



# **EDIMAX BR6893MGX ARY121-0350-001-00 (Ant5)**

**Only Antenna  
(6GHz Peak Gain:2.94dBi 、  
Directional Gain: 8.95dBi)**

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



# Directional Gain

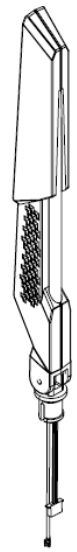
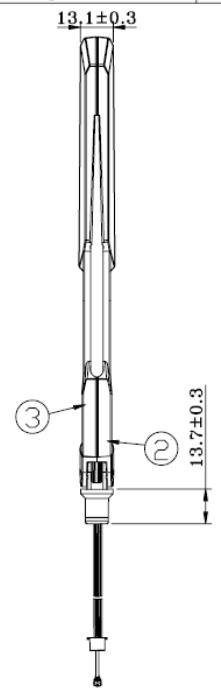
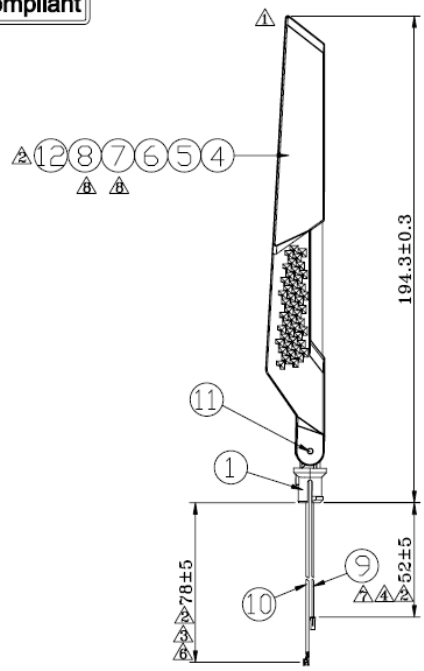
Directional Gain=

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

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

A  
B  
C  
D  
E



REV	DATE	DESCRIPTION	NAME
A4	21.12.23	△ MODIFY TOLERANCE	LIEF
A5	21.12.30	△ MODIFY TOLERANCE	LIEF
A6	22.01.26	△ MODIFY NOTE	WEN
A7	22.01.31	△ MODIFY NOTE & CABLE LENGTH	WEN
A8	22.02.25	△ MODIFY WIRE HARNESS LENGTH	LIEF
A9	22.03.11	△ MODIFY COPPER TUBE	LIEF

D	⑫	HEAT SHRINK TUBE	COLOR : BLACK △	1
	⑪	Fixed Pin	Fixed Pin , Black Coating	2
	⑩	CABLE	OD:1.37 , BLACK 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

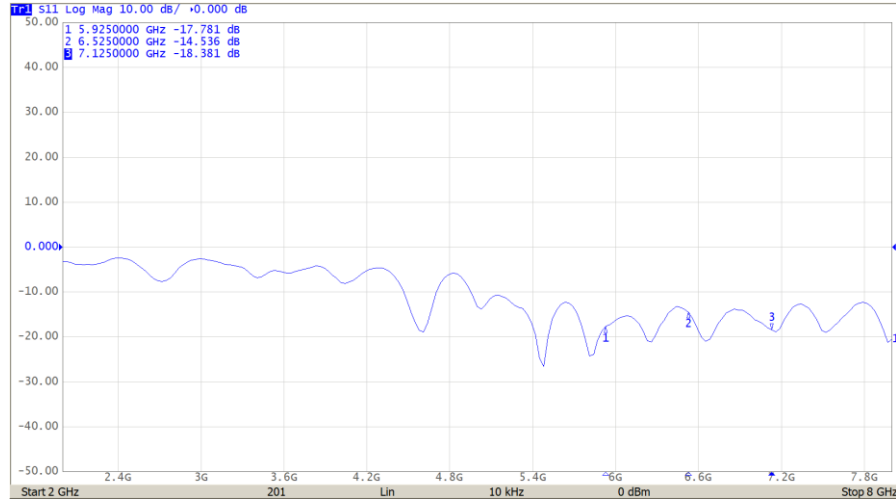
Note:  
 △ 1.Frequency:5.925~7.125GHz  
 △ 2.Efficiency:>83%(with case)  
 △ 3.Impedance:50ohm

CUSTOMER NO.: 1680-00000700-50U			
PART NO.: ARY121-0350-001-00			
TITLE: WiFi Single 6G Antenna(ANT5)△			
DRAWN BY	LIEF	DRAWING NO.	
CHECKED BY		DRAWING SIZE	A4
APPROVED BY		UNIT	mm
SORTING NO.	WSC	PAGE	1 OF 1

# Antenna Specification

Ant5	Specification
Frequency(GHz)	5.925~7.125
Bandwidth	1.2GHz (Min.)
Return Loss	10 dB (Min.)
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Peak Gain	2.94dBi (Max)
Impedance	50Ω
Material	Copper tube
Maximum Power	1W
V.S.W.R	2 : 1
Radiation	Omni directional
Efficiency	>63%
Connector	MHF
Cable type	OD:1.37
Operating Temperature	-10~60°C
Storage temp	-10~70°C

# Return Loss



Freq(MHz)	5925	6525	7125
S11(dB)	-17.7	-14.5	-18.3

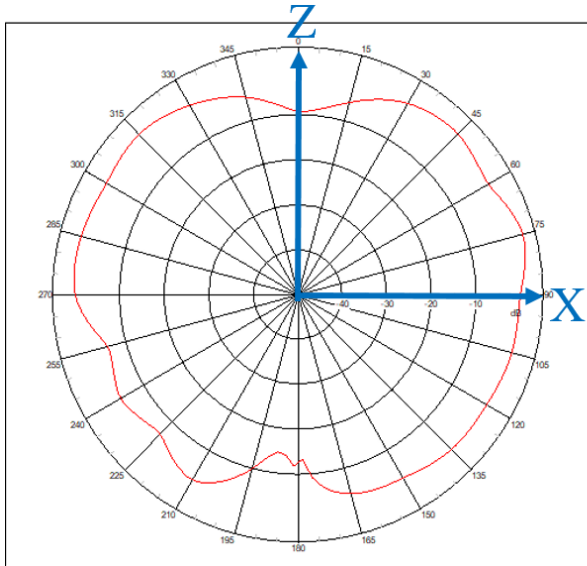
# 3D Gain Total

Freq(MHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
5925	2.21	-1.49	71
6150	2.6	-1.67	68
6250	2.33	-1.19	76
6350	2.39	-1.17	76
6450	2.37	-1.14	77
6550	1.47	-2.03	63
6650	1.69	-1.96	64
6750	1.62	-1.91	64
6850	1.86	-1.74	67
6950	2.94	-0.75	84
7125	2.38	-1.63	69

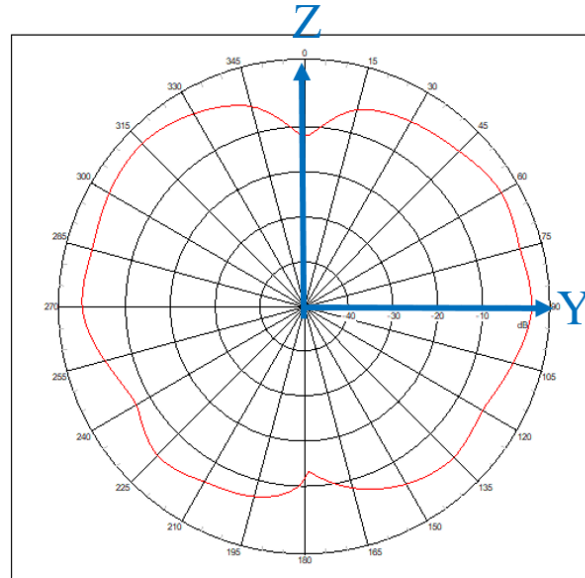
# Antenna Pattern Wieson

Frequency: 5925MHz

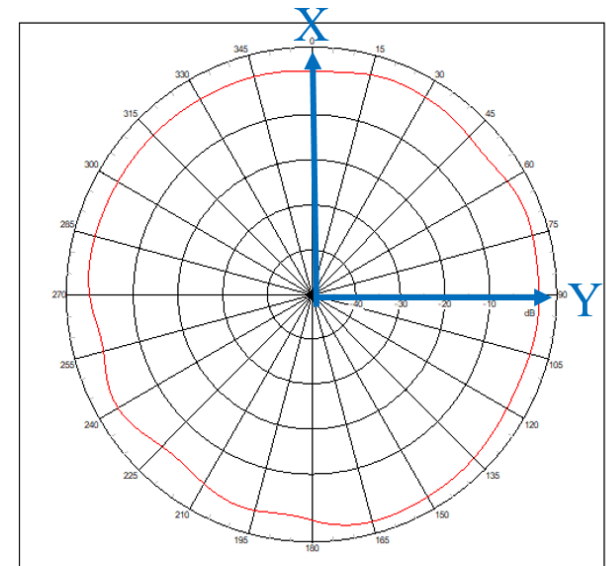
ZX-plane



YZ-plane



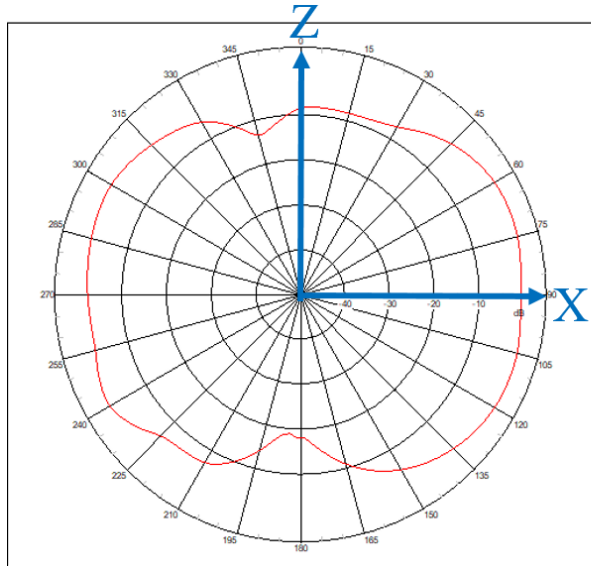
XY-plane



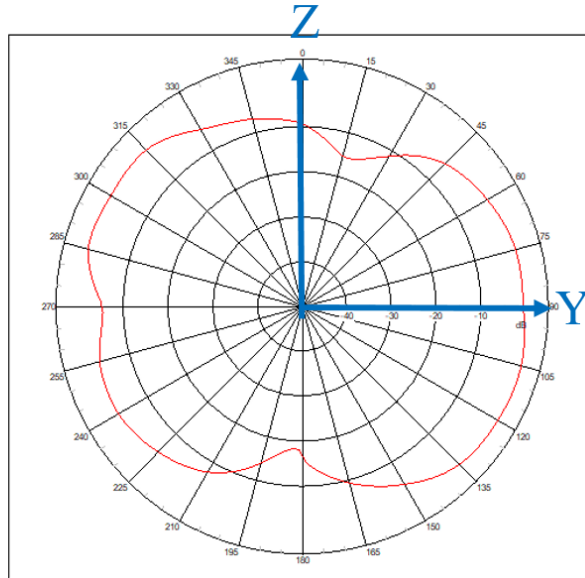
# Antenna Pattern Wieson

Frequency: 6550MHz

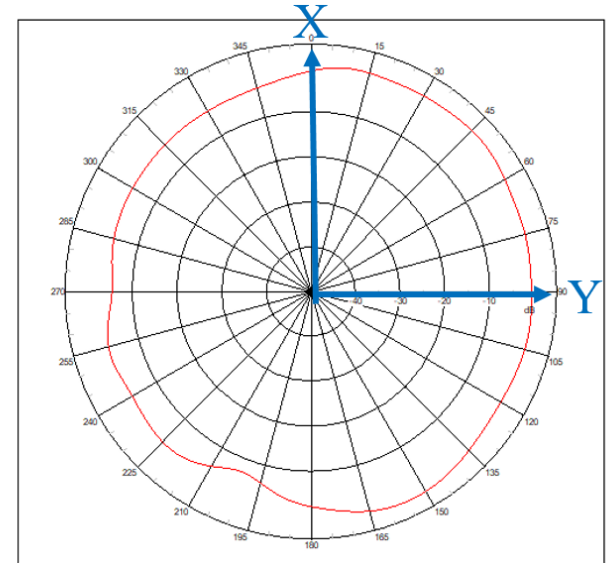
ZX-plane



YZ-plane



XY-plane

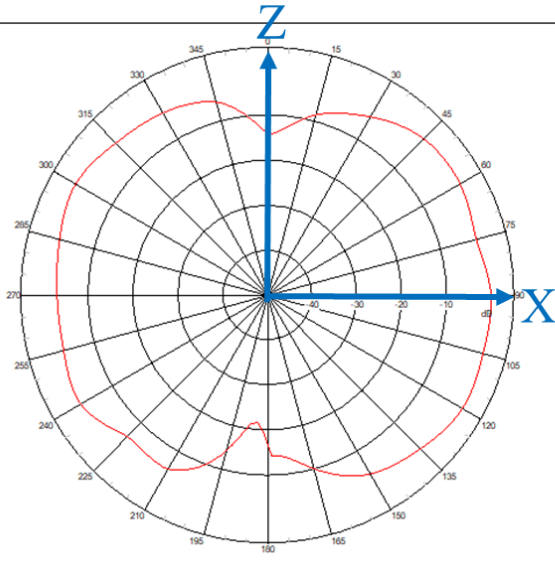




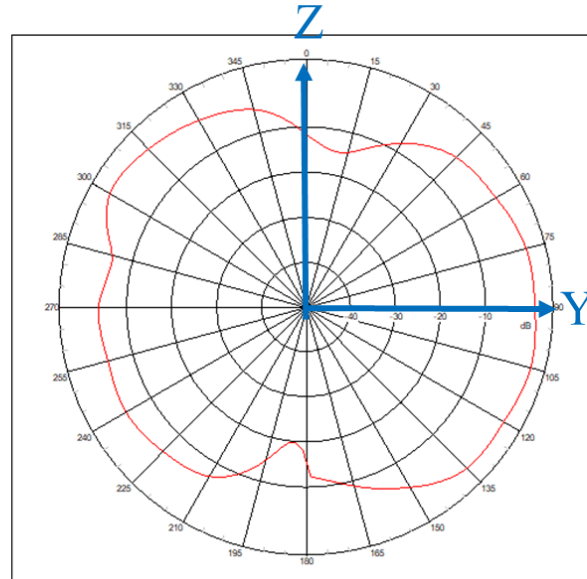
# Antenna Pattern Wieson

Frequency: 7125MHz

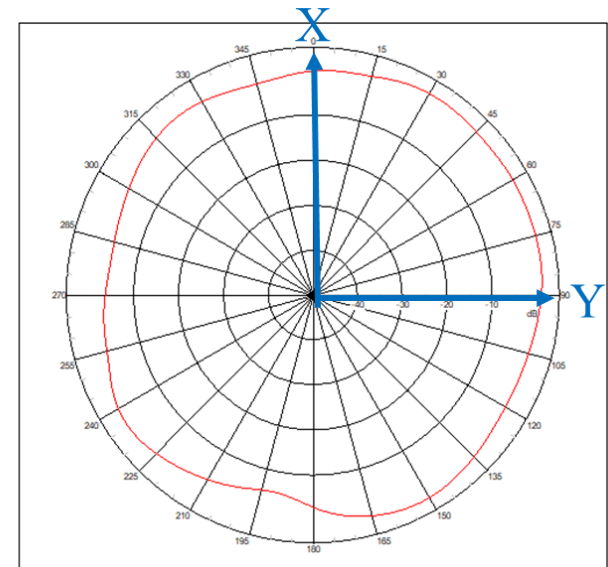
ZX-plane



YZ-plane



XY-plane





創造完美連結

MAKING THE PERFECT CONNECTION

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