 98*65 mm

Matching circuit: Pi matching circuit will be required

6. Electrical Characteristics: VSWR



Mark	Frequency	VSWR
1	2400MHz	3.04
2	2450MHz	1.15
3	2500MHz	2.57

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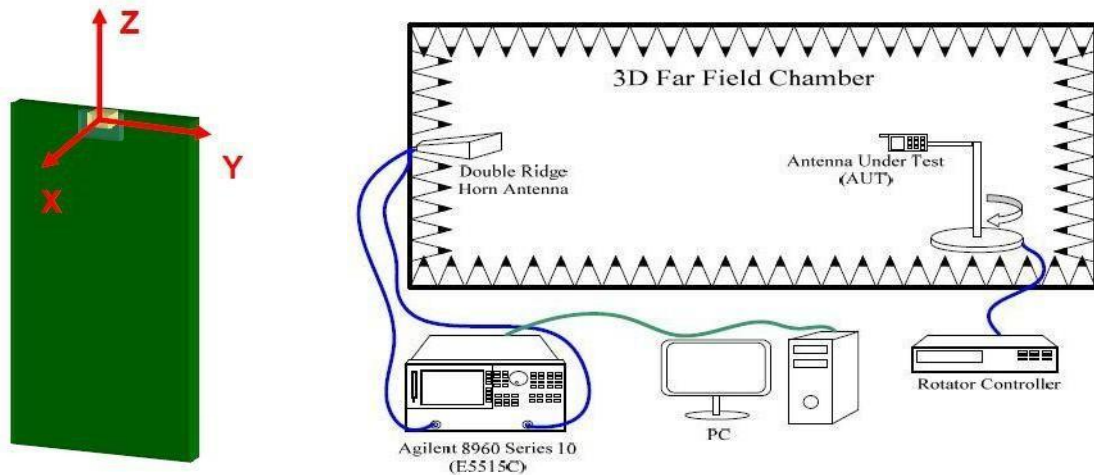
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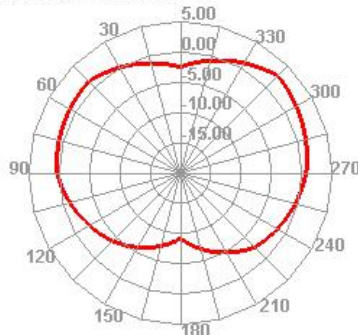
Radiation Pattern

The Gain pattern is measured in INPAQ's FAR-field chamber. DUT is placed on the table of rotator,a standard horn antenna and Vector Network Analyzer is used to collect data.

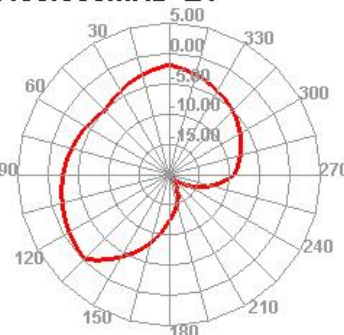


◎ 2D Gain Pattern (2400 MHz-2500MHz)

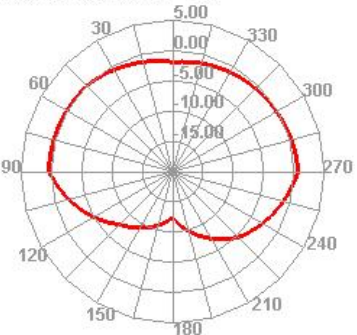
2400.000MHz H



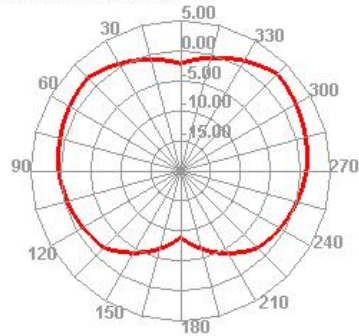
2400.000MHz E1



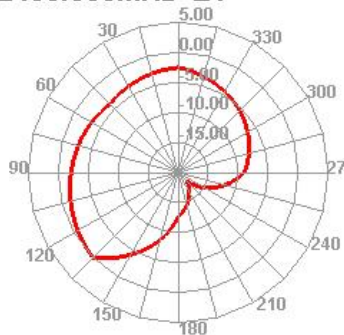
2400.000MHz E2



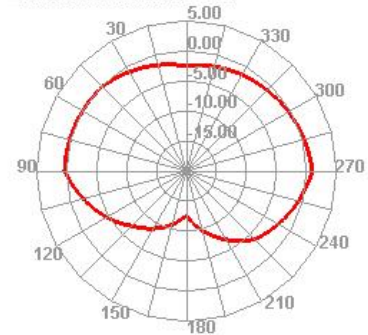
2450.000MHz H



2450.000MHz E1



2450.000MHz E2



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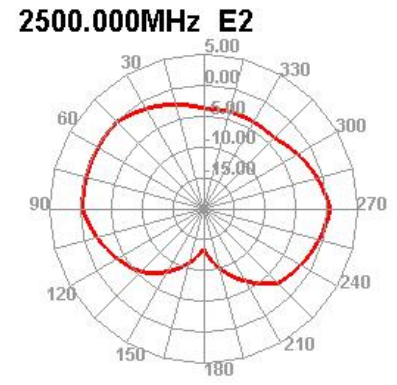
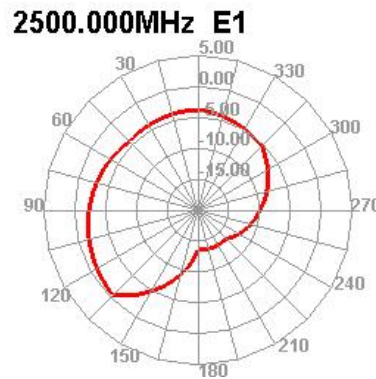
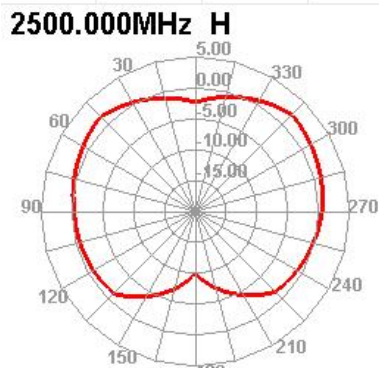
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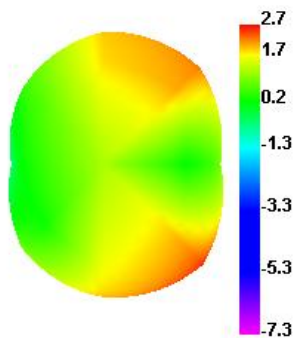
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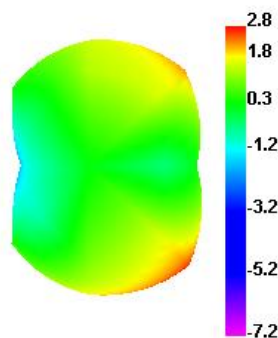


© **3D Gain Pattern (2400 MHz-2500MHz)**

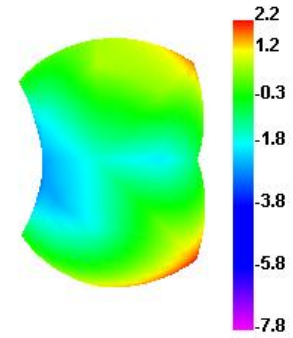
2400.000MHz



2450.000MHz



2500.000MHz



3D Efficiency Table

Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Efficiency (dB)	-0.7	-0.9	-0.6	-0.6	-0.5	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9
Efficiency (%)	71.3	71.6	71.8	72.0	72.1	72.3	72	71.8	71.1	69.8	69.3
Gain (dBi)	2.7	2.7	2.7	2.8	2.8	2.8	2.7	2.6	2.4	2.3	2.2

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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.

(3) Operating Temperature Range

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

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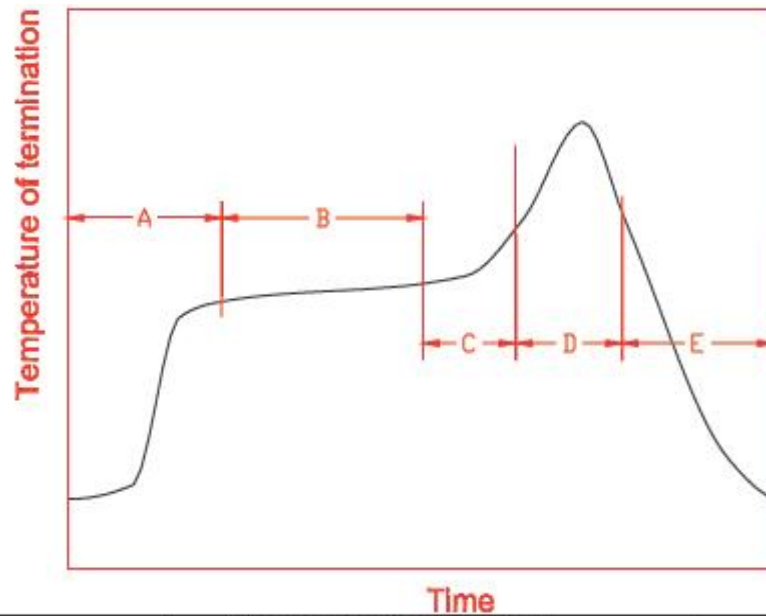
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Recommended Reflow Soldering



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

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

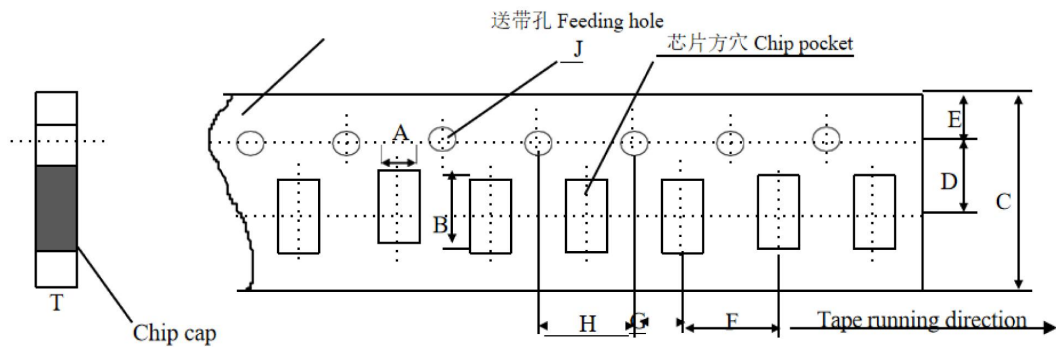
- The tip temperature must be less than 350° C for the period within 3 seconds by using soldering gun under 30 W.
- The soldering gun tip shall not touch this product directly.

(2) Soldering Volume

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

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Dimensions of paper taping :

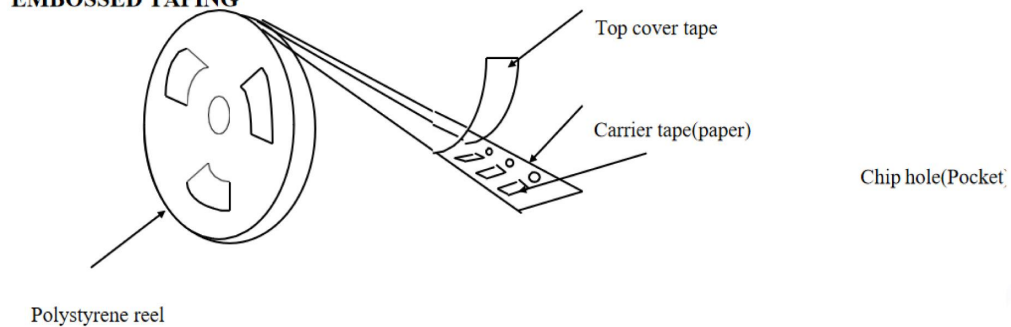


Unit: mm

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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