

# 承认书

## APPROVAL

版本: A1

客 户  
Client : CABASSE SAS

品 名 规 格  
DESCRIPTION: SMA2.4G&5G 3DB

料 号  
PART NO.: GDT030-0006

客 户 料 号  
CUS PART NO.:

日 期  
D A T E: 2021.9-11

### 呈样签章

| 工 程<br>ENGINEERING DEPARTMENT | 品 保<br>Q C DEPARTMENT | 业 务<br>SALES DEPARTMENT |
|-------------------------------|-----------------------|-------------------------|
| 田宏                            | 田青                    | 胡海芯                     |

### 客户承认签章

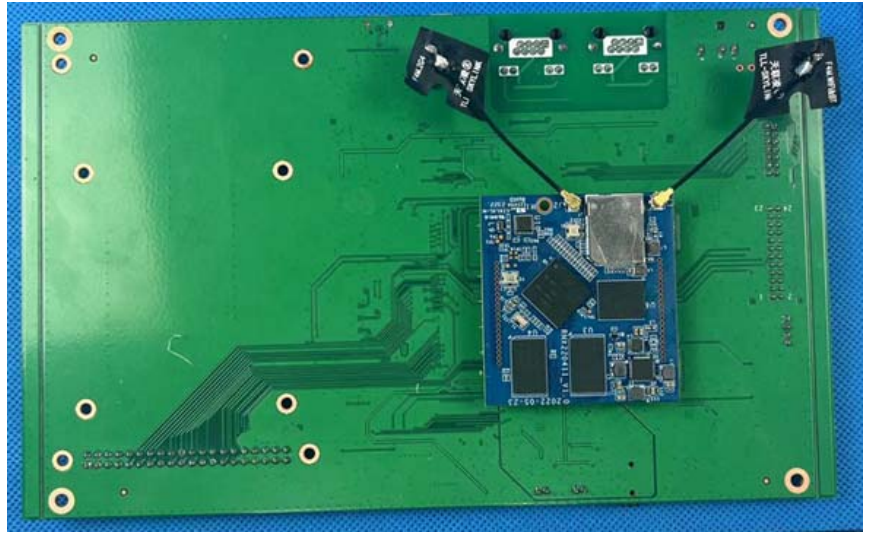
| 工 程<br>ENGINEERING DEPARTMENT | 品 保<br>Q C DEPARTMENT | 采 购<br>PURCHASING DEPARTMENT |
|-------------------------------|-----------------------|------------------------------|
|                               |                       |                              |

※ 客户确认样品附意栏:

# 天线组装图

## Antenna Profile

*Devie*



*Antenna*



# 1 Voltage Standing Wave Ration

| Frequency<br>(MHz)     | 2400   | 2450   | 2500  | 5150  | 5250  | 5470  | 5590  | 5725   | 5785   | 5850   |
|------------------------|--------|--------|-------|-------|-------|-------|-------|--------|--------|--------|
| <u>VSWR</u>            | 1.48   | 1.72   | 2.00  | 2.96  | 2.08  | 2.64  | 2.15  | 1.19   | 1.56   | 1.82   |
| <u>Return<br/>LOSS</u> | -14.12 | -11.64 | -9.67 | -6.12 | -9.34 | -6.95 | -8.80 | -21.51 | -13.52 | -10.74 |

Unit:dBi

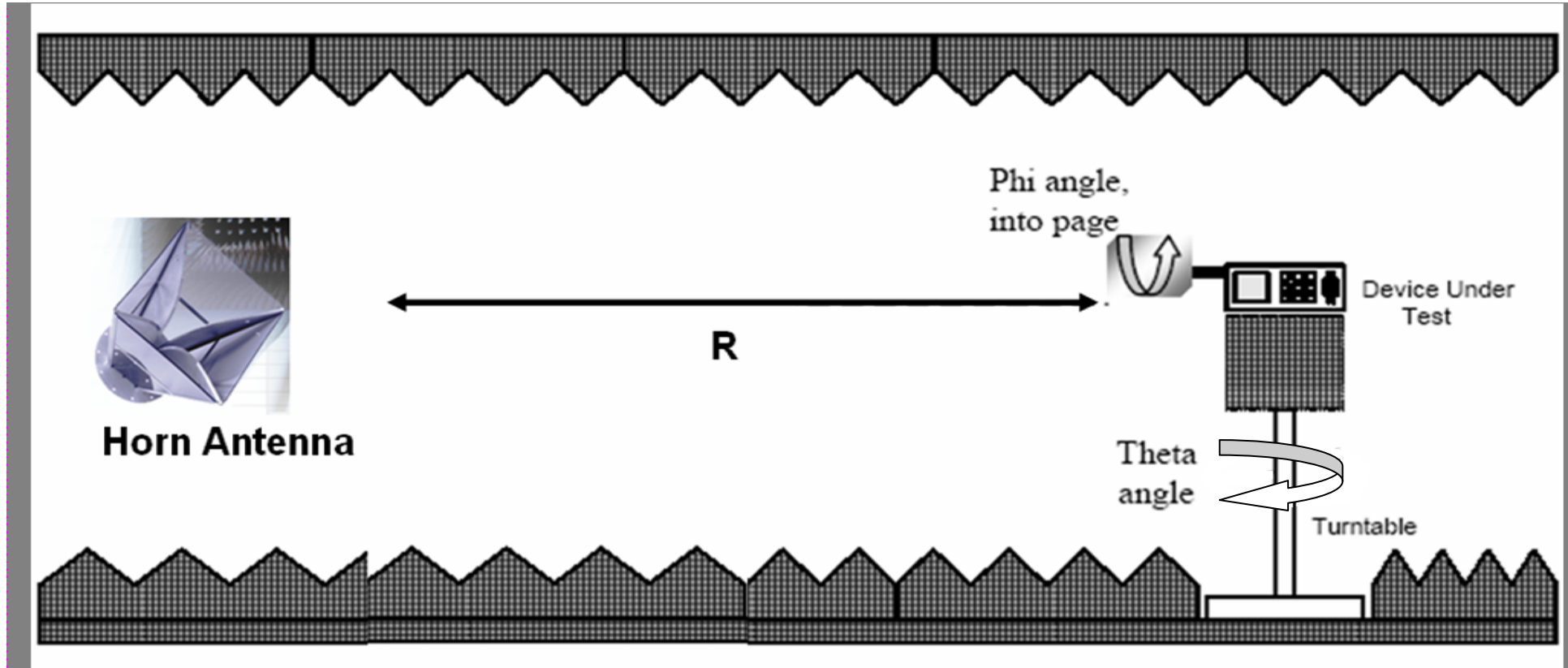
## Peak Gain H+V

| <u>Frequency</u><br><u>(MHz)</u> | 2400  | 2450  | 2500  | 5150  | 5250  | 5350  | 5470  | 5597.5 | 5725  | 5785 | 5850  |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|--------|-------|------|-------|
| Peak dBi                         | 0.41  | -0.03 | -0.52 | 1.20  | 1.14  | 1.08  | 0.92  | 1.09   | 1.16  | 1.19 | 1.04  |
| Avg dBi                          | -2.71 | -2.61 | -3.22 | -3.44 | -2.47 | -2.58 | -3.04 | -2.47  | -2.12 | -2.4 | -3.47 |

Unit:dBi

## I 、Antenna Testing Conditions:

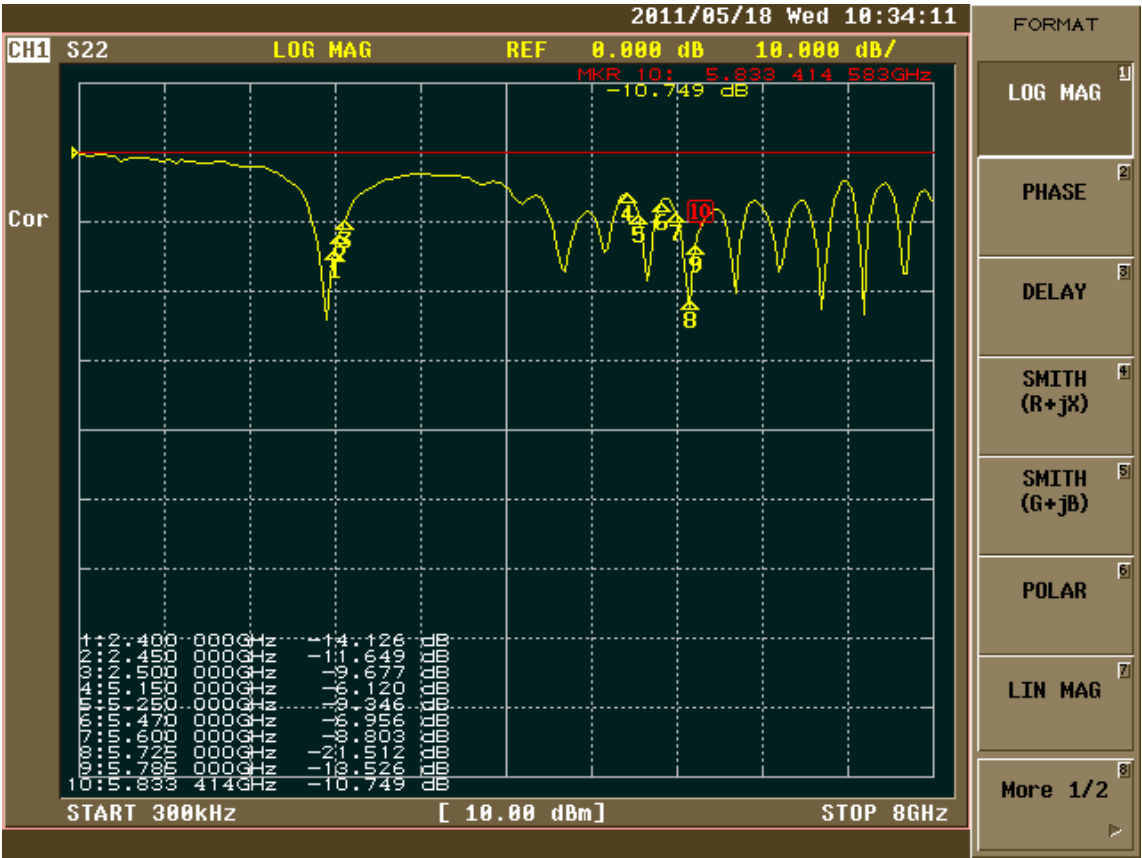
### 1. Testing set up:



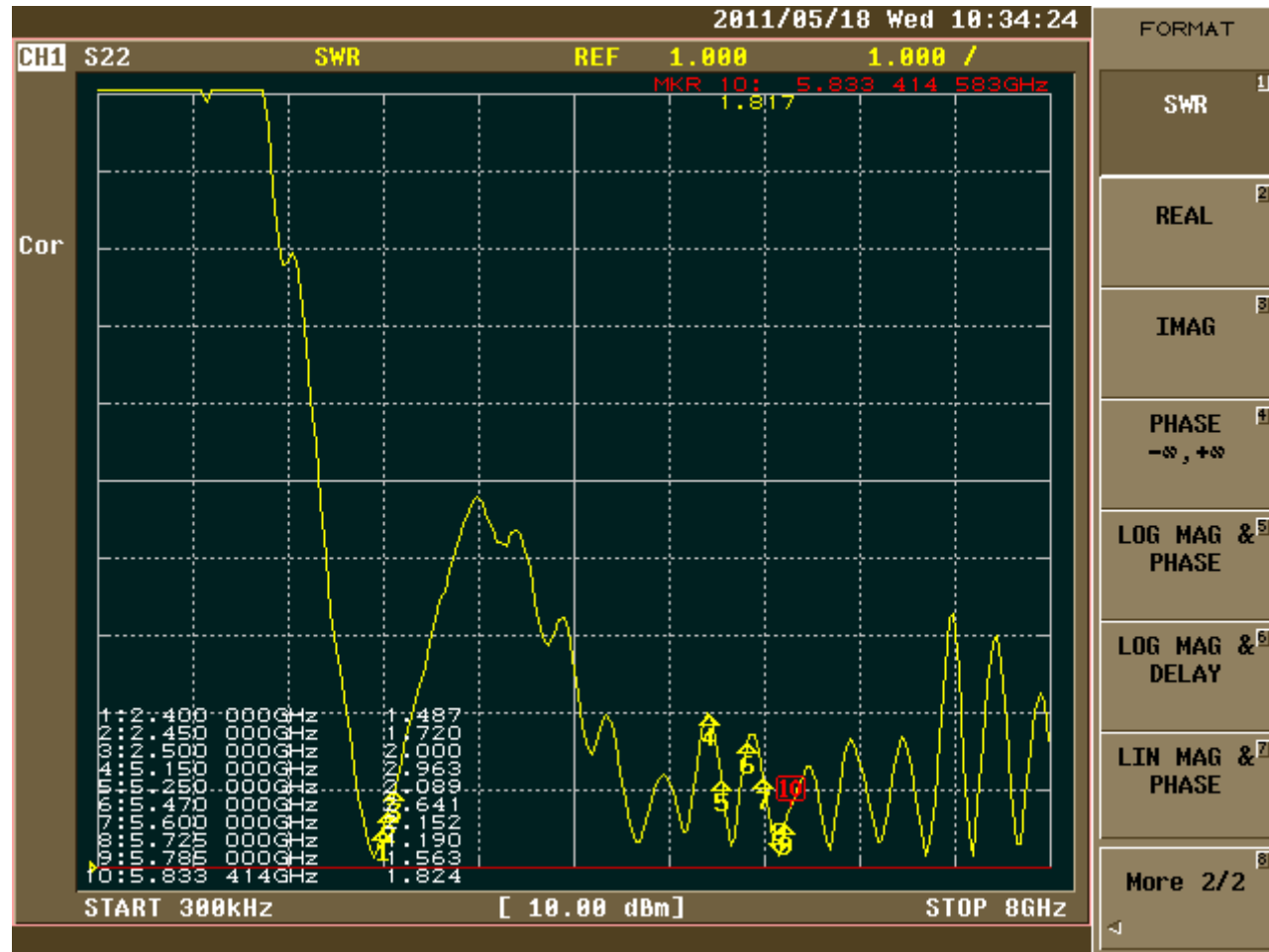
II. Test results

|            |            |                         |
|------------|------------|-------------------------|
| WLAN_No.14 | Right Side | Cable diameter : 1.13mm |
|------------|------------|-------------------------|

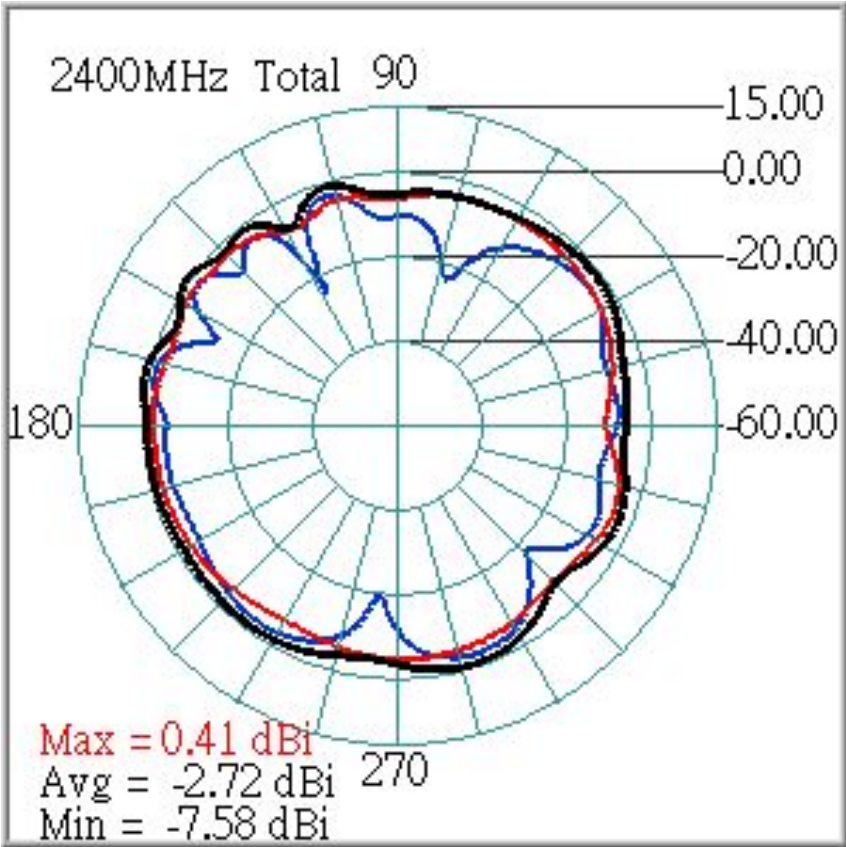
1. Return Loss (2.4GHz-2.5GHz;5.15-5.85GHz)



## 2. VSWR (2.4GHz-2.5GHz;5.15-5.85GHz)



3. Radiation Pattern of XY Plane(Azimuth)-(Open)



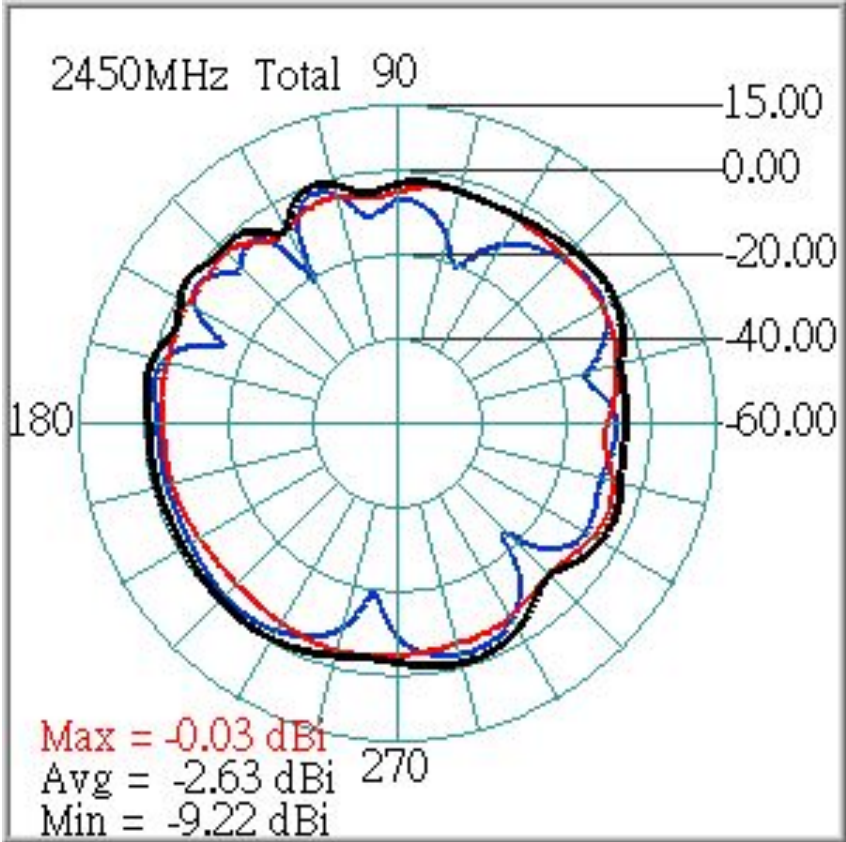
plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

| Center Frequency              | 2400 MHz |
|-------------------------------|----------|
| Vertical peak Gain (dBi)      | -2.03    |
| Vertical Average Gain (dBi)   | -6.48    |
| Horizontal peak Gain (dBi)    | -2.8     |
| Horizontal Average Gain (dBi) | -5.07    |
| Hori+Vert peak Gain (dBi)     | 0.41     |
| Hori+Vert Average Gain (dBi)  | -2.71    |

4. Radiation Pattern of XY Plane(Azimuth)-(Open)



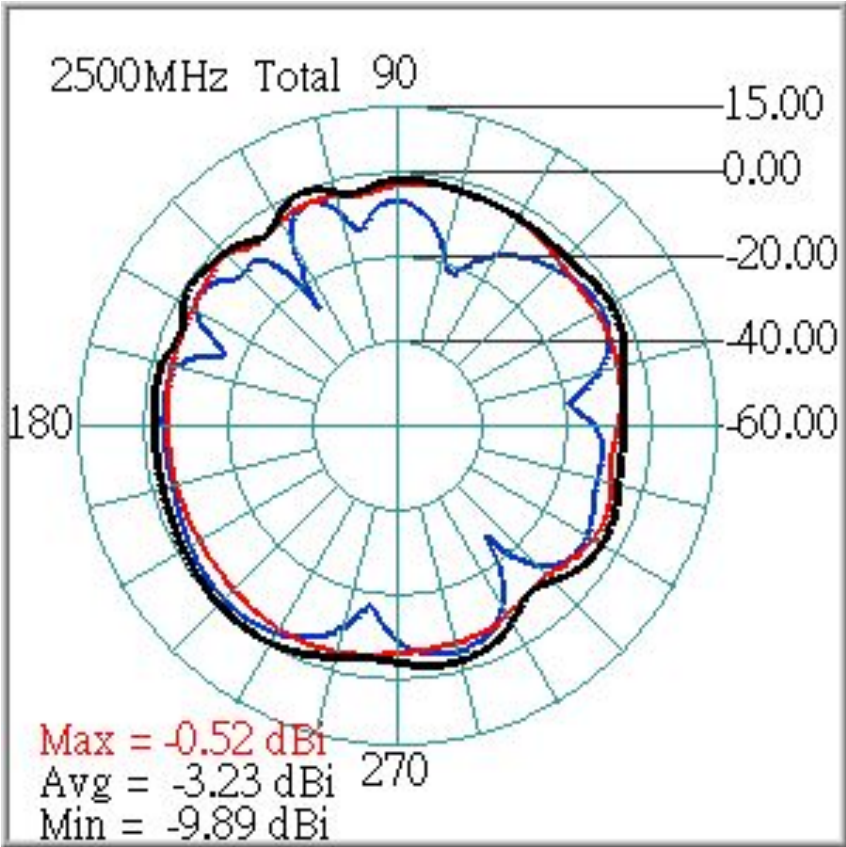
plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

| Center Frequency              | 2450 MHz |
|-------------------------------|----------|
| Vertical peak Gain (dBi)      | -2.15    |
| Vertical Average Gain (dBi)   | -5.91    |
| Horizontal peak Gain (dBi)    | -3.14    |
| Horizontal Average Gain (dBi) | -5.35    |
| Hori+Vert peak Gain (dBi)     | -0.03    |
| Hori+Vert Average Gain (dBi)  | -2.61    |

5. Radiation Pattern of XY Plane(Azimuth)-(Open)



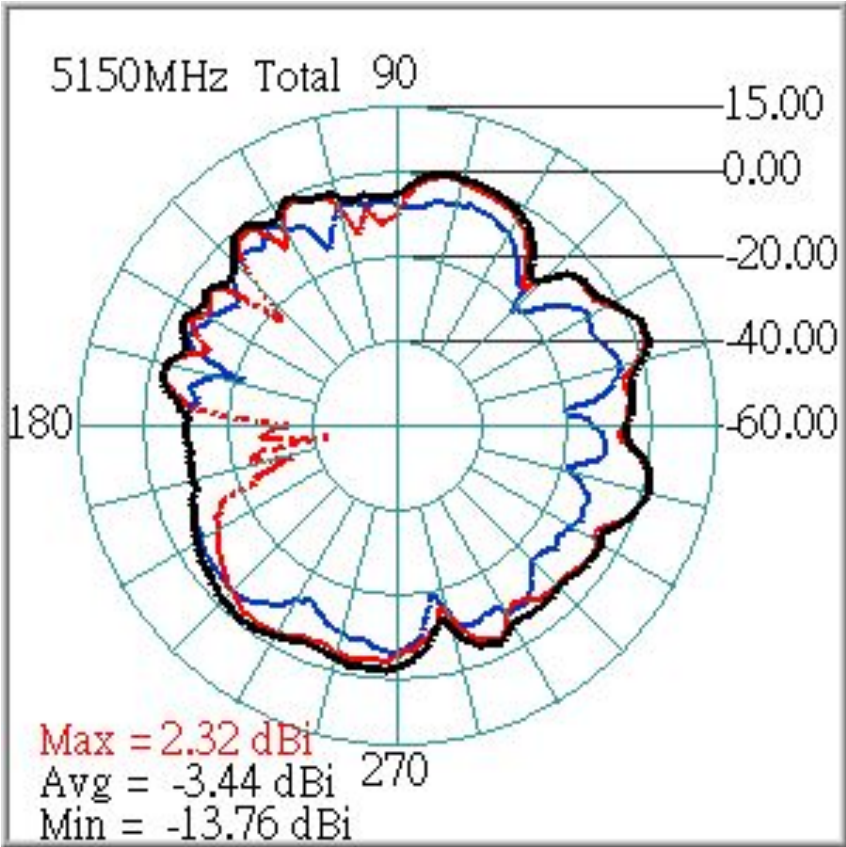
plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

| Center Frequency              | 2500 MHz |
|-------------------------------|----------|
| Vertical peak Gain (dBi)      | -2.26    |
| Vertical Average Gain (dBi)   | -7.07    |
| Horizontal peak Gain (dBi)    | -2.78    |
| Horizontal Average Gain (dBi) | -5.53    |
| Hori+Vert peak Gain (dBi)     | -0.52    |
| Hori+Vert Average Gain (dBi)  | -3.22    |

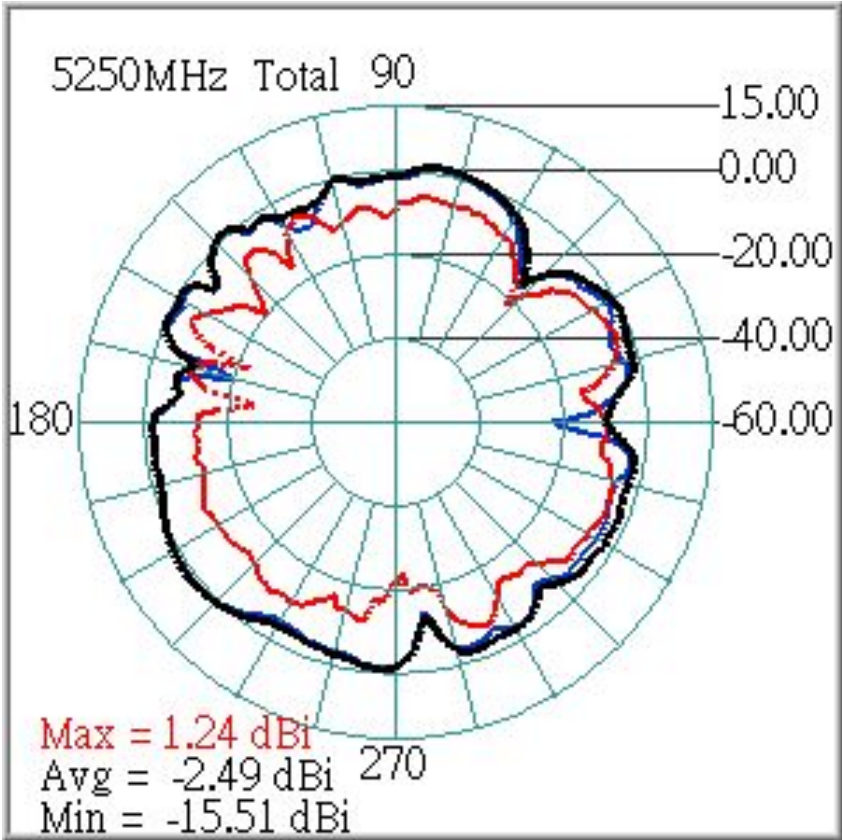
6. Radiation Pattern of XY Plane(Azimuth)-(Open)



|            |                                                                                     |            |
|------------|-------------------------------------------------------------------------------------|------------|
| plot color |  | Horizontal |
| plot color |  | Vertical   |
| plot color |  | H+V        |

|                               |          |
|-------------------------------|----------|
| Center Frequency              | 5150 MHz |
| Vertical peak Gain (dBi)      | -4.84    |
| Vertical Average Gain (dBi)   | -9.07    |
| Horizontal peak Gain (dBi)    | 1.9      |
| Horizontal Average Gain (dBi) | -4.83    |
| Hori+Vert peak Gain (dBi)     | 1.20     |
| Hori+Vert Average Gain (dBi)  | -3.44    |

7. Radiation Pattern of XY Plane(Azimuth)-(Open)



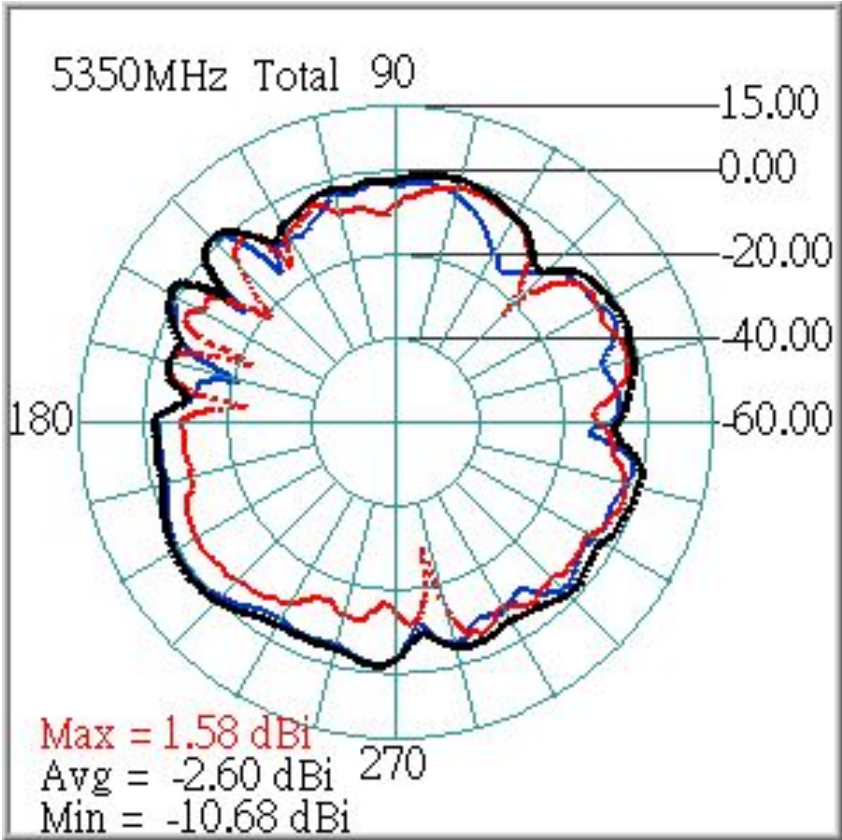
plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

| Center Frequency              | 5250 MHz |
|-------------------------------|----------|
| Vertical peak Gain (dBi)      | 0.87     |
| Vertical Average Gain (dBi)   | -3.38    |
| Horizontal peak Gain (dBi)    | -3.48    |
| Horizontal Average Gain (dBi) | -9.73    |
| Hori+Vert peak Gain (dBi)     | 1.14     |
| Hori+Vert Average Gain (dBi)  | -2.47    |

8. Radiation Pattern of XY Plane(Azimuth)-(Open)



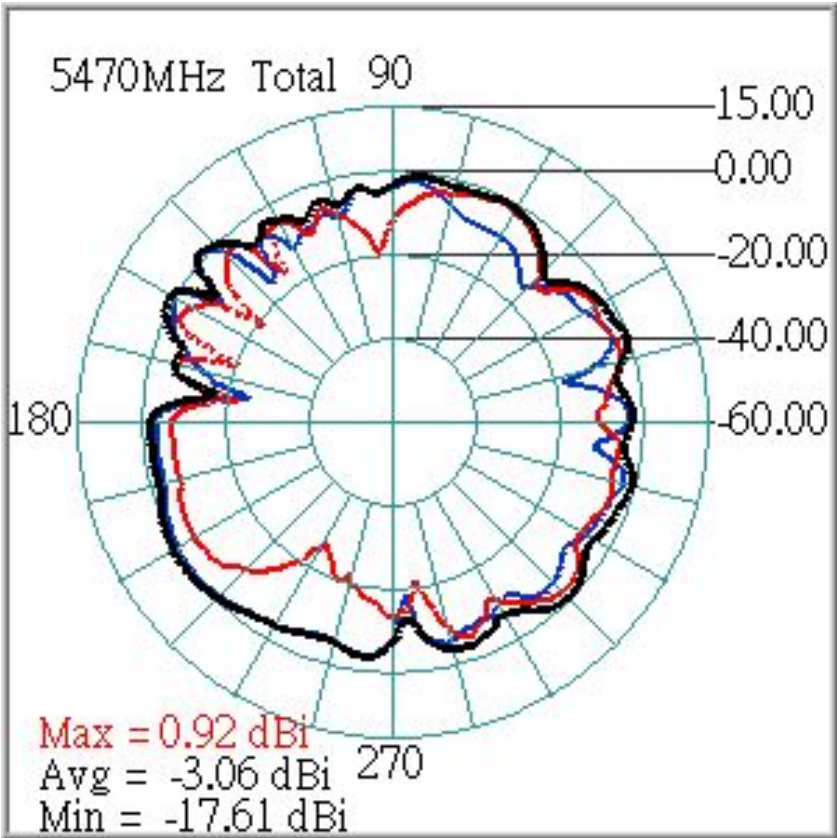
plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

|                               |          |
|-------------------------------|----------|
| Center Frequency              | 5350 MHz |
| Vertical peak Gain (dBi)      | 1.02     |
| Vertical Average Gain (dBi)   | -4.57    |
| Horizontal peak Gain (dBi)    | -2.49    |
| Horizontal Average Gain (dBi) | -6.91    |
| Hori+Vert peak Gain (dBi)     | 1.08     |
| Hori+Vert Average Gain (dBi)  | -2.58    |

9. Radiation Pattern of XY Plane(Azimuth)-(Open)



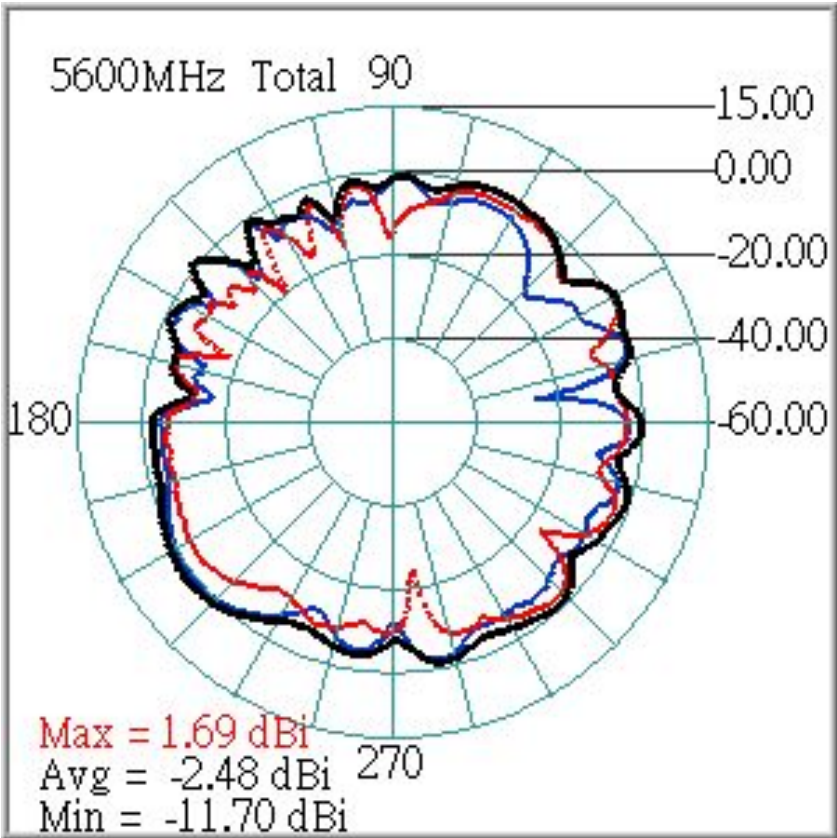
plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

| Center Frequency              | 5470 MHz |
|-------------------------------|----------|
| Vertical peak Gain (dBi)      | 0.45     |
| Vertical Average Gain (dBi)   | -5.28    |
| Horizontal peak Gain (dBi)    | -1.63    |
| Horizontal Average Gain (dBi) | -6.98    |
| Hori+Vert peak Gain (dBi)     | 0.92     |
| Hori+Vert Average Gain (dBi)  | -3.04    |

10. Radiation Pattern of XY Plane(Azimuth)-(Open)



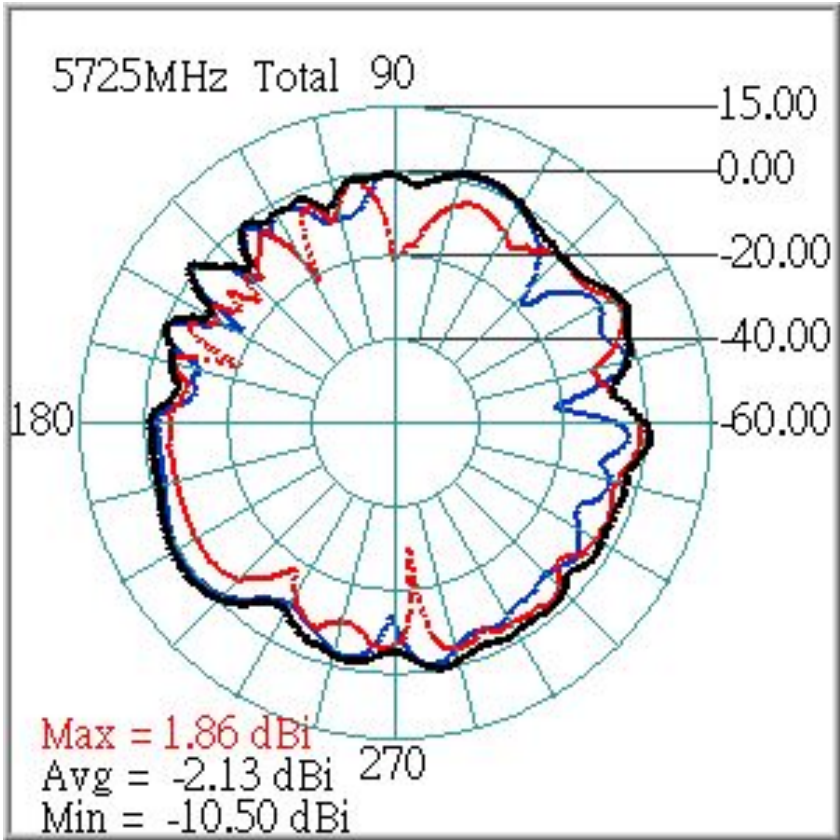
plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

|                               |          |
|-------------------------------|----------|
| Center Frequency              | 5597 MHz |
| Vertical peak Gain (dBi)      | 0.33     |
| Vertical Average Gain (dBi)   | -5.04    |
| Horizontal peak Gain (dBi)    | 0.34     |
| Horizontal Average Gain (dBi) | -5.96    |
| Hori+Vert peak Gain (dBi)     | 1.09     |
| Hori+Vert Average Gain (dBi)  | -2.47    |

11. Radiation Pattern of XY Plane(Azimuth)-(Open)



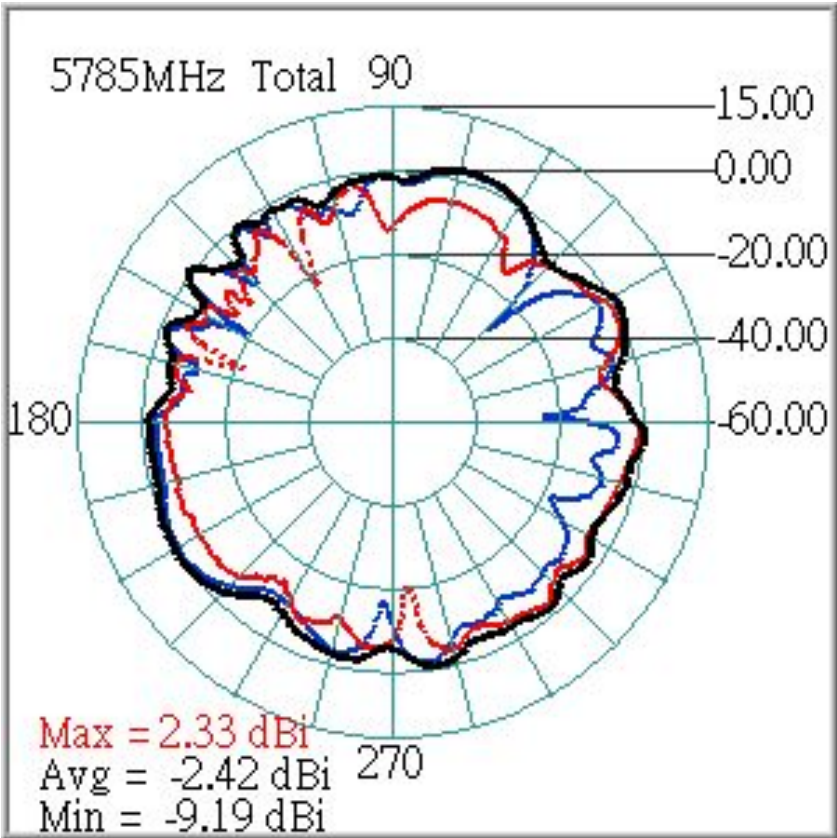
plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

|                               |          |
|-------------------------------|----------|
| Center Frequency              | 5725 MHz |
| Vertical peak Gain (dBi)      | 0.89     |
| Vertical Average Gain (dBi)   | -4.33    |
| Horizontal peak Gain (dBi)    | 0.2      |
| Horizontal Average Gain (dBi) | -6.1     |
| Hori+Vert peak Gain (dBi)     | 1.16     |
| Hori+Vert Average Gain (dBi)  | -2.12    |

12. Radiation Pattern of XY Plane(Azimuth)-(Open)



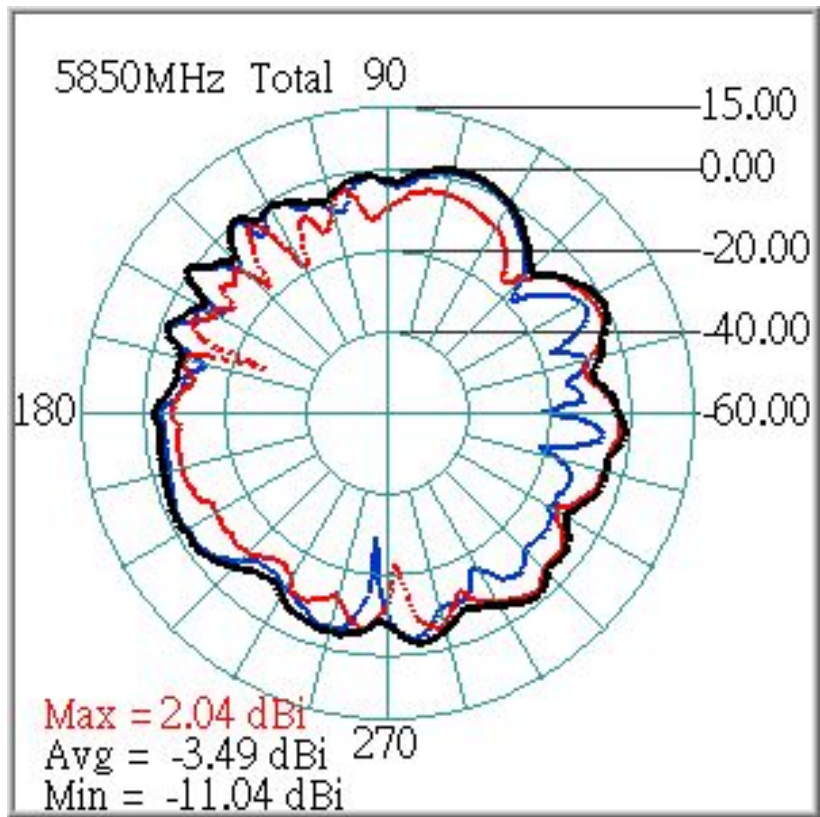
plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

| Center Frequency              | 5785 MHz |
|-------------------------------|----------|
| Vertical peak Gain (dBi)      | 1.64     |
| Vertical Average Gain (dBi)   | -4.68    |
| Horizontal peak Gain (dBi)    | -0.8     |
| Horizontal Average Gain (dBi) | -6.3     |
| Hori+Vert peak Gain (dBi)     | 1.19     |
| Hori+Vert Average Gain (dBi)  | -2.4     |

13. Radiation Pattern of XY Plane(Azimuth)-(Open)



plot color  **Horizontal**

plot color  **Vertical**

plot color  **H+V**

|                               |          |
|-------------------------------|----------|
| Center Frequency              | 5850 MHz |
| Vertical peak Gain (dBi)      | 1.1      |
| Vertical Average Gain (dBi)   | -5.7     |
| Horizontal peak Gain (dBi)    | -2.14    |
| Horizontal Average Gain (dBi) | -7.44    |
| Hori+Vert peak Gain (dBi)     | 1.04     |
| Hori+Vert Average Gain (dBi)  | -3.47    |