



# Outdoor Security Camera

**Engineer : Ting**

**Report date : 2021/12/9 REV. 01**



# Revision History

Revision	Date	Engineer	Description
01	2021/12/09	Ting	New Release

# Antenna specification

	Ant 1
Frequency(GHz)	2.4~2.5
Bandwidth	100MHz (Min.)
Return Loss	-10 dB (Max)
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Peak Gain	2.11 dBi (Max)
Impedance	50Ω
Material	FPC
Maximum Power	1W
V.S.W.R	2 : 1
Radiation	Omni directional
Efficiency	>51%
Connector	MHF
Cable type	OD:1.13
Operating Temperature	-10~60°C
Storage temp	-10~70°C

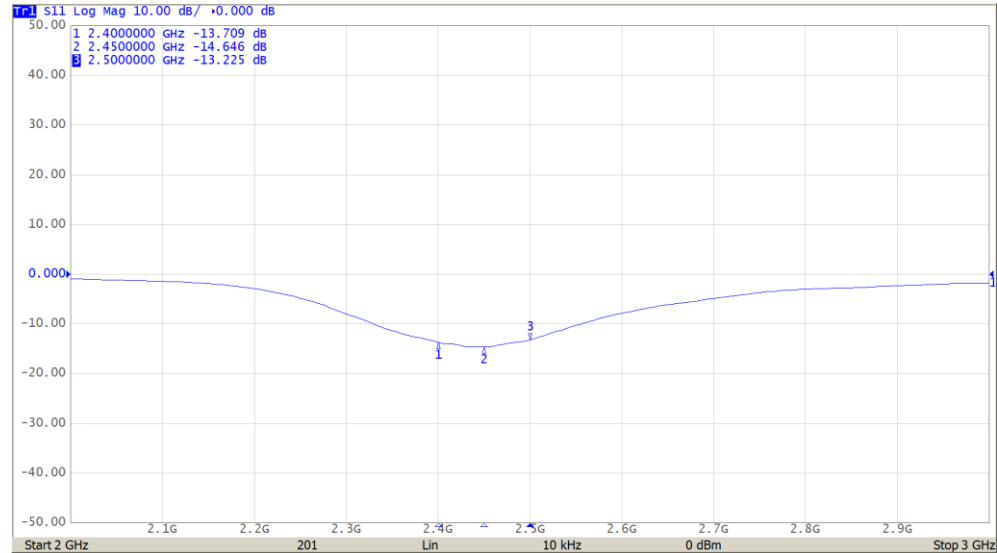
# Antenna photo



# Antenna Measurement Vector Network Analyzer

# Return Loss

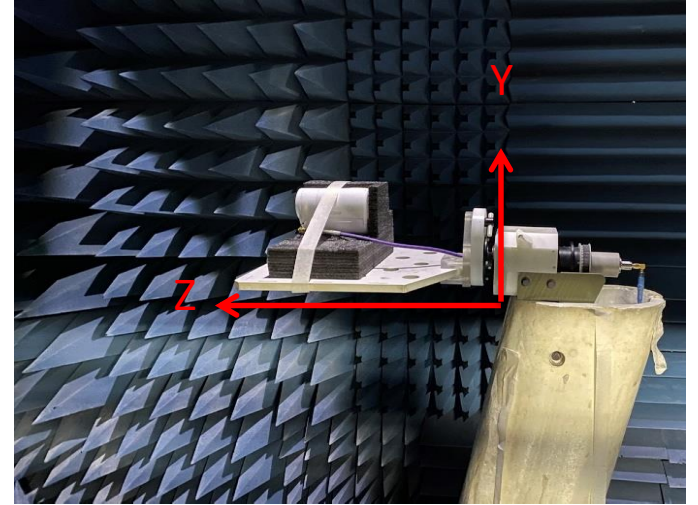
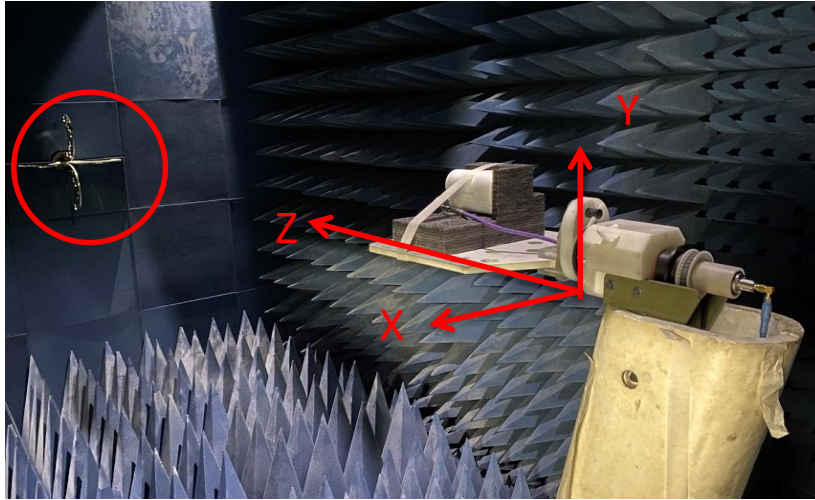
Ant 1



Freq(MHz)	2400	2450	2500
dB	-13.7	-14.6	-13.2

# The antenna anechoic chamber measurement

# Chamber measurement photo





# 3D Gain Total

Ant 1

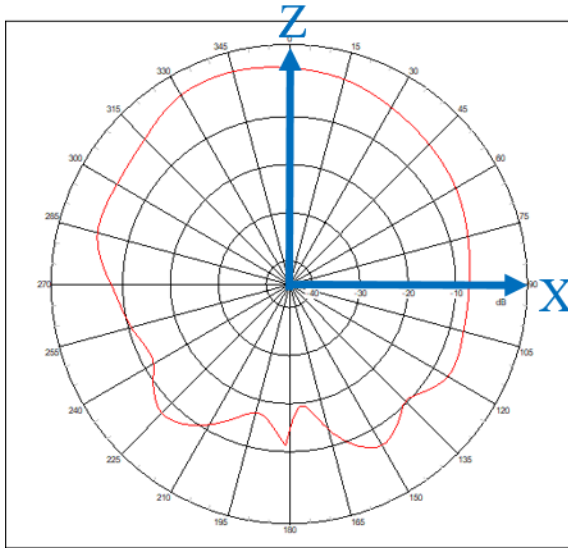
Freq(MHz)	Peak Gain(dBi)	3D-avg Gain(dBi)	Efficiency(%)
2400	0.52	-2.95	51
2410	0.77	-2.7	54
2420	0.84	-2.63	55
2430	0.97	-2.52	56
2440	1.09	-2.46	57
2450	1.24	-2.5	56
2460	1.55	-2.47	57
2470	2.03	-2.28	59
2480	2.05	-2.48	56
2490	1.97	-2.75	53
2500	2.11	-2.77	53

# 2D Pattern

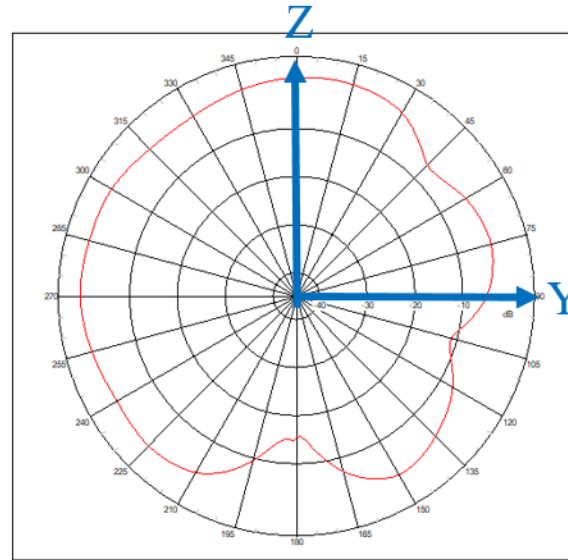
Frequency : 2400MHz

Ant 1

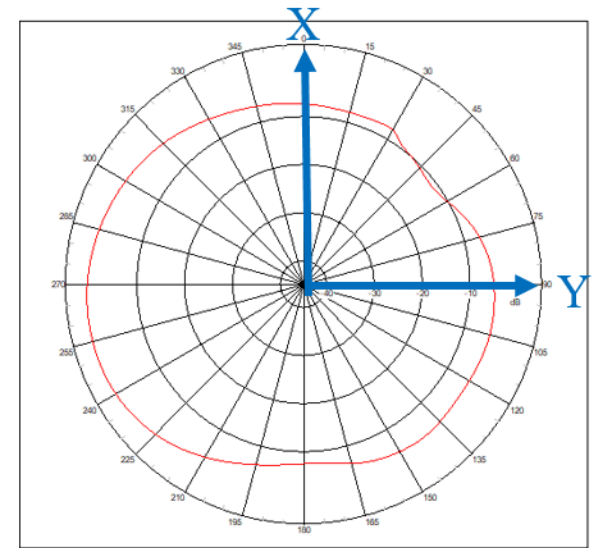
ZX-plane



YZ-plane



XY-plane

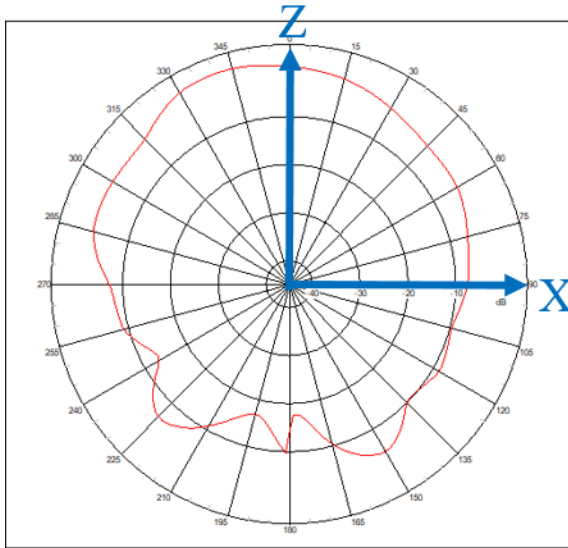


# 2D Pattern

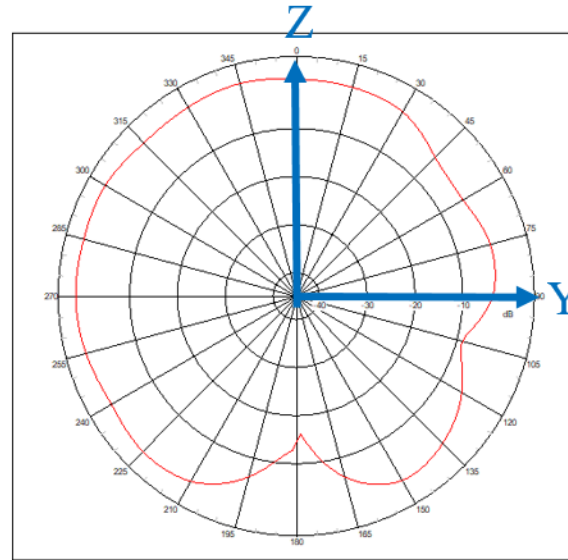
Frequency : 2450MHz

Ant 1

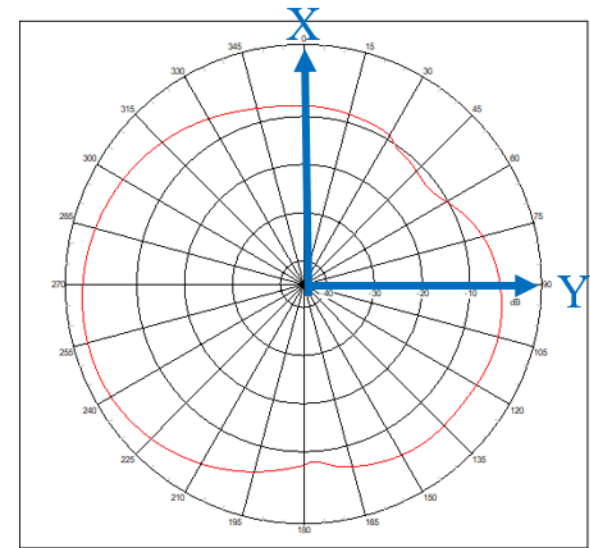
ZX-plane



YZ-plane



XY-plane

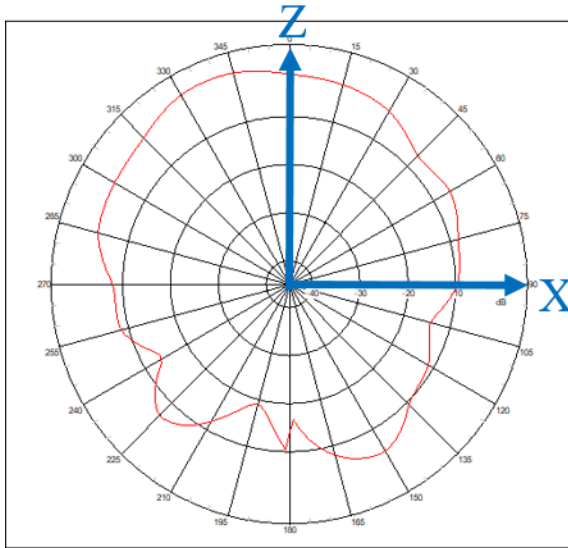


# 2D Pattern

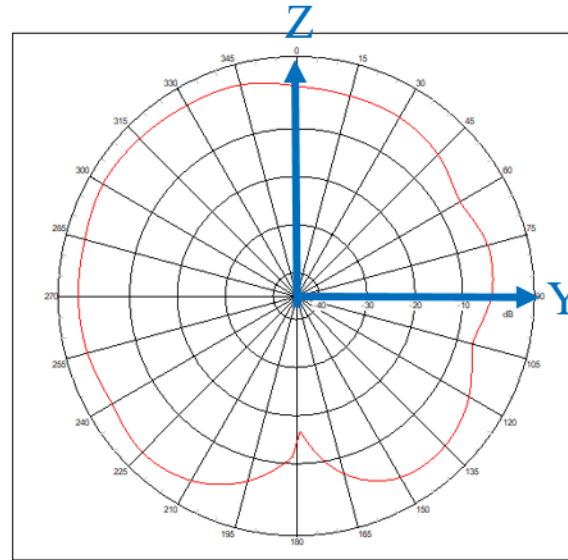
Frequency : 2500MHz

Ant 1

ZX-plane



YZ-plane



XY-plane

