

# 承認書

## SPECIFICATION FOR APPROVAL

樣品承認  新品承認  規格/材質變更承認

|                                       |   |         |          |
|---------------------------------------|---|---------|----------|
| 客戶名稱(Customer):                       |   |         |          |
| 客戶料號(Customer P/N):                   |   |         |          |
| 產品料號(Product No.):                    | A8-A003-00071                             |         |          |
| 產品品名(Product Name) :                  | DIP 11b/g/n 5dBi D13 BLACK<br>SMA MALE-RP |         |          |
| 文件編號(Approved No) :                   |   |         |          |
| 日期(Issued Date) :                     | 年 月 日                                     |         |          |
| 客戶承認簽章<br>Customer Approval Signature | In Charge                                 | Checked | Approval |
|                                       |   |         |          |

**TSKY™** 天凱科技股份有限公司 TSKY CO., LTD.

新竹縣竹北市自強南路8號15F-1 Tel:03-5502626 Fax:03-5503131

15F-1, No.8, Ziqiang S.Rd., Jhubei City, Hsinchu County 30264, Taiwan (R.O.C.)

| 業務 | 核准 | 審核 | 主辦員 |
|----|----|----|-----|
|    |    |    |     |

# Contents

| <b>Item</b> | <b>Description</b> | <b>Page</b> |
|-------------|--------------------|-------------|
| 1.          | Cover              | 1           |
| 2.          | Contents           | 2           |
| 3.          | Specification      | 3           |
| 4.          | Drawing            | 4           |
| 5.          | Test Report        | 5-12        |

# Specification

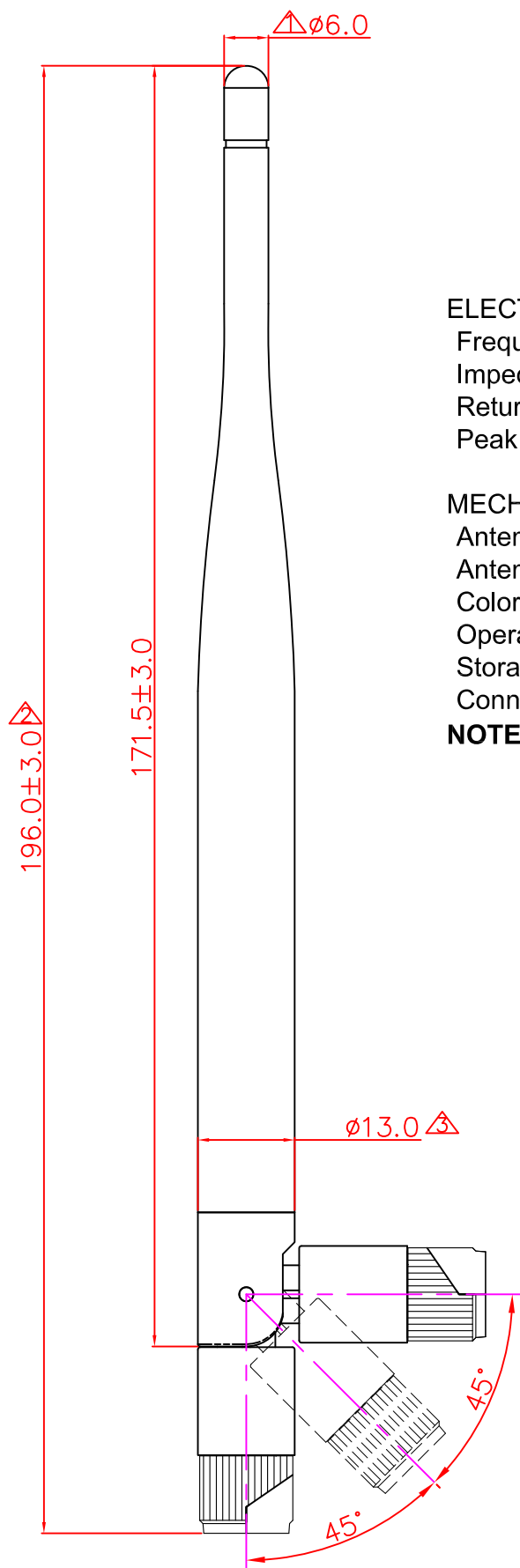
- **Electrical Properties :**

1. Frequency : 2.4GHz ~ 2.5GHz
2. Impedance : 50Ω
3. Return Loss :  $\leq$  -10dB
4. Peak Gain : 5.0dBi

- **Physical Properties :**

1. Antenna Cover : TPEE
2. Antenna Base : PBT+PC
3. Connector : SMA MALE-RP
4. Operation temperature : - 20°C ~ +65°C
5. Storage temperature : - 30°C ~ +75°C

| REV | ECN NO. | DESCRIPTION | DRAWING | DESIGNED | CONCURRED | APPROVED | DATE       |
|-----|---------|-------------|---------|----------|-----------|----------|------------|
| A   |         | 初版發行        | Nydia   |          |           |          | 2012/04/17 |



**ELECTRICAL:**

Frequency:2.4GHz~2.5GHz

Impedance:50Ω

Return Loss :≤ -10dB

Peak Gain: 5dBi

**MECHANICAL:**

Antenna Cover:TPEE

Antenna Base:PBT+PC

Color:BLACK

Operating Temperature:-20°C~+65°C

Storage Temperature:-30°C~+75°C

Connector:SMA MALE-RP

**NOTE:** △ ~ △ 爲重點量測尺寸

|                                      |      |        |      |                       |          |           |          |                      |      |      |
|--------------------------------------|------|--------|------|-----------------------|----------|-----------|----------|----------------------|------|------|
| TOLERANCE UNLESS OTHERWISE SPECIFIED |      |        |      | <b>TSKY CO., LTD.</b> |          |           |          | INITIAL MODEL:       |      |      |
| DIMENSION                            |      | ANGLES |      | CONFIDENTIAL          | FINISH:  |           |          | PART NAME            |      |      |
| .X±                                  | 0.2  | X.°±   | 0.5  |                       | SIZE:    | UNIT:     | SCALE:   | DIP 11b/g/n 5dBi d13 |      |      |
| .XX±                                 | 0.1  | .X°±   | 0.02 | DRAWING               | A4       | MM        | 1:1      | BLACK SMA MALE-RP    |      |      |
| .XXX±                                | 0.05 |        |      | Nydia                 | DESIGNED | CONCURRED | APPROVED | PART NO.             | REV. | SHT. |
|                                      |      |        |      |                       |          |           | Jase     | A8-A003-00071        | A    | 1/1  |

# WIFI-G Antenna Test Report

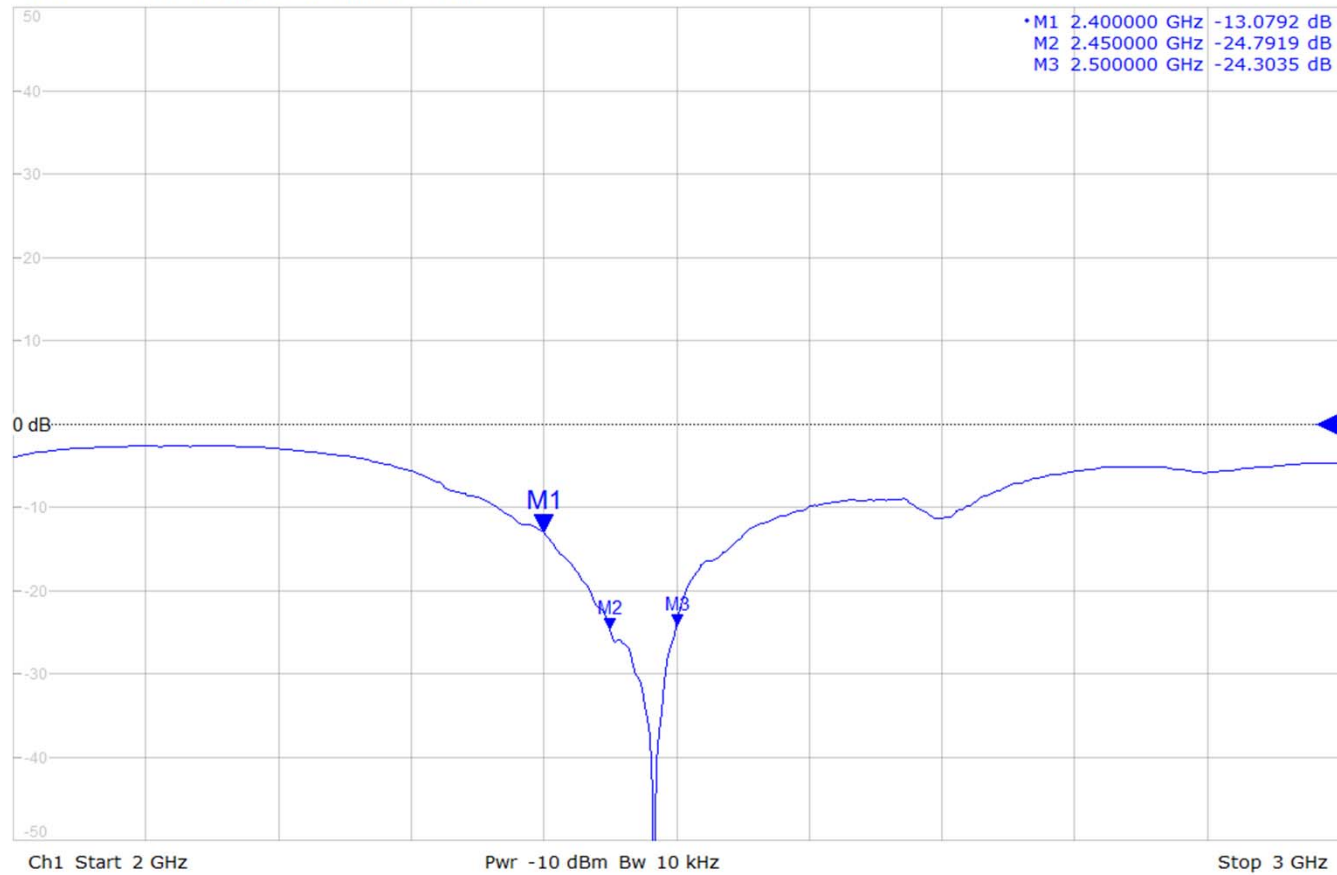


# WIFI-G Antenna Test Report- Return Loss

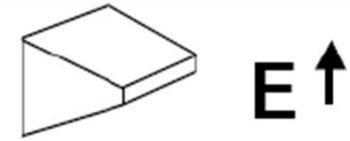
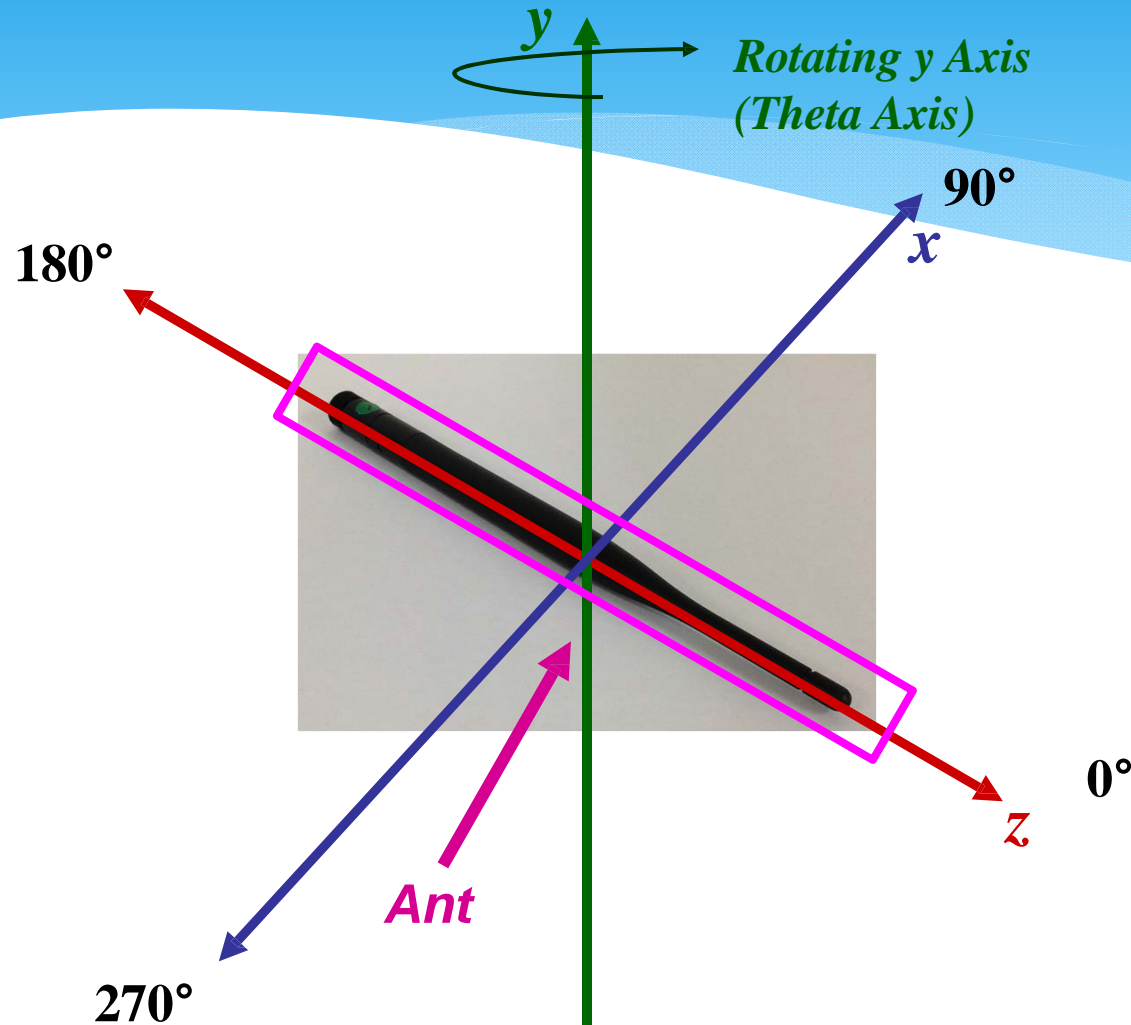
2/27/2014 4:30:14 PM  
1311.6010K44-101823-eS

Trc1 — S11 dB Mag 10 dB/ Ref 0 dB Cal int

1



# WIFI-G Antenna Test Report- E-plane



No rotate

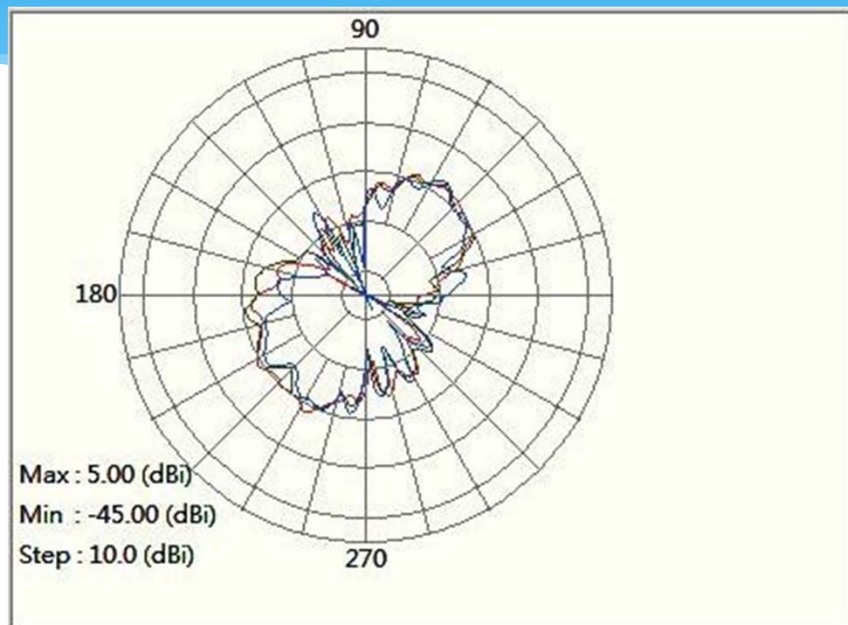
*Phi polarization*



Rotate 90°

*Theta polarization*

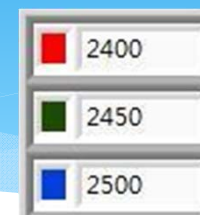
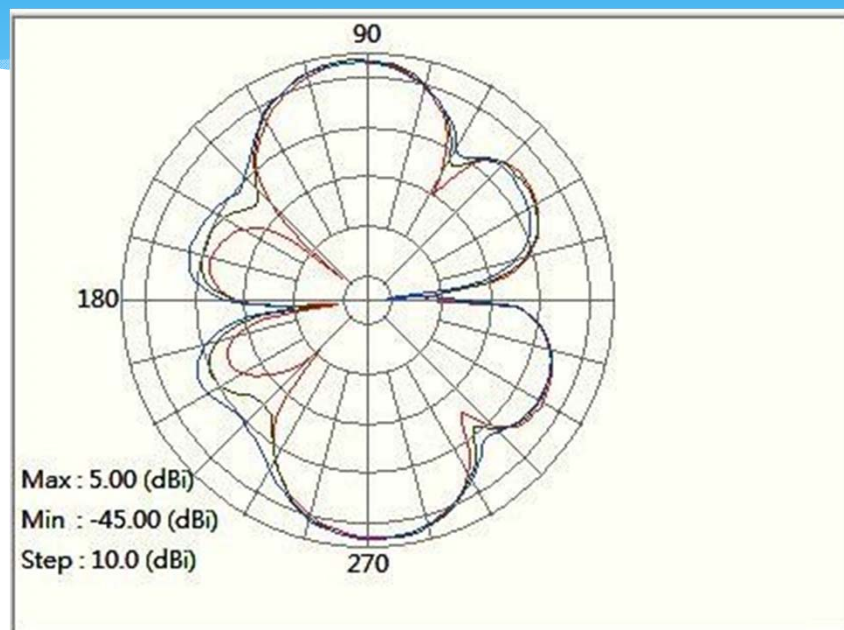
# WIFI-G Antenna Test Report- Phi Gain at E-Plane



| Frequency                | 2.4G       | 2.45G      | 2.5G       |
|--------------------------|------------|------------|------------|
| Maximum Phi Value (dBi)  | -<br>18.06 | -<br>16.94 | -<br>17.61 |
| Maximum Phi Angle (deg.) | 52         | 54         | 54         |
| -3.0dBBW Phi (deg.)      | 42         | 27.<br>5   | 29.<br>4   |

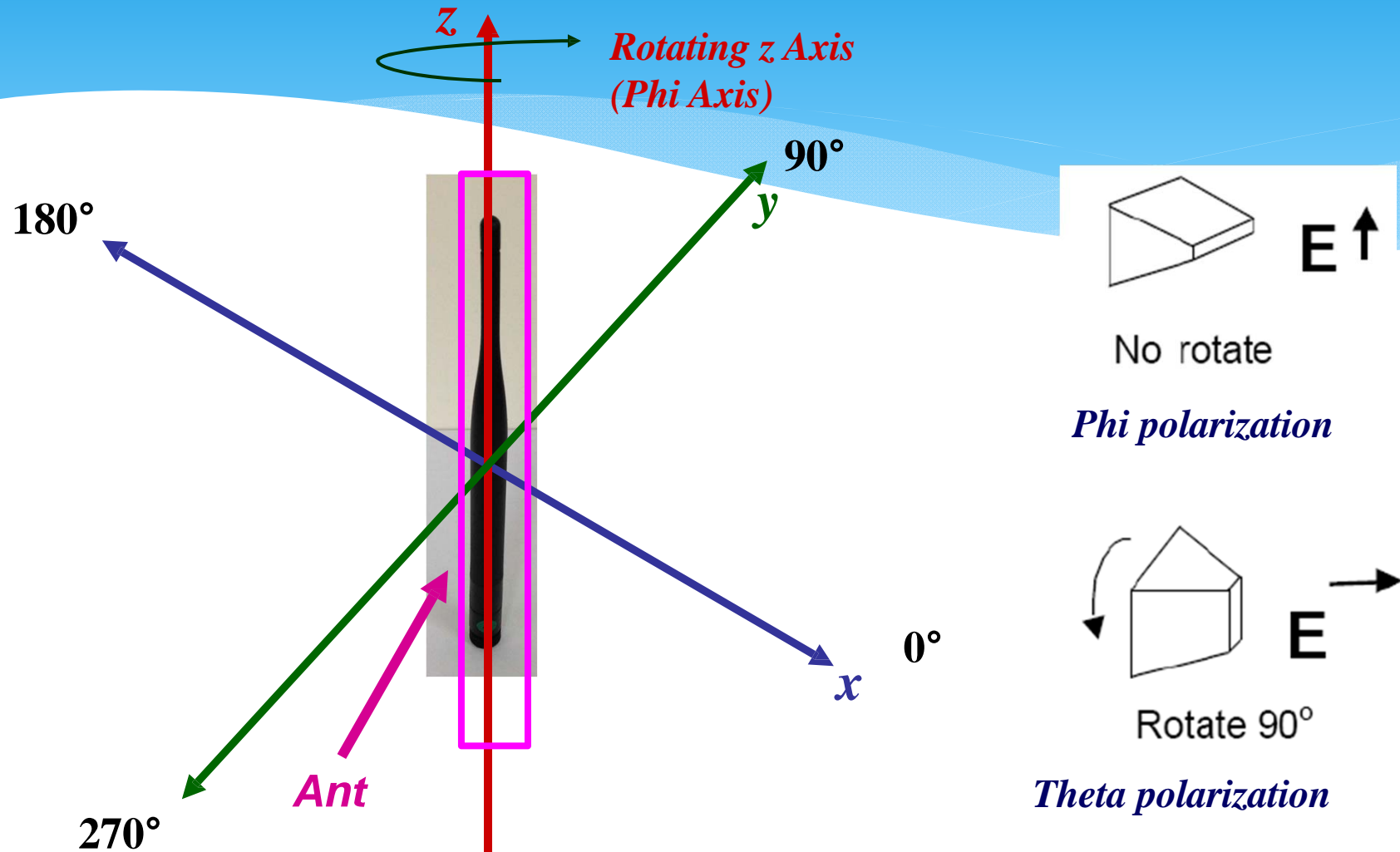


# WIFI-G Antenna Test Report- Theta Gain at E-Plane

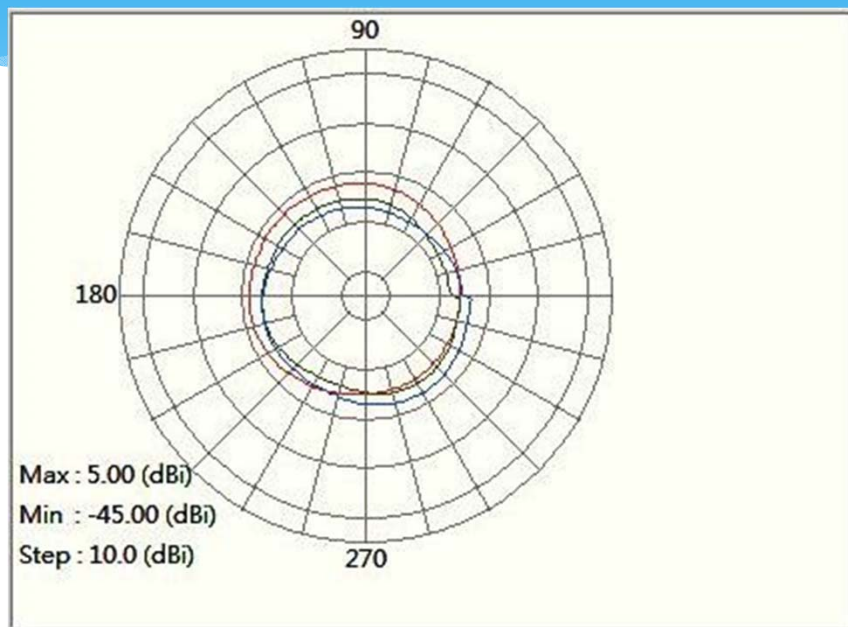


| Frequency                  | 2.4G     | 2.45G    | 2.5G     |
|----------------------------|----------|----------|----------|
| Maximum Theta Value (dBi)  | 3.2<br>7 | 3.8      | 3.5<br>2 |
| Maximum Theta Angle (deg.) | 94       | 94       | 27<br>0  |
| -3.0dBBW Theta (deg.)      | 34.<br>6 | 35.<br>2 | 37.<br>2 |

# WIFI-G Antenna Test Report- H-plane

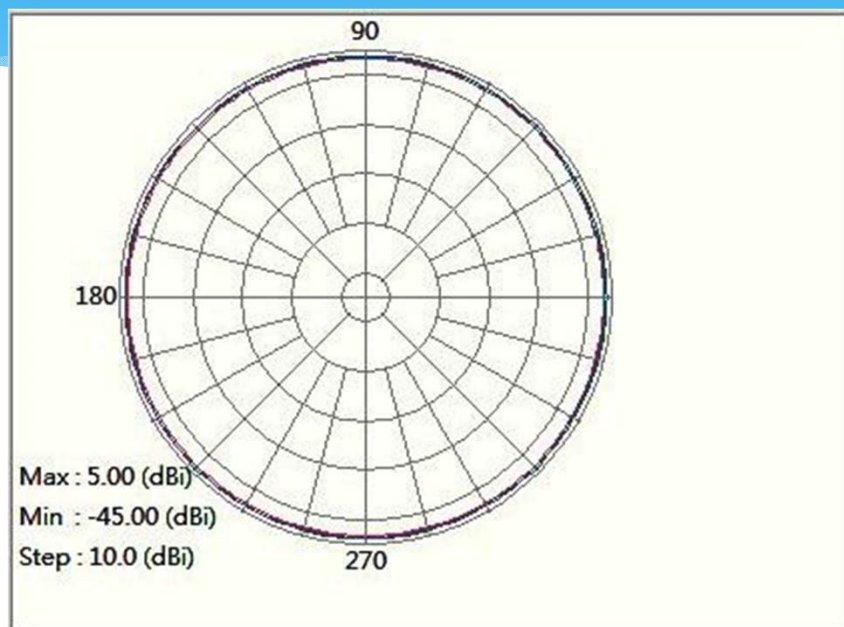


# WIFI-G Antenna Test Report- Phi Gain at E-Plane



| Frequency                | 2.4G       | 2.45G      | 2.5G       |
|--------------------------|------------|------------|------------|
| Maximum Phi Value (dBi)  | -<br>21.35 | -<br>23.86 | -<br>22.17 |
| Maximum Phi Angle (deg.) | 18<br>4    | 18<br>6    | 29<br>8    |
| -3.0dBBW Phi (deg.)      | 180.<br>4  | 286.<br>5  | 201.<br>5  |

# WIFI-G Antenna Test Report- Theta Gain at E-Plane



| Frequency                  | 2.4G     | 2.45G    | 2.5G     |
|----------------------------|----------|----------|----------|
| Maximum Theta Value (dBi)  | 3.4<br>3 | 4.0<br>1 | 3.7<br>9 |
| Maximum Theta Angle (deg.) | 0        | 0        | 20<br>2  |
| -3.0dBBW Theta (deg.)      | 36<br>0  | 36<br>0  | 36<br>0  |