

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)
Doubel Tape	3M9888T
Copper Foil Tape	CU(90*50mm)

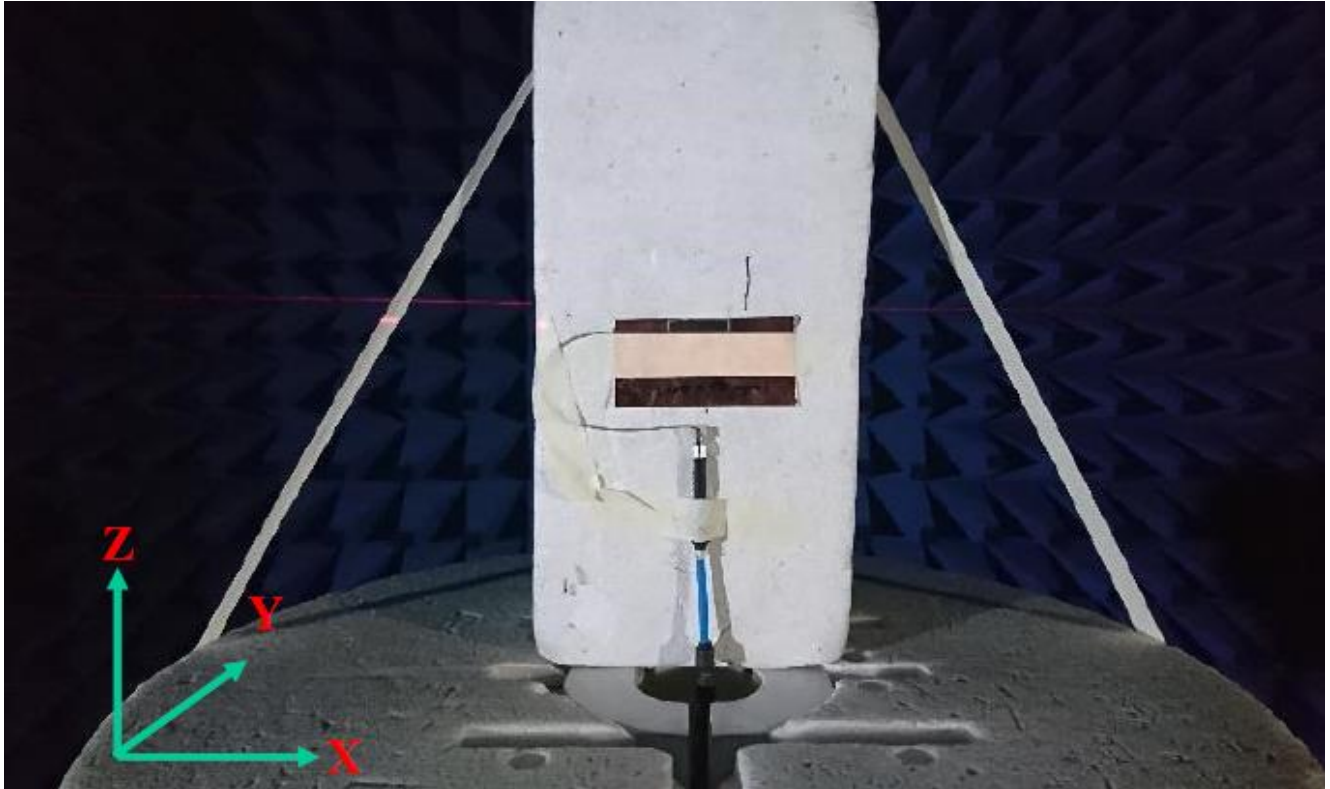
ORDERING RULE

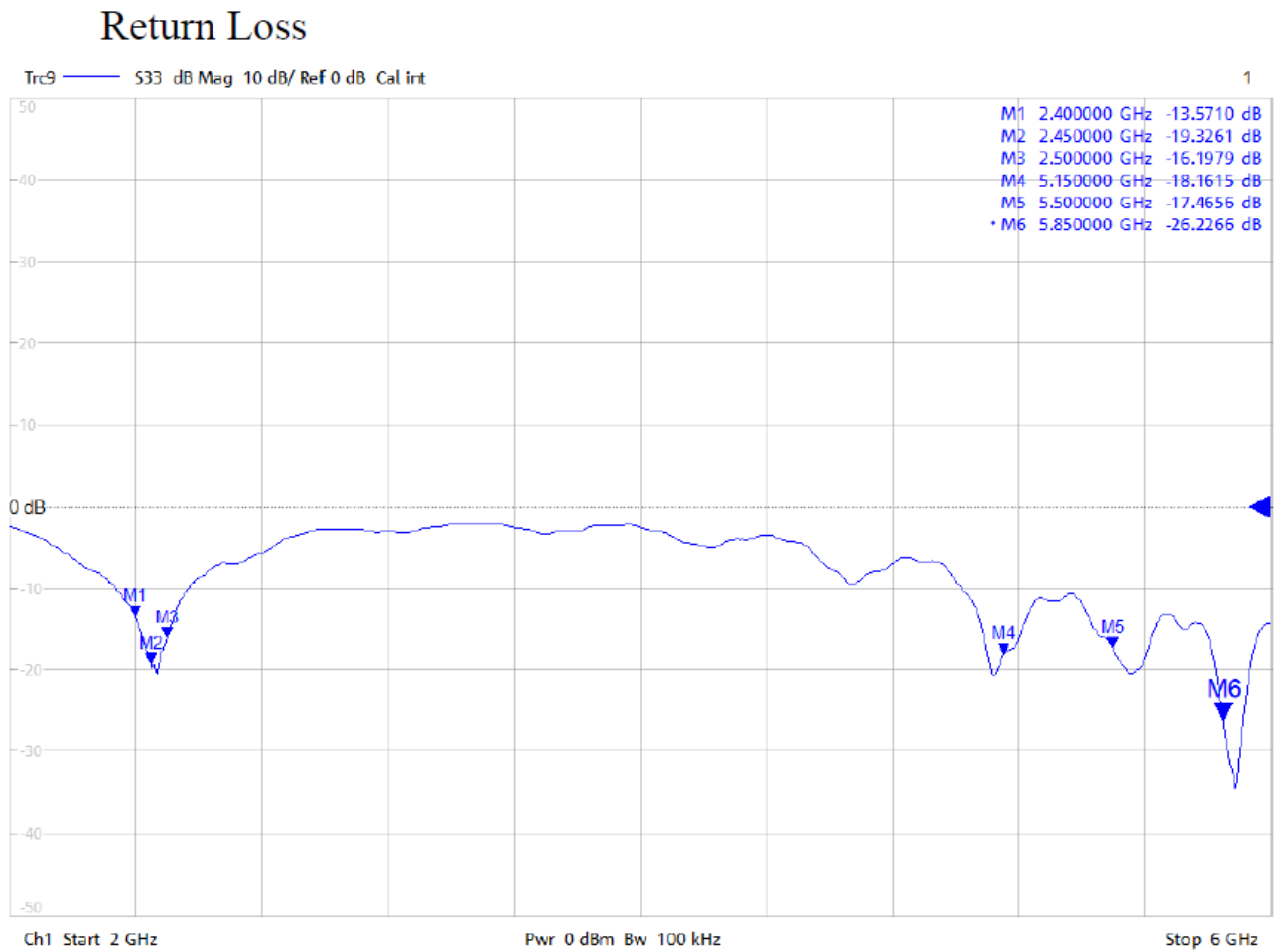
RF	MTA	3407	18	E	M	L	B	3	02
Type Code	Product Code	Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
Walsin RF Device	MTA: Metal Antenna	Per 2 digits of length, width e.g.: 3407 Length 34mm, Width 7.8mm	2 digits for cable length e.g.: 18 Cable Length:20cm	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: ϕ 0.81 3: ϕ 1.13 6: RG316 7: ϕ 1.37 8: RG178	01~99 series number

1	2	3	4	5																														
Frequency : 2.4 /5. x GHz		<table border="1"> <thead> <tr> <th>NO</th> <th>DESCRIPTION</th> <th>QTY</th> <th>REMARK</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Antenna(RFMTA3407-01)</td> <td>SUS430(鍍鎳) T=0.3mm</td> <td>1</td> <td>RFMTA3407-12</td> </tr> <tr> <td>B</td> <td>Coaxial cable</td> <td>Ø1.13 Cable(Black)</td> <td>1</td> <td></td> </tr> <tr> <td>C</td> <td>Connector</td> <td>四代 IPEX (Ni/Gold)</td> <td>1</td> <td>2130101307</td> </tr> <tr> <td>D</td> <td>Double Tape</td> <td>3M9888T</td> <td>1</td> <td></td> </tr> <tr> <td>E</td> <td>Copper Foil Tape</td> <td>CU(90*50mm)</td> <td>1</td> <td></td> </tr> </tbody> </table>			NO	DESCRIPTION	QTY	REMARK	A	Antenna(RFMTA3407-01)	SUS430(鍍鎳) T=0.3mm	1	RFMTA3407-12	B	Coaxial cable	Ø1.13 Cable(Black)	1		C	Connector	四代 IPEX (Ni/Gold)	1	2130101307	D	Double Tape	3M9888T	1		E	Copper Foil Tape	CU(90*50mm)	1		
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PSA 華新科技股份有限公司 WALSIN TECHNOLOGY CORPORATION		<table border="1"> <thead> <tr> <th>設計 DR.</th> <th>SHLEE</th> <th>2020.03.20</th> <th>品名</th> <th>版本 REV.</th> </tr> </thead> <tbody> <tr> <td>核准 欄</td> <td>MARCO</td> <td></td> <td>ARTICLE</td> <td>A</td> </tr> <tr> <td colspan="3">容許公差 TOLERANCE</td> <td colspan="2">RFMTA340718EMLB302</td> </tr> <tr> <td colspan="3"> 6以下.....±0.2 6以上~30.....±0.5 30以上~120.....±0.8 120以上~315.....±1.2 315以上~1000.....±2.0 1000以上~2000.....±3.0 </td> <td>單位 UNIT</td> <td>比例 SCALE</td> </tr> <tr> <td colspan="3"></td> <td>mm</td> <td>****</td> </tr> <tr> <td colspan="3"></td> <td>張數 SHEET</td> <td>1</td> </tr> </tbody> </table>			設計 DR.	SHLEE	2020.03.20	品名	版本 REV.	核准 欄	MARCO		ARTICLE	A	容許公差 TOLERANCE			RFMTA340718EMLB302		6以下.....±0.2 6以上~30.....±0.5 30以上~120.....±0.8 120以上~315.....±1.2 315以上~1000.....±2.0 1000以上~2000.....±3.0			單位 UNIT	比例 SCALE				mm	****				張數 SHEET	1
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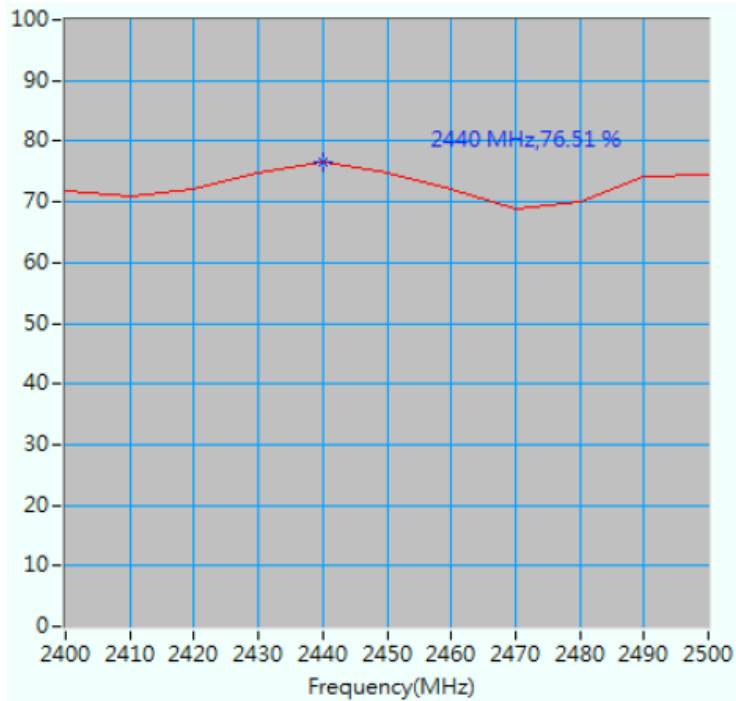
Test Report

■ EXPERIMENTAL SETUP

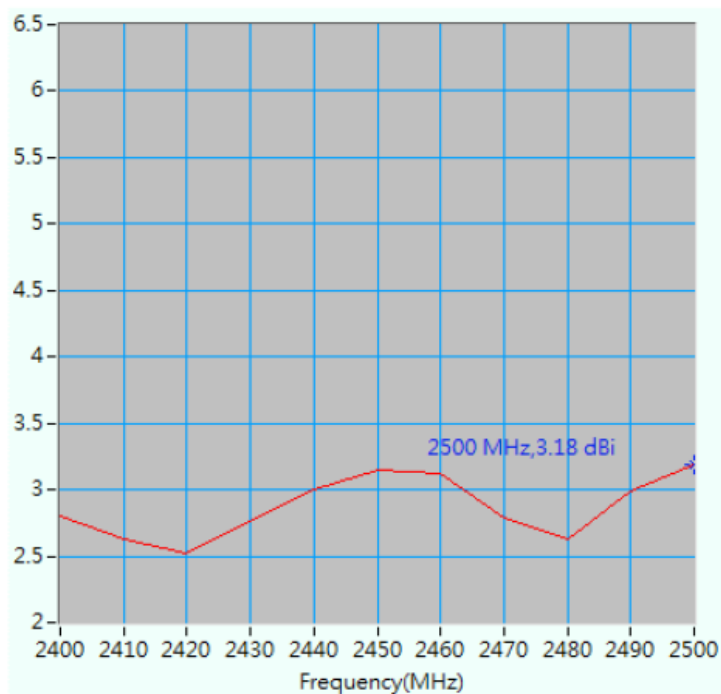


ELECTRICAL CHARACTERISTICS**Return Loss**

■ Antenna Efficiency and Peak Gain

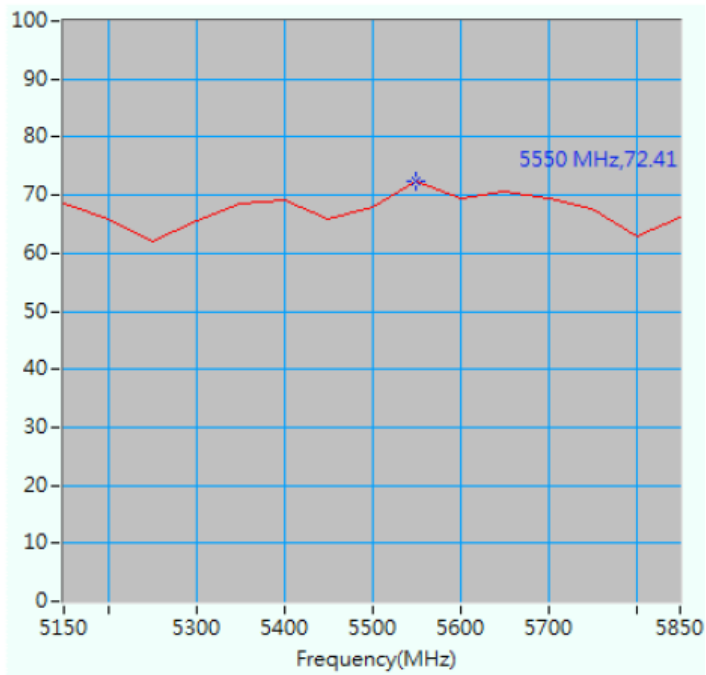
2G

Maximum Efficiency at 2440 MHz : 76.51 %

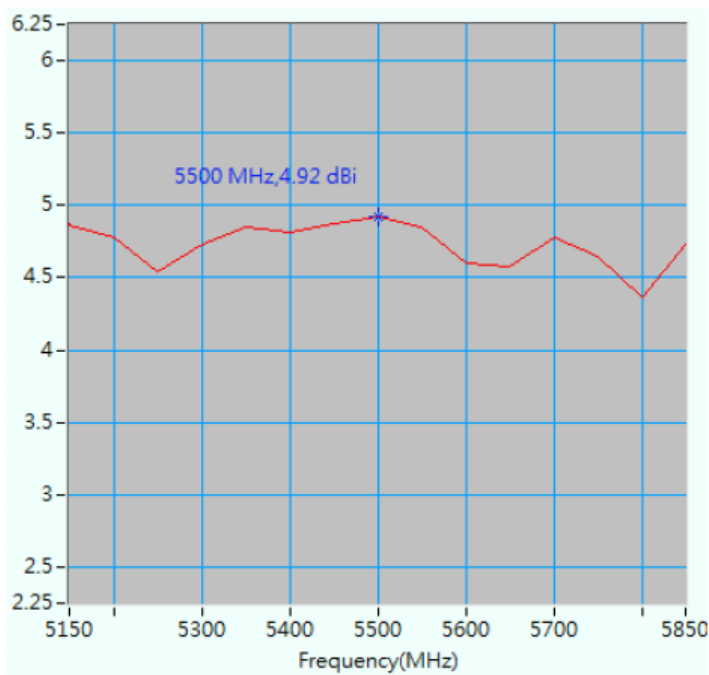


Maximum Efficiency at 2500 MHz : 3.18 dBi

5G



Maximum Efficiency at 5550 MHz 72.41%



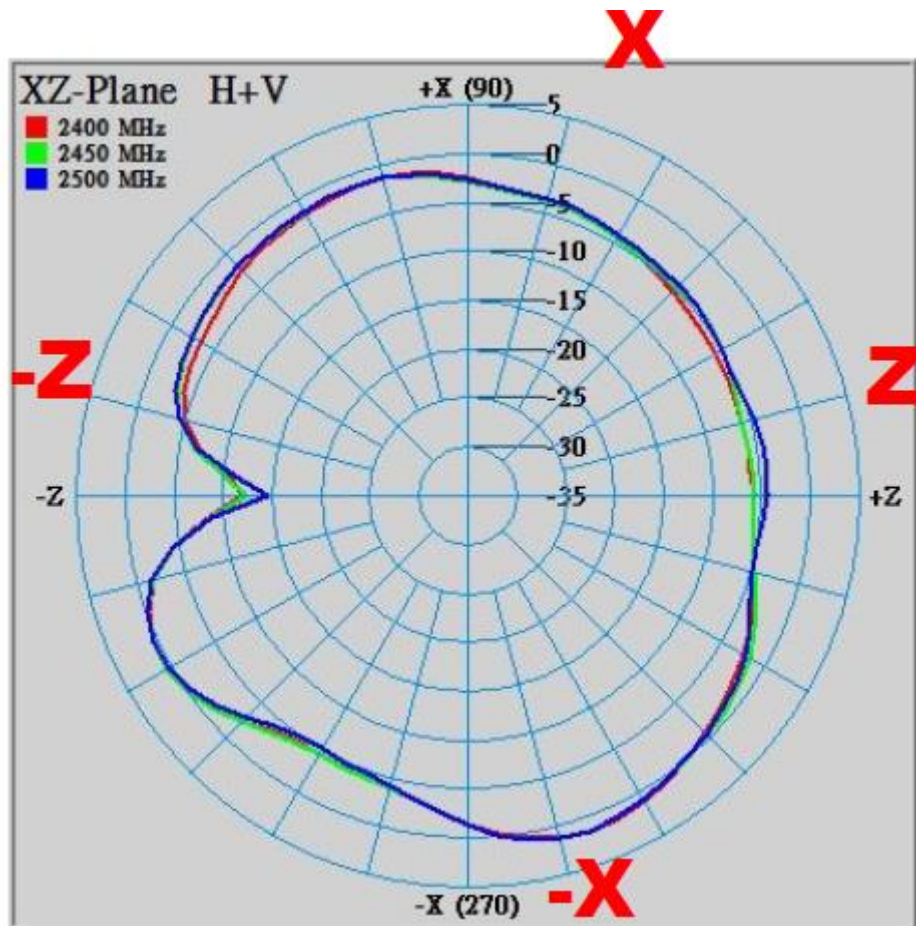
Maximum Efficiency at 5500 MHz : 4.92 dBi

RADIATION PATTERN

2400~2500 MHz

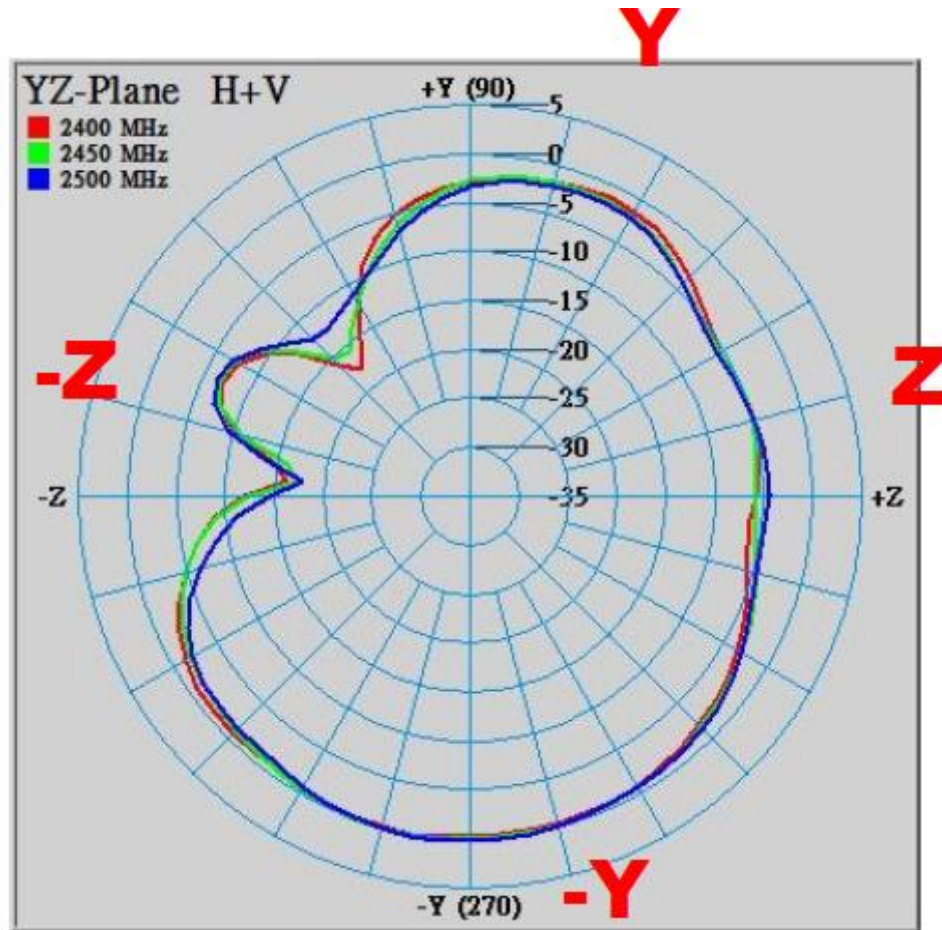
Phi=0.00deg

Gain . dB



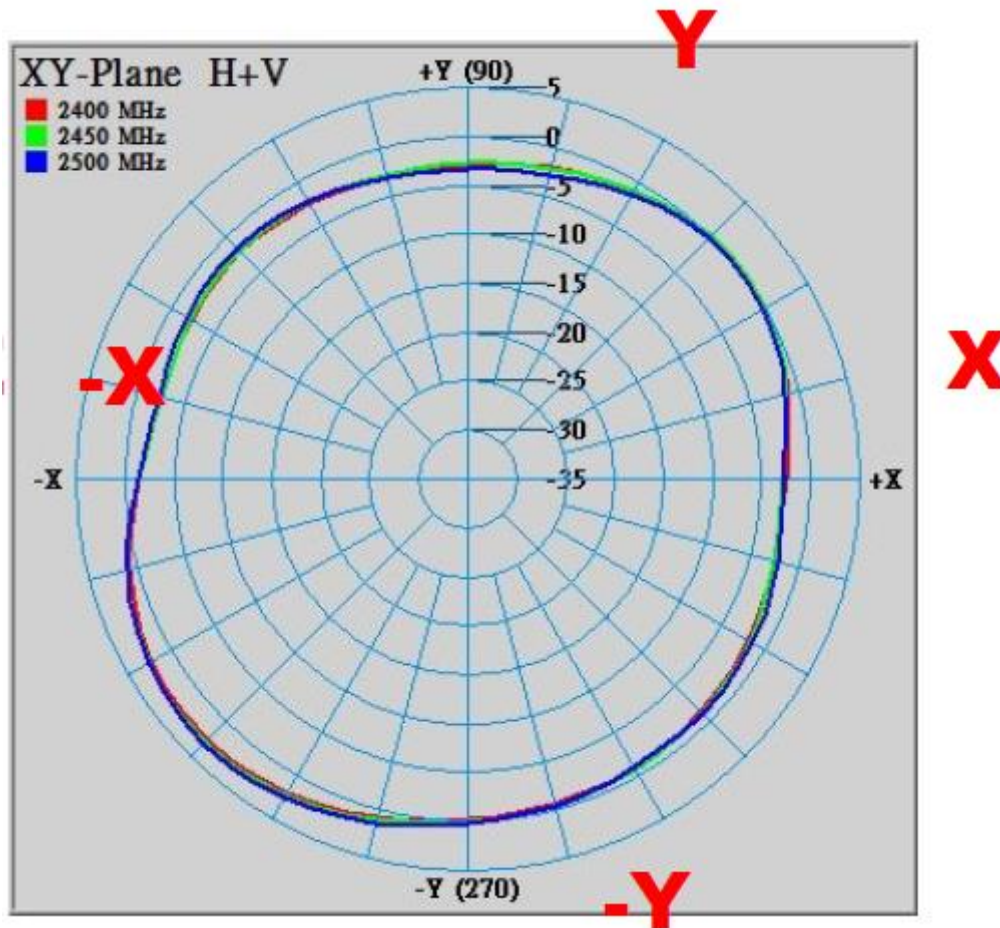
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB

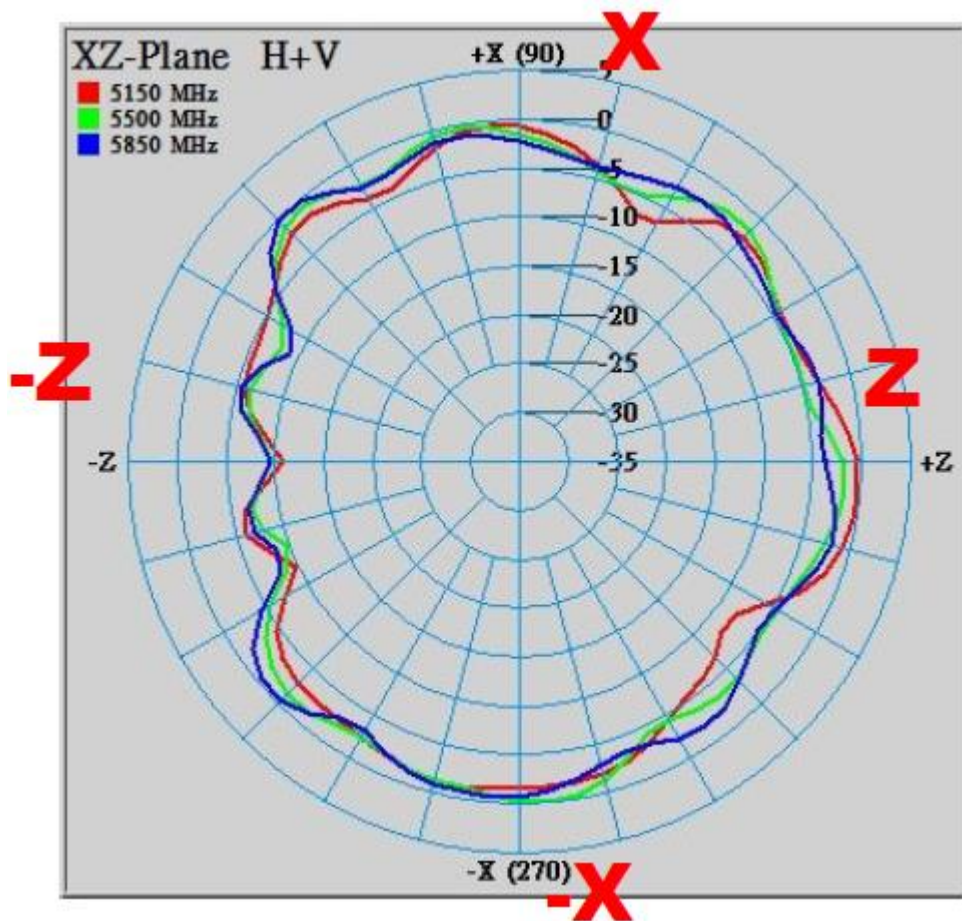


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	1.42	-2.59	-0.04	-3.13	2.66	-0.66
2450	1.43	-2.40	0.08	-3.16	3.00	-0.48
2500	1.37	-2.43	0.24	-3.23	3.14	-0.44

5150~5850 MHz

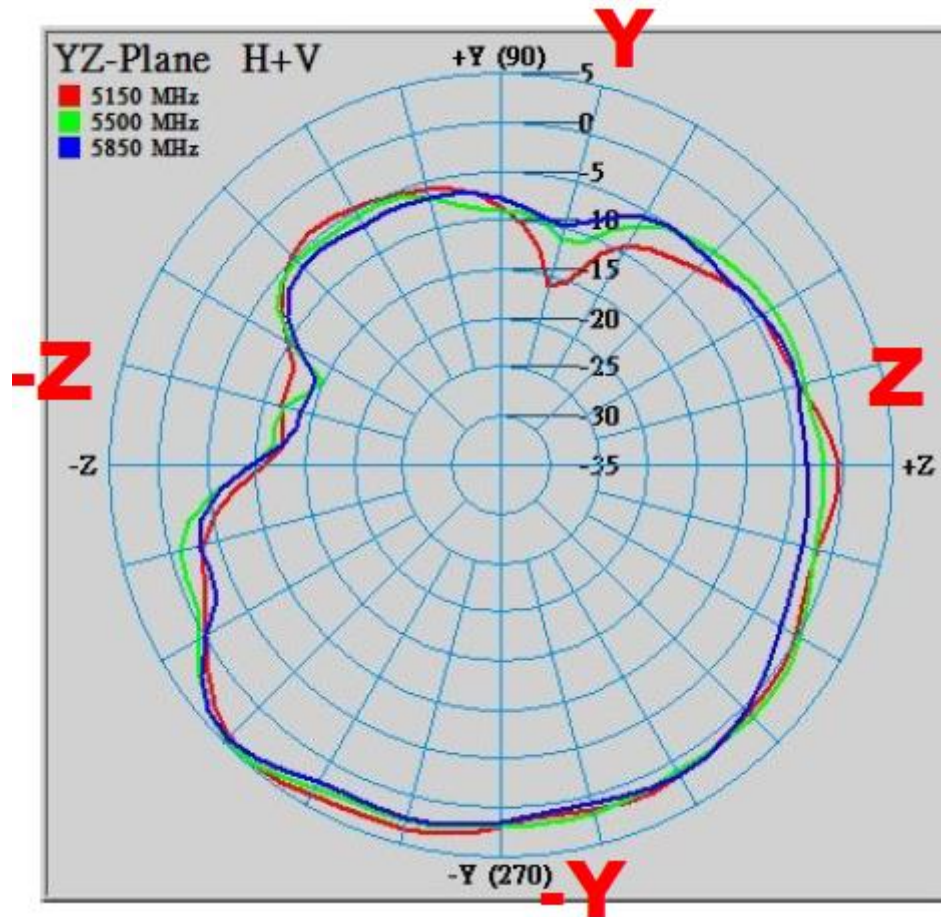
Phi=0.00deg

Gain . dB



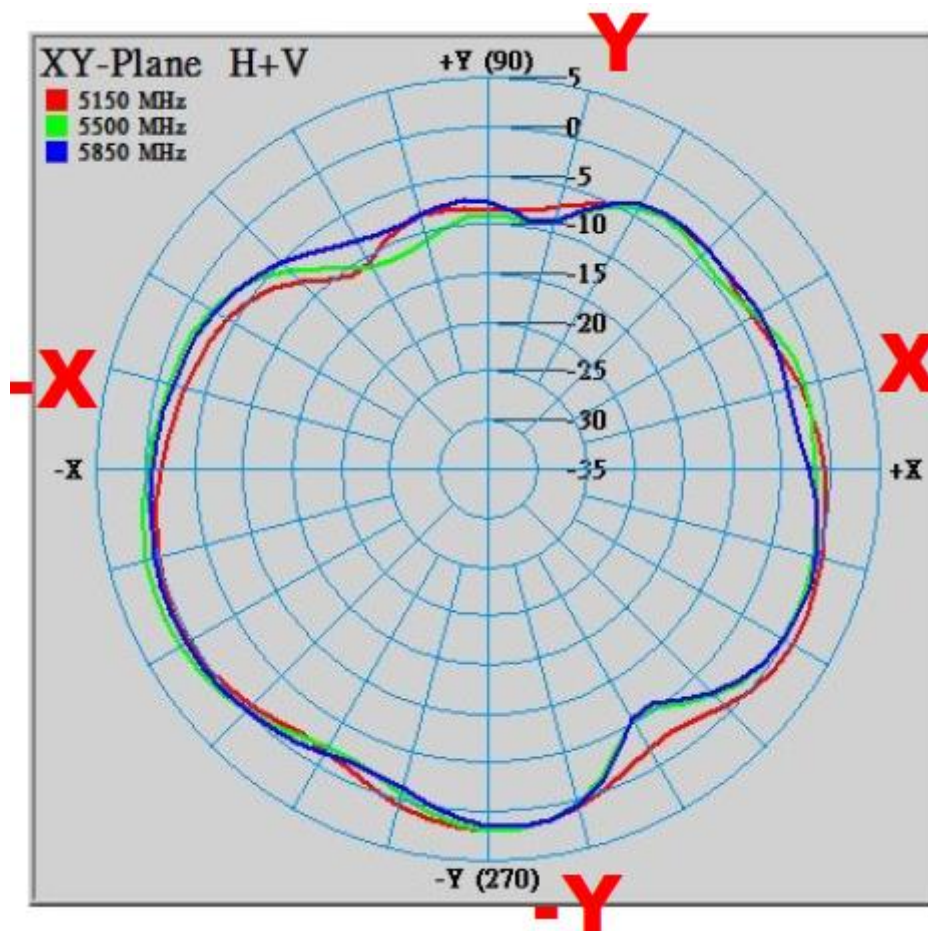
$\Phi = 90.00^\circ$

Gain . dB



Theta=90.00deg

Gain . dB



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	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