



**硕天通讯**

SOANT COMMUNICATION

**苏州硕天通讯器材有限公司**  
Suzhou Soant Communication Equipment Co., Ltd

# 承认书

## SPECIFICATION FOR APPROVAL

客户名称

Customer: \_\_\_\_\_

产品名称

Product Name: \_\_\_\_\_

**2.4G PCB 天线**

规格描述

Description: \_\_\_\_\_

**2.4G PCB (38\*7.5\*0.2) TO I-pex(GF) To RF-1.13 Black Cable**

**L=180mm**

客户料号

CUSTP/N: \_\_\_\_\_

硕天料号

SOANT.P/N: \_\_\_\_\_

**STPCA387518IBA301**

发出日期

Approval Date: \_\_\_\_\_

**2017 年 02 月 21 日**

| 核准<br>Approved | 审核<br>Checked By | 制作<br>Made By |
|----------------|------------------|---------------|
|                | 尹希兵              | 李秀娟           |

客户承认

Customer Approve

| 核准<br>Approved | 审核<br>Checked By | 承办<br>Undertake By |
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[illegible]

**TECHNICAL DATE****BT Antenna Assembly****1. Electrical Specifications**

1.1 Frequency Ranges ..... 2.4~2.5GHz

1.2 Impedance ..... 50Ω

1.3 VSWR..... 2.0max

1.4 Return Loss..... -10dBmax

**2. Physical Properties**

2.1 Cable Type ..... Φ 1.13mm Coaxial

2.2 Cable Color.....BLACK

2.3 Cable Attenuations .....1.8dB/m @ 1.0GHz

2.6dB/m @ 2.0GHz

3.7dB/m @ 3.0GHz

4.8dB/m @ 4.0GHz

5.2dB/m @ 5.0GHz

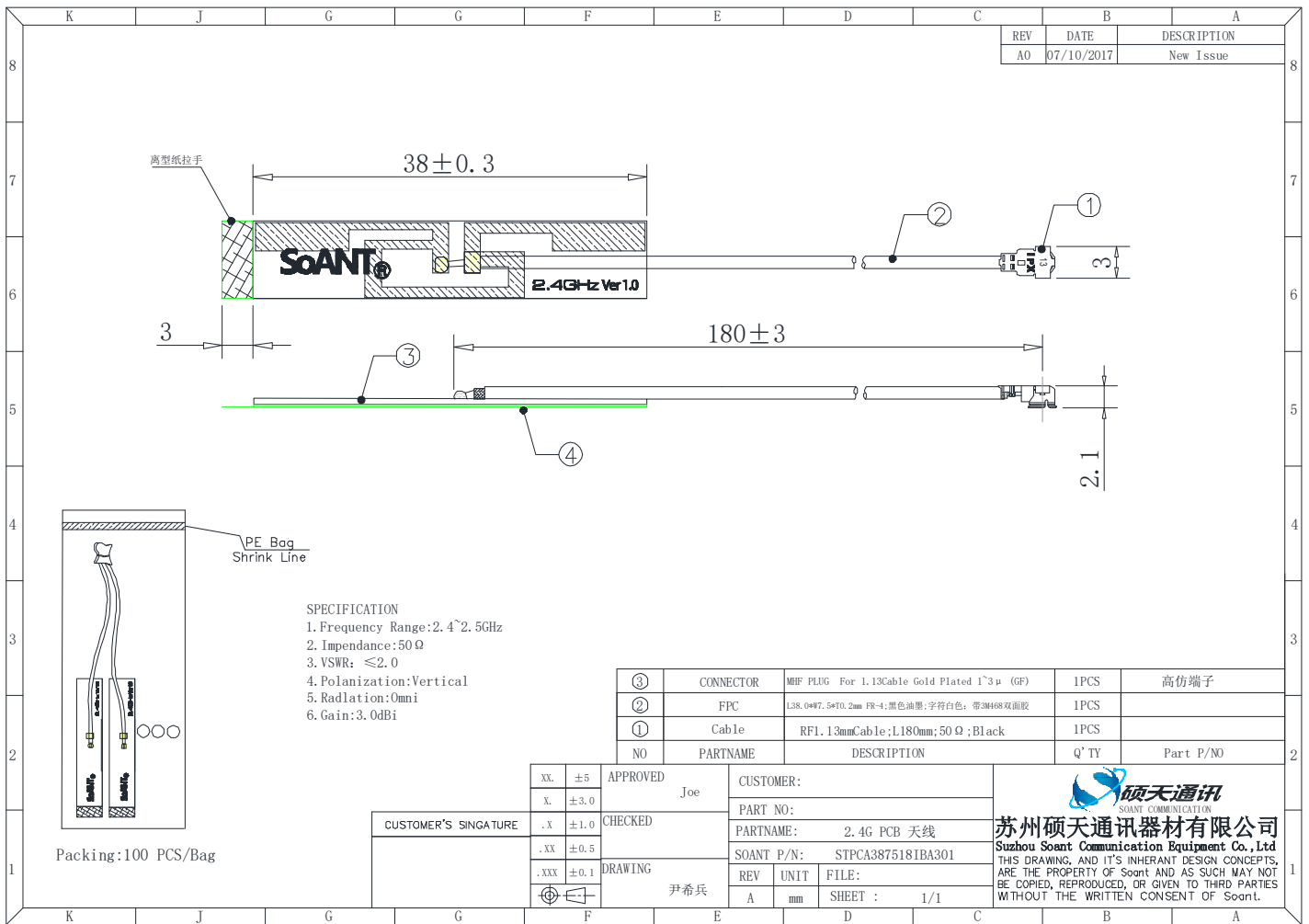
6.4dB/m @ 6.0GHz

2.4 PCB Metal .....FR-4

2.5 Operating Temperature .....-20℃ ~ +65℃

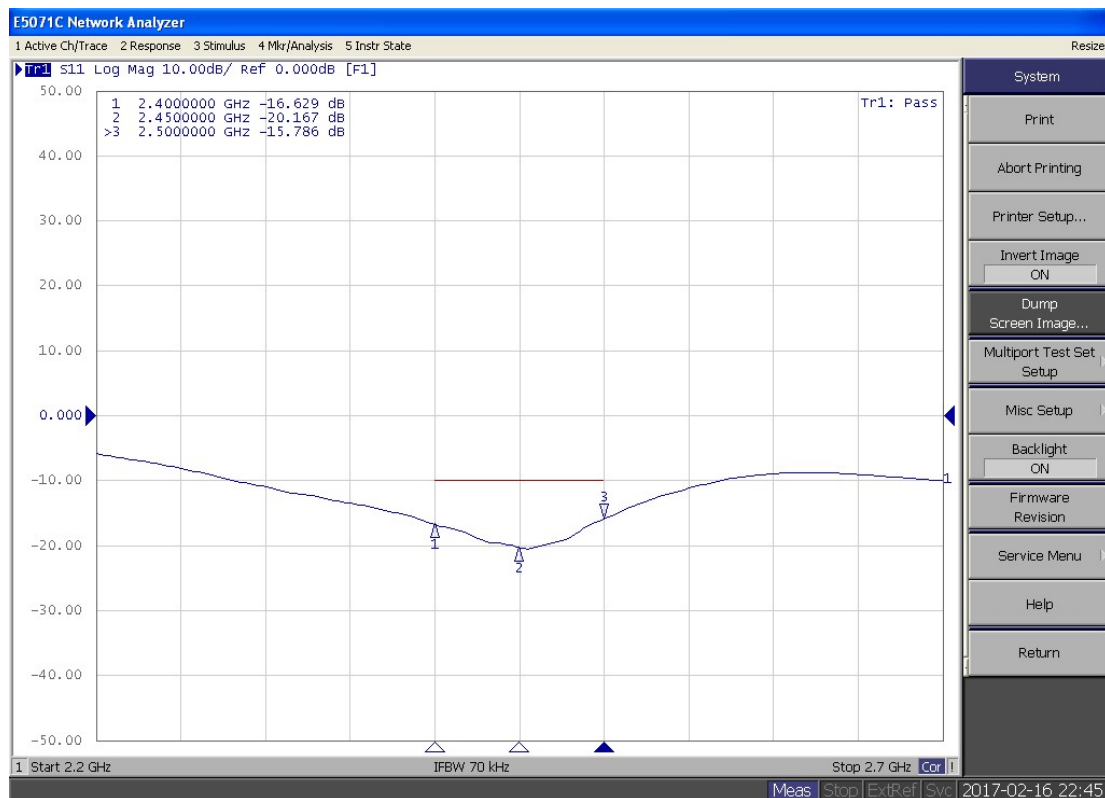
2.6 Storage Temperature ..... -30℃ ~ +75℃

工程图:

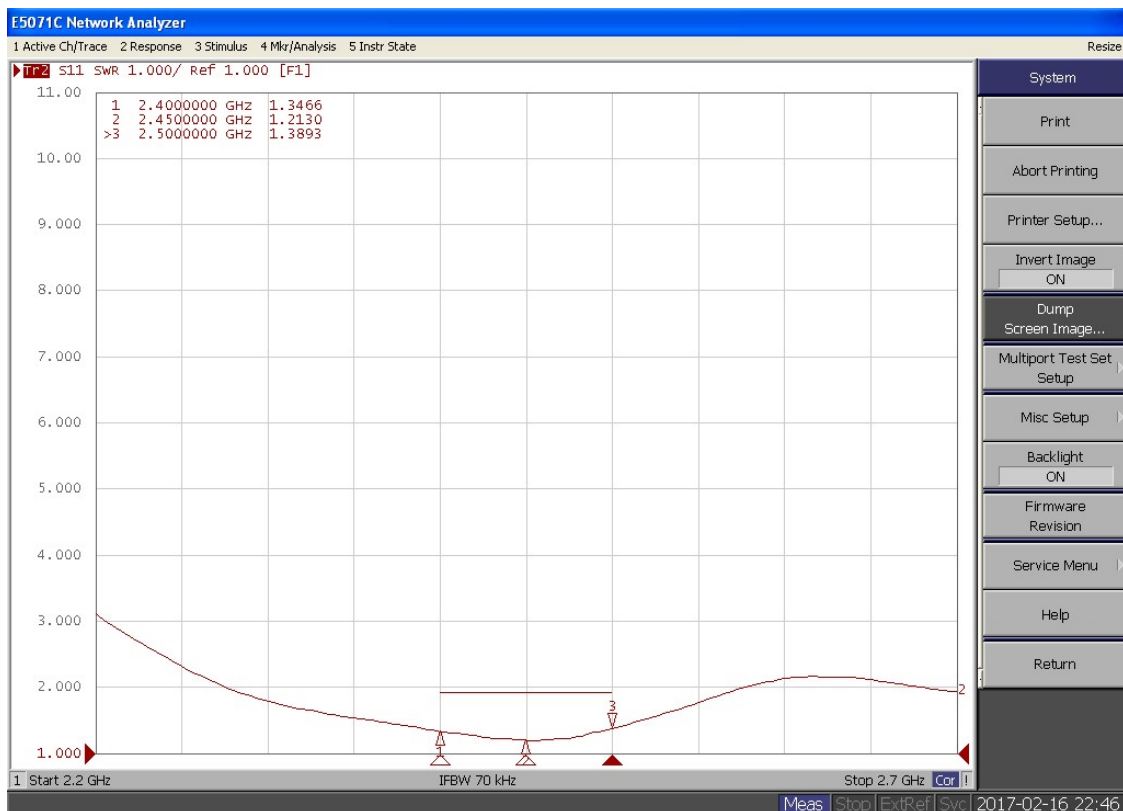


# 测试报告

## Return Loss:

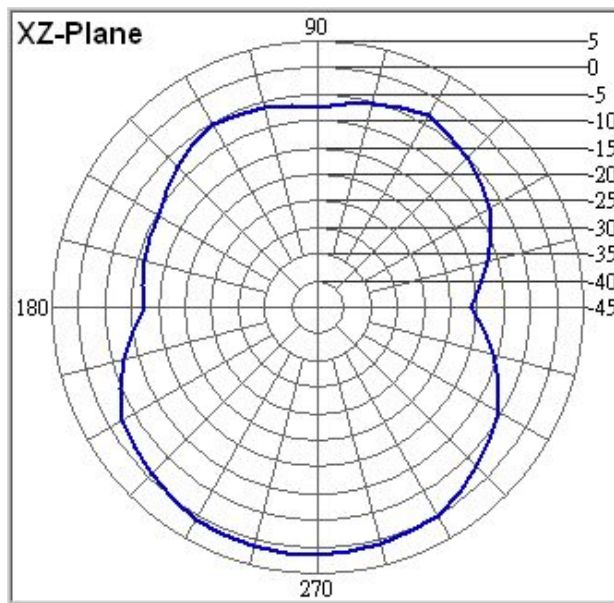
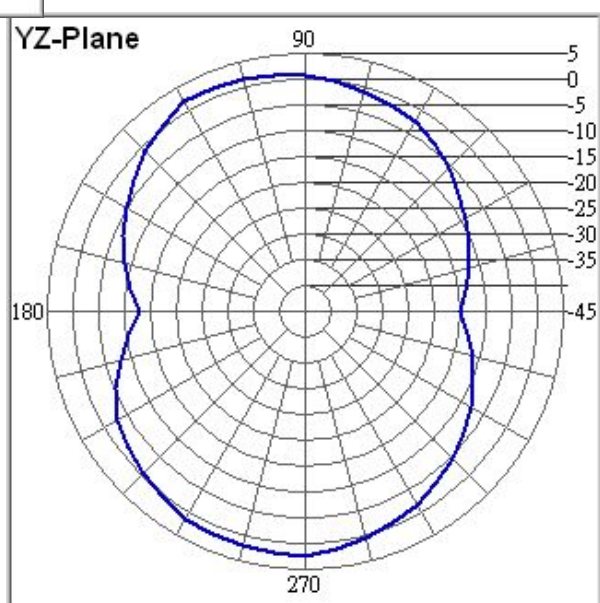
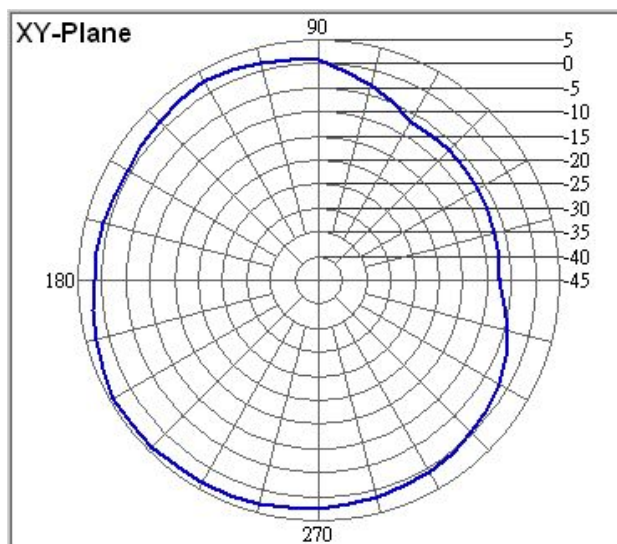
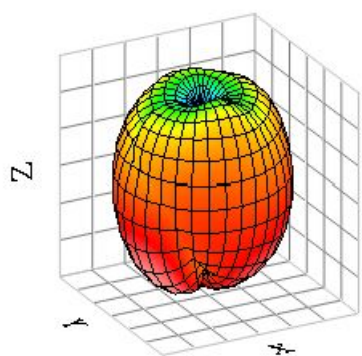
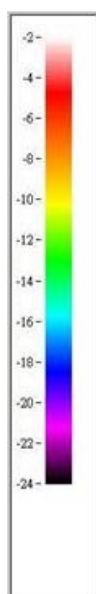


## V.S.W.R



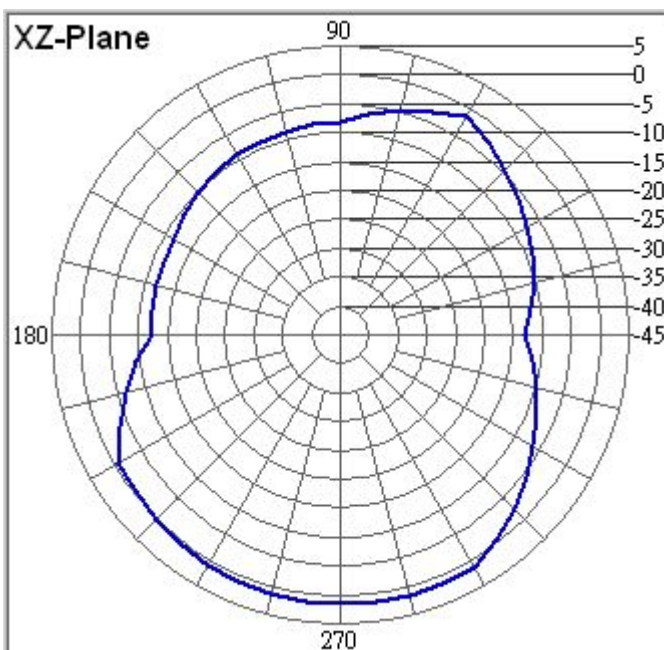
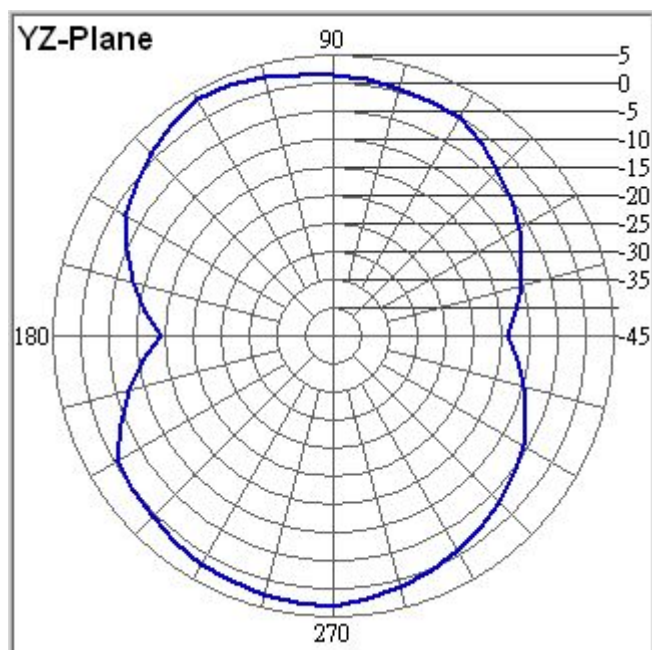
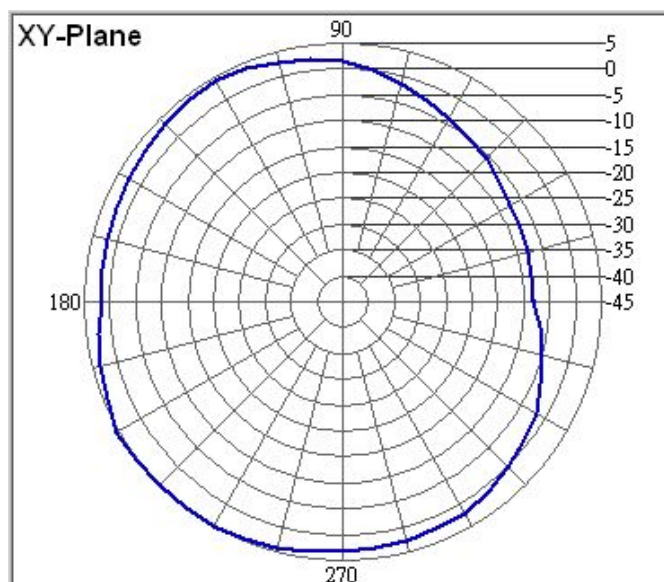
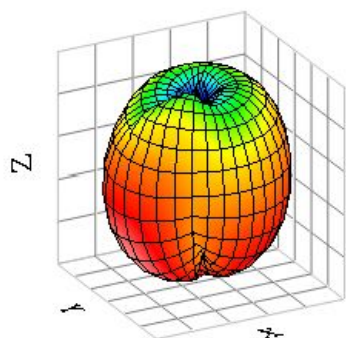
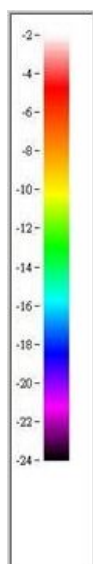
**Frequency = 2400 MHz**

| dBm            | XY-Plane   | XZ-Plane   | YZ-Plane   |
|----------------|------------|------------|------------|
| H-Pol. (Peak.) | 4.138122   | 1.541986   | 2.344337   |
| V-Pol. (Peak.) | -7.999004  | -10.830696 | -7.999004  |
| H+V. (Peak.)   | 4.141678   | 1.593585   | 2.399362   |
| H-Pol. (Avg.)  | 0.783414   | -3.376923  | -1.771325  |
| V-Pol. (Avg.)  | -13.105059 | -14.510229 | -13.984869 |
| H+V. (Avg.)    | 0.95728    | -3.054639  | -1.517986  |
|                |            |            |            |
| Angle          | XY-Plane   | XZ-Plane   | YZ-Plane   |
| H-Pol. (Peak.) | 210        | 270        | 270        |
| V-Pol. (Peak.) | 90         | 240        | 90         |
| H+V. (Peak.)   | 210        | 270        | 270        |



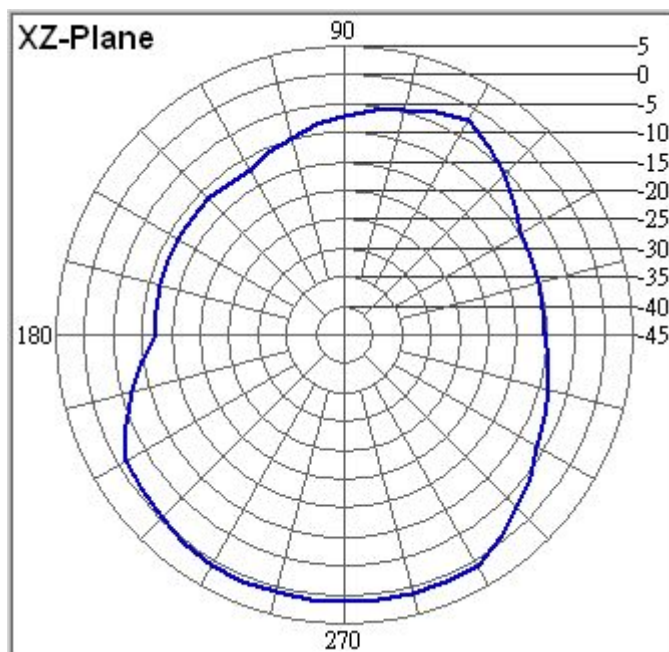
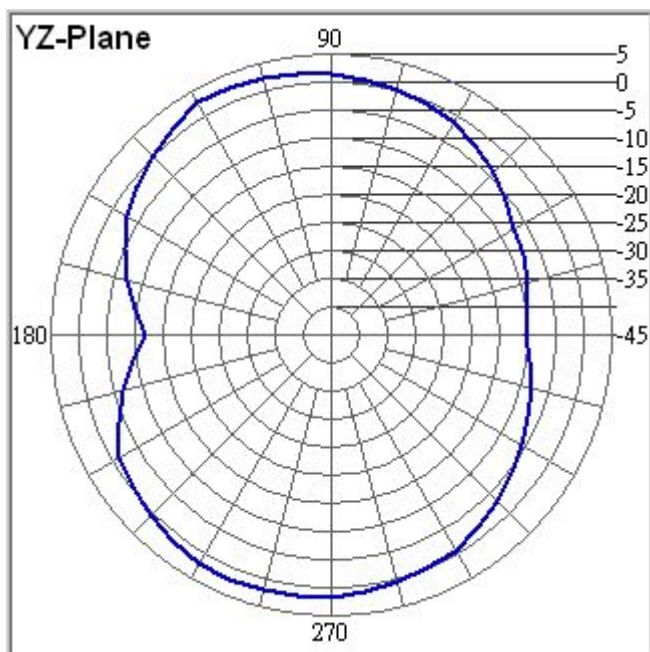
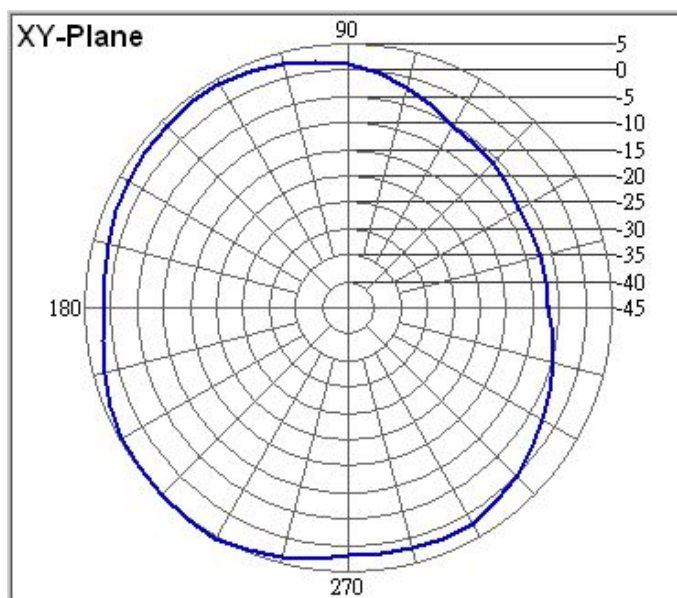
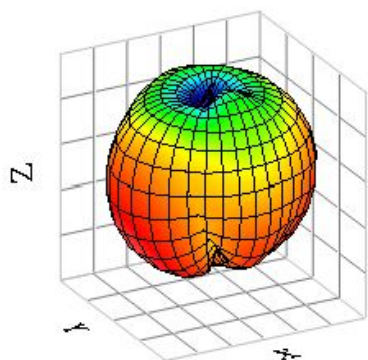
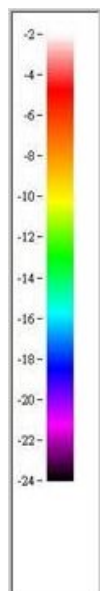
**Frequency = 2450 MHz**

| dBm            | XY-Plane   | XZ-Plane   | YZ-Plane   |
|----------------|------------|------------|------------|
| H-Pol. (Peak.) | 5.361914   | 1.552464   | 3.589634   |
| V-Pol. (Peak.) | -7.878981  | -7.486785  | -9.210093  |
| H+V. (Peak.)   | 5.362791   | 1.627744   | 3.754486   |
| H-Pol. (Avg.)  | 1.907404   | -2.961612  | -0.412159  |
| V-Pol. (Avg.)  | -13.182841 | -13.704806 | -14.406141 |
| H+V. (Avg.)    | 2.039875   | -2.610232  | -0.242385  |
|                |            |            |            |
| Angle          | XY-Plane   | XZ-Plane   | YZ-Plane   |
| H-Pol. (Peak.) | 210        | 270        | 120        |
| V-Pol. (Peak.) | 120        | 210        | 90         |
| H+V. (Peak.)   | 210        | 300        | 120        |



**Frequency = 2500 MHz**

| dBm            | XY-Plane   | XZ-Plane   | YZ-Plane   |
|----------------|------------|------------|------------|
| H-Pol. (Peak.) | 5.591316   | 1.214863   | 2.960606   |
| V-Pol. (Peak.) | -9.346767  | -8.649417  | -12.179206 |
| H+V. (Peak.)   | 5.602422   | 1.284218   | 3.042904   |
| H-Pol. (Avg.)  | 1.729659   | -3.322081  | -0.949094  |
| V-Pol. (Avg.)  | -14.343192 | -13.763179 | -14.828232 |
| H+V. (Avg.)    | 1.835631   | -2.946453  | -0.774861  |
|                |            |            |            |
| Angle          | XY-Plane   | XZ-Plane   | YZ-Plane   |
| H-Pol. (Peak.) | 240        | 300        | 120        |
| V-Pol. (Peak.) | 300        | 210        | 300        |
| H+V. (Peak.)   | 240        | 300        | 120        |



**3D Total Date**

| Total/<br>Frequency | Ant. Port<br>Input | Tot.Rad.Pwr.<br>(dBm) | PeakEIRP<br>(dBm) | Directivity<br>(dBi) | Efficiency<br>(dB) | Efficiency<br>(%) | Gain<br>(dBi) |
|---------------------|--------------------|-----------------------|-------------------|----------------------|--------------------|-------------------|---------------|
| 2400                | 0                  | -0.98513              | 4.141678          | 5.126802             | -0.98513           | 79.705358         | 4.141678      |
| 2437                | 0                  | -0.54022              | 4.946598          | 5.486816             | -0.54022           | 88.303555         | 4.946598      |
| 2442                | 0                  | -0.54719              | 4.742009          | 5.289199             | -0.54719           | 88.161917         | 4.742009      |
| 2450                | 0                  | 0.083789              | 5.362791          | 5.279002             | 0.083789           | 98.948045         | 5.362791      |
| 2484                | 0                  | -0.09264              | 5.262933          | 5.355568             | -0.09264           | 97.88958          | 5.262933      |
| 2500                | 0                  | -0.27091              | 5.602422          | 5.873335             | -0.27091           | 93.952579         | 5.602422      |