MULTIBAND LTE DIPOLE ANTENNA

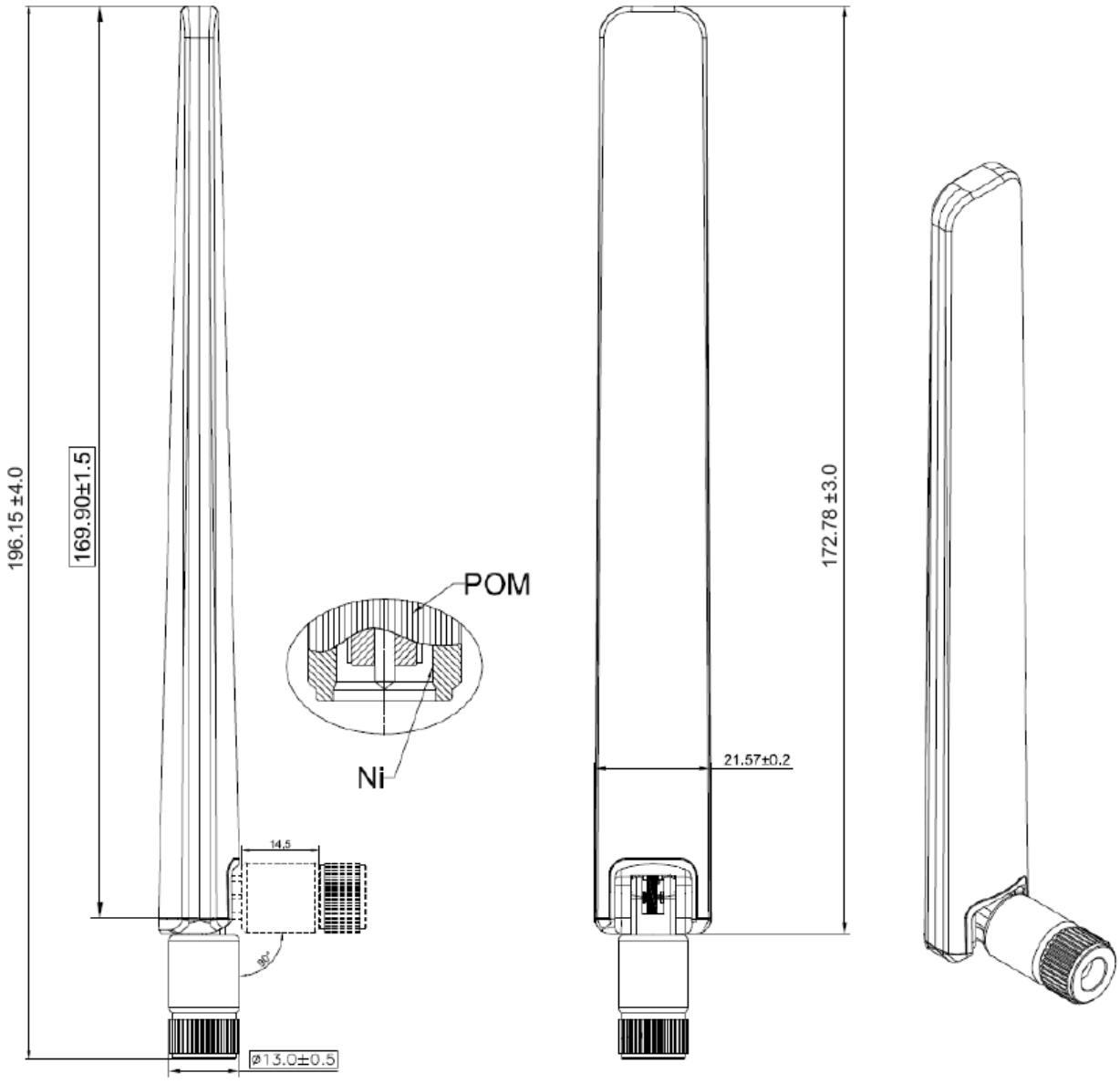
RDP-MBD7-12770215-22M-W-001

- **Covering Bands: 617-960 MHz, 1710-2690MHz, 3300-4200MHz, 5150-7150MHz**
- **Band 71 Inclusive**
- **High Gain**
- **Swivel Connector**

ELECTRICAL SPECIFICATION

PARAMETERS		VALUE				UNIT
Frequency Range		617 ~ 960	1710 ~ 2690	3300 ~ 4200	5150 ~ 7150	MHz
Gain (Peak)		0.93	2.71	3.66	4.37	dBi
Return Loss, max		-6.0		-6.0		dB
VSWR, max		3.0		3.0		-
Polarization		Linear Vertical				-
Radiation Pattern		Omni-Directional				-
Impedance		50				Ω
Power, max		1				W
Operanting Temperature Range		-20 ~ +65				°C
Connector	Type	SMA Plug				-
	Color	Black				-
Cable	Type	RG178				-
	Color	Brown				-
Antenna Cover		ABS (Black)				-
Antenna Down Base		PC (Black)				-
Antenna Up Base		ABS (Black)				-
Rivet		POM (Black)				-
PCB	Type	FR4 (Single Layer)				-
	T	0.8				mm
	Color	Black				-
Sponge +Double Tape		EVA+ 3M9888T				-

■ DIMENSIONS

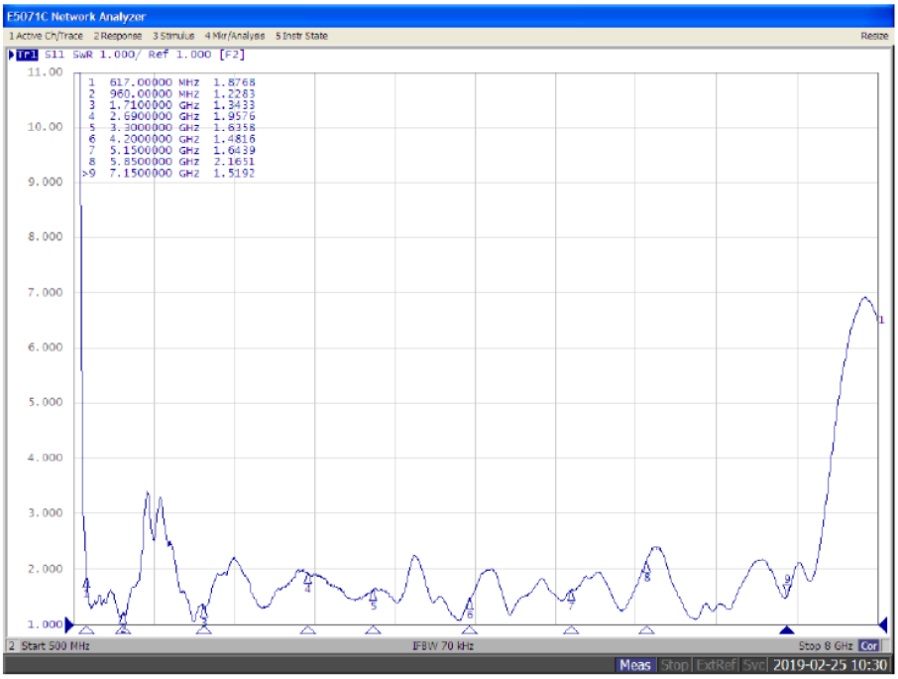


Unit: mm

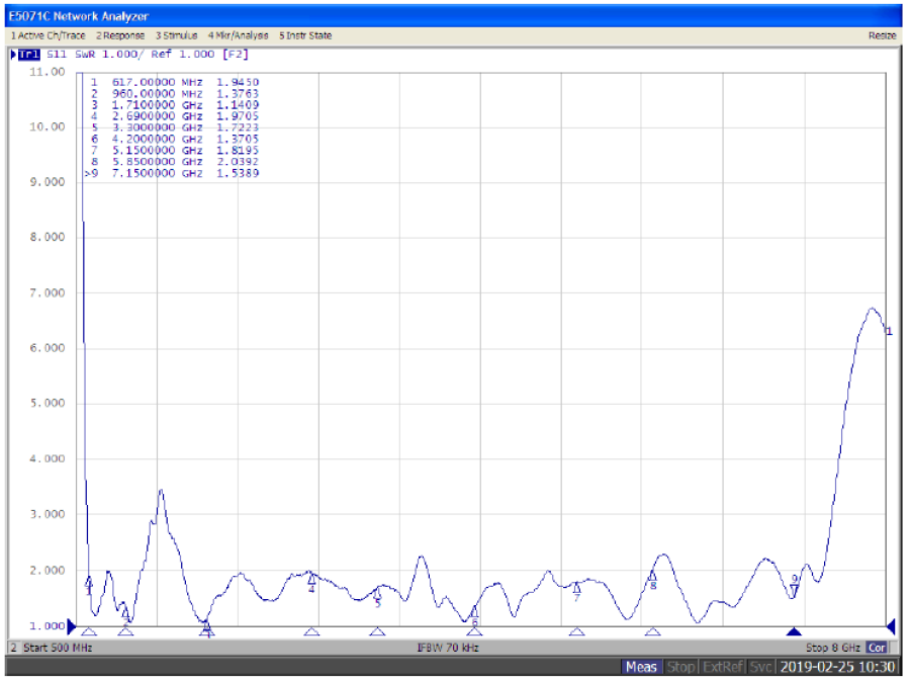
■ FREQUENCY CHARACTERISTICS

VSWR

0 Degree

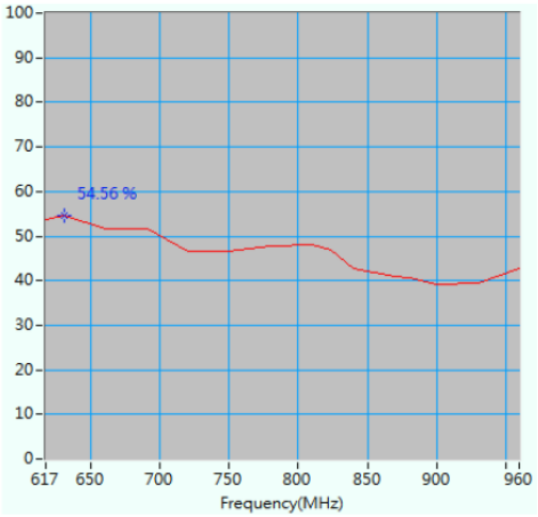


90 Degree

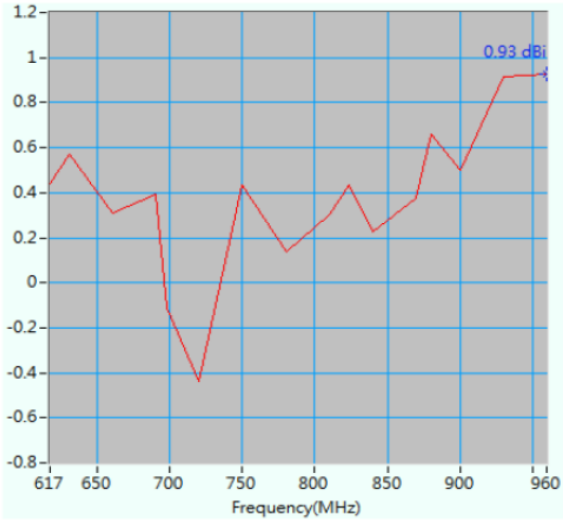


ANTENNA EFFICIENCY & PEAK GAIN

617 ~ 960 MHz

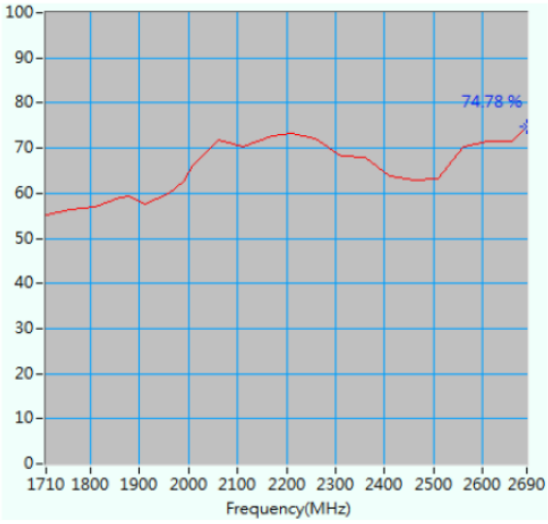


Maximum Efficiency at 630 MHz : 54.5 %

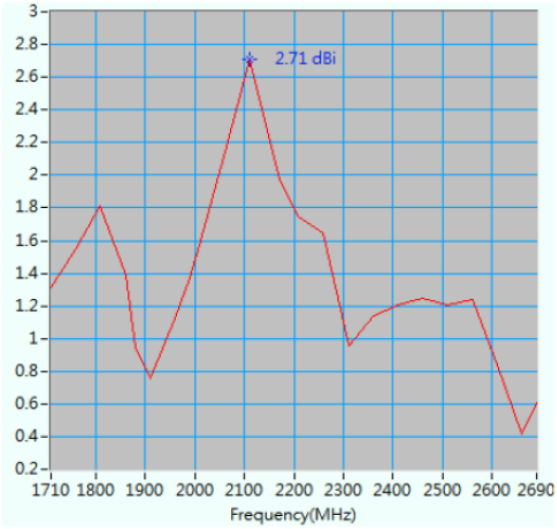


Maximum Peak Gain at 960 MHz : 0.93 dBi

1710 ~ 2690 MHz

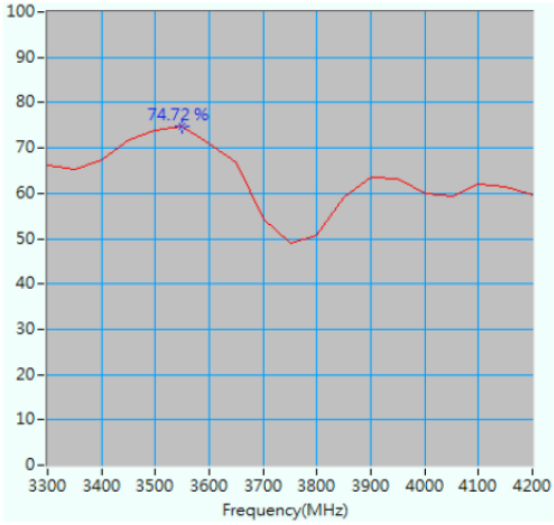


Maximum Efficiency at 2690 MHz : 74.7 %

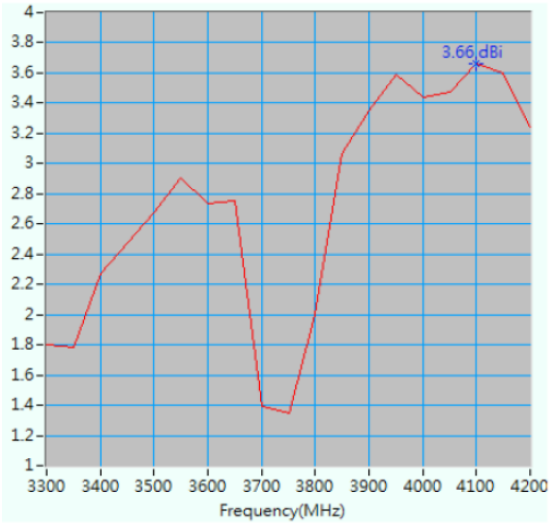


Maximum Peak Gain at 2110 MHz : 2.71 dBi

3300 ~ 4200 MHz

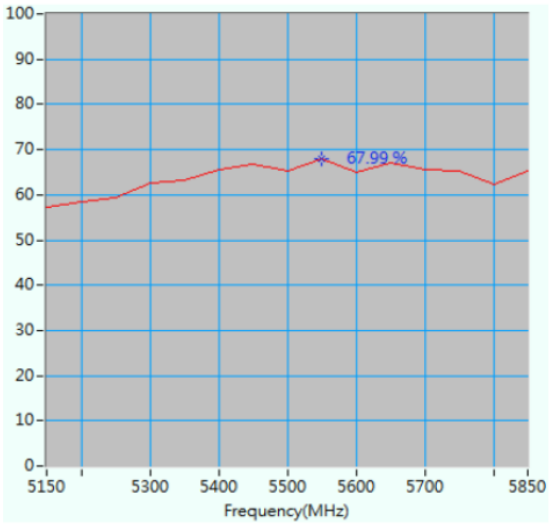


Maximum Efficiency at 3550 MHz : 74.7 %

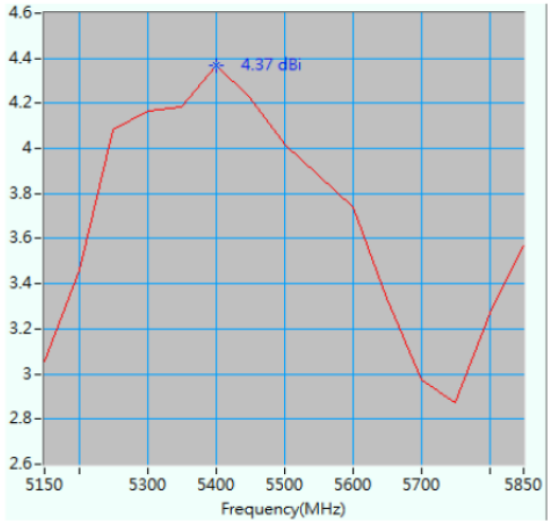


Maximum Peak Gain at 4100 MHz : 3.66 dBi

5150 ~ 7150 MHz



Maximum Efficiency at 5550 MHz : 67.9 %

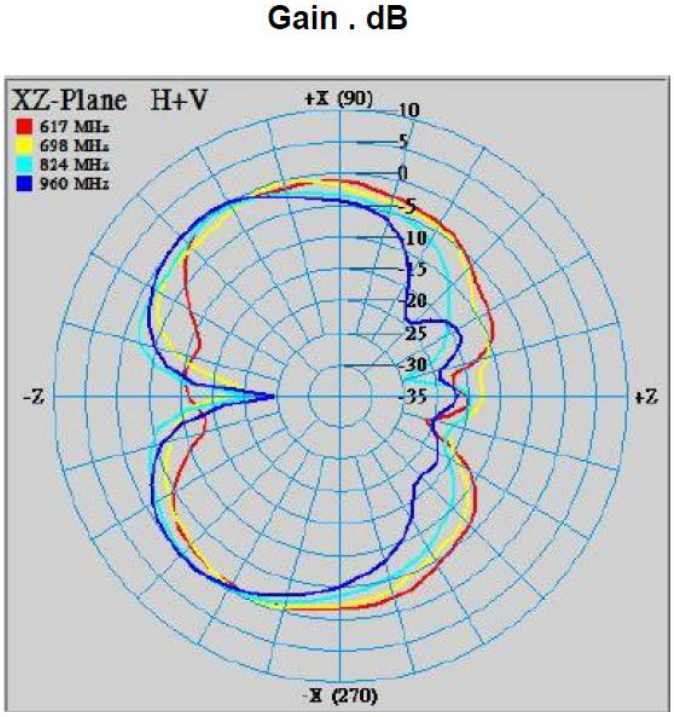


Maximum Peak Gain at 5400 MHz : 4.37 dBi

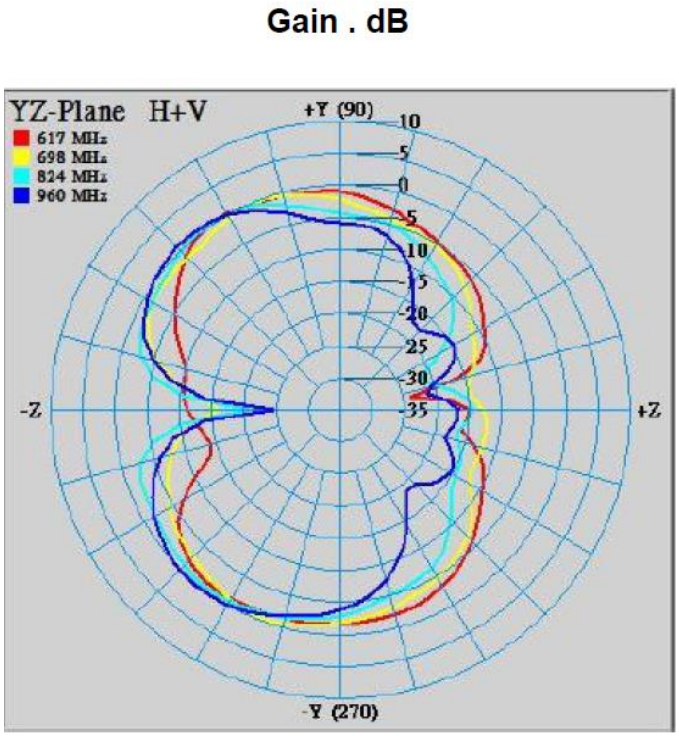
■ RADIATION PATTERN

617 ~ 960 MHz

X-Z Plane
Phi=0.00deg

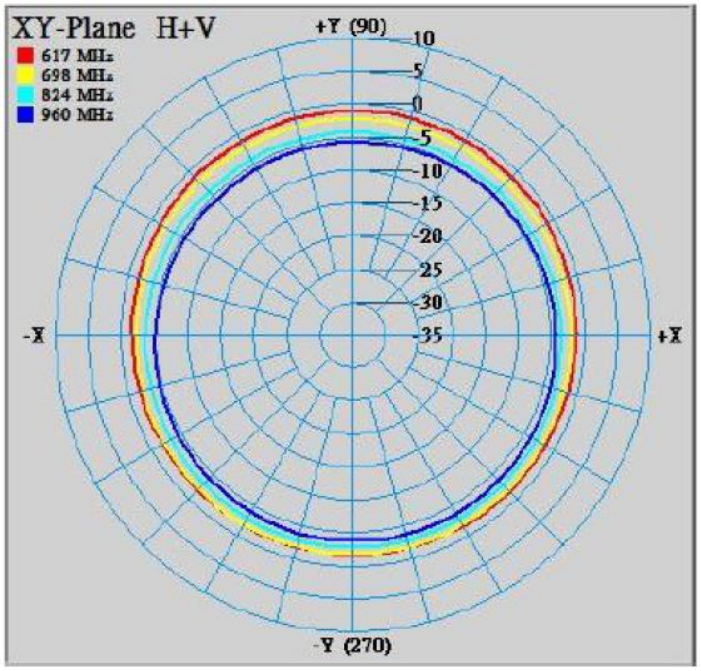


Y-Z Plane
Phi=90.00deg



X-Y Plane
Theta=90.00deg

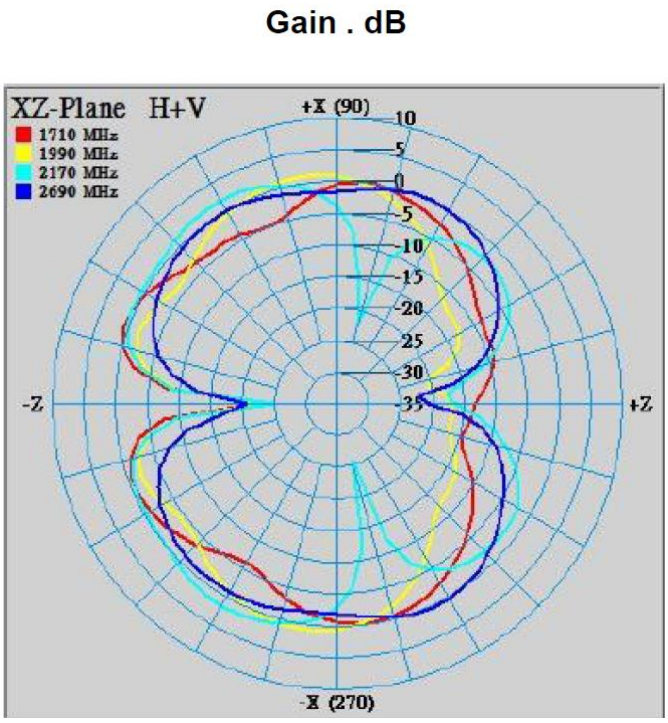
Gain . dB



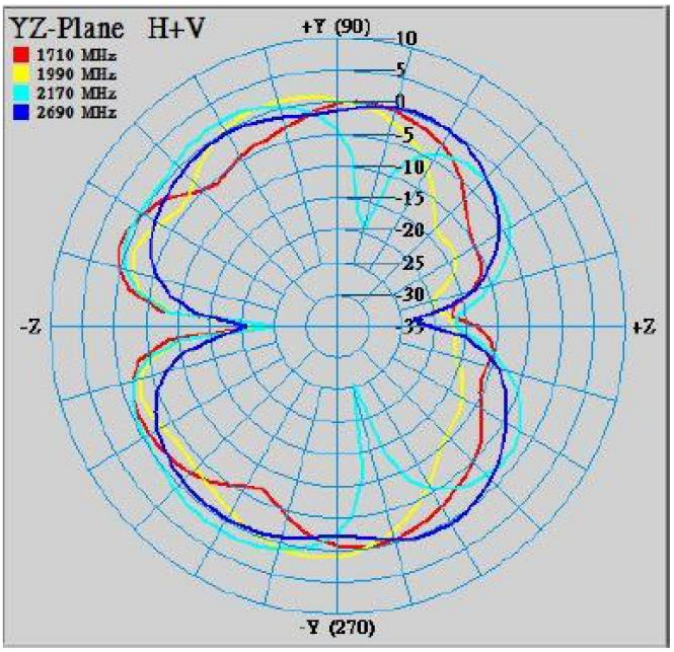
	ZX plane		ZY plane		XY plane	
Frequency [MIIz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
617	0.03	-3.93	0.32	-3.85	-0.94	-1.36
698	-0.15	-4.03	-0.12	-3.90	-1.77	-2.03
824	0.22	-4.02	0.38	-3.92	-2.81	-3.52
960	0.58	-4.41	0.93	-4.28	-3.73	-4.66

1710 ~ 2690 MHz

X-Z Plane
Phi=0.00deg

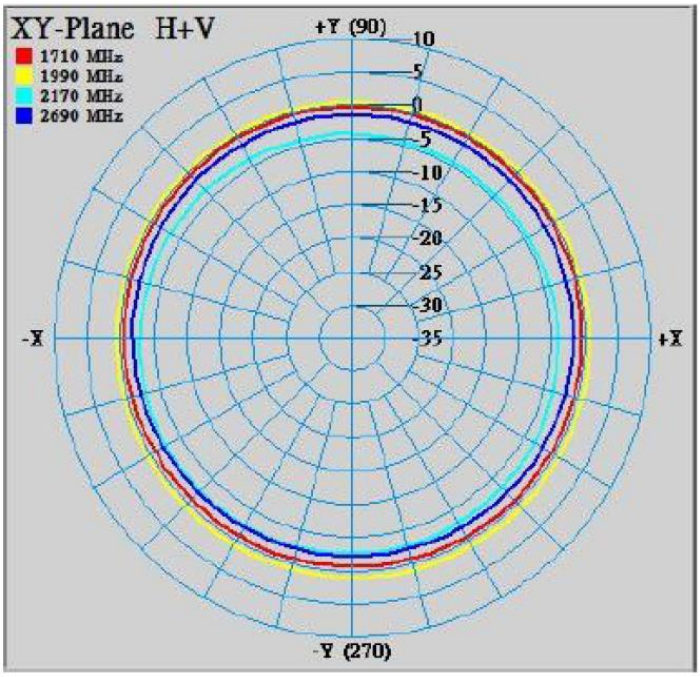


Y-Z Plane
Phi=90.00deg



X-Y Plane
Theta=90.00deg

Gain . dB

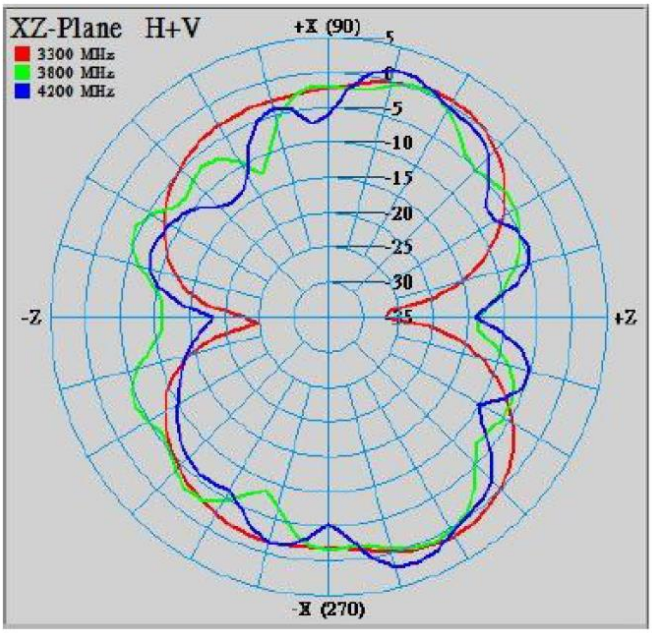


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
1710	0.75	-3.17	1.20	-3.10	-0.19	-0.43
1990	1.19	-3.15	1.37	-3.05	1.05	0.70
2170	1.96	-1.86	1.92	-1.82	-2.45	-3.39
2690	0.57	-2.26	0.60	-2.20	-1.40	-1.80

3300 ~ 4200 MHz

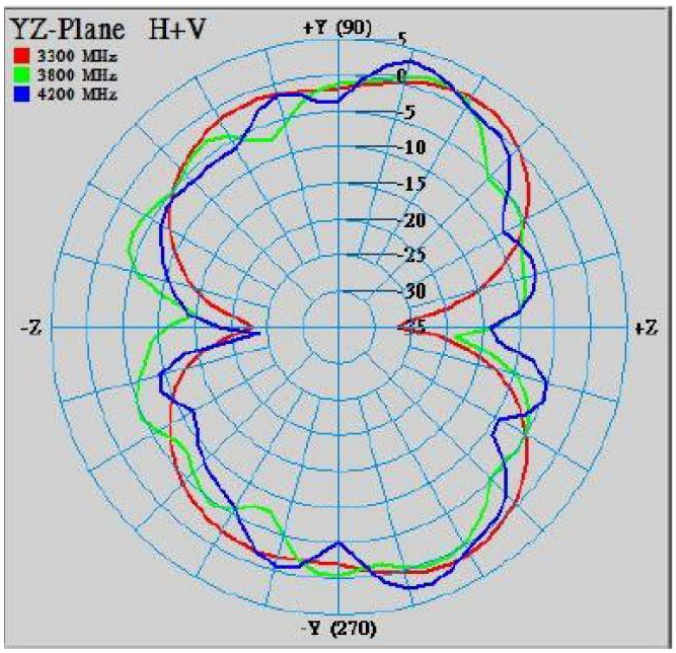
X-Z Plane
Phi=0.00deg

Gain . dB



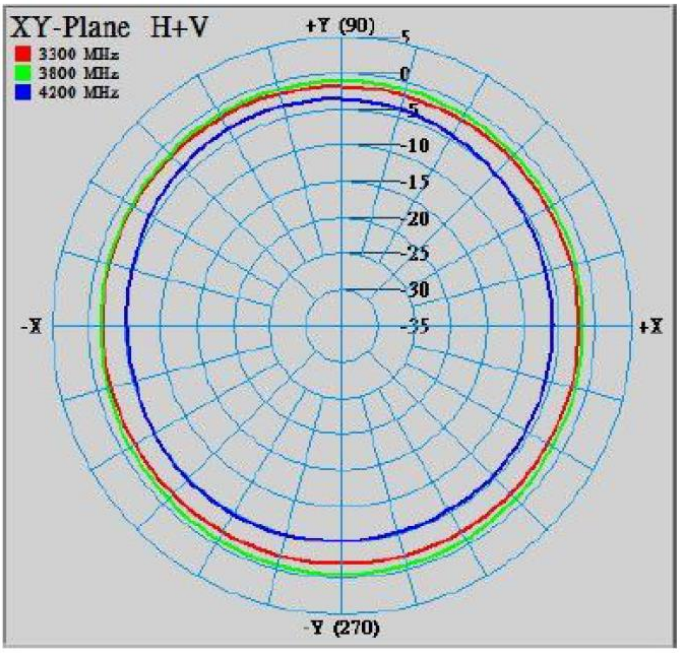
Y-Z Plane
Phi=90.00deg

Gain . dB



X-Y Plane
Theta=90.00deg

Gain . dB

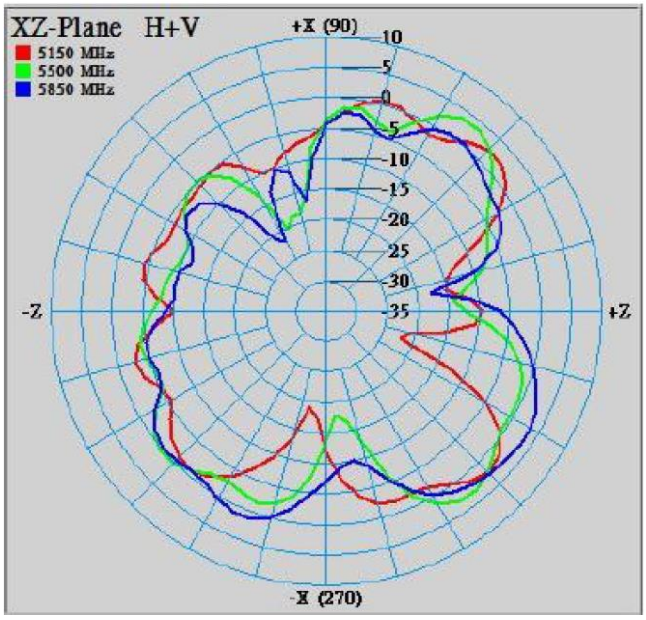


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
3300	1.23	-3.20	1.75	-2.75	-1.64	-1.95
3800	0.67	-4.14	1.94	-3.63	-0.55	-1.21
4200	2.51	-3.81	3.18	-3.04	-3.40	-4.86

5150 ~ 7150 MHz

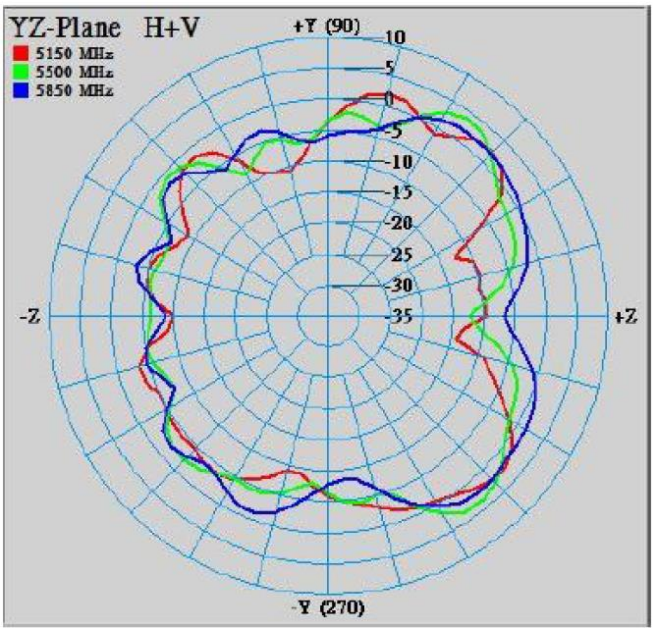
X-Z Plane
Phi=0.00deg

Gain . dB



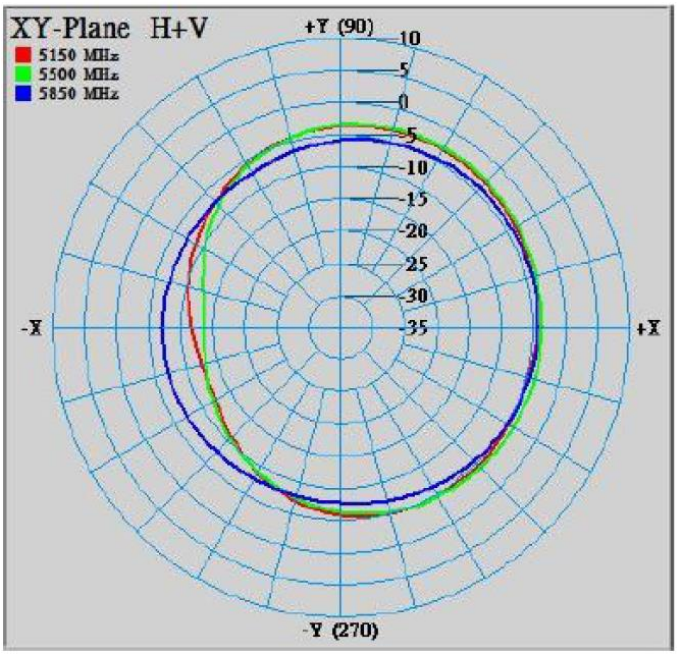
Y-Z Plane
Phi=90.00deg

Gain . dB



X-Y Plane
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	2.64	-3.19	2.62	-2.82	-3.05	-5.61
5500	3.86	-2.46	4.01	-2.12	-2.76	-5.41
5850	3.52	-2.25	2.42	-1.82	-4.14	-6.04

October 2020