



# **EDIMAX BR6893MCX ARY121-0350-006-00 (Ant3)**

**Only Antenna**

**2GHz(Peak Gain:2.89dBi 、  
Directional Gain:5.69dBi)**

**5GHz(Peak Gain:5.49dBi 、  
Directional Gain:8.58dBi)**

**Engineer : Ting**

**Report date : 2022/03/13**



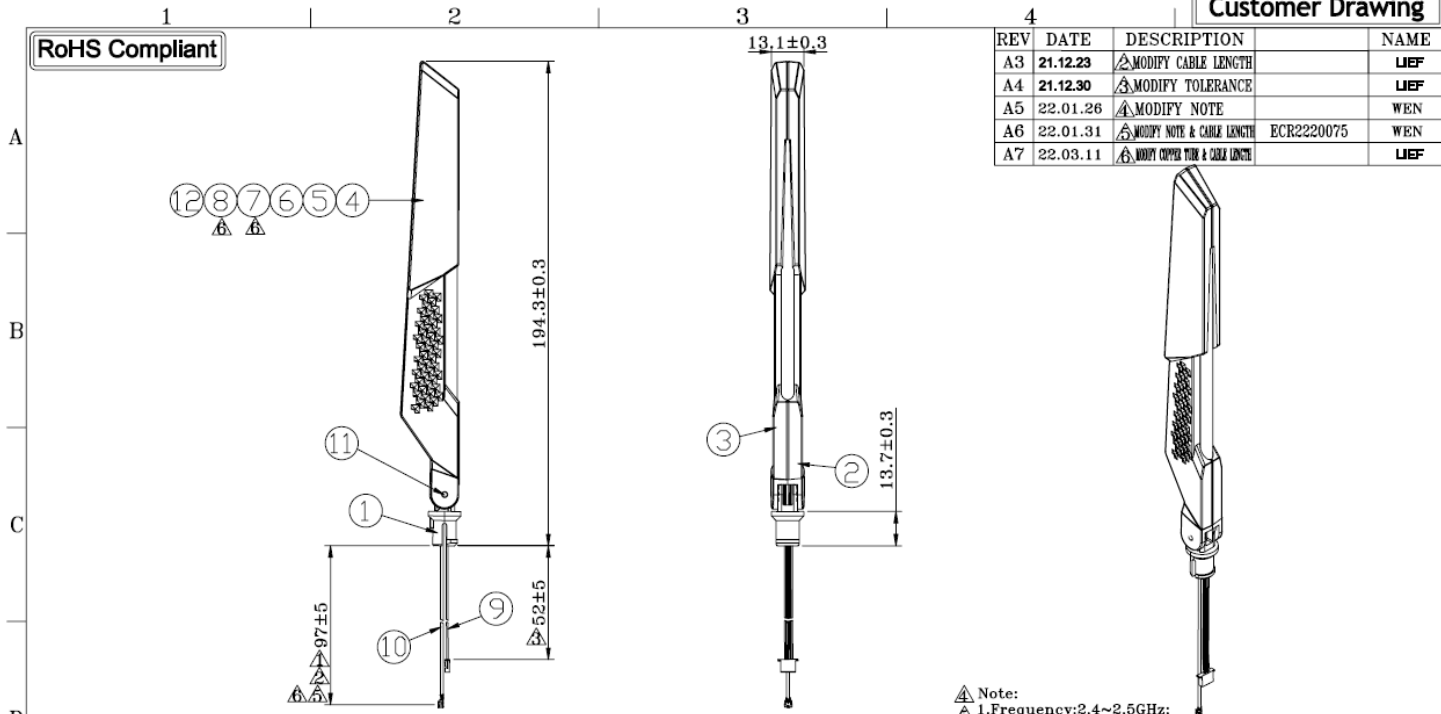
# Directional Gain

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

RoHS Compliant



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

D	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
E	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:2.89dBi(MAX) , V.S.W.R.:<2 (with case)  
 △ 2.Efficiency:>64%(with case)  
 △ 3.Impedance:50ohm

WIESON TECHNOLOGIES CO., LTD  
 WIESON

CUSTOMER NO.:  
1680-00000705-50U  
 PART NO.:  
ARY121-0350-006-00

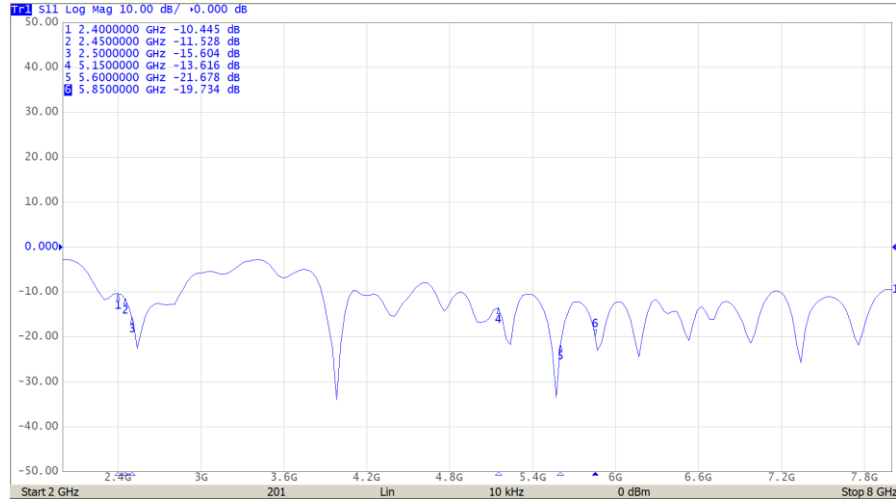
TITLE:  
Dual Band Antenna(ANT3)△

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

# Antenna Specification

Ant3	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	2.89dBi (Max)	5.49dBi (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	>67%	>64%
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)	-10.4	-11.5	-15.6	-13.6	-21.6	-19.7

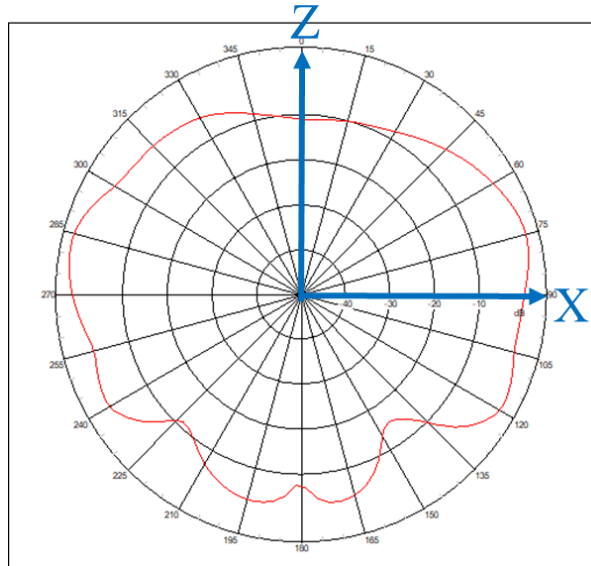
# 3D Gain Total

Freq(MHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
2400	2.80	-1.74	67
2450	2.89	-1.27	75
2500	2.75	-1.03	79
5150	2.91	-1.65	68
5250	2.84	-1.25	75
5350	3.67	-1.53	70
5470	4.43	-1.52	70
5600	3.96	-1.68	68
5725	4.68	-1.8	66
5785	4.56	-1.96	64
5850	5.49	-0.76	84

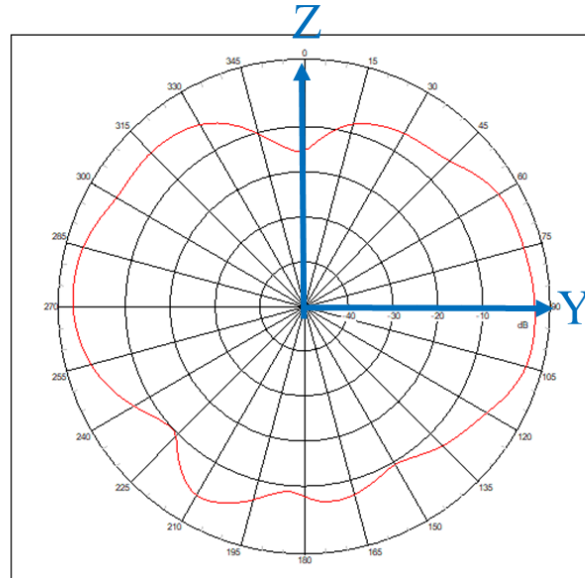
# Antenna Pattern Wieson

Frequency: 2450MHz

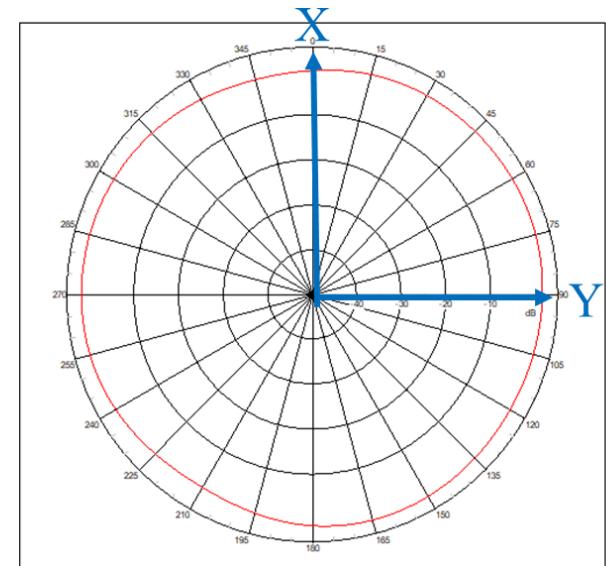
ZX-plane



YZ-plane



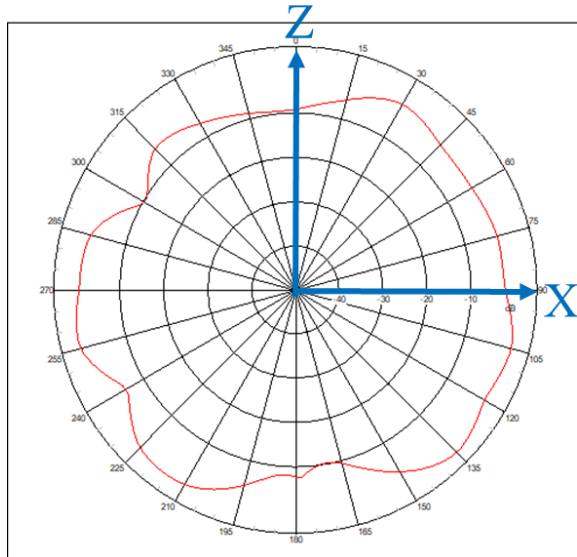
XY-plane



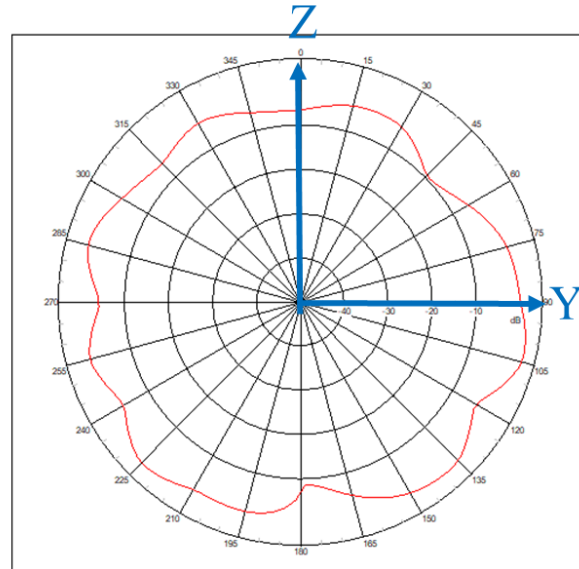
# Antenna Pattern Wieson

Frequency: 5150MHz

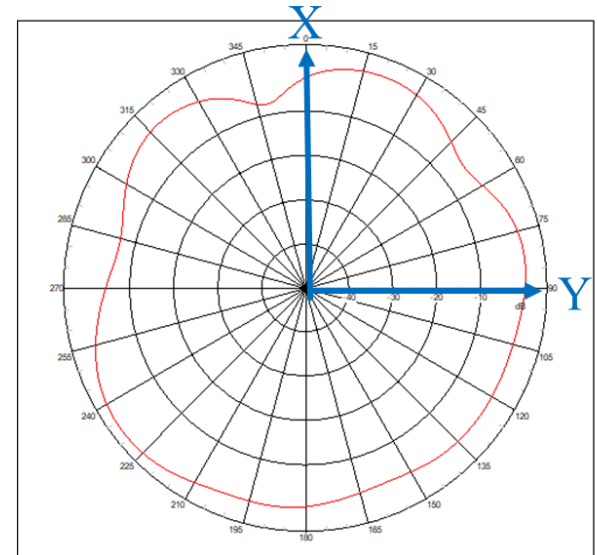
ZX-plane



YZ-plane



XY-plane

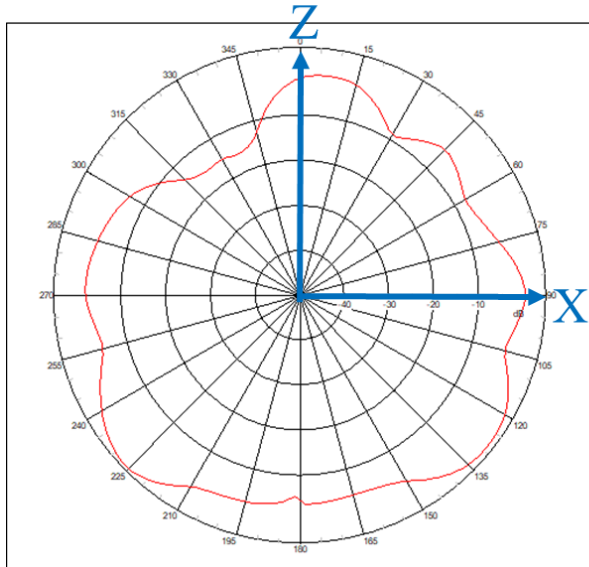




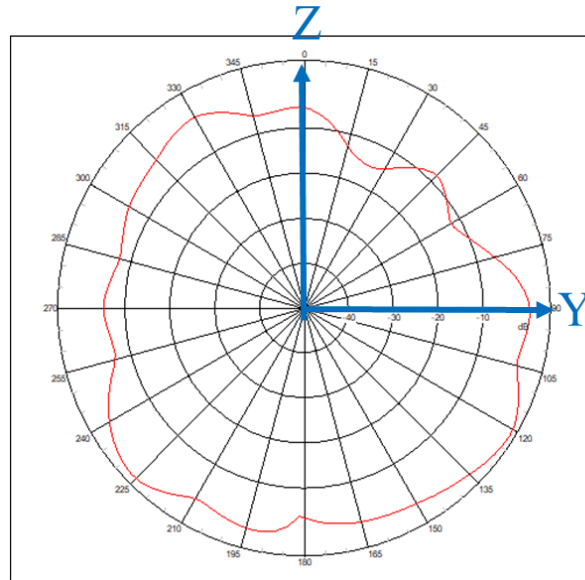
# Antenna Pattern Wieson

Frequency: 5600MHz

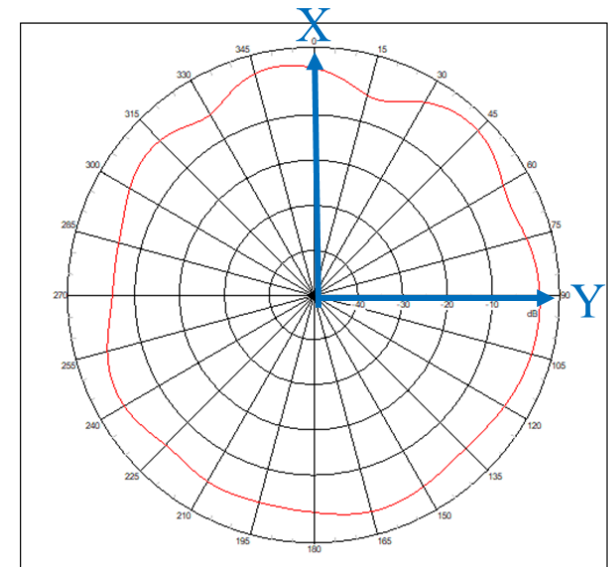
ZX-plane



YZ-plane



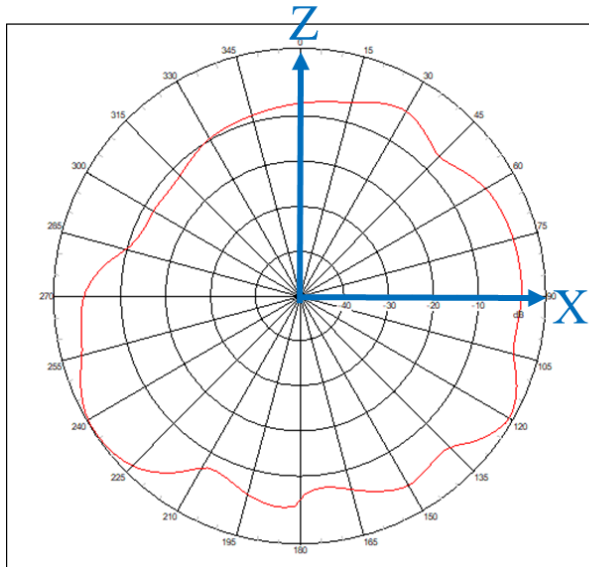
XY-plane



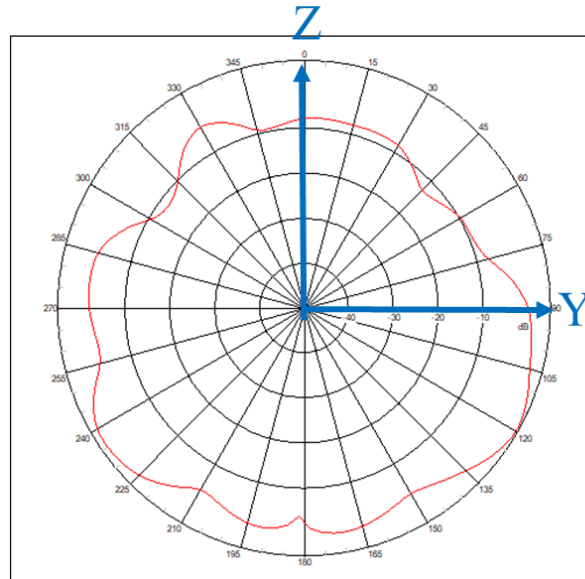
# Antenna Pattern Wieson

Frequency: 5850MHz

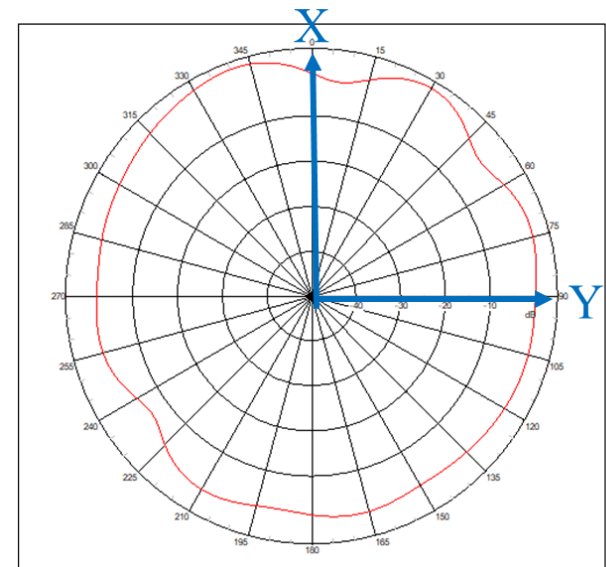
ZX-plane



YZ-plane



XY-plane





創造完美連結

MAKING THE PERFECT CONNECTION

[www.wieson.com](http://www.wieson.com)