



EDIMAX BR6893MCX ARY121-0350-005-00 (Ant1)

Only Antenna

**2GHz(Peak Gain:2.49dBi 、
Directional Gain: 5.69dBi)**

**5GHz(Peak Gain:5.64dBi 、
Directional Gain: 8.58dBi)**

Engineer : Ting

Report date : 2022/03/13



Directional Gain

Directional Gain=

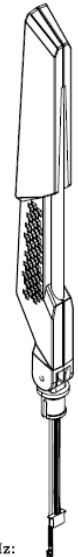
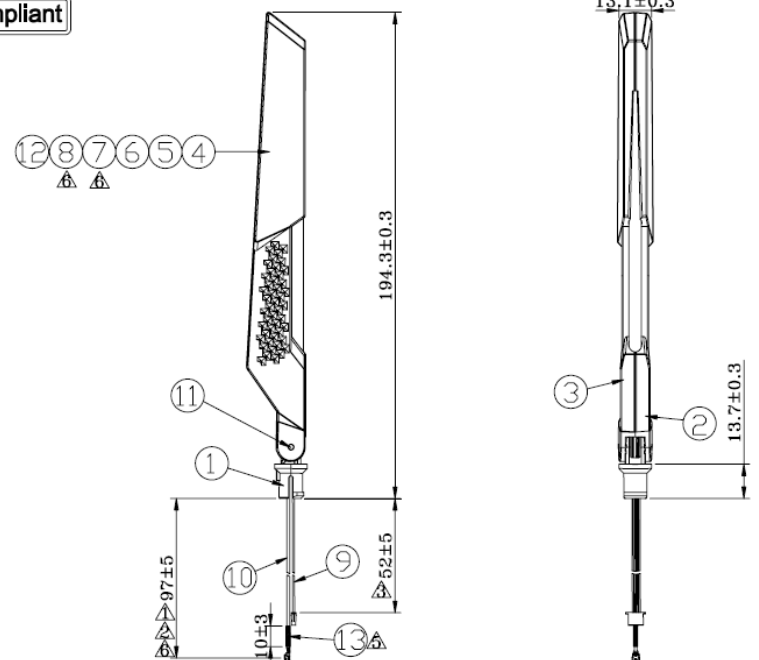
$$10 \log \left[\frac{\left(10^{\frac{G1}{20}} + 10^{\frac{G2}{20}} + \dots + 10^{\frac{Gn}{20}} \right)^2}{N_{ant}} \right] dBi$$

| Category | Peak Gain(dBi) | Directional Gain (dBi) |
|------------|--|------------------------|
| Wi-Fi 2.4G | Ant1 2.46 Ant3 2.89 | 5.69 |
| Wi-Fi 5G | Ant1 5.64 Ant3 5.49 | 8.58 |
| Wi-Fi 6G | Ant2 2.32 Ant4 3.46 Ant5 2.94 Ant6 2.95 | 8.95 |

| REV | DATE | DESCRIPTION | NAME |
|-----|----------|-------------------------------------|------|
| A3 | 21.12.23 | △ MODIFY TOLERANCE | LIEF |
| A4 | 21.12.30 | △ MODIFY TOLERANCE | LIEF |
| A5 | 22.01.26 | △ MODIFY NOTE | WEN |
| A6 | 22.01.31 | △ MODIFY NOTE & ADD TUBE | WEN |
| A7 | 22.03.11 | △ MODIFY COPPER TUBE & CABLE LENGTH | LIEF |

RoHS Compliant

A
B
C
D
E



| 13 | HEAT SHRINK TUBE | COLOR : BLACK | 1 |
|-----|------------------|---|-----|
| 12 | HEAT SHRINK TUBE | COLOR : BLACK | 1 |
| 11 | Fixed Pin | Fixed Pin , Black Coating | 2 |
| 10 | CABLE | OD:1.37 , WHITE LOW LOSS COAXIAL CABLE WITH MHF I Plug For 1.37mm Cable | 1 |
| 9 | WIRE HARNESS | OD:1.0mm , BLACK | 1 |
| 8 | COPPER TUBE-2 | BRASS | 1 |
| 7 | COPPER TUBE-1 | BRASS | 1 |
| 6 | LIGHT PIPE | ø:5mm , L:133.5mm | 1 |
| 5 | LED | SIZE:1.5*1.6*0.55mm | 1 |
| 4 | PCB | PCB , FR-4 | 1 |
| 3 | COVER-2 | COVER , Black | 1 |
| 2 | COVER-1 | COVER , Black | 1 |
| 1 | BASE | BASE, BLACK | 1 |
| NO. | ITEM | DESCRIPTION | QTY |

Note:
 △ 1.Frequency:2.4~2.5GHz:
 Peak Gain:2.49dBi(MAX) , V.S.W.R.:<2 (with case)
 △ 2.Frequency:5.15~5.85GHz:
 Peak Gain:5.64dBi(MAX), V.S.W.R.:<2 (with case)
 2.Efficiency:>66%(with case)
 3.Impedance:50ohm

WIESON TECHNOLOGIES CO., LTD
 WIESON

CUSTOMER NO.:
1680-00000704-50U

PART NO.:
ARY121-0350-005-00

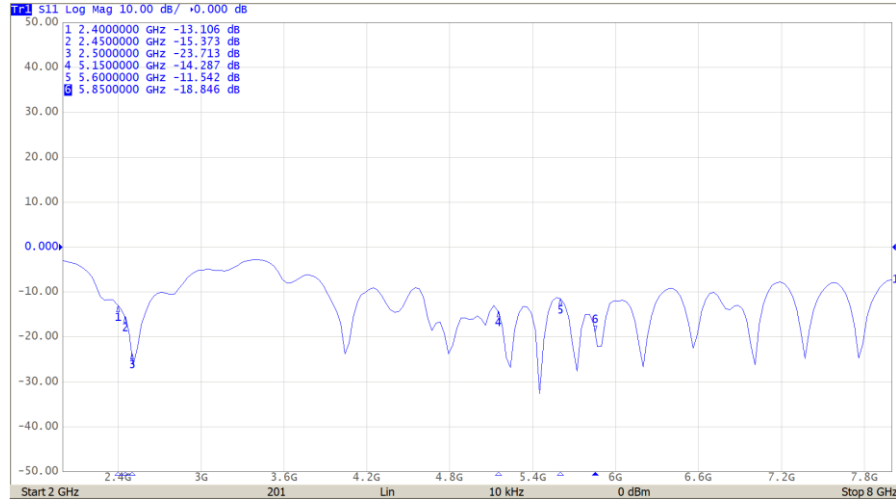
TITLE: Dual Band Antenna(ANT1)

| | | | |
|-------------|------|--------------|--------|
| DRAWN BY | LIEF | DRAWING NO. | |
| CHECKED BY | | DRAWING SIZE | A4 |
| APPROVED BY | | UNIT | mm |
| SORTING NO. | WSC | PAGE | 1 OF 1 |

Antenna Specification

| Ant1 | Specification | Specification |
|-----------------------|------------------|------------------|
| Frequency(GHz) | 2.4~2.5 | 5.15-5.85 |
| Bandwidth | 100MHz (Min.) | 700MHz (Min.) |
| Return Loss | 10 dB (Min.) | 10 dB (Min.) |
| Polarization | Linear | Linear |
| Azimuth Bandwidth | Omni-directional | Omni-directional |
| Peak Gain | 2.46dBi (Max) | 5.64dBi (Max) |
| Impedance | 50Ω | 50Ω |
| Material | Copper tube | Copper tube |
| Maximum Power | 1W | 1W |
| V.S.W.R | 2 : 1 | 2 : 1 |
| Radiation | Omni directional | Omni directional |
| Efficiency | >69% | >66% |
| Connector | MHF | MHF |
| Cable type | OD:1.37 | OD:1.37 |
| Operating Temperature | -10~60°C | -10~60°C |
| Storage temp | -10~70°C | -10~70°C |

Return Loss



| Freq(MHz) | 2400 | 2450 | 2500 | 5150 | 5600 | 5850 |
|-----------|-------|-------|-------|-------|-------|-------|
| S11(dB) | -13.1 | -15.3 | -23.7 | -14.2 | -11.5 | -18.8 |

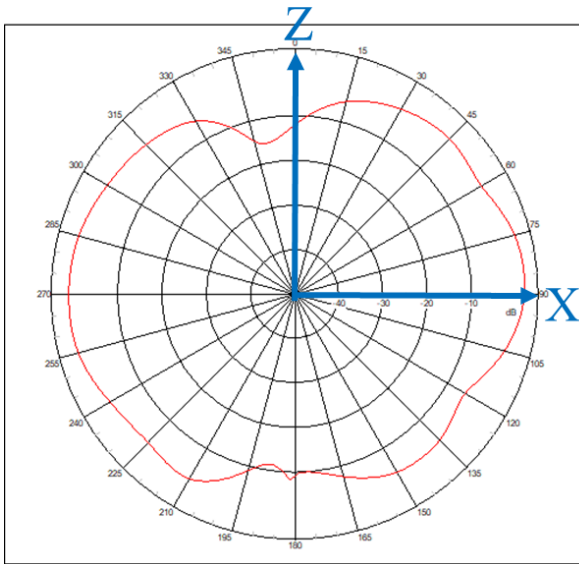
3D Gain Total

| Freq(MHz) | Peak Gain(dBi) | 3D-avg Gain(dBi) | Efficiency(%) |
|-----------|----------------|------------------|---------------|
| 2400 | 1.89 | -1.62 | 69 |
| 2450 | 2.43 | -0.98 | 80 |
| 2500 | 2.46 | -1 | 79 |
| 5150 | 4.26 | -1.8 | 66 |
| 5250 | 4.74 | -1.46 | 71 |
| 5350 | 4.83 | -1.26 | 75 |
| 5470 | 5.64 | -1.51 | 71 |
| 5600 | 4.68 | -1.61 | 69 |
| 5725 | 5.17 | -1.25 | 75 |
| 5785 | 4.84 | -1.75 | 67 |
| 5850 | 5.61 | -0.75 | 84 |

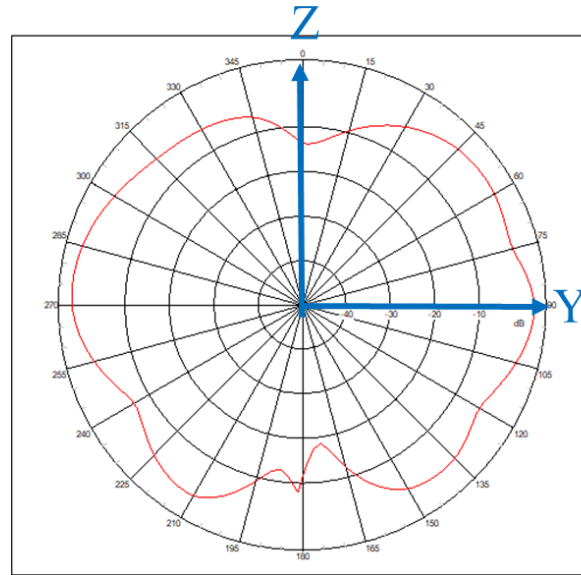
Antenna Pattern Wieson

Frequency: 2450MHz

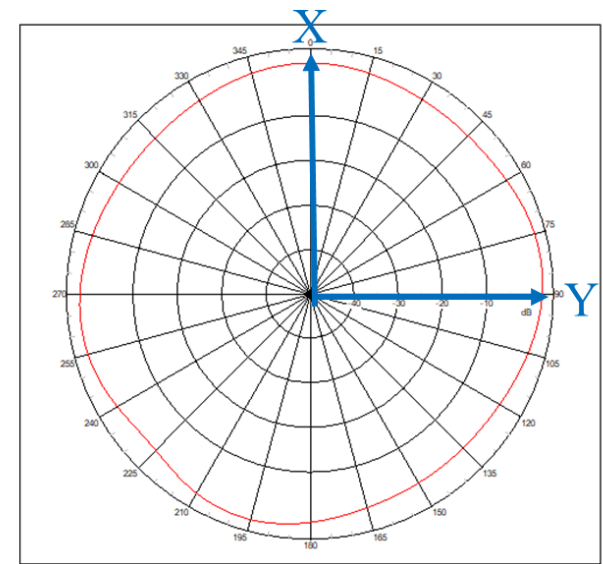
ZX-plane



YZ-plane



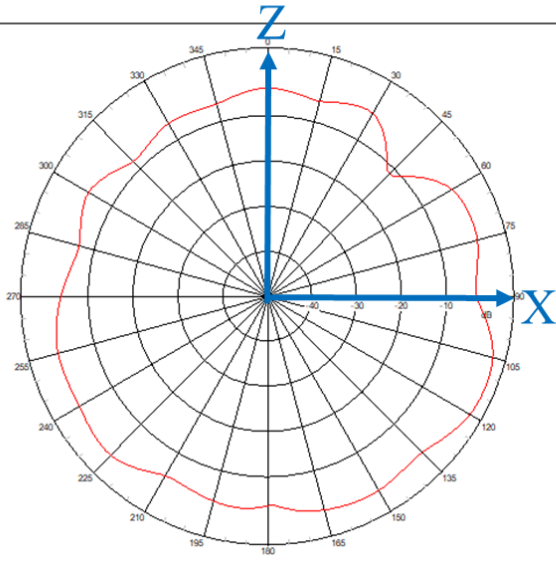
XY-plane



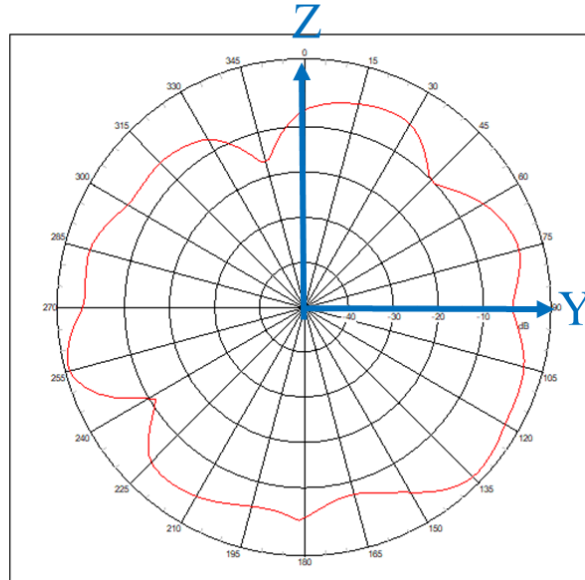
Antenna Pattern Wieson

Frequency: 5150MHz

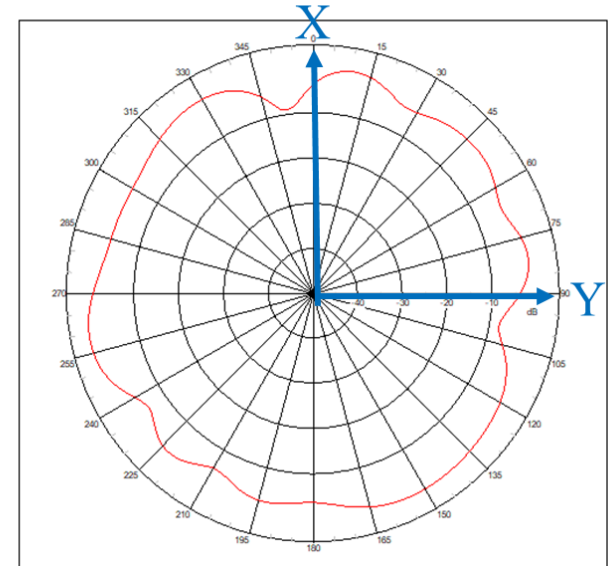
ZX-plane



YZ-plane



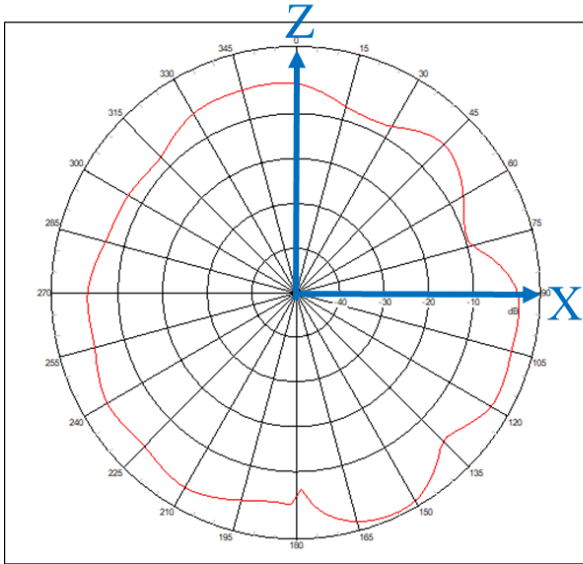
XY-plane



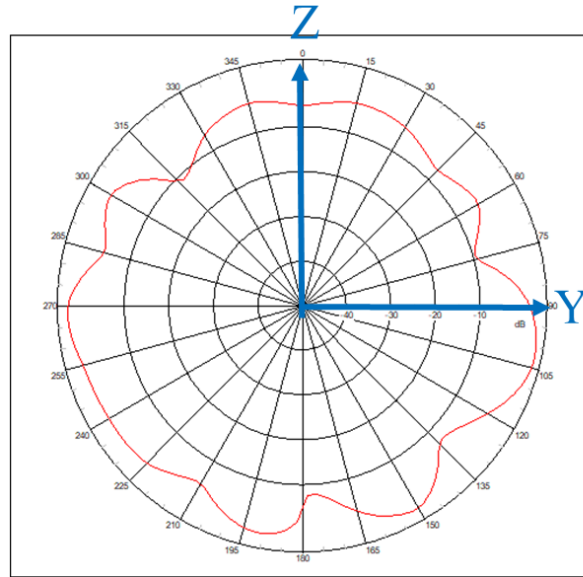
Antenna Pattern Wieson

Frequency: 5600MHz

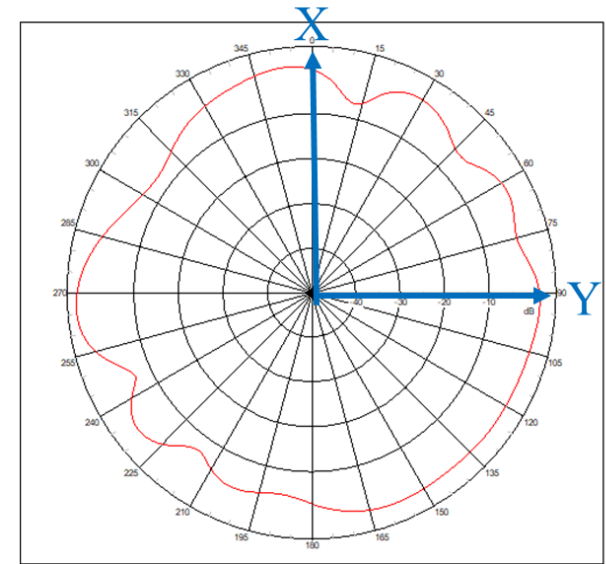
ZX-plane



YZ-plane



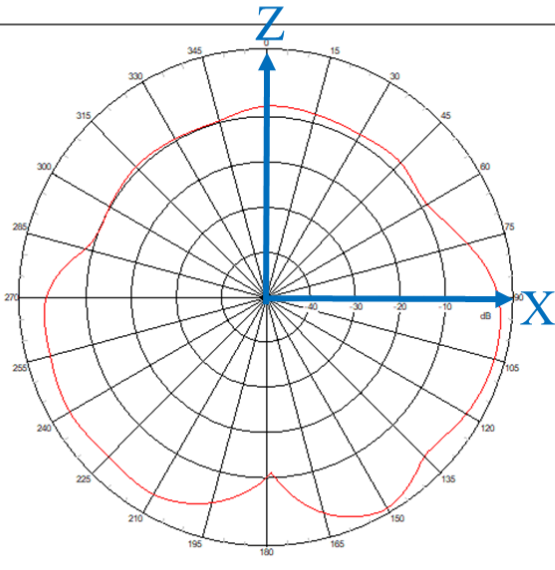
XY-plane



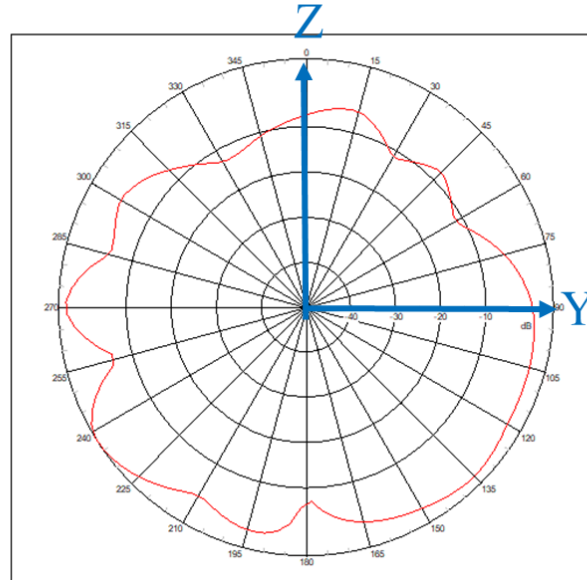
Antenna Pattern Wieson

Frequency: 5850MHz

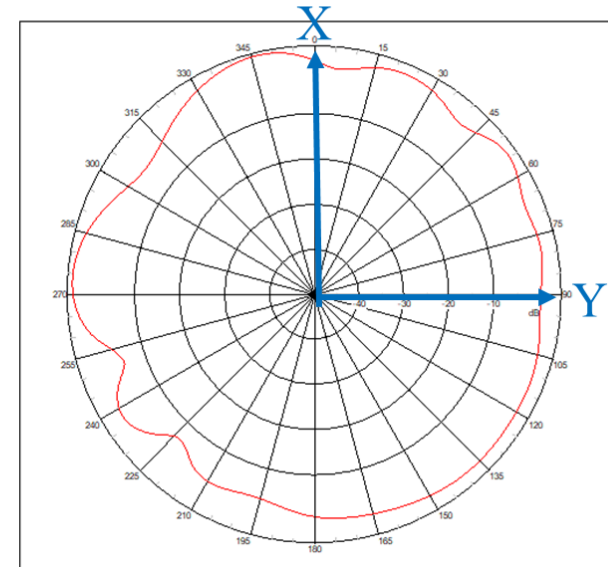
ZX-plane



YZ-plane



XY-plane





創造完美連結

MAKING THE PERFECT CONNECTION

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