

APPROVAL SHEET

Dipole ANTENNA
802.11 b/a Series
2.4/5.x GHz Dual Band Working Frequency
Halogens Free Product
P/N: RFDPA161300SBLB803

Customer : _____
Customer 's Part No. : _____
Approval No. : _____
Issue Date : _____

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

ELECTRICAL CHARACTERISTICS

Item	Specification
Frequency Range	2.4~2.5GHz / 5.15~5.85GHz
Impedance	50 Ohm Nominal
Return loss	$X \leq -10$ dB
Radiation	Omni-directional
Gain(peak)	2GHz:1.61dBi / 5GHz:3.47dBi
Polarization	Linear Vertical
Admitted Power	1W

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

MATERIAL TABLE

Items	Description
Cable	RG178(Black)
Antenna Cover	ABS(Black)
Antenna Base	ABS+PC(Black)
Connector	Reverse SMA Plug(Black)
Up Brass Tube	Brass
Down Brass Tube	Brass
Heat Shrink Tube	Black
Sponge	Black
Rivet	POM(Black)
Color Ring	PP(Gray)

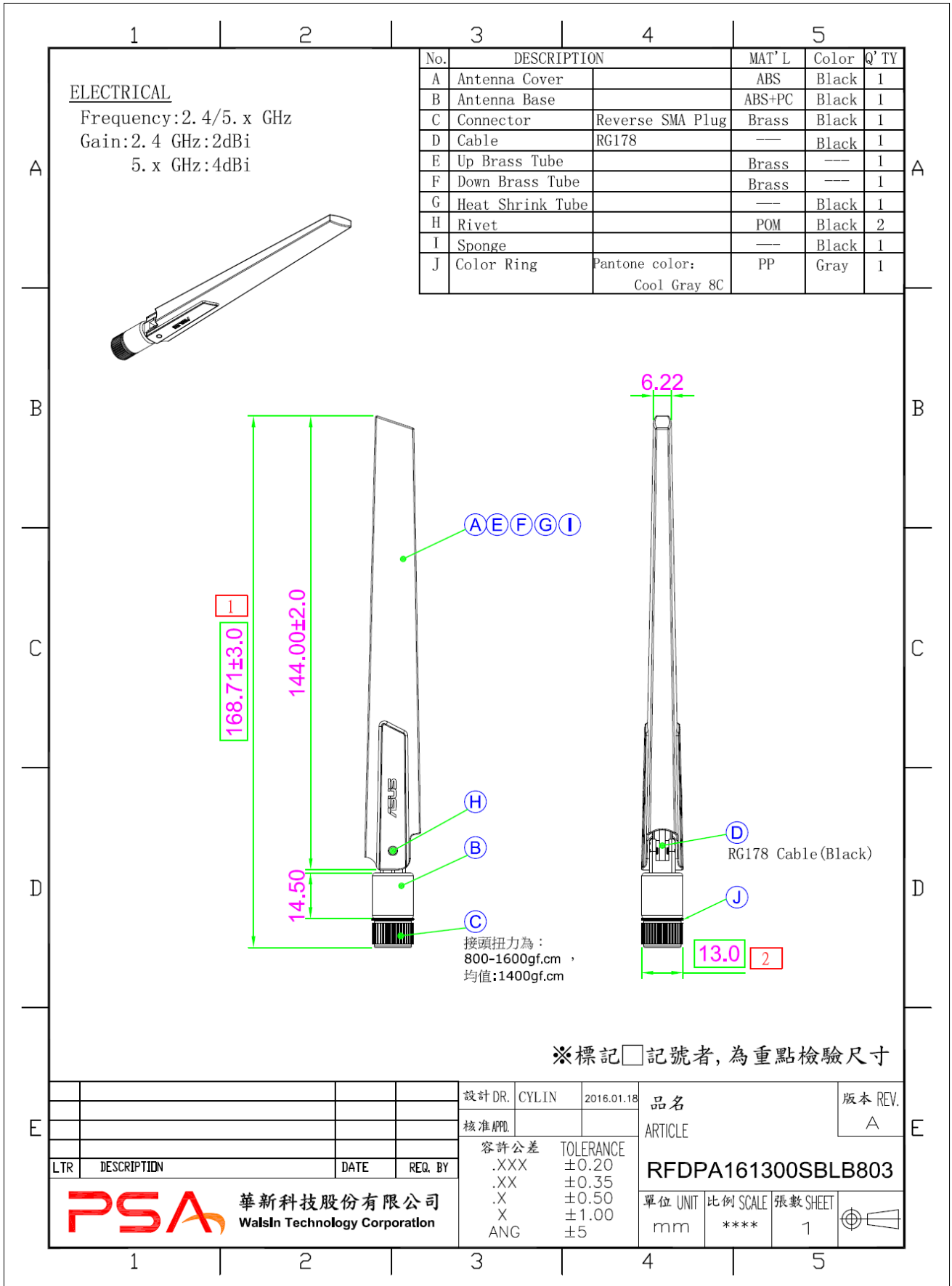
PEAK GAIN TABLE

2.4-2.5GHz Gain	1.61 dBi
5G band 1(5180-5240MHz)gain	2.63 dBi
5G band 2(5260-5320MHz)gain	3.08 dBi
5G band 3(5500-5700MHz)gain	3.22 dBi
5G band 4(5745-5825MHz)gain	3.47 dBi

ORDERING RULE

RF	DPA	1613	00	S	B	L	B	8	03
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	DPA: Dipole Antenna	Per 2 digits of length, width e.g.: 1410 Length 143.8mm, Width 10mm	2 digits for cable length e.g.: 00 None Cable	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 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

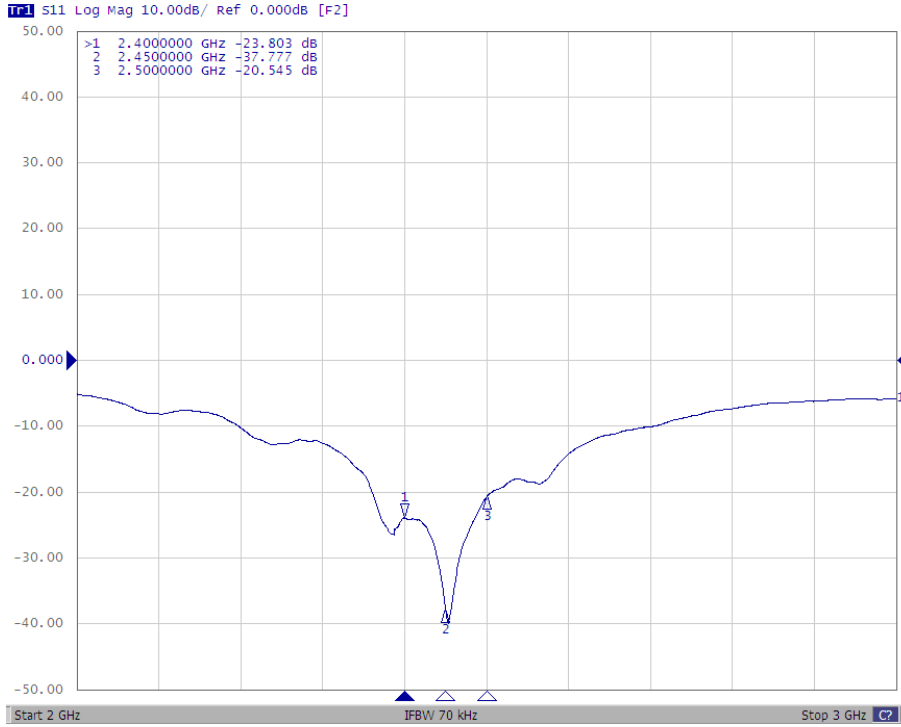
Appendix A: Dimensions



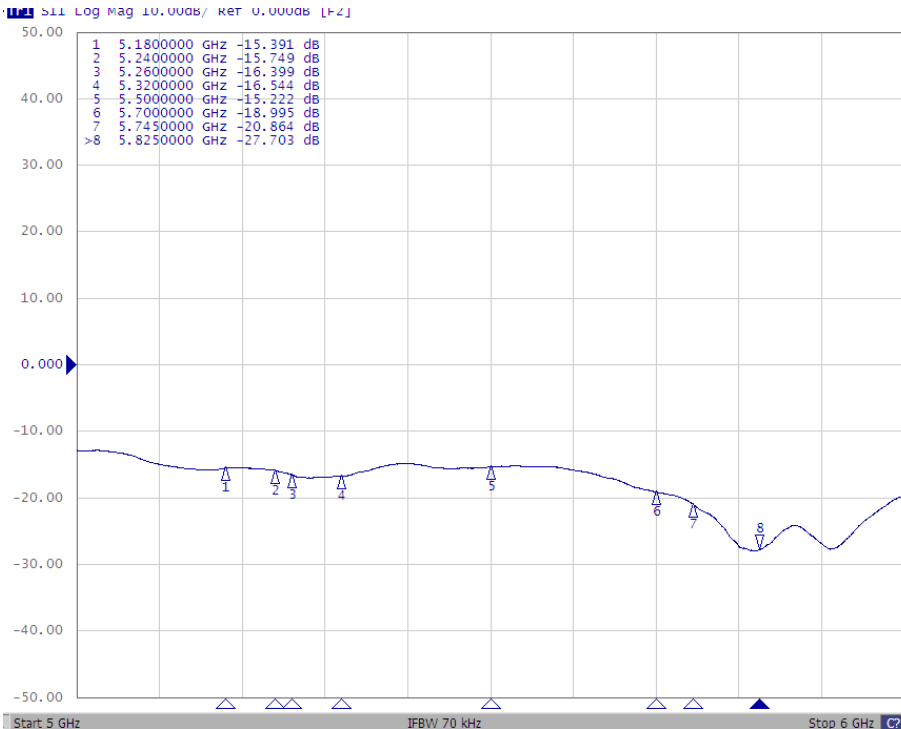
Test Report

ELECTRICAL CHARACTERISTICS

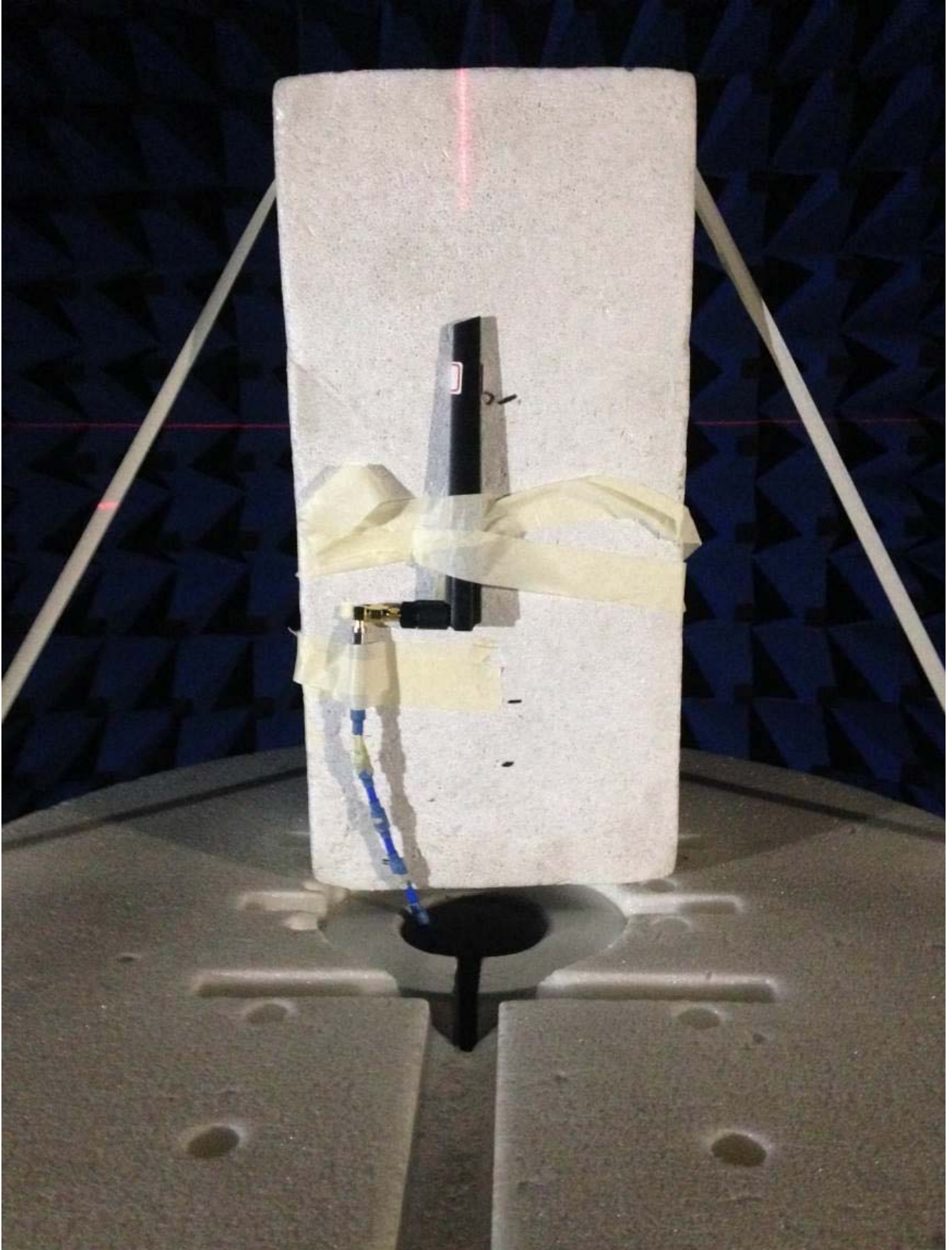
2.4GHz Return Loss



5.xGHz Return Loss



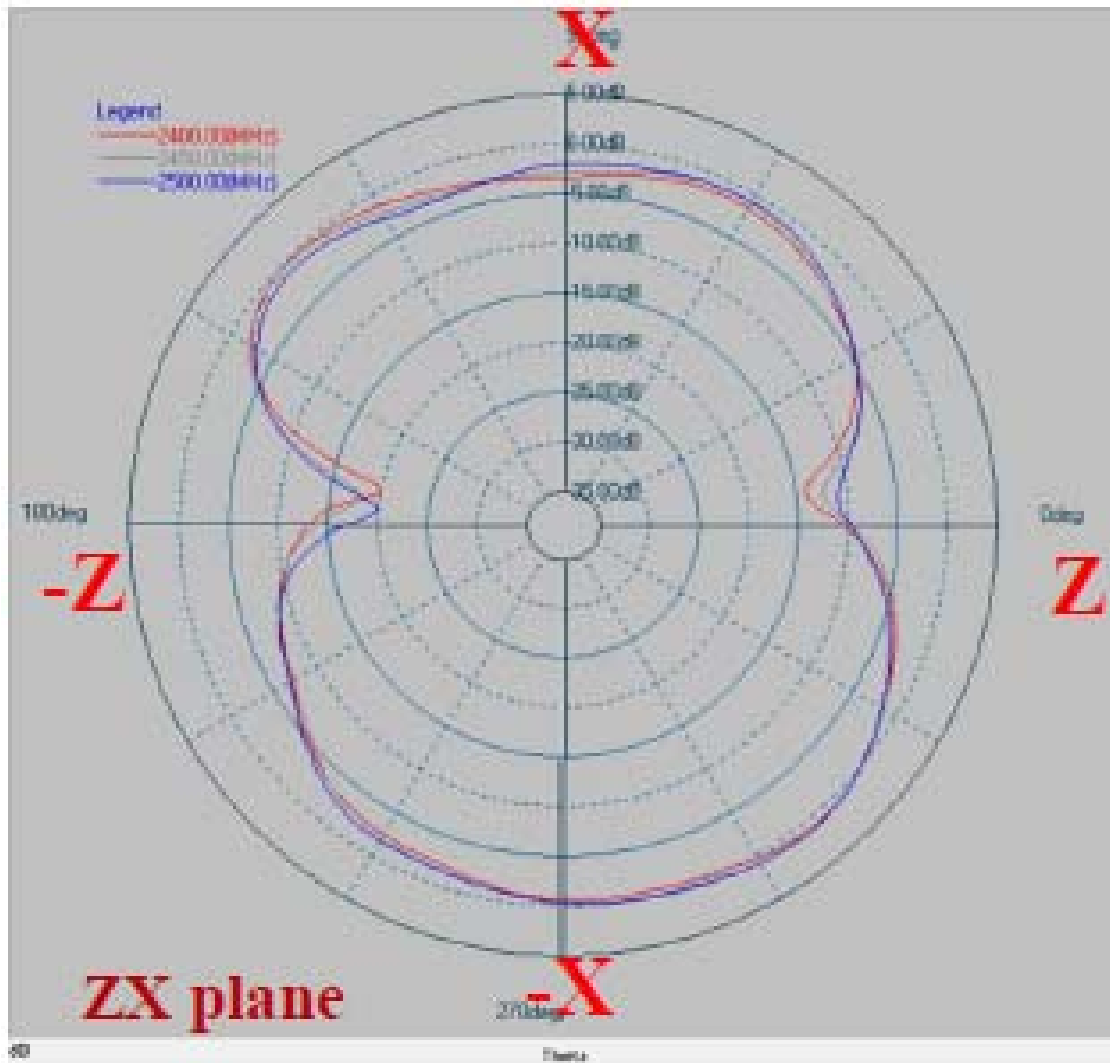
EXPERIMENTAL SETUP



RADIATION PATTERN
2400~2500 MHz

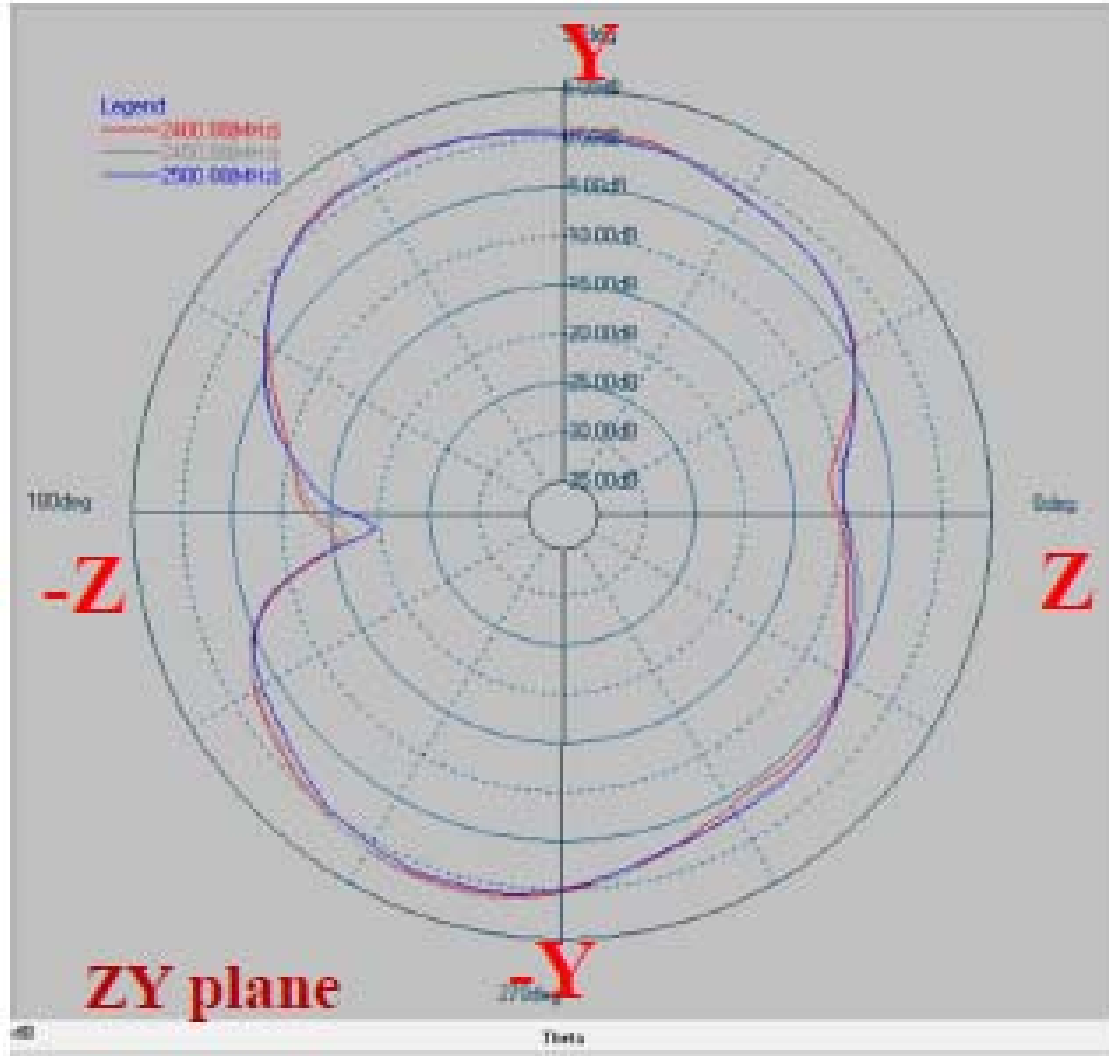
Phi=0.00deg

Gain . dB



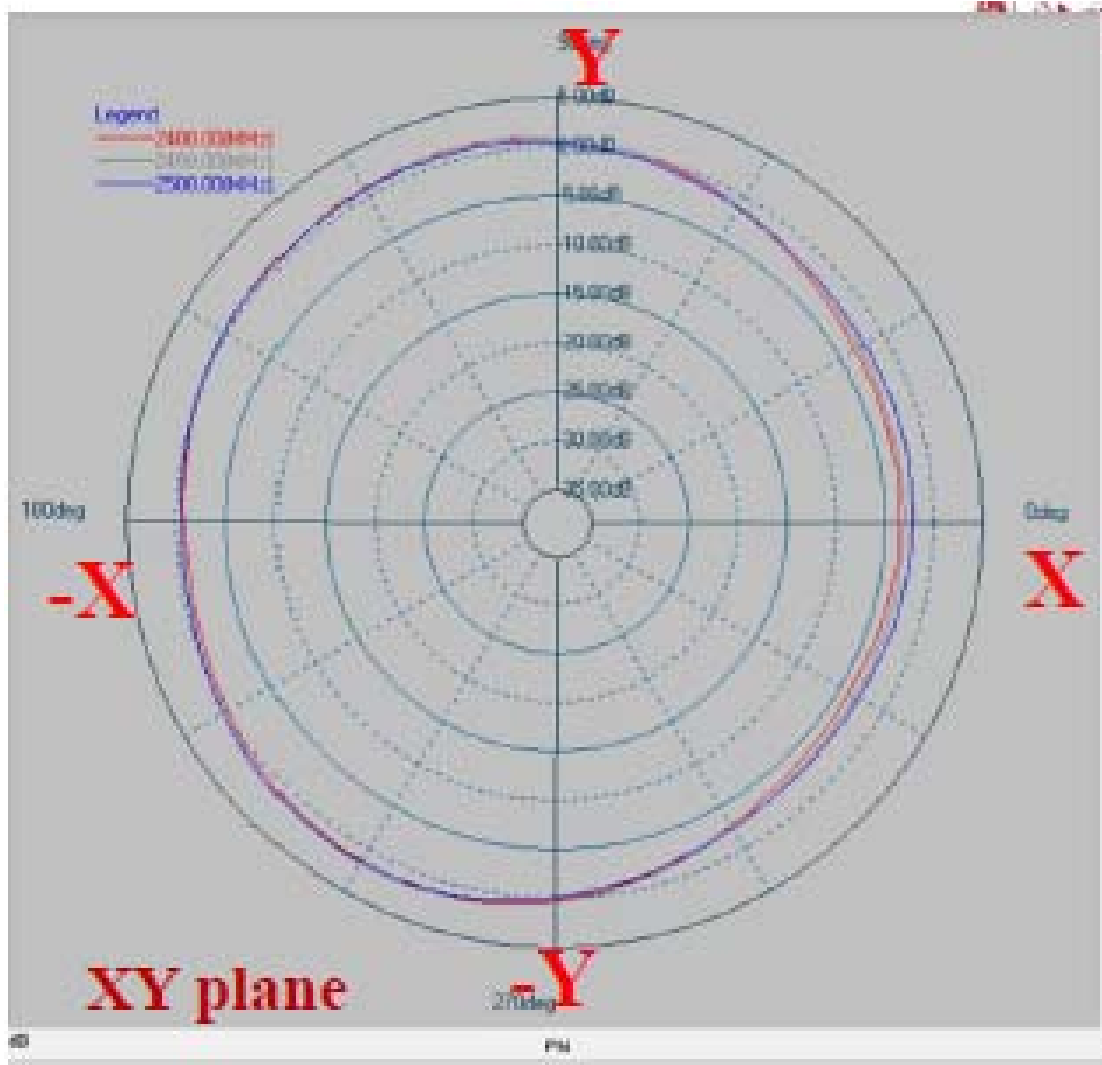
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB

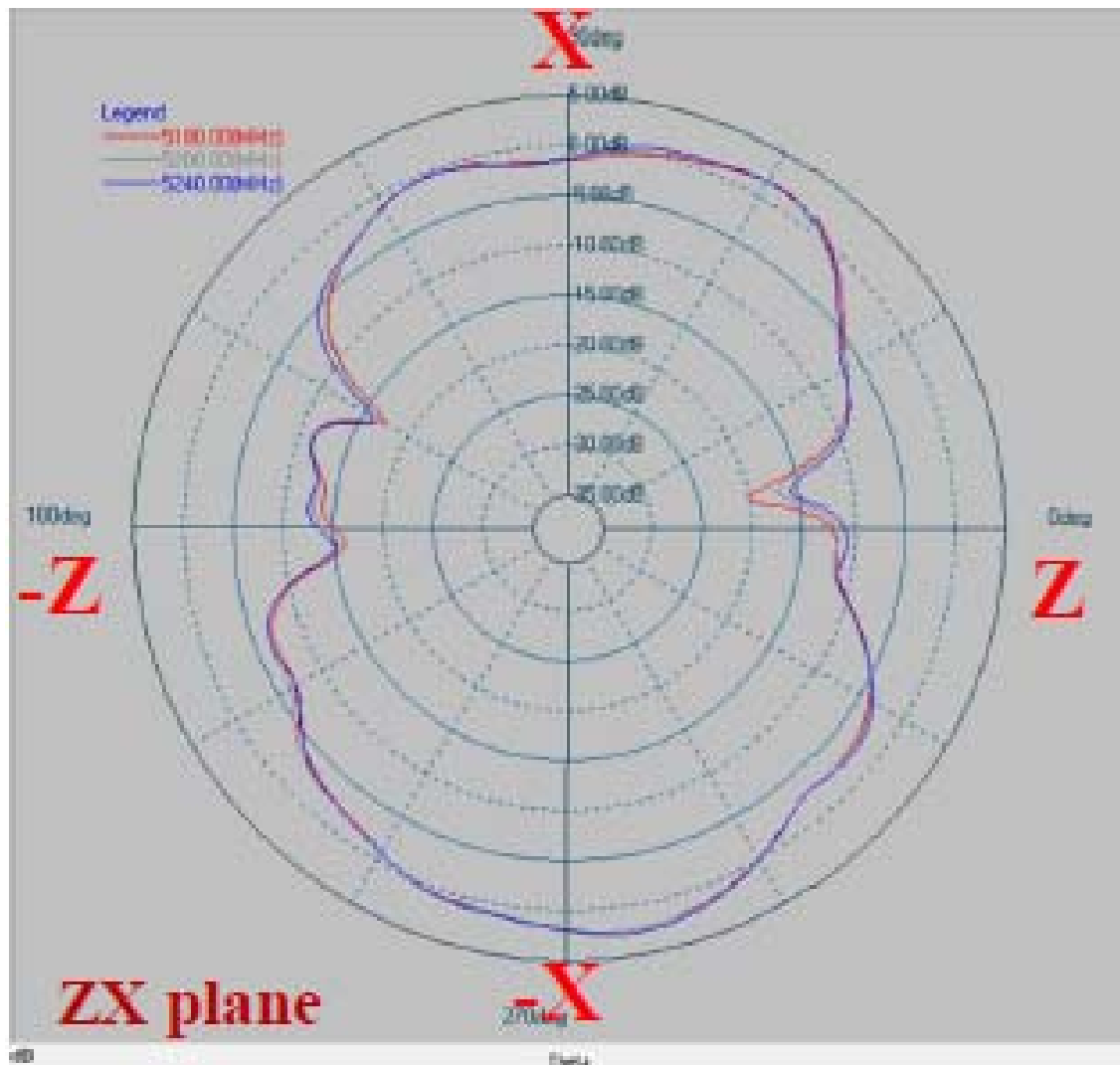


Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	0.76	-2.89	1.52	-1.94	1.34	-0.70
2450	1.11	-2.65	1.51	-1.83	1.61	-0.50
2500	1.02	-2.68	1.18	-2.17	1.43	-0.54

5G Band 1
5180~5240 MHz

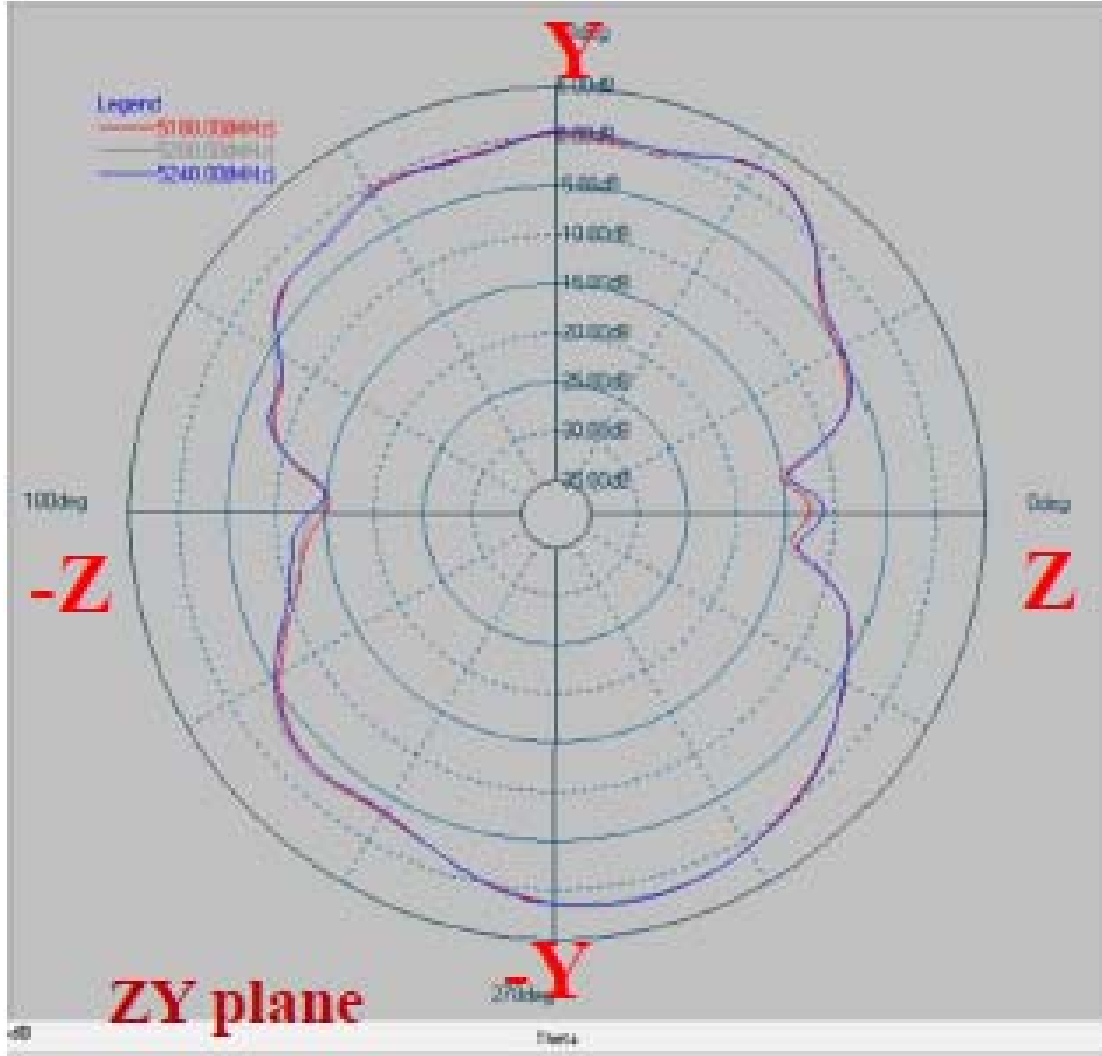
Phi=0.00deg

Gain . dB



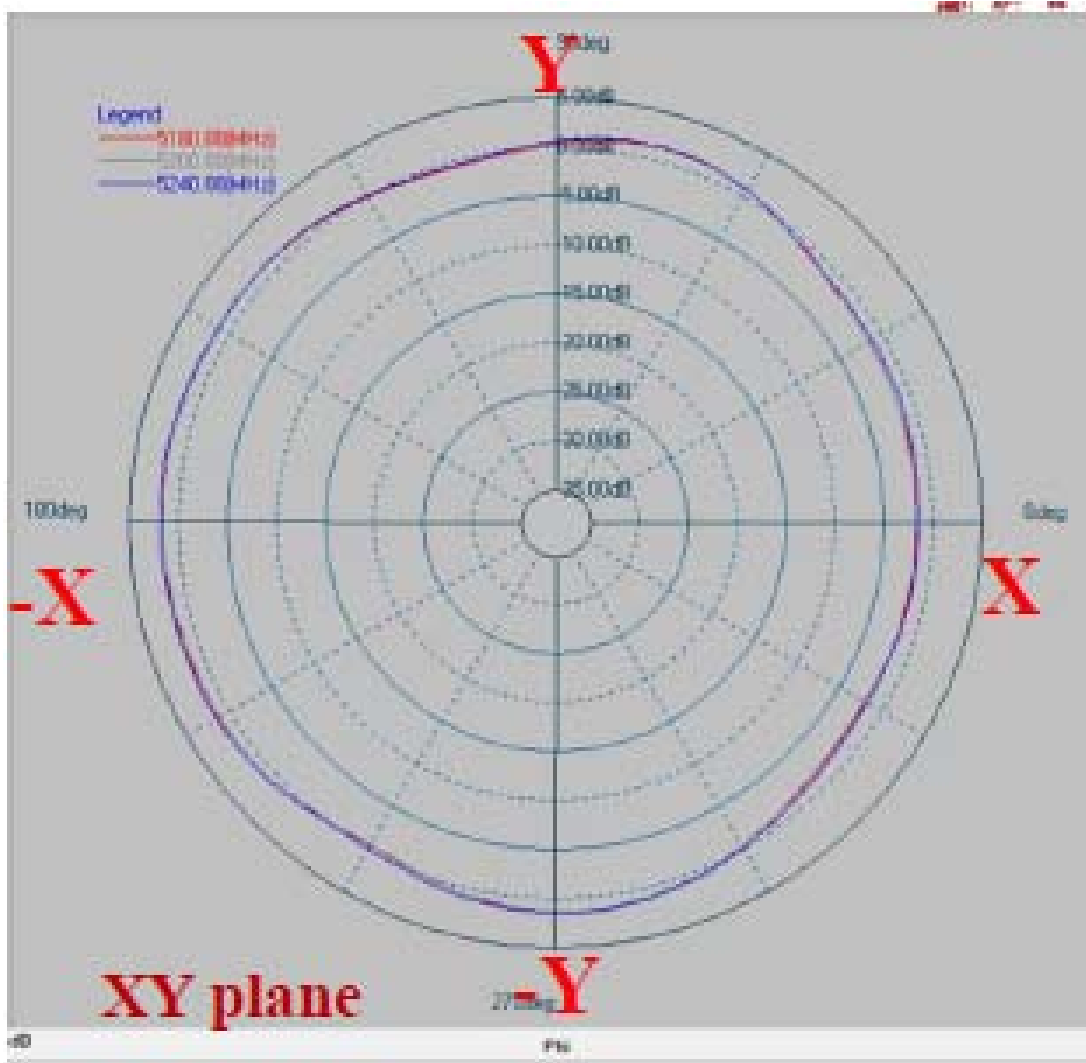
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB

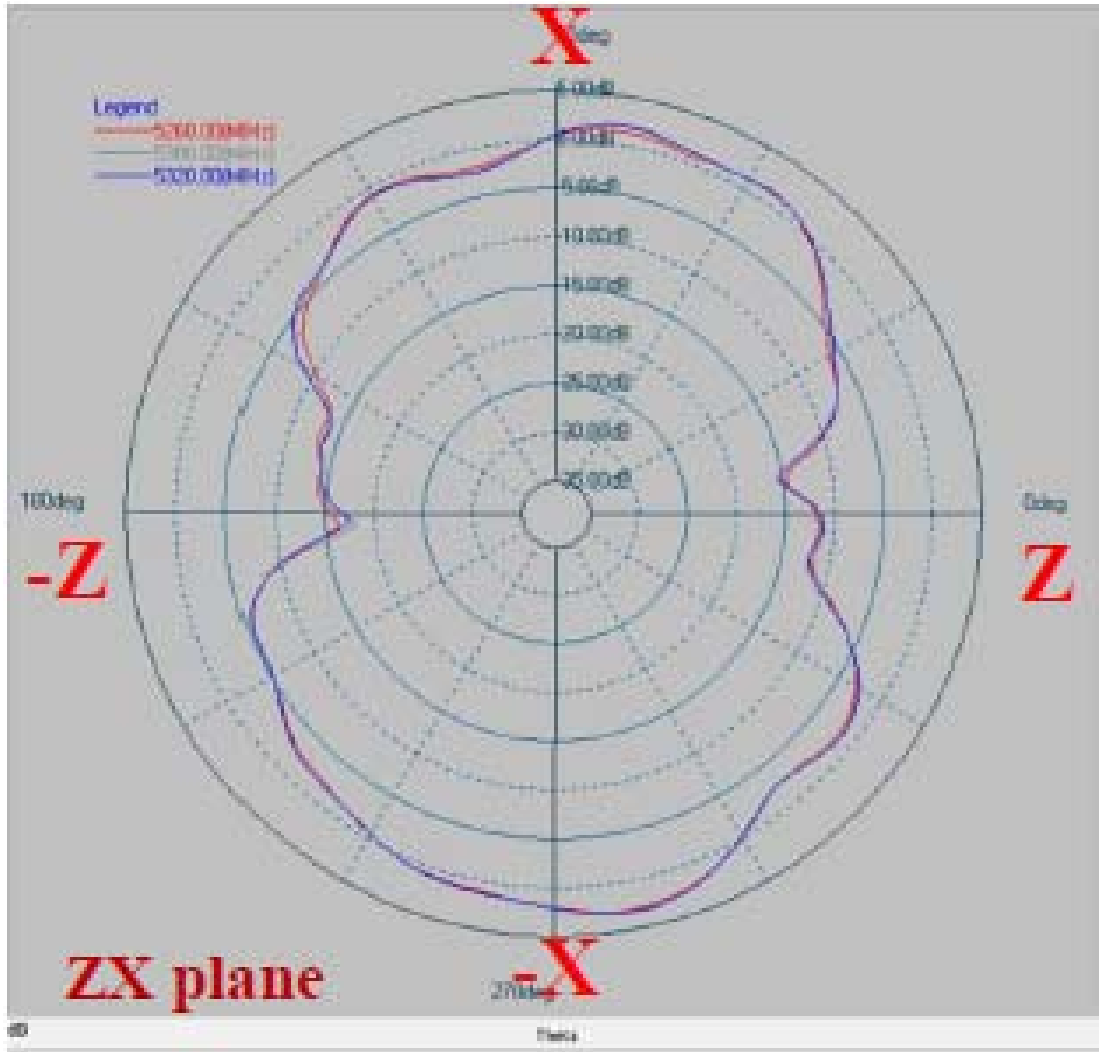


Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
5180	2.28	-2.33	2.38	-2.14	1.75	0.14
5200	2.29	-2.29	2.55	-2.03	1.78	0.17
5240	2.63	-2.16	2.43	-2.03	1.91	0.33

5G Band 2
5260~5320 MHz

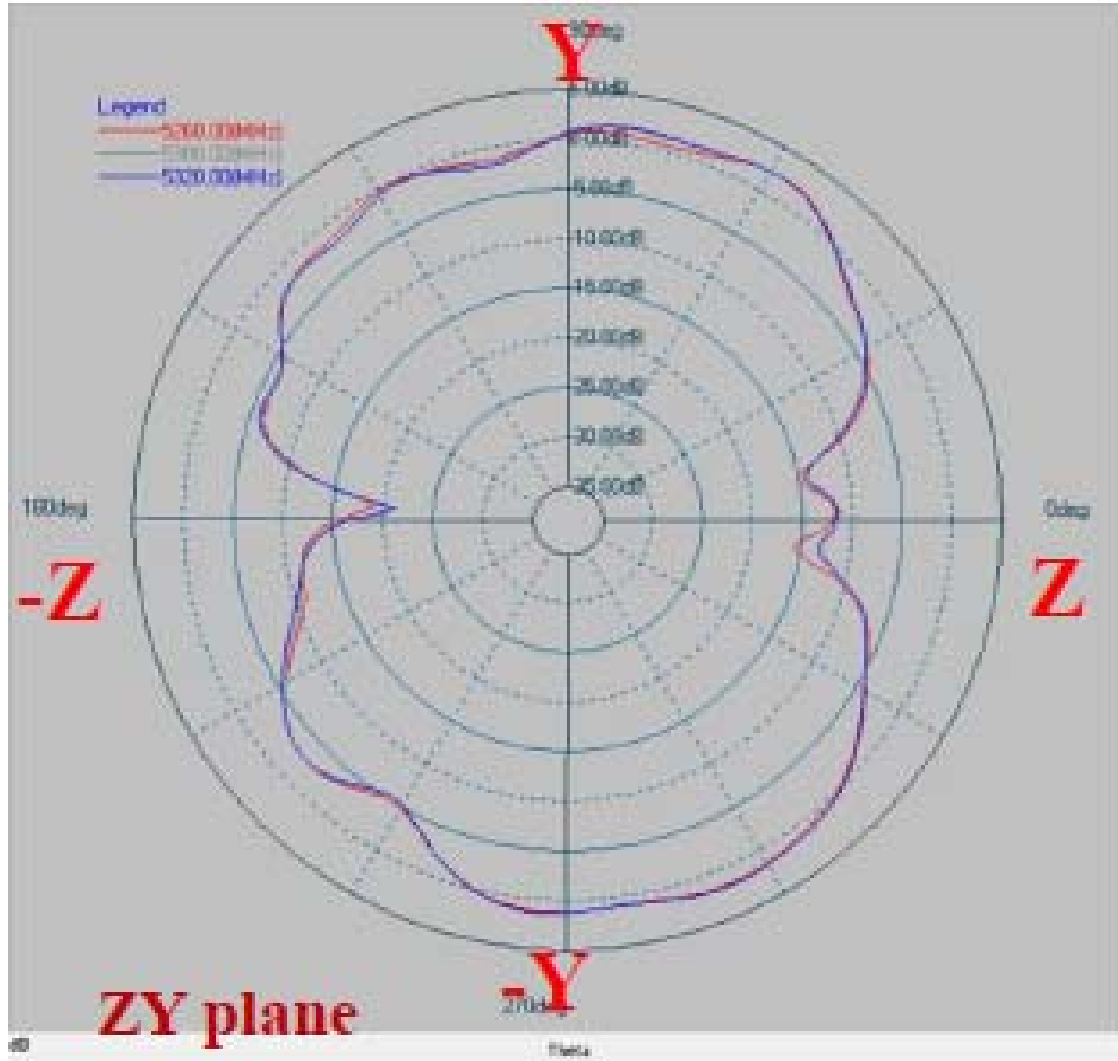
Phi=0.00deg

Gain . dB



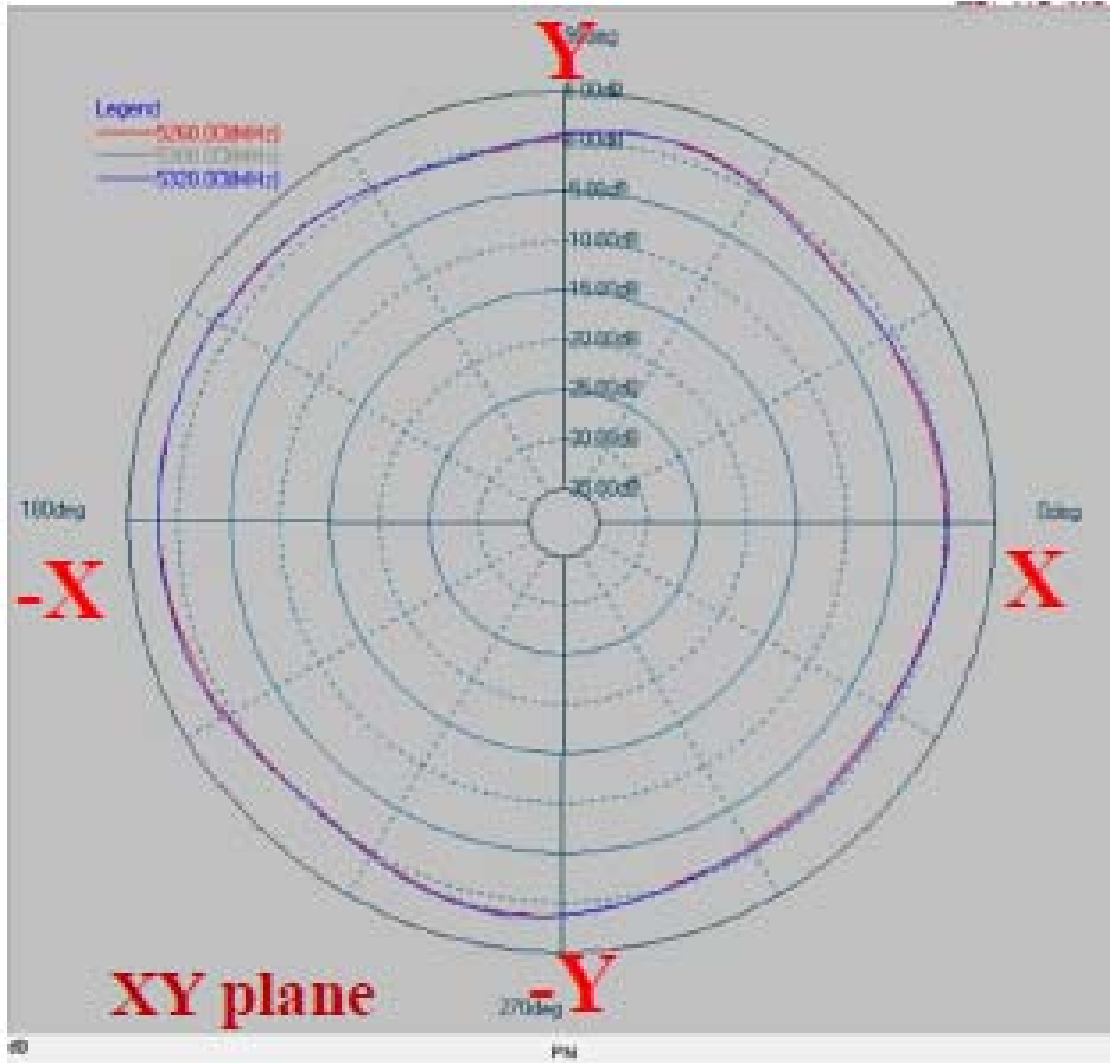
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB

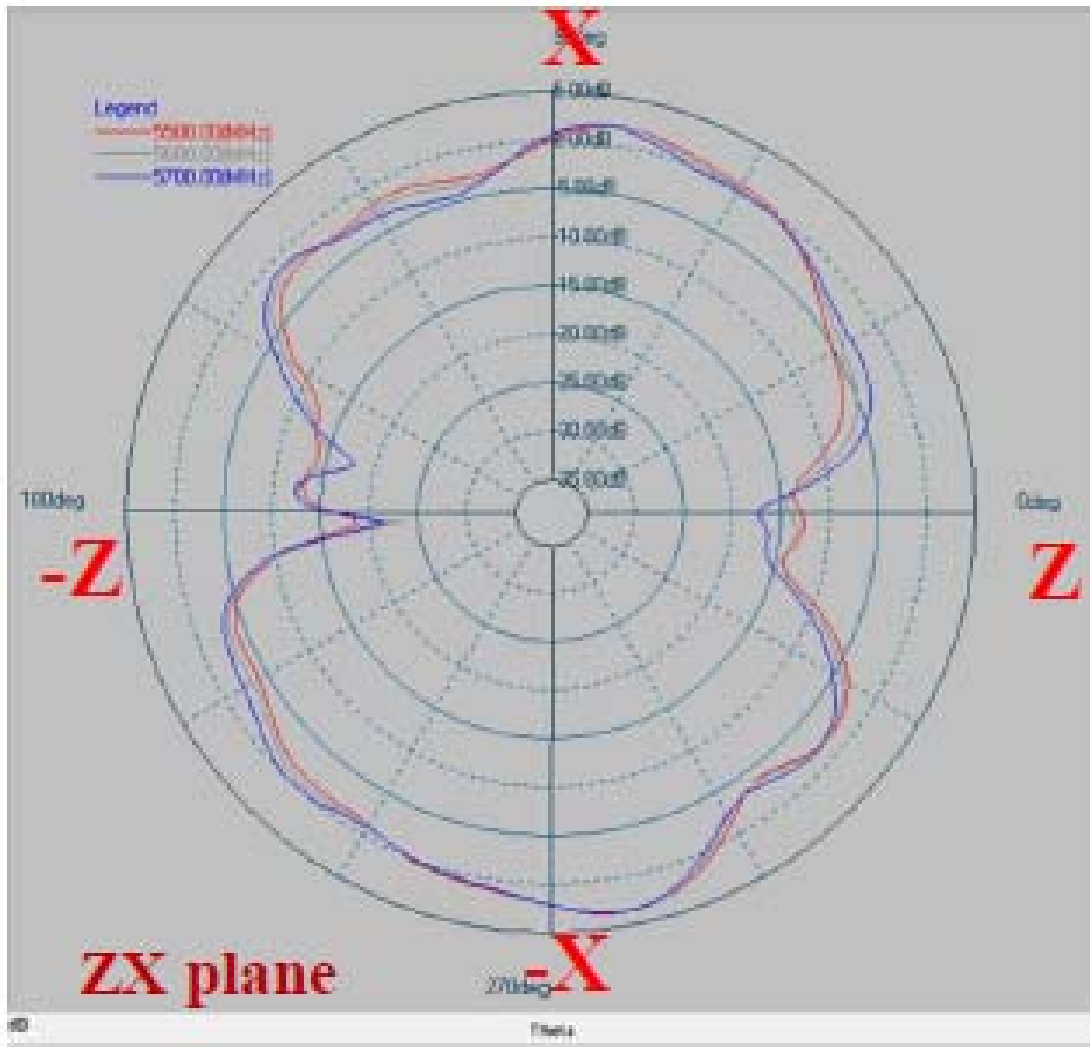


Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
5260	2.82	-1.96	2.18	-1.90	2.00	0.40
5300	2.98	-1.83	2.02	-1.85	1.96	0.47
5320	3.08	-1.83	2.03	-1.82	2.01	0.53

5G Band 3
5500~5700 MHz

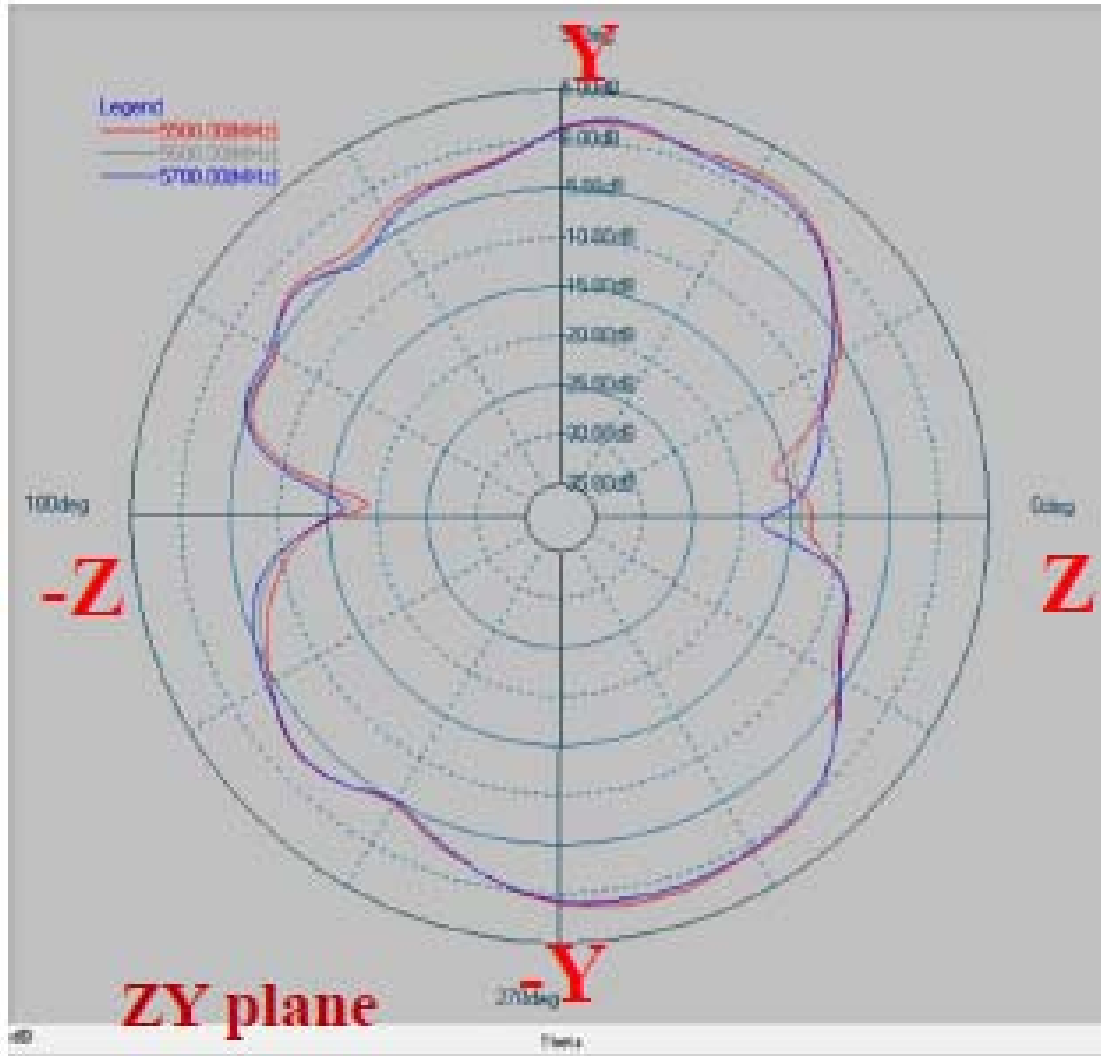
Phi=0.00deg

Gain . dB



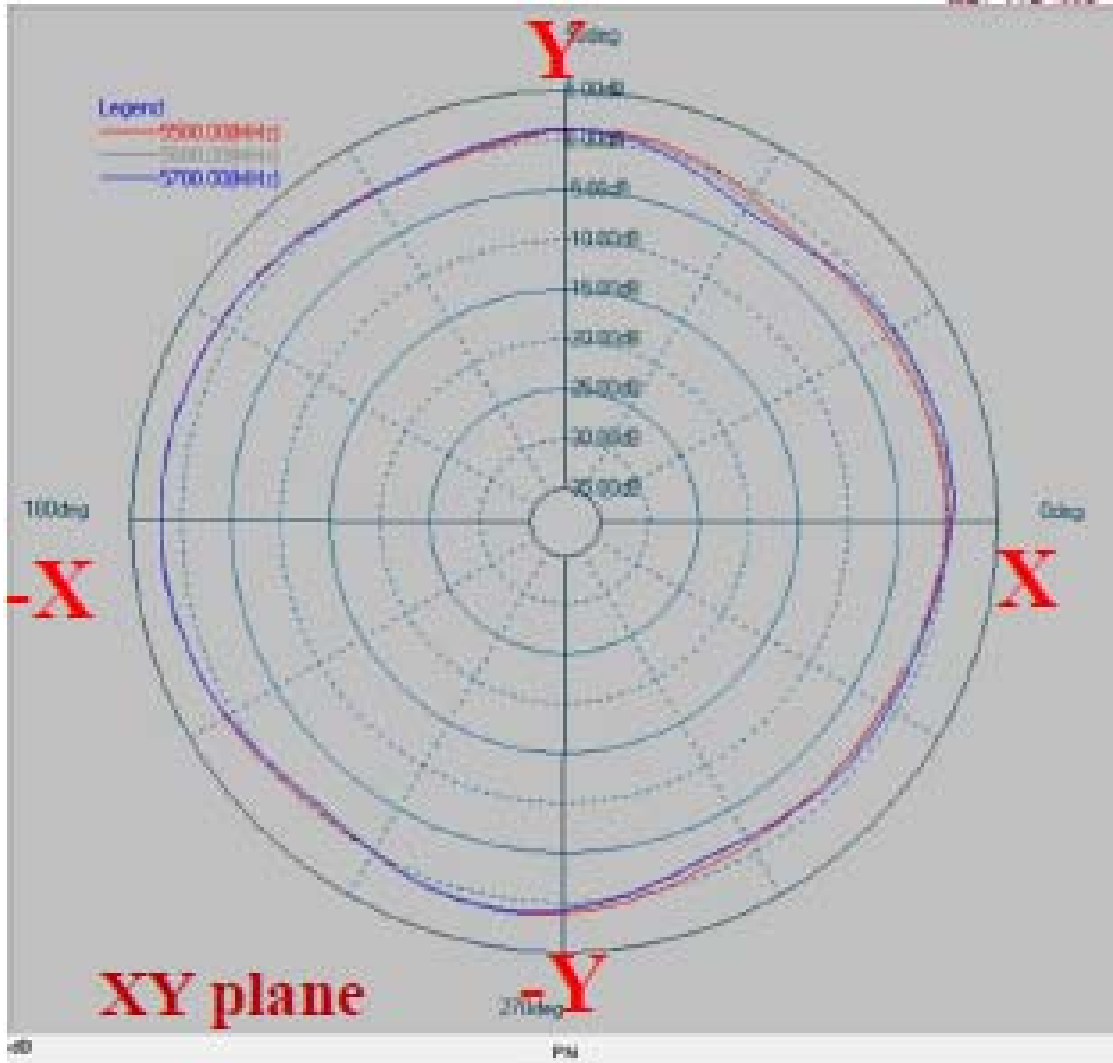
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB

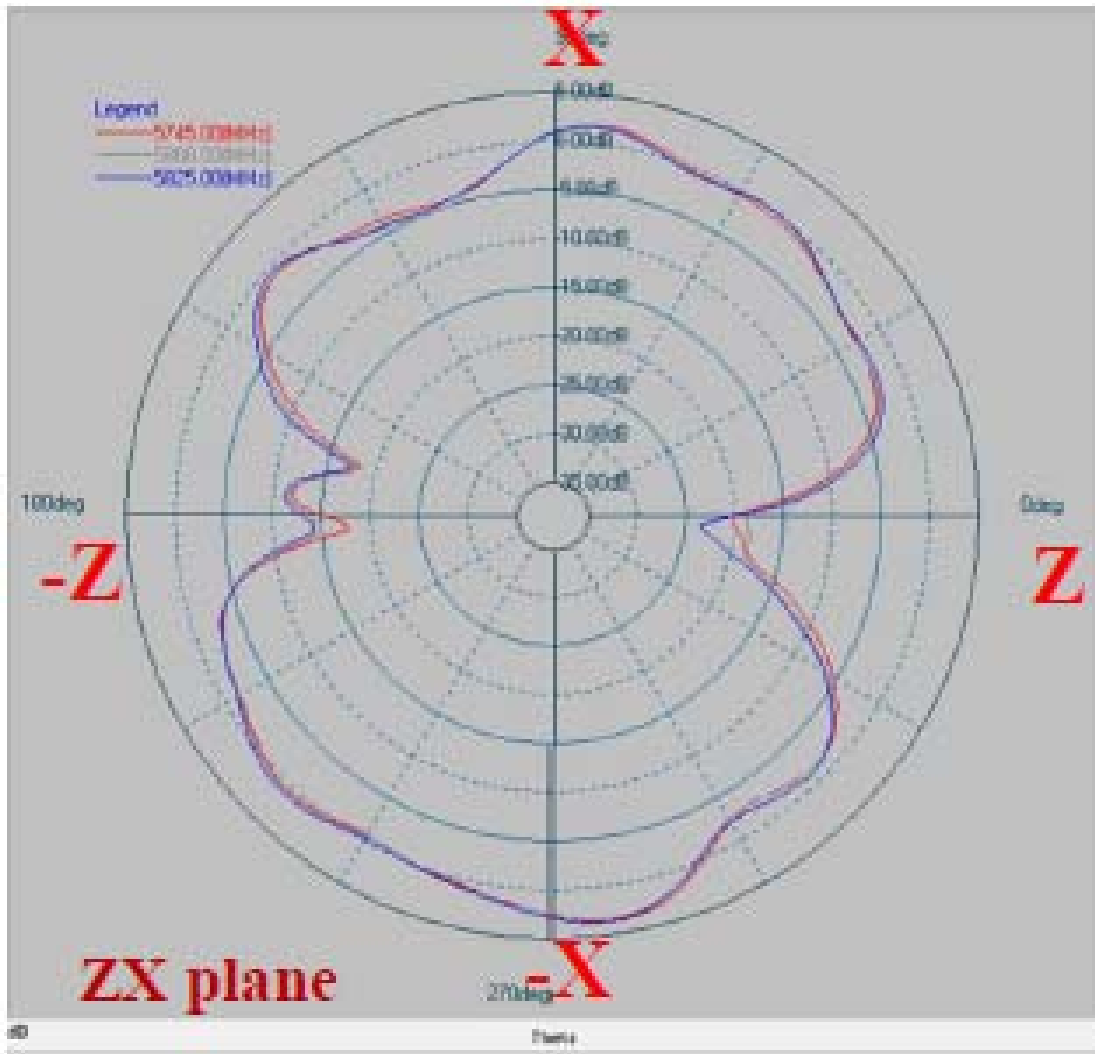


Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
5500	3.11	-1.80	1.90	-2.15	1.99	0.20
5600	3.22	-1.95	2.05	-2.31	1.99	0.17
5700	3.13	-1.75	2.14	-2.40	2.10	0.21

5G Band 4
5745~5825 MHz

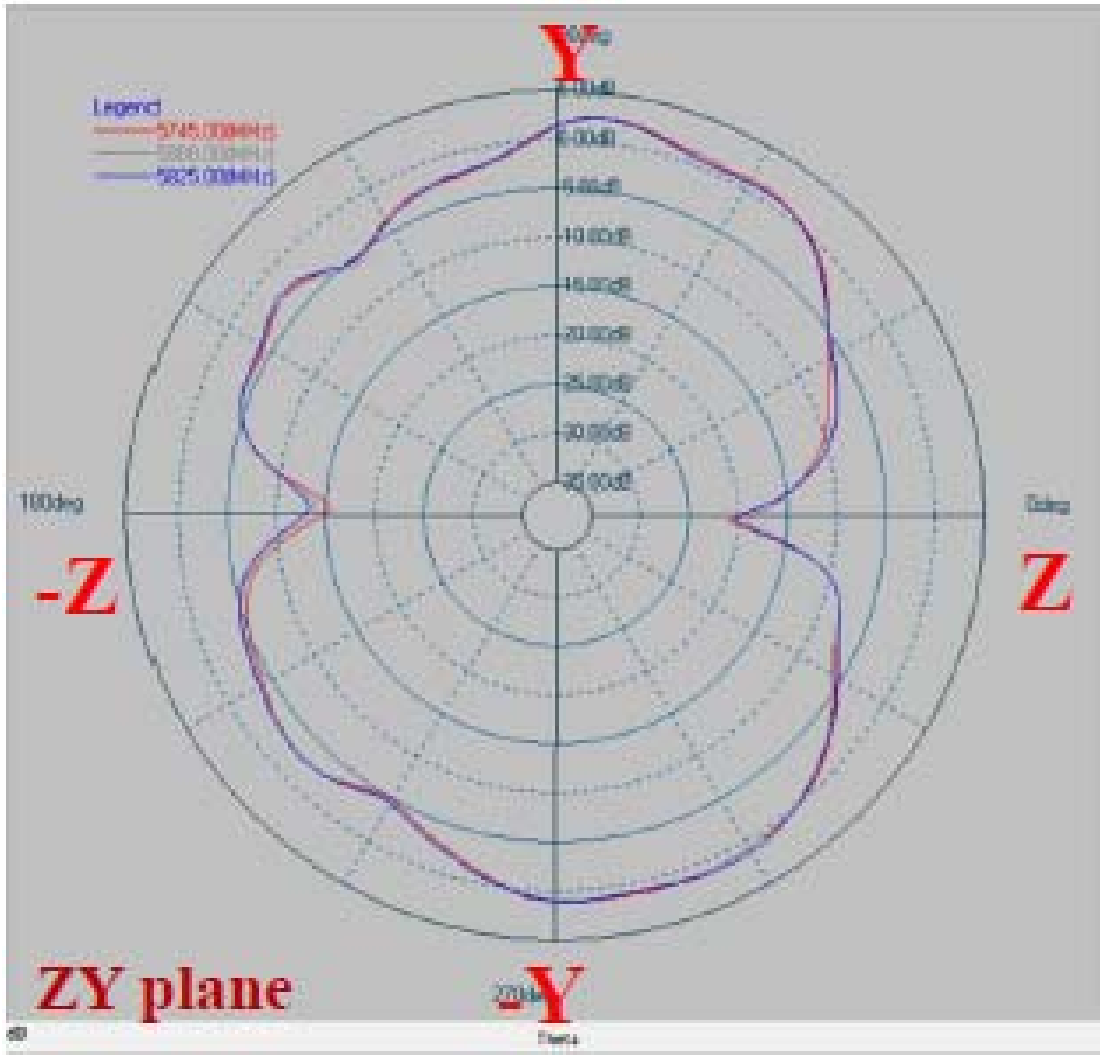
Phi=0.00deg

Gain . dB



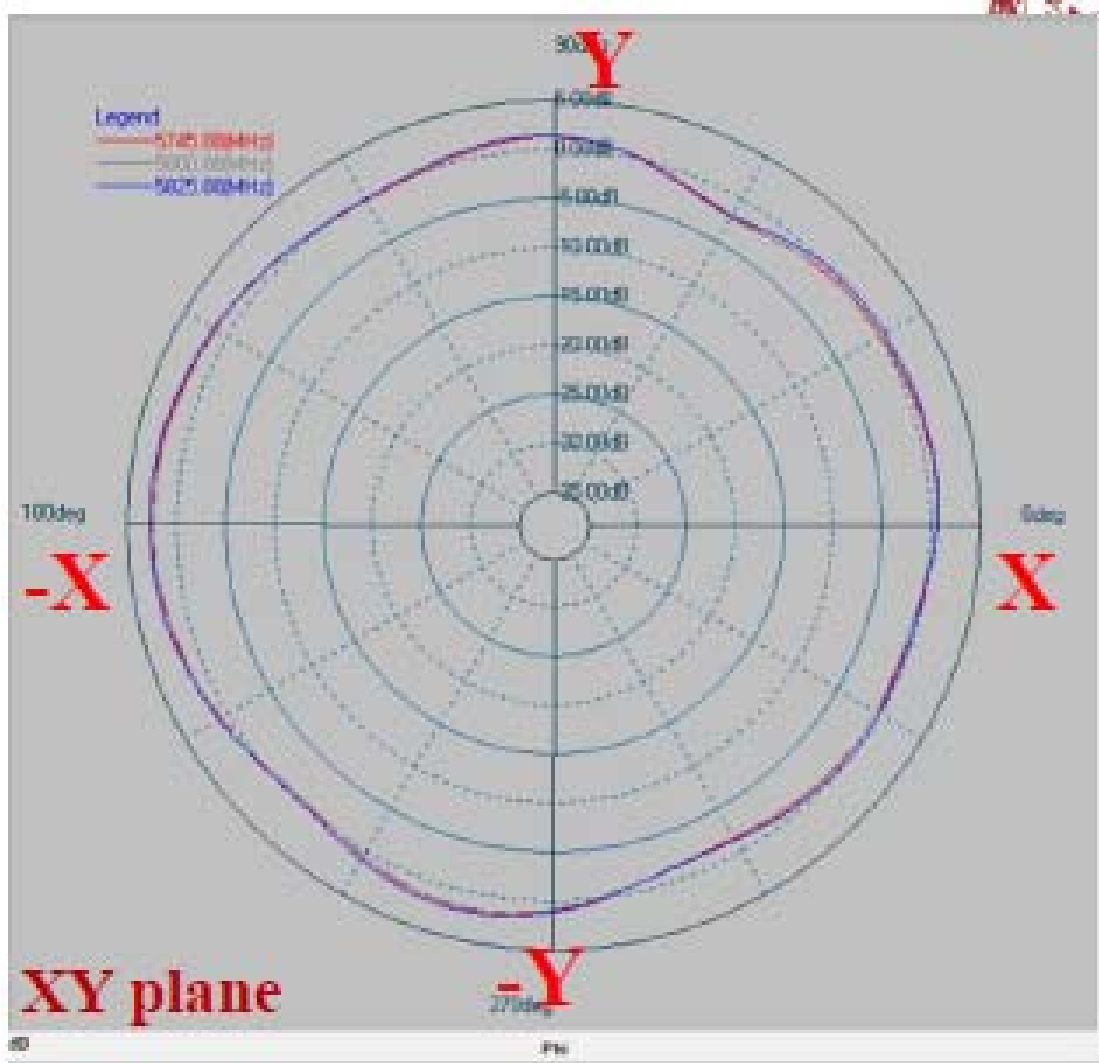
Phi=90.00deg

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]
5745	3.46	-1.74	2.27	-2.29	2.47	0.45
5800	3.15	-1.82	2.18	-2.39	2.39	0.41
5825	3.47	-1.58	2.26	-2.21	2.77	0.66