


Product Number: AN2400-6001RS

Product Name: Antenna



2. Specification

| Sample Photo | |
|--|-------------------|
|  | |
| A. Electrical Characteristics | |
| Frequency | 2400 ~ 2500 MHz |
| S.W.R. | ≤ 2.0 |
| Antenna Gain | 7.0 \pm 0.7 dBi |
| Polarization | Linear |
| Impedance | 50 Ohm |
| B. Material & Mechanical Characteristics | |
| Material of Radiator | Cu |
| Material of Plastic | Body: ABS |
| Cable Type | RG-178 |
| Connector Type | SMA Male Reverse |
| Connector Pull Test | ≥ 5 Kg |
| C. Environmental | |
| Operation Temperature | - 40 °C ~ + 65 °C |
| Storage Temperature | - 40 °C ~ + 80 °C |
| Antenna Color Storage life | < 2 year |

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
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3. Characteristics and Reliability Test

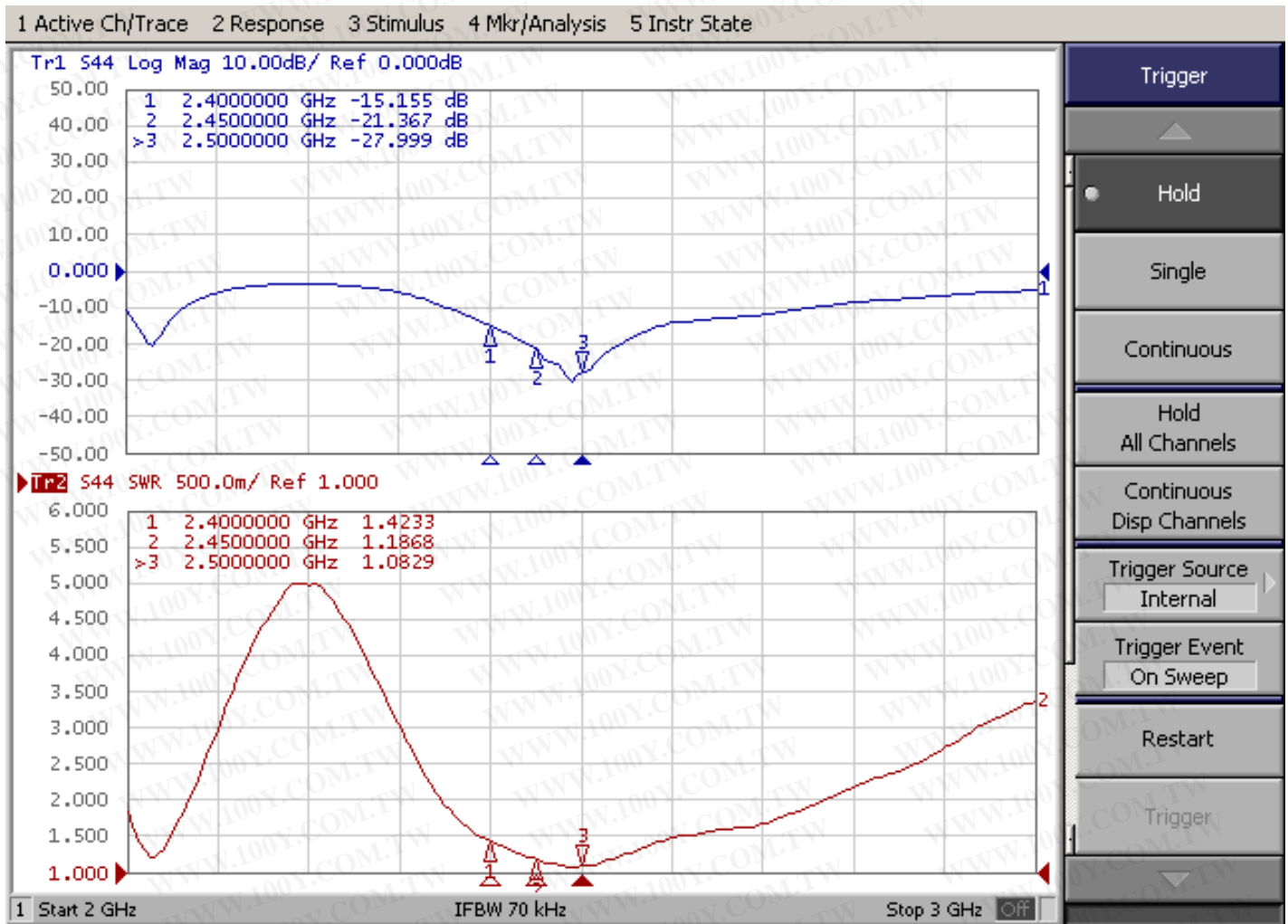
| Test Items | | Test Condition and Procedure | Requirements |
|------------|----------------------|---|---|
| C1 | S.W.R. | Set DUT on Network Analyzer; make individual calibration to test | Directive DUT specification |
| C2 | Antenna Gain | Set DUT on Antenna Chamber; make individual calibration to test | Directive DUT specification |
| M1 | Vibration | GB / T2423 . 48-1997 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80 to 20 Hz 3 directions; 2 hours for each direction | 1. No Visual Damage 2. Frequency Tol.<= 5% |
| M2 | Random Drop | GB / T2423.8-1995 Height: 1.0 Meter; 3 directions; 1 time for each direction | 1. No parts separated 2. Frequency Tol.<= 5% |
| M3 | Solderability | GB 2423 . 28- 82 Solder iron: 260±5°C; Duration: 5 seconds | 1. Mounted on PCB 2. No Visual Damage |
| M4 | Terminal-Pull Test | Holding with individual specification; force applied to axis of terminal | 1. Directive DUT specification 2. Frequency Tol.<= 5% |
| M5 | Terminal-Torque Test | Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal | 1. Directive DUT specification 2. Frequency Tol.<= 5% |
| M6 | Dimension | Inspection of dimension, color, material, package, surface process | Directive DUT specification |
| E1 | Salt Spray | GB / T 2423 . 17- 93 Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 24 hours | After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5% |
| E2 | Humidity | GB / T 2423 . 4 - 93 Temp: 80°C / 12 H; -40°C / 12H RH: >= 90%; Time: 24 hours | After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5% |
| E3 | Thermal Shock | GB / T 2423 . 22 - 87 1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24 | After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5% |
| E4 | Life (High Temp.) | GB / T 2423 . 2 - 89 Temp: 80°C; Time: 24 hours | After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5% |
| R1 | RoHS | With Reference to IEC 62321:2008 with flow chart | Directive RoHS 2011/65/EU |
| R2 | PFOS | With Reference to USA EPA 3540C:1996 by LC/MS | Directive RoHS 2006/122/EC |
| R3 | PFOA | With Reference to USA EPA 3540C:1996 by LC/MS | Directive RoHS 2006/122/EC |

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4. Antenna - S Parameter Test Data



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5. Antenna - Radiation Pattern Test Data

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

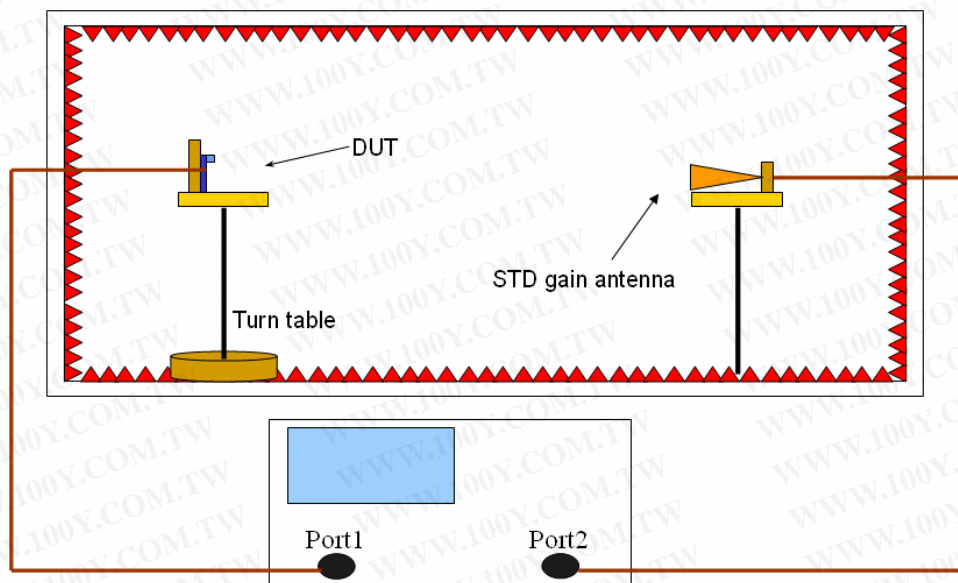
Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent 5071B

Received Antenna: 0.7 ~ 6.0 GHz for Gain Calibration

Double Ridged Horn Antenna



6. Mechanical Drawing

See attached files

7. Material Description and RoHS Test Report

See attached files

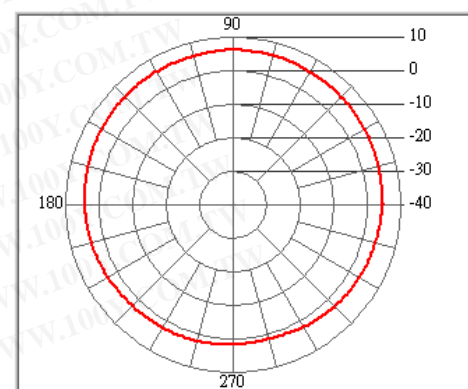
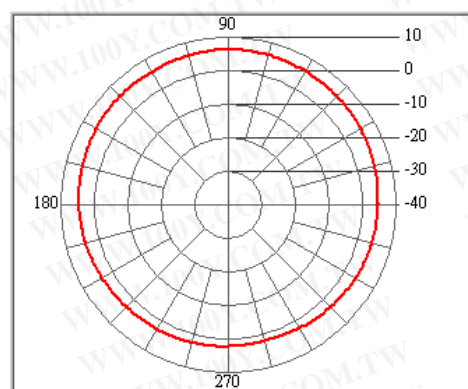
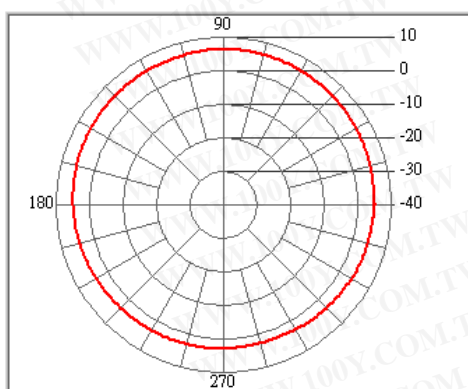
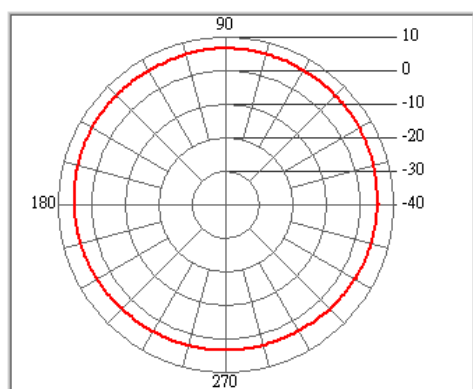
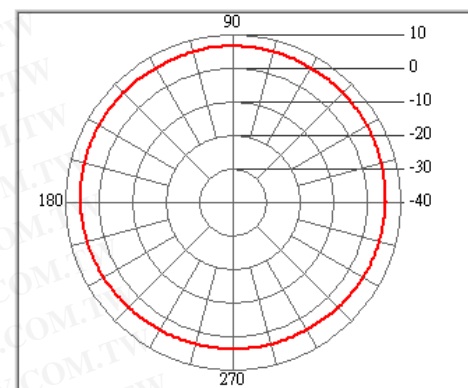
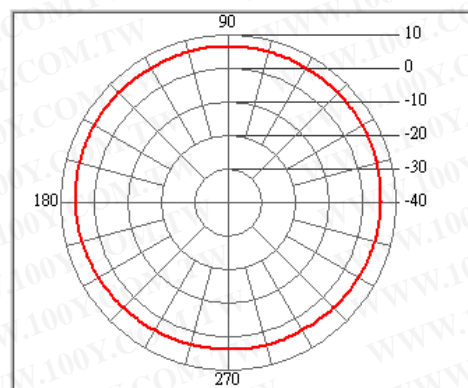
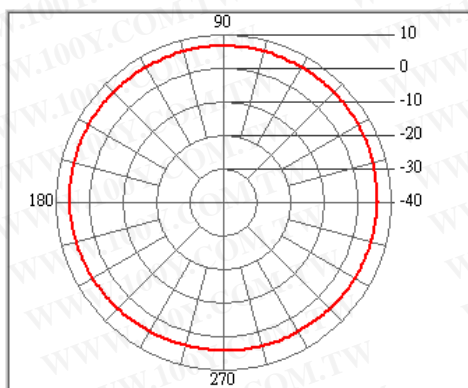
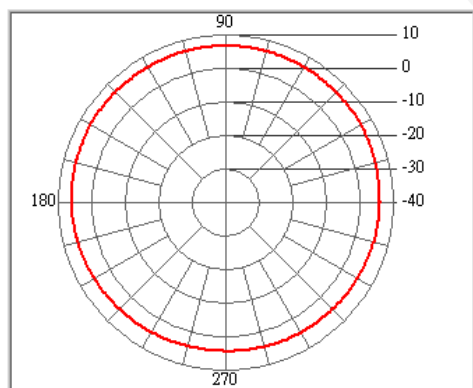
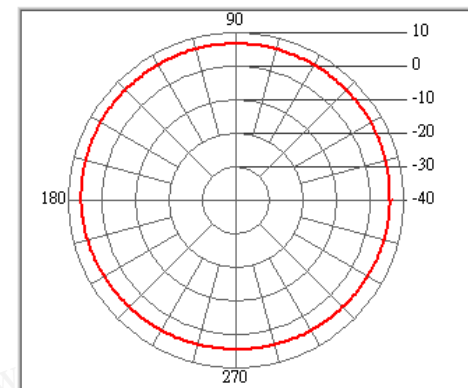
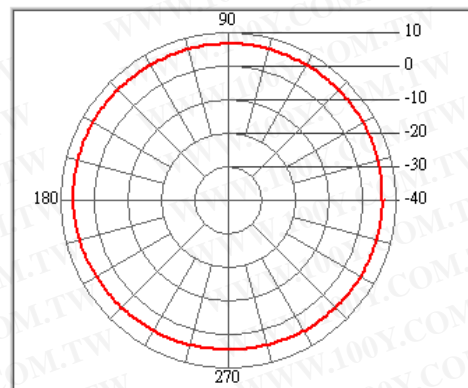
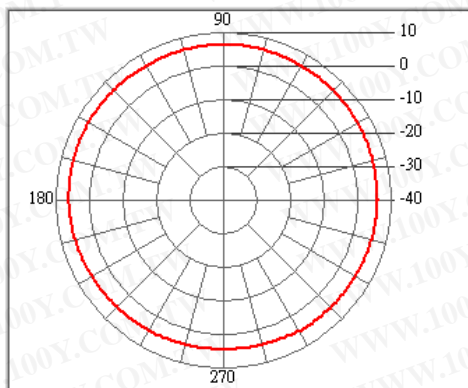
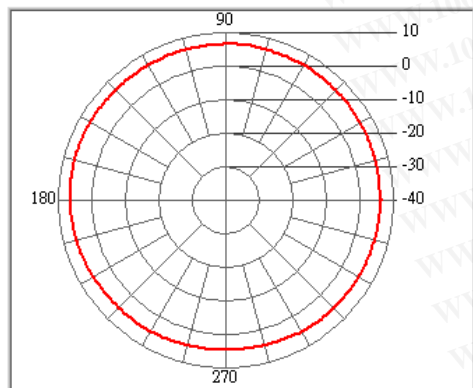
Antenna 2.4GHz Antenna/bm
 Remark: H-Plane/V-Pol
 Tested by : Antenna 3D Lab

Location: **Chamber**
 Temperatur (°C): **25.00**

Date: **2012/8/15**
 Humidity (%): **65.00**

Time: **下午 08:04:32**
 Approved by:

| Freq. (MHz) | 2390 | 2400 | 2410 | 2420 | 2430 | 2440 | 2450 | 2460 | 2470 | 2480 | 2490 | 2500 |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Peak Gain (dBi) | 6.72 | 6.5 | 6.7 | 6.71 | 6.78 | 6.74 | 6.57 | 6.66 | 6.61 | 6.44 | 6.28 | 6.15 |
| Peak Degree | 153 | 141 | 80 | 104 | 104 | 98 | 98 | 98 | 92 | 92 | 92 | 92 |
| AV Gain (dBi) | 5.99 | 5.79 | 5.94 | 5.9 | 5.85 | 5.74 | 5.45 | 5.41 | 5.22 | 4.91 | 4.65 | 4.4 |



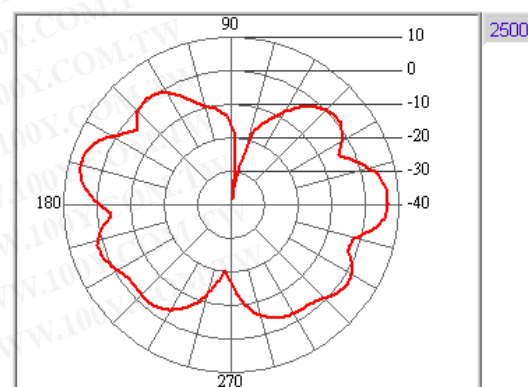
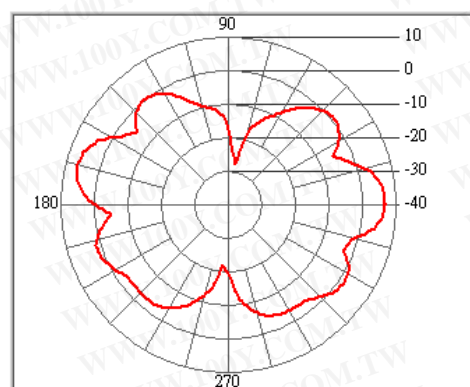
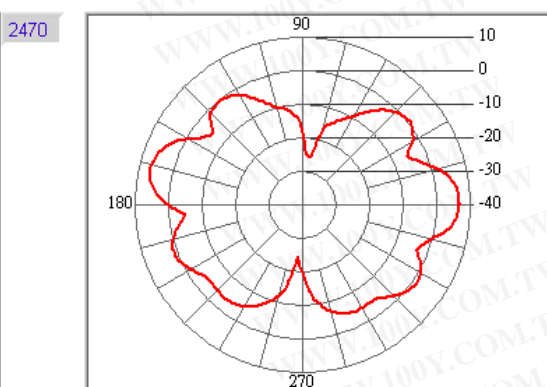
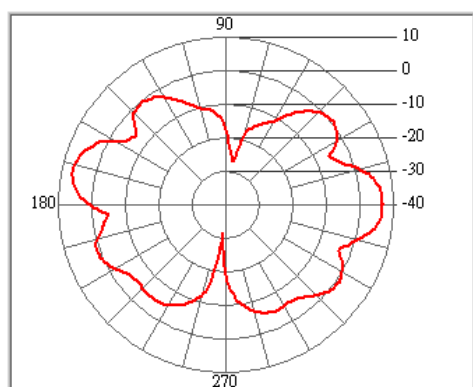
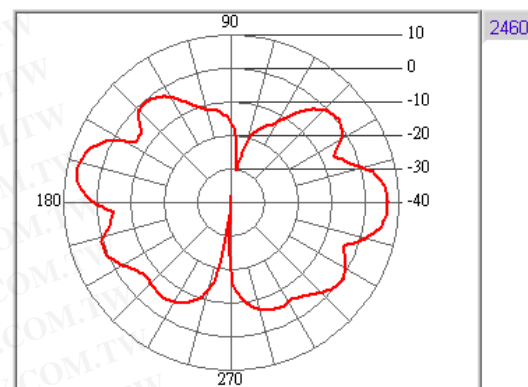
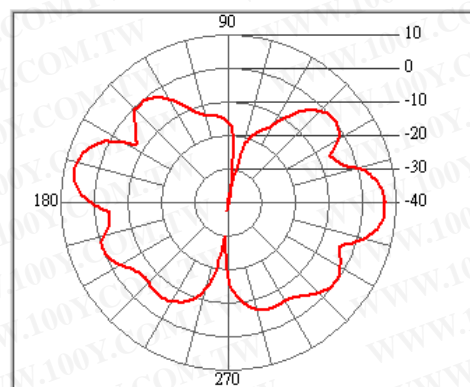
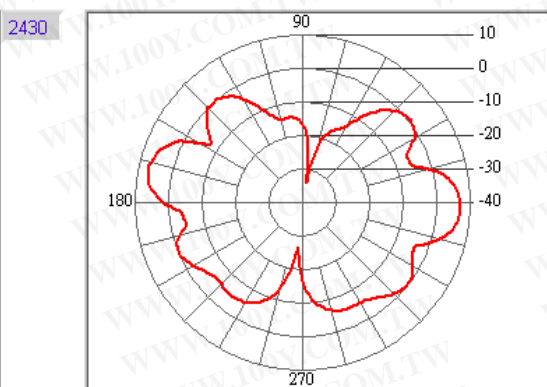
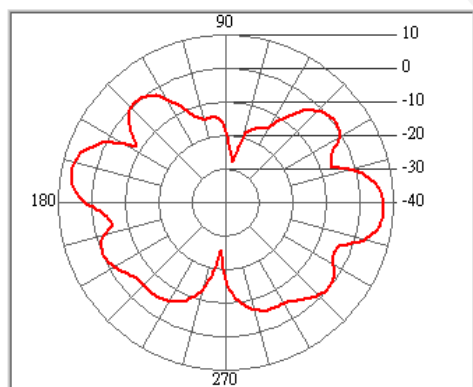
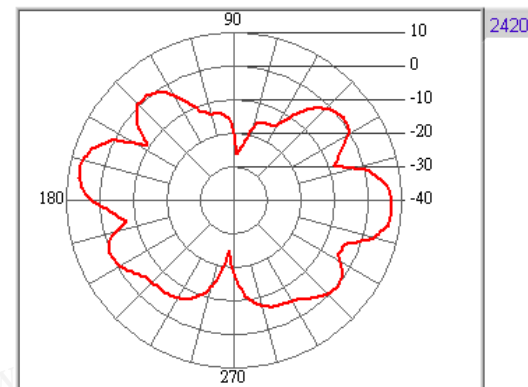
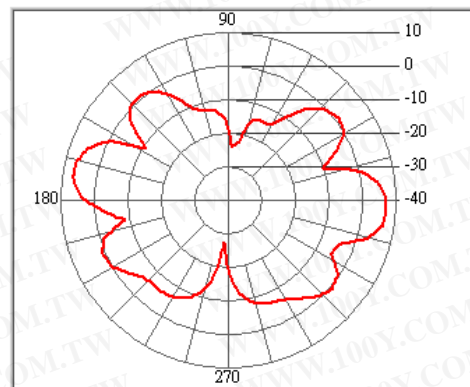
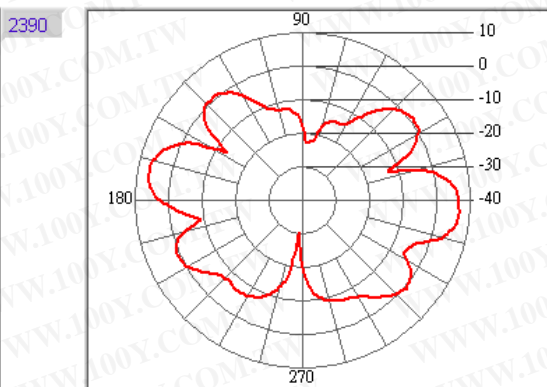
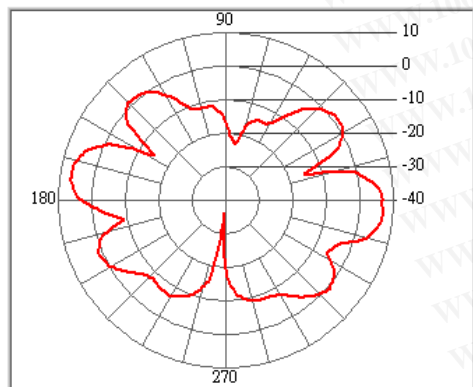
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|-----------------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Peak Gain (dBi) | 7.14 | 7.06 | 7.32 | 7.36 | 7.26 | 7.15 | 6.93 | 6.97 | 6.87 | 6.82 | 6.85 | 6.86 |
| Peak Degree | 356 | 356 | 356 | 356 | 356 | 356 | 166 | 166 | 2 | 2 | 2 | 360 |
| AV Gain (dBi) | -0.67 | -0.76 | -0.5 | -0.46 | -0.49 | -0.53 | -0.72 | -0.57 | -0.45 | -0.41 | -0.21 | -0.02 |



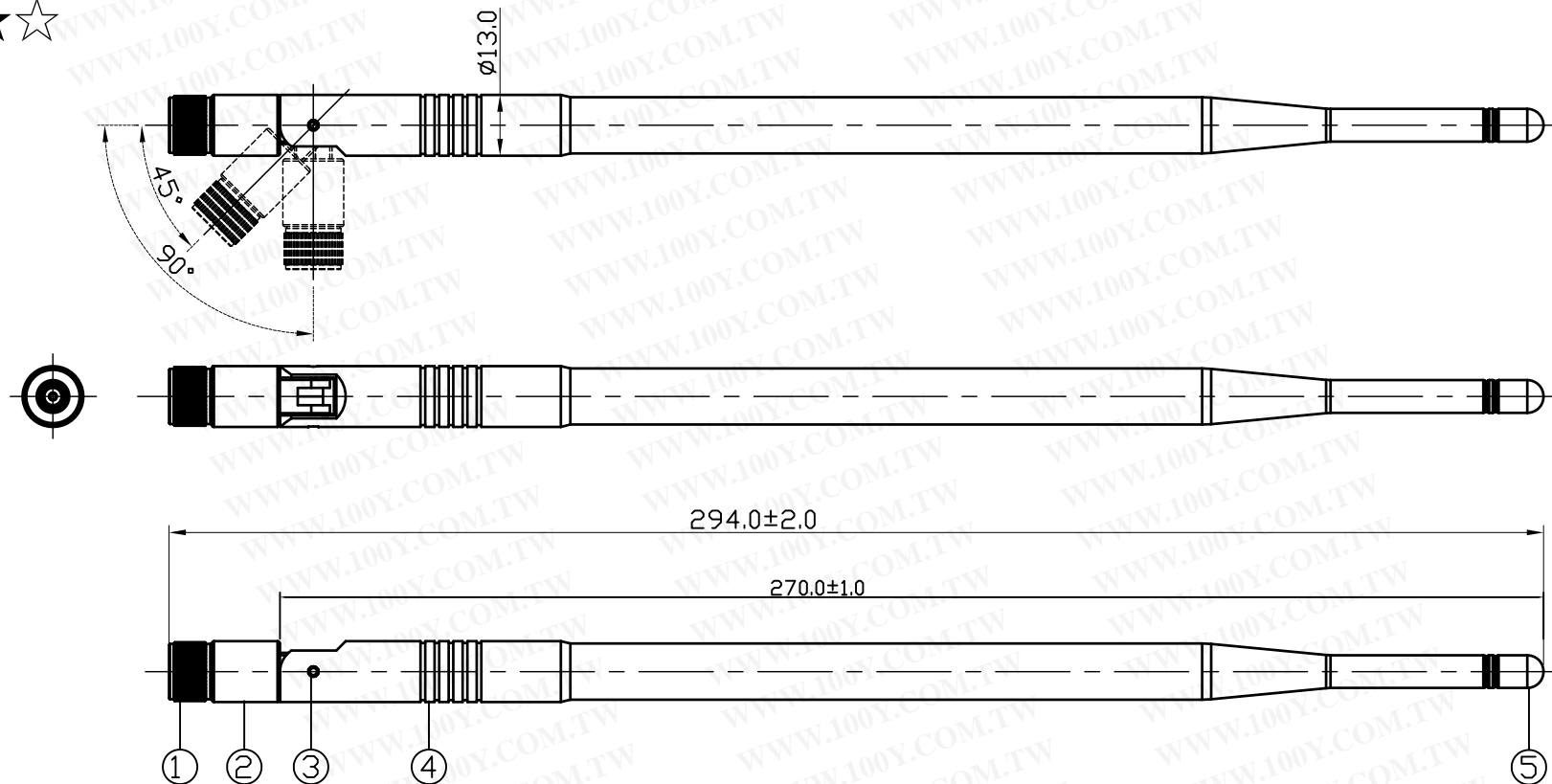
RoHS

Compatible



勝特力材料 886-3-5753170
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| SIGN | DATE | DESCRIPTION | APPROVER |
|------|------|-------------|----------|
| △ | | | |
| △ | | | |
| △ | | | |



| 5 | R-AN60-01B | Aerial cap | PVC | Black | 1 |
|-----|-----------------|------------------|----------|------------------|------|
| 4 | AN6003-01B | Body-1 | ABS | Black | 1 |
| 3 | AN03-515CZ | Pin | Cu | Black Zn Plated | 2 |
| 2 | AN0303-T01B | Body-2 | ABS | Black | 1 |
| 1 | SMA336-CC8MRANT | SMA Male Reverse | Cu | Eletrodeposition | 1 |
| No. | Part Number | Description | Material | Finish | Q'ty |

| Invax System Group. | | | | | |
|--|--------|-------|-----------------|---|--|
| Cortec | | | | | |
| TITLE: 2.4 GHz 7dBi Antenna | | | | | |
| PART NO.: AN2400-6001RS | | | CUSTOMER P/N: / | | |
| APP BY | CHK BY | RF BY | DES BY | Tolerance X.X ±0.5 X.XX ±0.2 X° ±1 | |
| | | | | | |
| UNITS: mm SCALE: 1/1 REVISION: A | | | | | |