

## PBX1608MA02 Specification

Operating Temp. : -40℃~+85℃

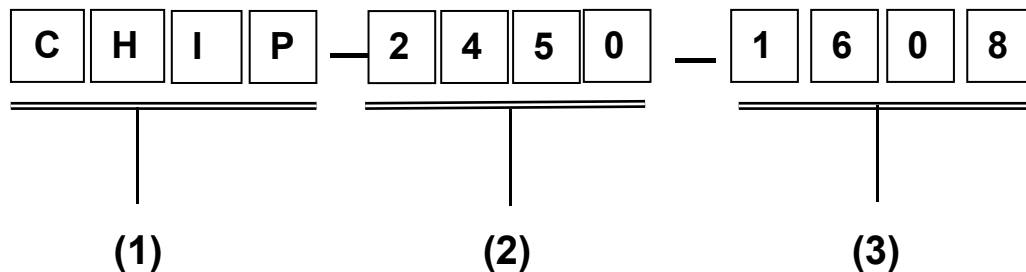
### 1. FEATURES:

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

### 2. APPLICATIONS:

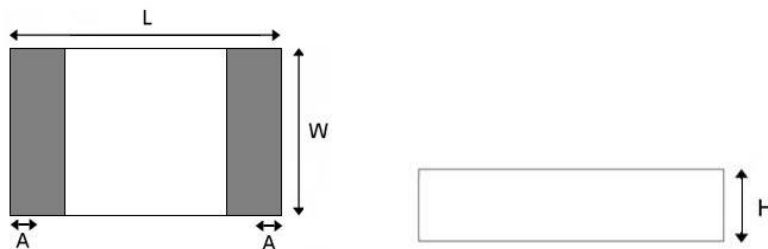
- Bluetooth, Wireless LAN, Mobile TV
- Home RF System, etc

### 3. PRODUCT IDENTIFICATION



- (1) Product type: Multilayer chip Antenna  
 (2) Center Frequency: 2450MHz  
 (3) External Dimensions (L×W) (mm): 1.6\*0.8

### 4. SHAPE AND DIMENSIONS:



| L       | W       | H       | A       |
|---------|---------|---------|---------|
| 1.6±0.2 | 0.8±0.2 | 0.8±0.2 | 0.3±0.1 |

UNLESS OTHER SPECIFIED TOLERANCES ON:

X=± X.X=± X.XX=

ANGLES = ± HOLEDIA = ±



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SCALE: N/A

UNIT: mm

DRAWN BY : Sera

CHECKED BY: XD

DESIGNED BY: Sera

APPROVED BY: XD

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TITLE: CHIP2450-1608 Specification

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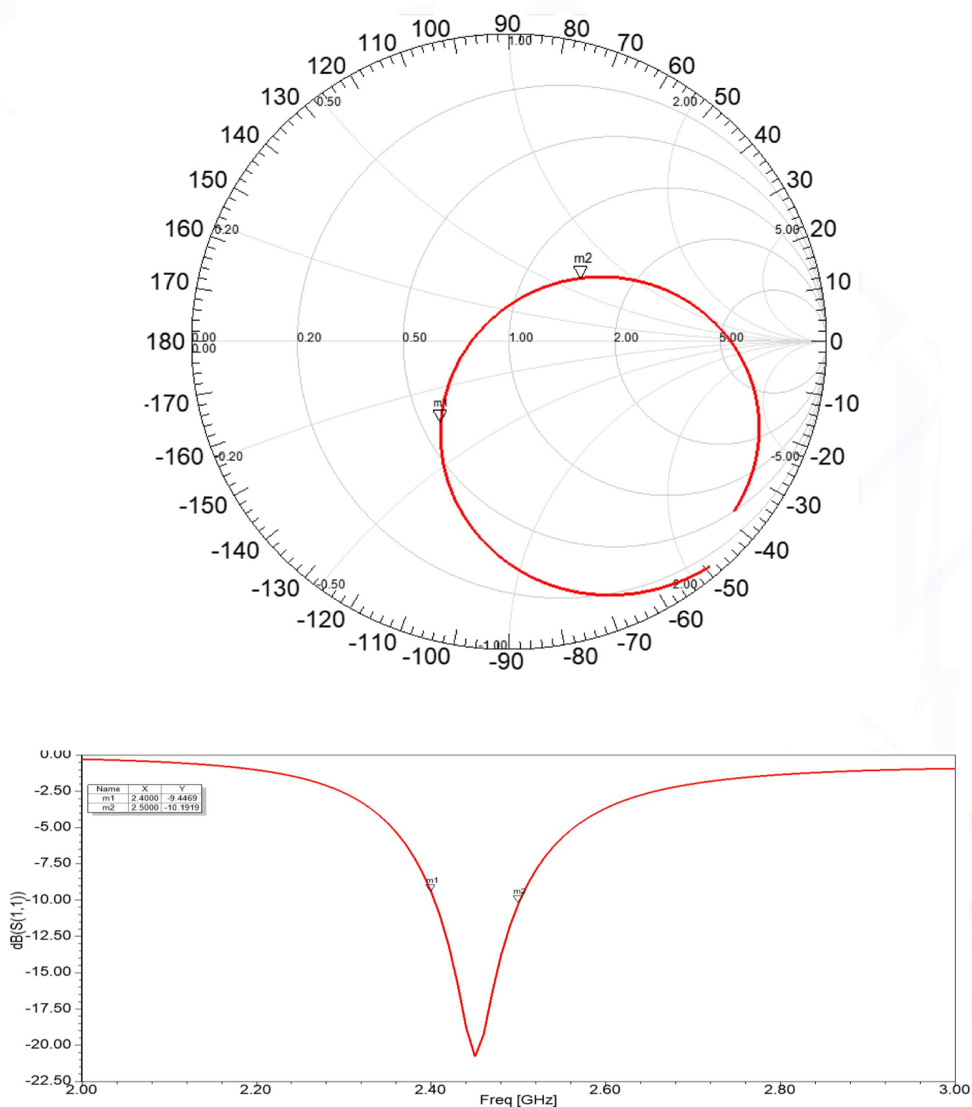
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## Electrical Characteristics

|   | Feature           | Specification   |
|---|-------------------|-----------------|
| 1 | Central frequency | 2.45GHz         |
| 2 | Bandwidth         | >150MHz         |
| 3 | Peak gain         | 2.78 dBi        |
| 4 | VSWR              | <2              |
| 5 | Polarization      | Linear          |
| 6 | Azimuth beamwidth | Omnidirectional |
| 7 | Impedance         | 50 $\Omega$     |

## Characteristic Curves



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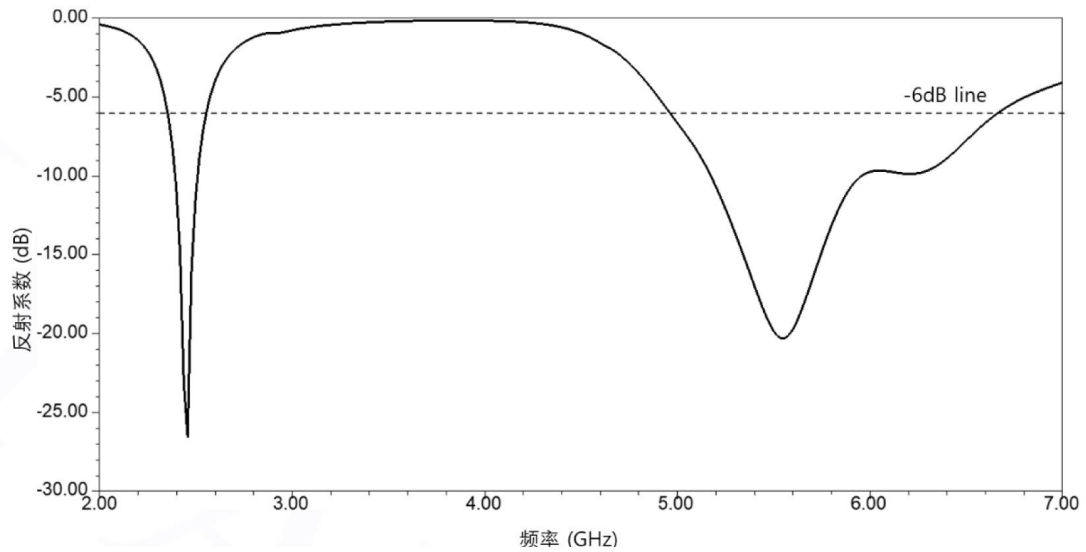
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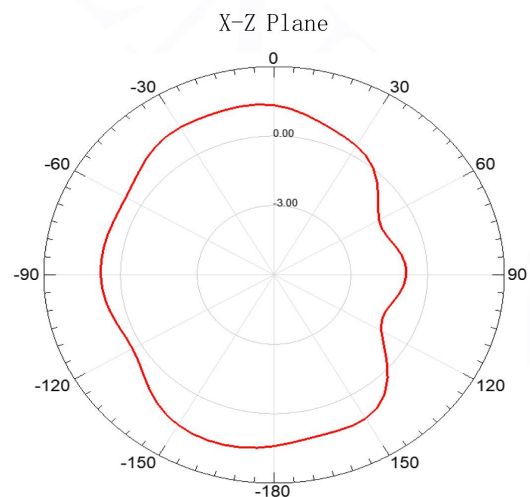
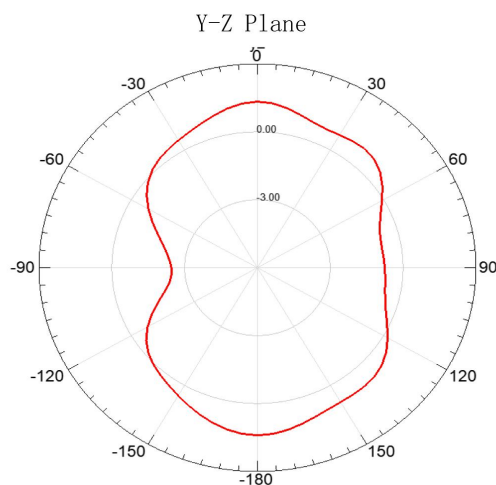
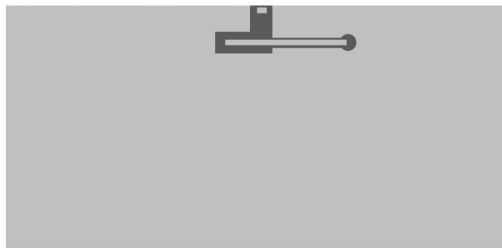
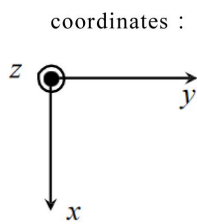
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## Radiation Pattern



UNLESS OTHER SPECIFIED TOLERANCES ON:

$X = \pm$        $X.X = \pm$        $X.XX =$

ANGLES =  $\pm$       HOLEDIA =  $\pm$

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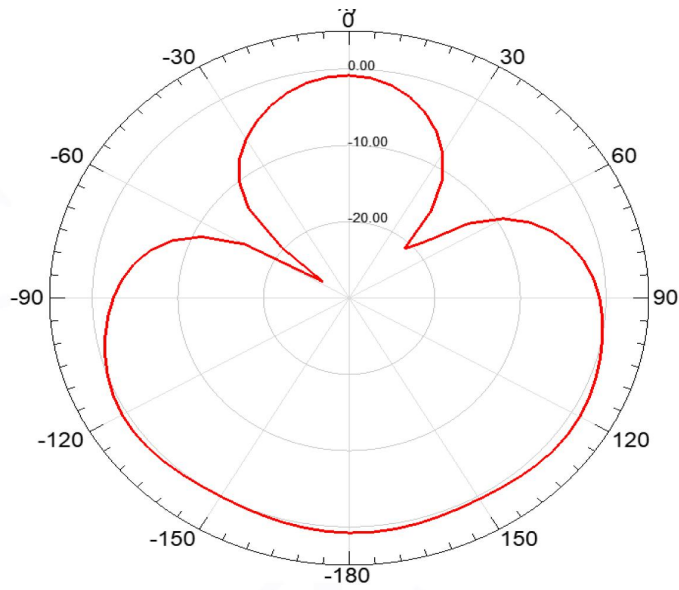
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DOCUMENT  
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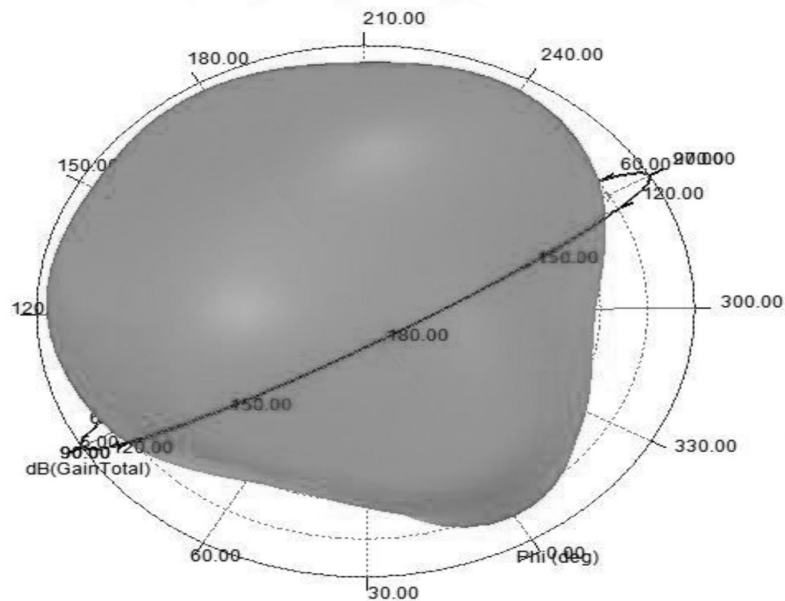
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### 3D Radiation Pattern



| Frequency  | 2400MHz | 2450MHz | 2500MHz |
|------------|---------|---------|---------|
| Avg. gain  | -1.92   | -1.35   | -1.56   |
| Peak gain  | 1.79    | 2.78    | 2.66    |
| Efficiency | 74.55   | 80.25   | 76.98   |

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ANGLES = ± HOLEDIA = ±

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PENGBANXING

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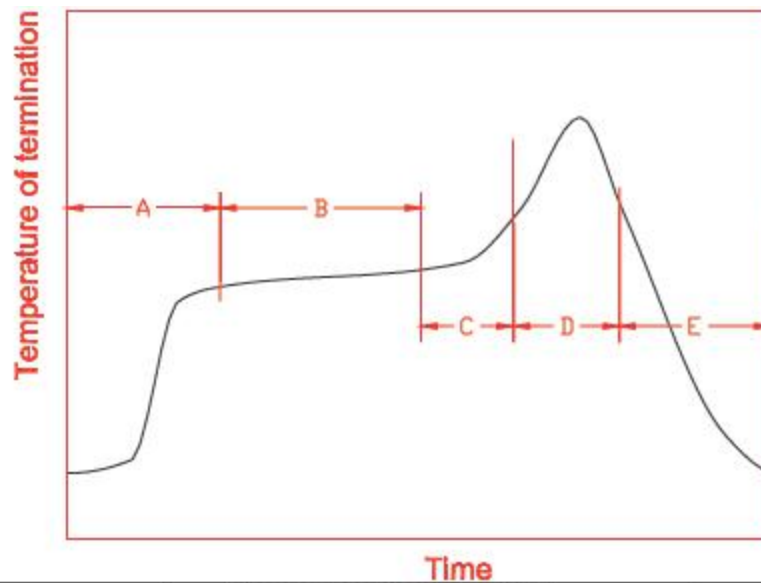
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## 8. Recommended Reflow Soldering



|   |                                    |                                      |               |
|---|------------------------------------|--------------------------------------|---------------|
| 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

### (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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|                                                                                                    |                 |                                                                                                                                                                                                       | SPEC REV. P1 |