

# APPROVAL SHEET

**Metal ANTENNA**

**2.4~2.5/5.15~5.85 GHz Working Frequency**

**Halogens Free Product**

**P/N: RFMTA340718EMLB302**

Customer :

Customer 's Part No. :

Approval No. :

Issue Date :

\*Contents in this sheet are subject to change without prior notice.

Version	Date	Description	Author
V01	2020 Mar.	New Release	SHLEE

**ELECTRICAL CHARACTERISTICS**

Item	Specification
Frequency Range	2.4~2.5 / 5.15~5.85 GHz
Impedance	50 Ohm Nominal
Return Loss	-10 dB (Max)
Peak Gain	3.18 dBi @ 2.4~2.5 MHz 4.92 dBi @ 5.15~5.85 MHz
VSWR	2.0 (Max)
Radiation	Omni-directional
Polarization	Linear Vertical
Admitted Power	1W
Operation Temperature	-20°C ~ +65°C

\*note-1: Electrical characteristics will depend on customer's final application.

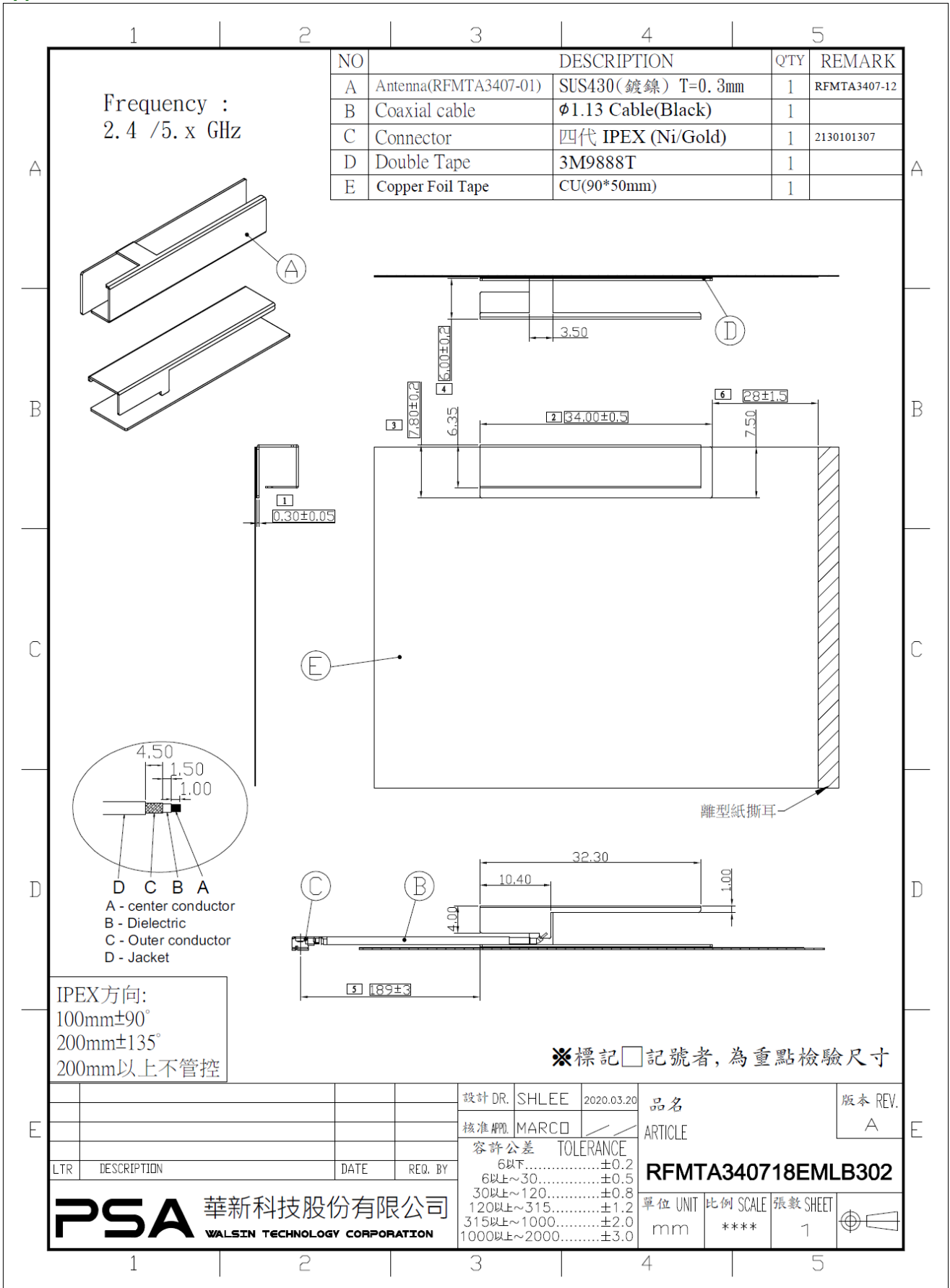
**MATERIAL TABLE**

Items	Description
Metal	SUS 430 T=0.3mm(鍍鎳)
Cable	( \$ 1.13) (Black)
Connector	四代 IPEX(Ni/Gold)
Double Tape	3M9888T
Copper Foil Tape	CU(90*50mm)

**ORDERING RULE**

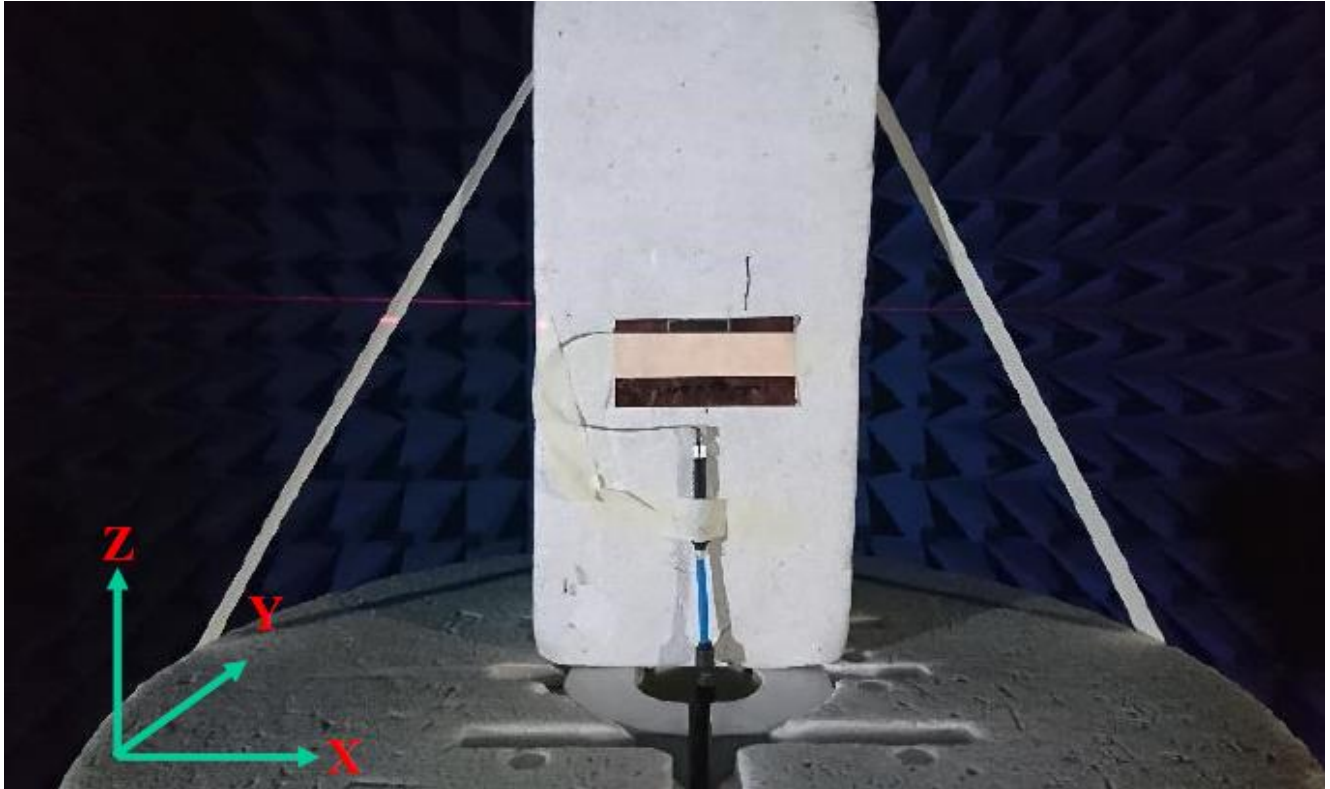
RF	MTA	3407	18	E	M	L	B	3	02
Type Code	Product Code	Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
Walsin RF Device	MTA: Metal Antenna	Per 2 digits of length, width e.g.: 3407 Length 34mm, Width 7.8mm	2 digits for cable length e.g.: 18 Cable Length: 18.5cm	A: N C: MCX D: IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX M: MMCX S: SMA T: TNC U: MURATA N: None	A: Reverse Female B: Reverse Male F: Female M: Male N: None	0: 0GHz 3: 3GHz 5: 5GHz 6: 6GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band N: NFC T: LTE band W: WCDMA band	B: MP T: Durin g Test X: Pile Run	0: None 1: 0.81 3: 1.13 6: RG316 7: 1.37 8: RG178	01~99 series number

Appendix A: Dimensions



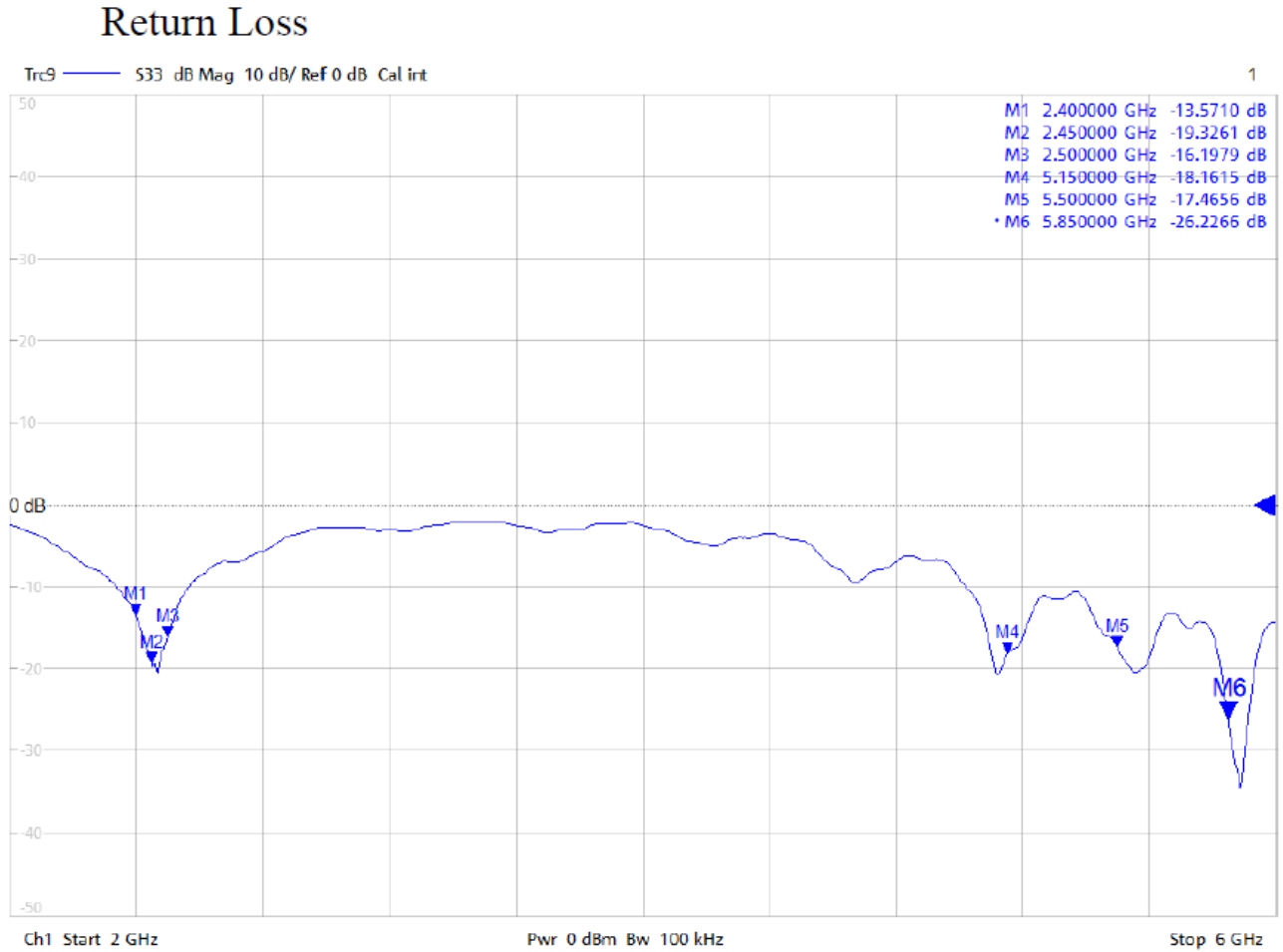
# Test Report

## ■ EXPERIMENTAL SETUP



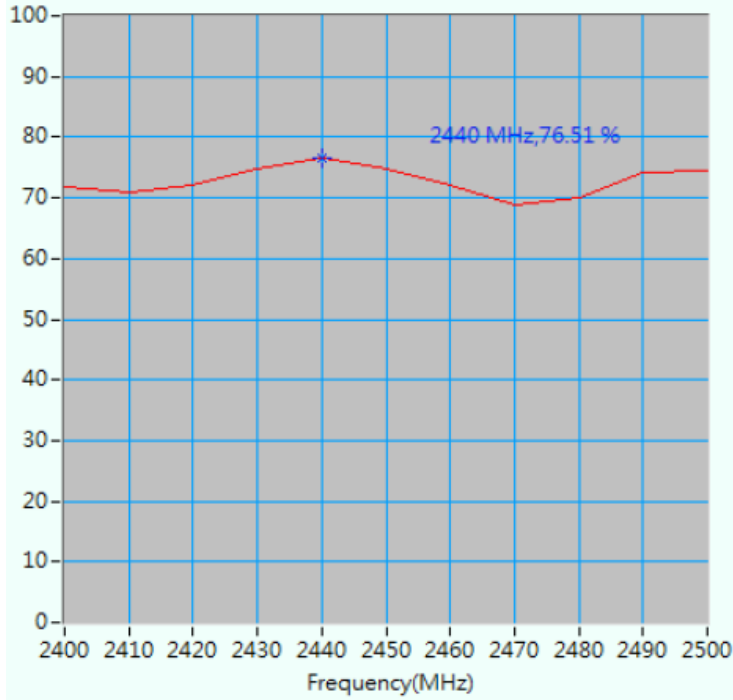
# ELECTRICAL CHARACTERISTICS

## Return Loss

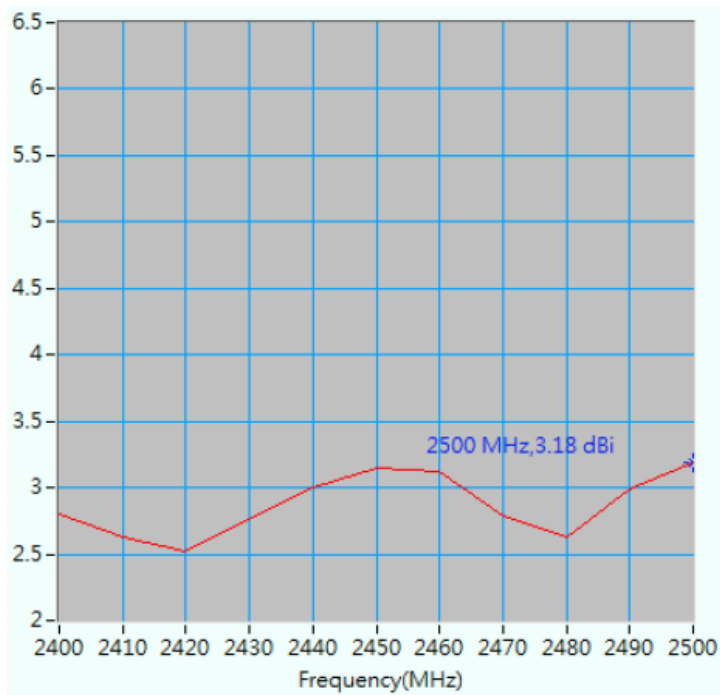


### ■ Antenna Efficiency and Peak Gain

2G

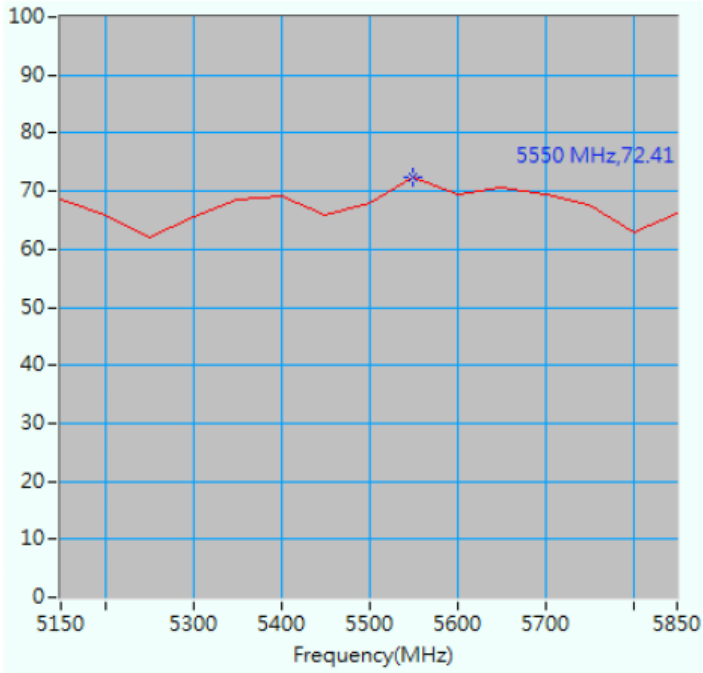


Maximum Efficiency at 2440 MHz : 76.51 %

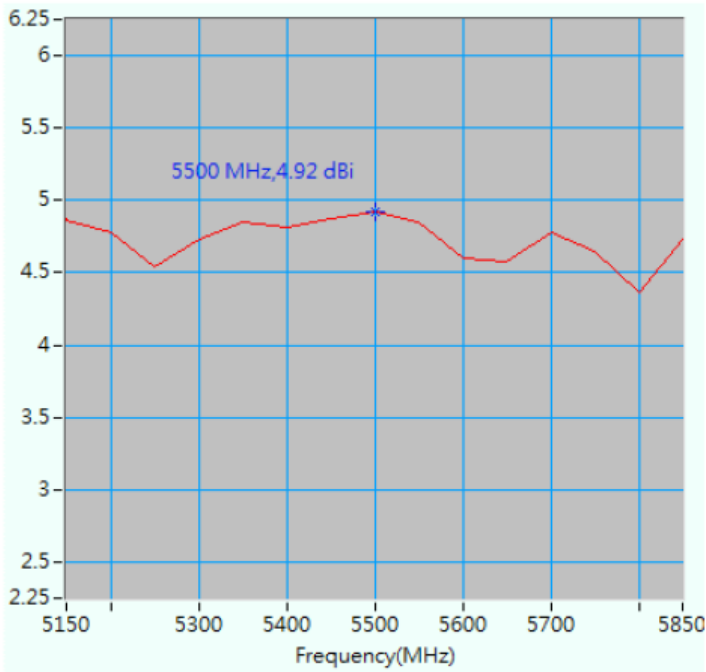


Maximum Efficiency at 2500 MHz : 3.18 dBi

5G



Maximum Efficiency at 5550 MHz 72.41%



Maximum Efficiency at 5500 MHz : 4.92 dBi

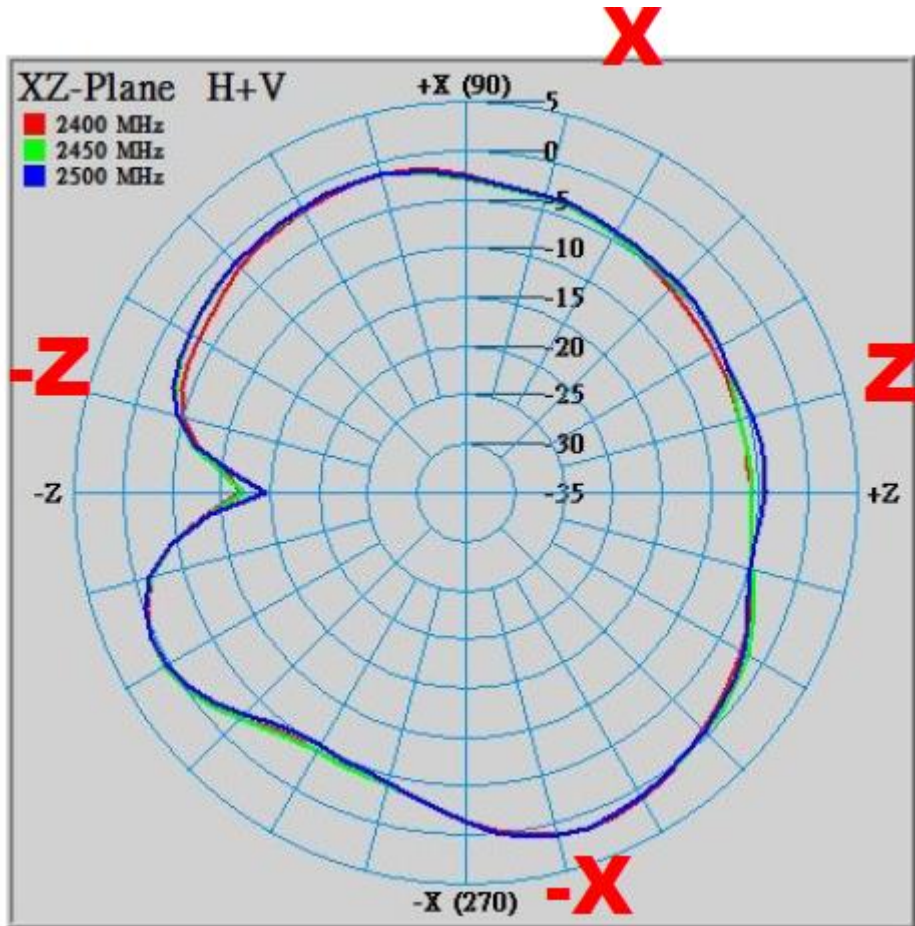


## RADIATION PATTERN

2400~2500 MHz

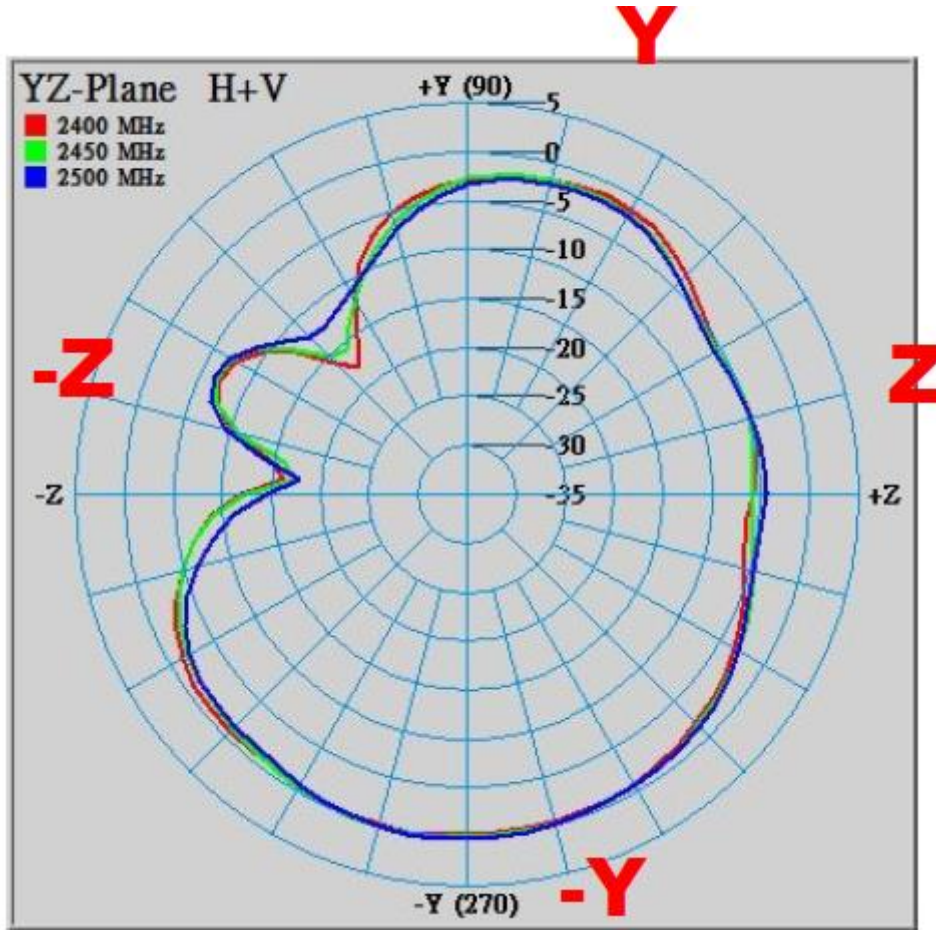
Phi=0.00deg

Gain . dB



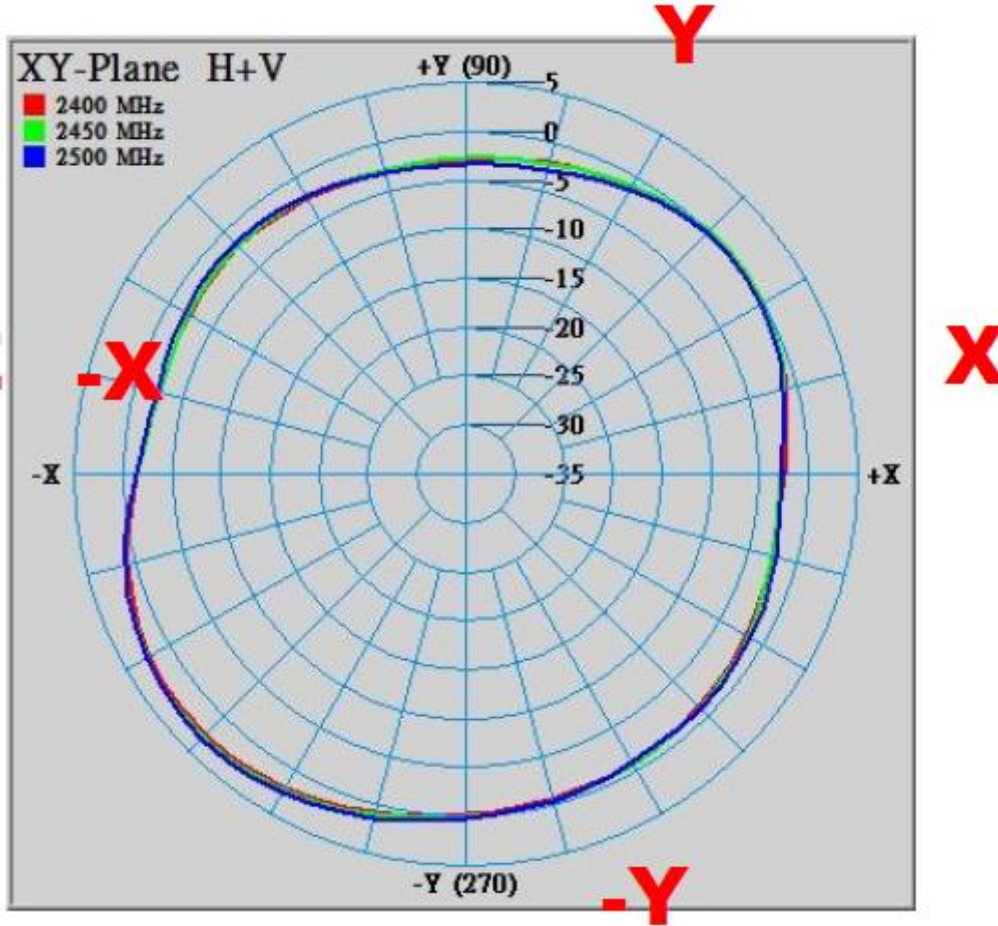
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB

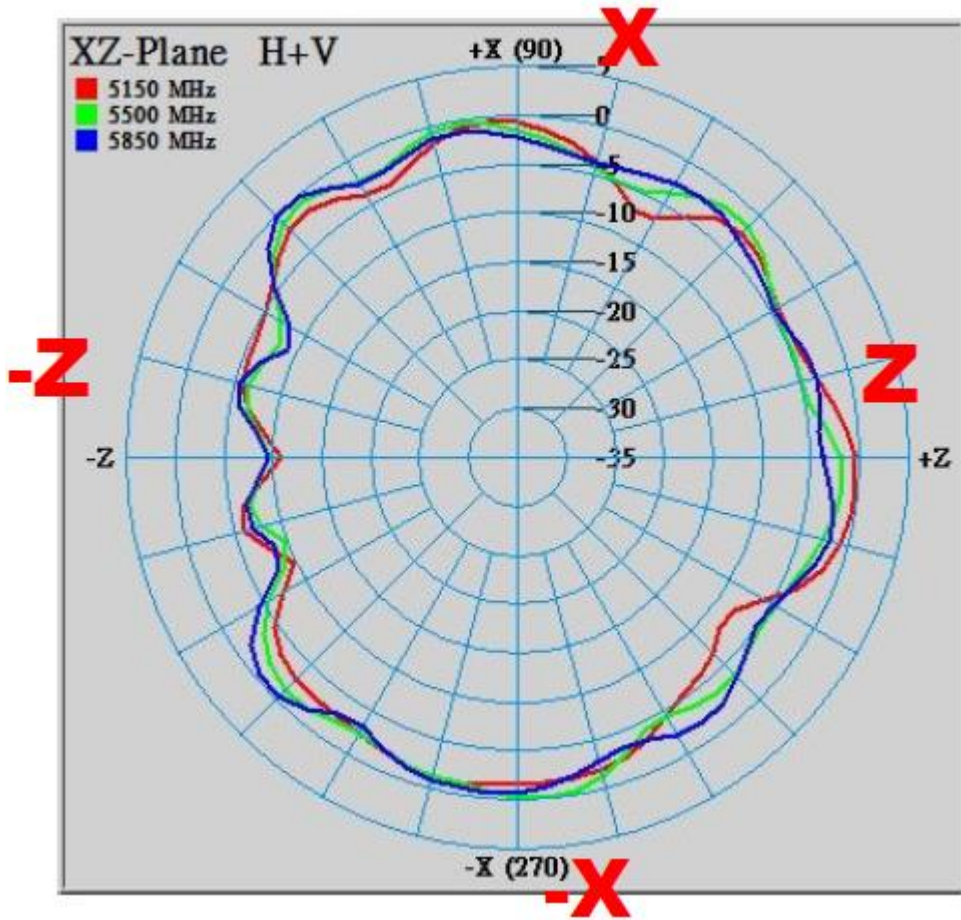


Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	1.42	-2.59	-0.04	-3.13	2.66	-0.66
2450	1.43	-2.40	0.08	-3.16	3.00	-0.48
2500	1.37	-2.43	0.24	-3.23	3.14	-0.44

5150~5850 MHz

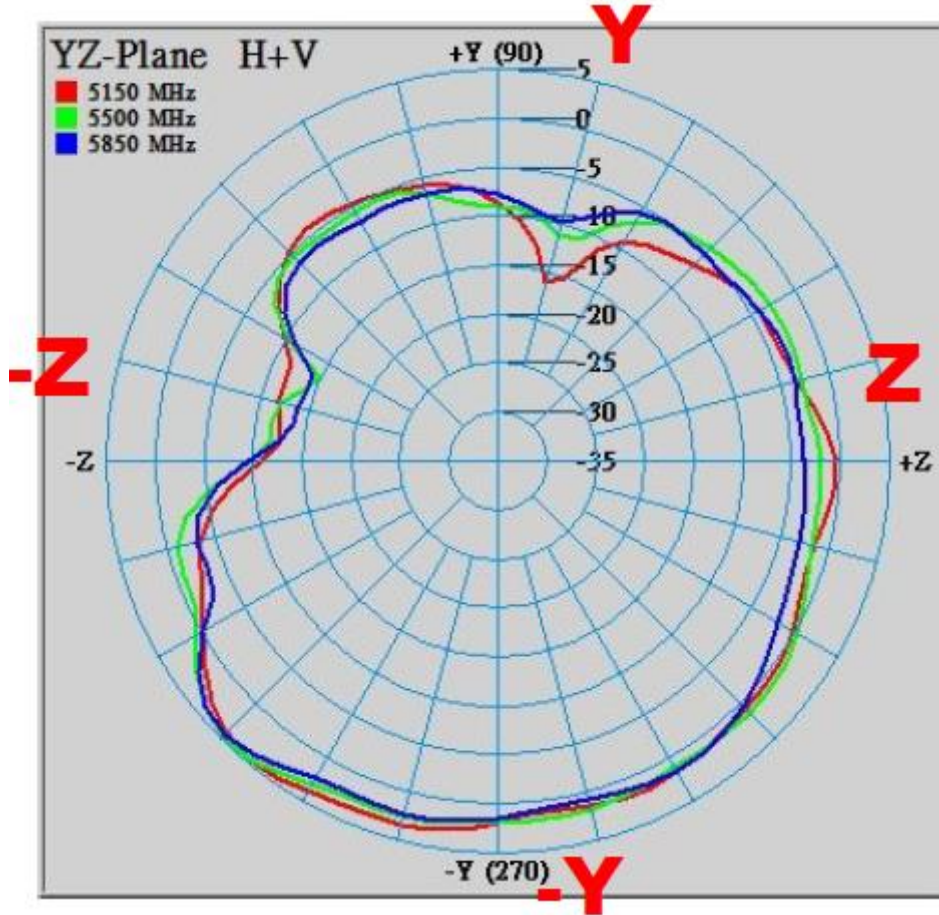
Phi=0.00deg

Gain . dB



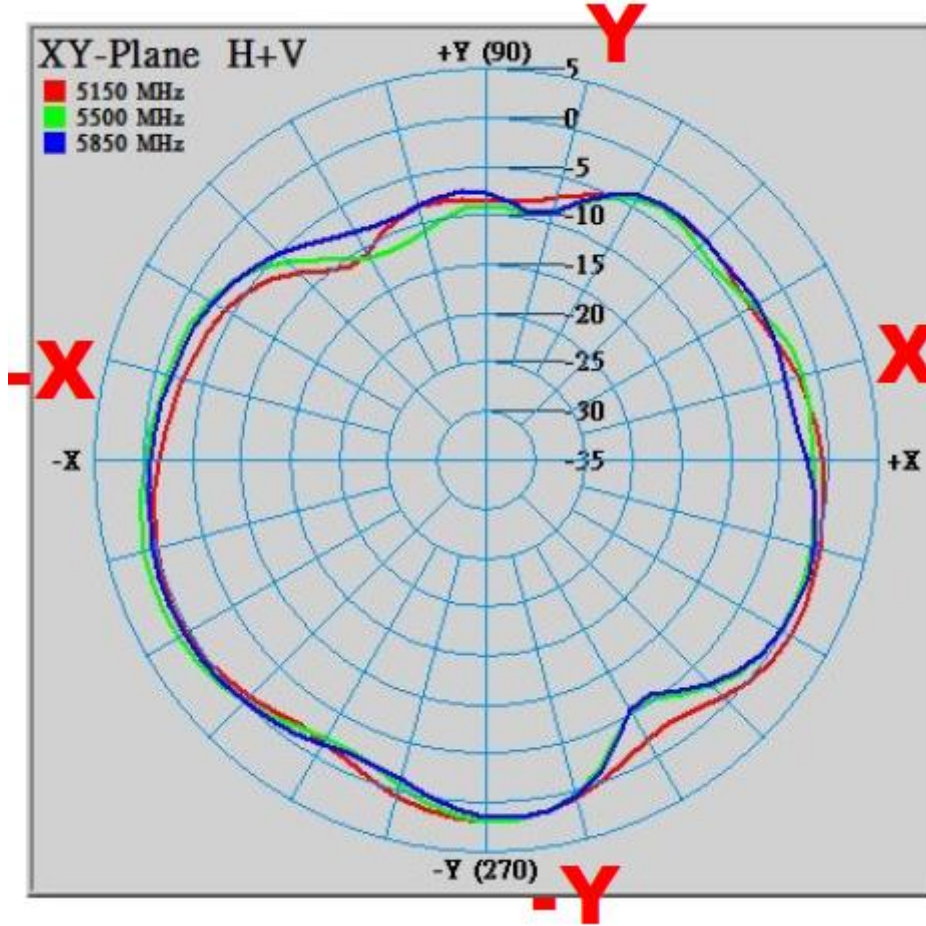
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB



Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
5150	-0.44	-3.31	4.60	-0.97	1.85	-1.74
5500	-0.03	-3.03	4.72	-0.89	2.00	-1.79
5850	-0.07	-2.99	4.51	-1.53	1.63	-1.98