

MB-2450-02

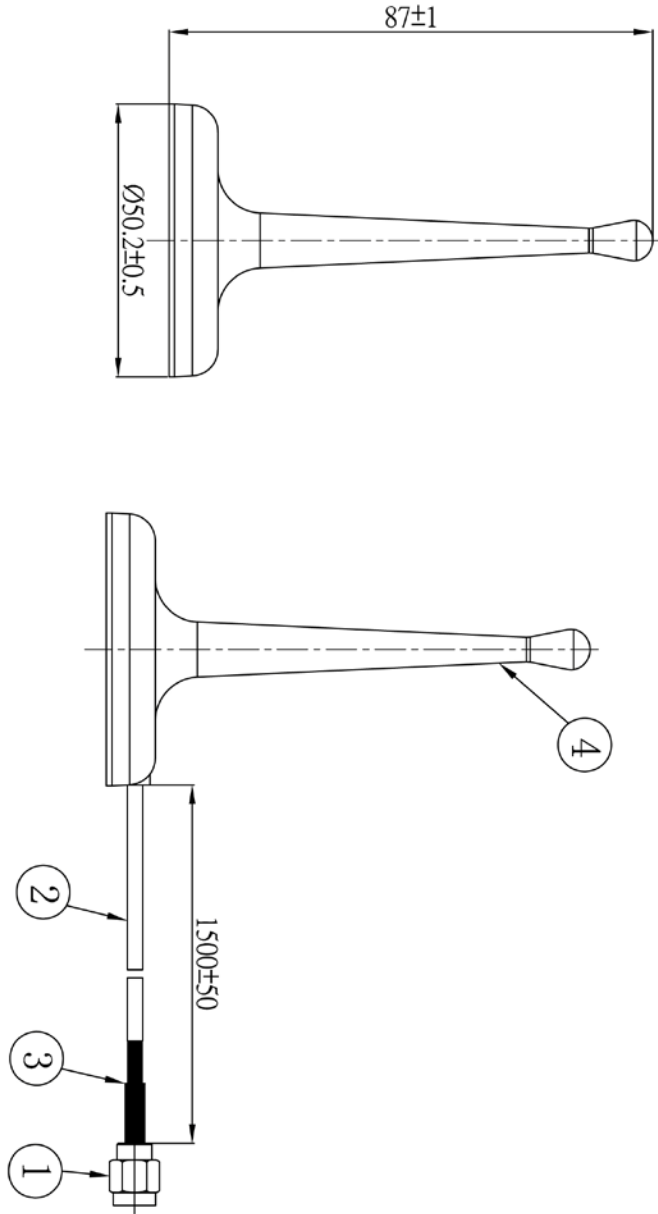
2.4GHz 2dBi with base Antenna



Specification:



| Technical Information |                 |
|-----------------------|-----------------|
| Item No.              | MB-2450-02      |
| Frequency             | 2400-2500MHz    |
| Gain                  | 2 dBi           |
| Polarization          | Vertical        |
| VSWR                  | $\leq 2.0:1$    |
| Impedance             | 50 $\Omega$     |
| Dimensions            |                 |
| Size                  | H 87 mm         |
| Cable length          | RG174/U ,L=1.5M |
| Weight                | 45 g            |
| Connector             | SMA Type Male   |

| REV | DESCRIPTION | DRAWN | DATE |
|-----|-------------|-------|------|
|     |             |       |      |
|     |             |       |      |



| NO | Description        | Qty | Material | Finish |
|----|--------------------|-----|----------|--------|
| 4  | BODY               | 1   | TPE      | BLACK  |
| 3  | HEAT SHRINK TUBING | 1   | PVC      | BLACK  |
| 2  | CABLE              | 1   | RG174U   | BLACK  |
| 1  | SMA MALE           | 1   | BRASS    | GOLD   |

|  |  |   |     |                  |  |
|--|--|---|-----|------------------|--|
| R&D  |  | * MAJOR DIMENSION UNLESS OTHERWISE NOTED TOLERANCES<br>0.X=±0.1<br>0.XX=±0.05 |     | APPROVED<br>CASH | <br>華城電子有限公司<br>RF CASTLE ELECTRONICS CO.,LTD |
|  |  | SCALE   | 1/1 | UNIT             |  |
| DRAWN  |  | DRAWN DATE  |     | 12/05/11         | TITLE  |
| KEVIN  |  | 12/05/11  |     |                  | 2.4GHz 2dBi with base Antenna  |
| DRAWING NO.  |  | MB-2450-02  |     | REV              | A  |

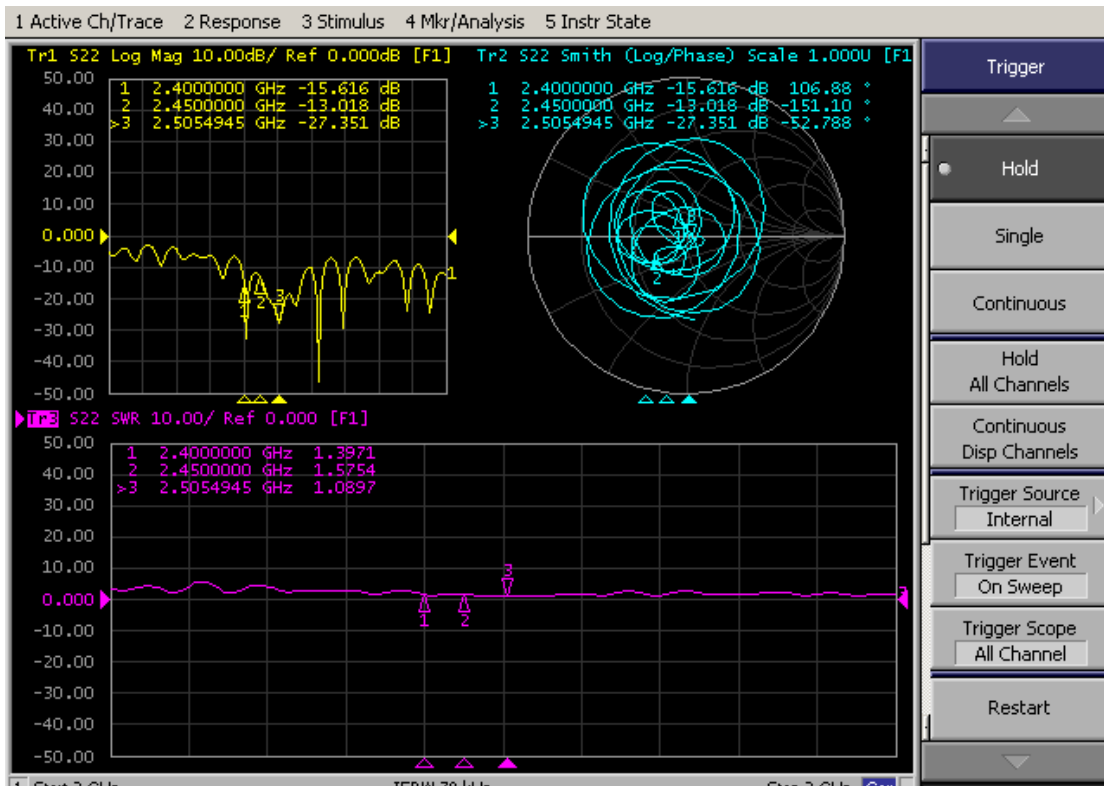
## 1. Reliability Testing

| Test Item                                       | Procedure  | Requirement  |
|---|--|--|
| <b>1. Visual inspection and Dimension Check</b> | Applicable methods using x5 magnification        | follow specification   |
| <b>2. Rapid Changing of Temperature</b>         | -40°C (30minutes) to 90°C (30minutes); 24 cycles | After 2 hours recovery: 1. no visible damage 2. Freq. Tol.: < ±5%  |
| <b>3. Damp Heat</b>                             | 24 hours at 60°C; 90 ~ 95% RH                    | After 2 hours recovery: 1. no visible damage 2. Freq. Tol. : < ±5% |
| <b>4. Endurance</b>                             | 24 hours at 90°C                                 | After 2 hours recovery: 1. no visible damage 2. Freq Tol.: < ±5%   |

## 2.Specification

| <b>A. Electrical Characteristics</b> |                                |
|--------------------------------------|--------------------------------|
| <b>S.W.R.</b>                        | <b>2400-2500MHz: &lt;= 2.0</b> |
| <b>Antenna Gain</b>                  | <b>2.0 dBi</b>                 |
| <b>Impedance</b>                     | <b>50 Ohm</b>                  |
| <b>B. Material</b>                   |                                |
| <b>Material of Radiator</b>          | <b>Cu (Plated)</b>             |
| <b>Connector Type</b>                | <b>SMA</b>                     |
| <b>C. Environmental</b>              |                                |
| <b>Operation Temperature</b>         | <b>- 30 °C ~ + 85 °C</b>       |
| <b>Storage Temperature</b>           | <b>-30 °C ~+ 85 °C</b>         |

### 3.S Parameter Test data



#### 4. Antenna Radiation Pattern

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent 5071B

Received Antenna: 0.7 ~ 6.0 GHz for Gain Calibration

#### Double Ridged Horn Antenna

