



Product Name: 5-in-1 5G NR/ 4G LTE/ WiFi/ GNSS Combination Antenna

Part Number: MT-10B-AC-B2L2W

Features:

- 1*GNSS, 2*LTE, 2*WIFI Antenna Combination
- GPS L1 / GLONASS L1 / BEIDOU L1 Bands Supporting
- LTE 698-960MHz, 1710-2690MHz, 3300-3800MHz Supporting
- WiFi Dual Bands, 2400-2500MHz, 5150-5850MHz Supporting
- Excellent Out of Band Suppression, Up to 55dB
- 27dBi Active Peak Gain
- Customizable Cables and Connectors
- RoHS & REACH Compliant

Applications:

- Fleet Management & Telematics
- Vehicle Navigation

5-in-1 5G NR/ 4G LTE/ WiFi/ GNSS Combination Antenna

MODEL: MT-10B-B2L2W

WI-RD-D-394 V1.0

I. Specifications:

Category	GNSS		
Passive Antenna Performance			
Application Band	BeiDou	GPS	GLONASS
Frequency (MHz)	1561	1575.42	1602
Efficiency (%)	49.89	42.76	58.61
Average Gain (dBi)	-3.02	-3.69	-2.32
Peak Gain (dBi)	1.21	1.21	1.44
V.S.W.R	< 3		
Return loss (dB)	< -6		
Impedance (Ω)	50		
Polarization	R.H.C.P. (Right Handed Circular Polarization)		
Active Antenna Performance			
Application band	BeiDou	GPS	GLONASS
Frequency (MHz)	1561 ± 2.046	1575.42 ± 1.023	1602 ± 5
Gain (dB)	27	27	27
Noise Figure (dB)	0.98	0.98	0.92
Current Consumption	9.0mA (typical)		
Operation Voltage (V)	3.3 ~ 5		
Output Impedance (Ω)	50		
GNSS _Out of Band Rejection			
Frequency (MHz)	600 ~ 1300	1300 ~ 1530	1650 ~ 3000
Gain (dB)	55	30	30
ESD Protection	+/- 8 KV (direct discharge) +/- 15KV (air discharge)		
Cable / Length	H-100 / 1 meter		

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Connector	SMA (Male)
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Category		LTE 1						
Application Band		LTE 700	GSM 850/900	DCS 1710	PCS 1850	UMTS1 1920	LTE2600 2300	5G NR Band 3300
Frequency (MHz)		698 ~ 824	824 ~ 960	1710 ~ 1880	1850 ~ 1990	1920 ~ 2170	2300 ~ 2690	3300 ~ 3800
Efficiency (%)								
Free Space	30cm	51.10	36.95	63.55	63.70	56.71	60.72	54.39
	1m	44.92	32.48	52.37	51.93	45.68	47.68	40.69
	2m	37.36	27.02	39.73	38.80	33.54	33.76	26.88
	3m	31.08	22.47	30.14	28.98	24.63	23.90	17.76
	5m	21.50	15.55	17.34	16.17	13.28	11.98	7.75
With 30*30cm Ground Plane	30cm	46.43	44.67	59.95	67.01	58.79	59.20	55.59
	1m	40.82	39.26	49.41	54.63	47.36	46.86	43.38
	2m	33.95	32.66	37.48	40.81	34.77	32.91	27.48
	3m	28.24	27.16	28.43	30.49	25.53	23.30	18.16
	5m	19.54	18.79	16.36	17.01	13.76	11.68	7.93
Average Gain (dBi)								
Free Space	30cm	-2.92	-4.32	-1.97	-1.96	-2.46	-2.17	-2.65
	1m	-3.48	-4.88	-2.81	-2.85	-3.40	-3.22	-3.91
	2m	-4.28	-5.68	-4.01	-4.11	-4.74	-4.72	-5.71
	3m	-5.08	-6.48	-5.21	-5.38	-6.09	-6.22	-7.51
	5m	-6.68	-8.08	-7.61	-7.91	-8.77	-9.22	-11.11
With 30*30cm Ground Plane	30cm	-3.33	-3.50	-2.22	-1.74	-2.31	-2.28	-2.55
	1m	-3.89	-4.06	-3.06	-2.63	-3.25	-3.29	-3.63
	2m	-4.69	-4.86	-4.26	-3.89	-4.59	-4.83	-5.61
	3m	-5.49	-5.66	-5.46	-5.16	-5.93	-6.33	-7.41
	5m	-7.09	-7.26	-7.86	-7.69	-8.61	-9.33	-11.01

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Peak Gain (dBi)								
Free Space	30cm	2.42	1.49	3.95	3.95	2.96	4.29	3.09
	1m	1.86	0.93	3.11	3.11	2.05	3.24	1.83
	2m	1.06	0.13	1.91	1.91	0.75	1.74	0.03
	3m	0.26	-0.67	0.71	0.71	-0.55	0.24	-1.77
	5m	-1.34	-2.27	-1.69	-1.69	-3.15	-2.76	-5.37
With 30*30cm Ground Plane	30cm	5.11	3.48	6.85	6.59	6.59	6.01	6.67
	1m	4.55	2.92	6.01	5.68	5.68	4.96	5.41
	2m	3.75	2.12	4.81	4.38	4.38	3.46	3.61
	3m	2.95	1.32	3.61	3.08	3.08	1.96	1.81
	5m	1.35	-0.28	1.21	0.48	0.48	-1.04	-1.79
V.S.W.R								
Free Space		< 3						
With 30*30cm Ground Plane		< 3						
Return Loss (dB)								
Free Space		< -6						
With 30*30cm Ground Plane		< -6						
Impedance (Ω)		50						
Polarization		Linear						
Cable / Length		SNC-200 / 1 meter						
Connector		SMA (Male)						

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Category		LTE 2						
Application Band		LTE 700	GSM 850/900	DCS	PCS	UMTS1	LTE2600	5G NR Band
Frequency (MHz)		698 ~ 824	824 ~ 960	1710 ~ 1880	1850 ~ 1990	1920 ~ 2170	2300 ~ 2690	3300 ~ 3800
Efficiency (%)								
Free Space	30cm	44.62	45.00	64.70	68.02	62.54	61.89	55.11
	1m	39.22	39.56	53.32	55.46	50.38	48.60	44.53
	2m	32.62	32.90	40.45	41.43	36.99	34.41	27.24
	3m	27.13	27.37	30.68	30.95	27.16	24.36	18.00
	5m	18.77	18.93	17.66	17.27	14.64	12.21	7.86
With 30*30cm Ground Plane	30cm	40.31	43.60	59.54	65.97	60.41	59.58	51.82
	1m	35.44	38.33	49.07	53.79	48.66	47.17	39.51
	2m	29.47	31.88	37.22	40.18	35.73	33.12	25.62
	3m	24.52	26.52	28.23	30.01	26.23	23.45	16.92
	5m	16.96	18.34	16.25	16.75	14.14	11.75	7.39
Average Gain (dBi)								
Free Space	30cm	-3.51	-3.47	-1.89	-1.67	-2.04	-2.08	-2.59
	1m	-4.07	-4.03	-2.73	-2.56	-2.98	-3.13	-3.51
	2m	-4.87	-4.83	-3.93	-3.83	-4.32	-4.63	-5.65
	3m	-5.67	-5.63	-5.13	-5.09	-5.66	-6.13	-7.45
	5m	-7.27	-7.23	-7.53	-7.63	-8.34	-9.13	-11.05
With 30*30cm Ground Plane	30cm	-3.95	-3.61	-2.25	-1.81	-2.19	-2.25	-2.86
	1m	-4.51	-4.17	-3.09	-2.69	-3.13	-3.26	-4.03
	2m	-5.31	-4.97	-4.29	-3.96	-4.47	-4.80	-5.92
	3m	-6.11	-5.77	-5.49	-5.23	-5.81	-6.30	-7.72
	5m	-7.71	-7.37	-7.89	-7.76	-8.50	-9.30	-11.32

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Peak Gain (dBi)								
Free Space	30cm	5.32	4.66	5.82	4.92	4.92	4.29	3.52
	1m	4.76	4.10	4.98	4.01	4.01	3.24	4.01
	2m	3.96	3.30	3.78	2.71	2.71	1.74	0.46
	3m	3.16	2.50	2.58	1.41	1.41	0.24	-1.34
	5m	1.56	0.90	0.18	-1.19	-1.19	-2.76	-4.94
With 30*30cm Ground Plane	30cm	3.70	4.66	6.29	5.30	5.30	6.35	6.13
	1m	3.14	4.10	5.45	4.39	4.39	5.30	4.87
	2m	2.34	3.30	4.25	3.09	3.09	3.80	3.07
	3m	1.54	2.50	3.05	1.86	1.79	2.30	1.27
	5m	-0.06	0.90	0.65	-0.54	-0.81	-0.70	-2.33
V.S.W.R								
Free Space		< 3						
With Ground Plane		< 3						
Return Loss (dB)								
Free Space		< -6						
With 30*30cm Ground Plane		< -6						
Impedance (Ω)		50						
Polarization		Linear						
Cable / Length		SNC-200 / 1 meter						
Connector		SMA (Male)						

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Category		WiFi 1						
Frequency (MHz)		2400	2450	2500	5150	5350	5750	5850
Efficiency (%)								
Free Space	30cm	70.47	70.63	78.70	65.31	56.23	50.93	50.23
	1m	55.34	55.46	61.80	45.08	38.82	34.59	34.12
	2m	39.17	39.26	43.75	26.55	22.86	19.91	19.63
	3m	27.73	27.80	30.97	15.63	13.46	11.46	11.30
	5m	13.90	13.93	15.52	5.42	4.67	3.79	3.74
With 30*30cm Ground Plane	30cm	60.67	63.68	65.77	69.18	57.28	51.64	49.43
	1m	47.64	52.12	51.64	44.87	40.64	34.99	30.62
	2m	33.73	35.40	36.56	28.12	23.28	20.18	19.32
	3m	23.88	25.06	25.88	16.56	13.71	11.61	11.12
	5m	11.97	12.56	12.97	5.74	4.75	3.85	3.68
Average Gain (dBi)								
Free Space	30cm	-1.52	-1.51	-1.04	-1.85	-2.50	-2.93	-2.99
	1m	-2.57	-2.56	-2.09	-3.46	-4.11	-4.61	-4.67
	2m	-4.07	-4.06	-3.59	-5.76	-6.41	-7.01	-7.07
	3m	-5.57	-5.56	-5.09	-8.06	-8.71	-9.41	-9.47
	5m	-8.57	-8.56	-8.09	-12.66	-13.31	-14.21	-14.27
With 30*30cm Ground Plane	30cm	-2.17	-1.96	-1.82	-1.60	-2.42	-2.87	-3.06
	1m	-3.22	-2.83	-2.87	-3.48	-3.91	-4.56	-5.14
	2m	-4.72	-4.51	-4.37	-5.51	-6.33	-6.95	-7.14
	3m	-6.22	-6.01	-5.87	-7.81	-8.63	-9.35	-9.54
	5m	-9.22	-9.01	-8.87	-12.41	-13.23	-14.15	-14.34

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Peak Gain (dBi)								
Free Space	30cm	3.70	3.58	4.55	4.59	5.84	2.65	3.53
	1m	2.65	2.53	3.50	2.98	4.59	0.97	1.85
	2m	1.15	1.03	2.00	0.68	1.93	-1.43	-0.55
	3m	-0.35	-0.47	0.50	-1.62	-0.37	-3.83	-2.95
	5m	-3.35	-3.47	-2.50	-6.22	-4.97	-8.63	-7.75
With 30*30cm Ground Plane	30cm	6.56	6.21	6.19	7.26	6.81	7.09	6.33
	1m	5.51	5.20	5.14	5.38	4.92	5.06	4.64
	2m	4.01	3.66	3.64	3.35	2.90	3.01	2.25
	3m	2.51	2.16	2.14	1.05	0.60	0.61	-0.15
	5m	-0.49	-0.84	-0.86	-3.55	-4.00	-4.19	-4.95
V.S.W.R								
Free Space		< 2						
With 30*30cm Ground Plane		< 2			< 2.32			
Return Loss (dB)								
Free Space		< -10						
With 30*30cm Ground Plane		< -10			< -8			
Impedance (Ω)		50						
Polarization		Linear						
Cable / Length		SNC-200 / 1 meter						
Connector		SMA (Female)						

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Category		WiFi 2						
Frequency (MHz)		2400	2450	2500	5150	5350	5750	5850
Efficiency (%)								
Free Space	30cm	57.54	60.81	71.29	66.07	56.23	58.88	51.17
	1m	45.19	47.75	55.98	45.60	38.82	39.99	34.75
	2m	31.99	33.81	39.63	26.85	22.86	23.01	20.00
	3m	22.65	23.93	28.05	15.81	13.46	13.24	11.51
	5m	11.35	11.99	14.06	5.48	4.67	4.39	3.81
With 30*30cm Ground Plane	30cm	57.81	62.95	65.77	66.83	56.36	57.94	56.62
	1m	45.39	49.43	51.64	43.75	39.08	39.45	33.57
	2m	32.14	34.99	36.56	27.16	22.91	22.65	22.13
	3m	22.75	24.77	25.88	16.00	13.49	13.03	12.74
	5m	11.40	12.42	12.97	5.55	4.68	4.32	4.22
Average Gain (dBi)								
Free Space	30cm	-2.40	-2.16	-1.47	-1.80	-2.50	-2.30	-2.91
	1m	-3.45	-3.21	-2.52	-3.41	-4.11	-3.98	-4.59
	2m	-4.95	-4.71	-4.02	-5.71	-6.41	-6.38	-6.99
	3m	-6.45	-6.21	-5.52	-8.01	-8.71	-8.78	-9.39
	5m	-9.45	-9.21	-8.52	-12.61	-13.31	-13.58	-14.19
With 30*30cm Ground Plane	30cm	-2.38	-2.01	-1.82	-1.75	-2.49	-2.37	-2.47
	1m	-3.43	-3.06	-2.87	-3.59	-4.08	-4.04	-4.74
	2m	-4.93	-4.56	-4.37	-5.66	-6.40	-6.45	-6.55
	3m	-6.43	-6.06	-5.87	-7.96	-8.70	-8.85	-8.95
	5m	-9.43	-9.06	-8.87	-12.56	-13.30	-13.65	-13.75

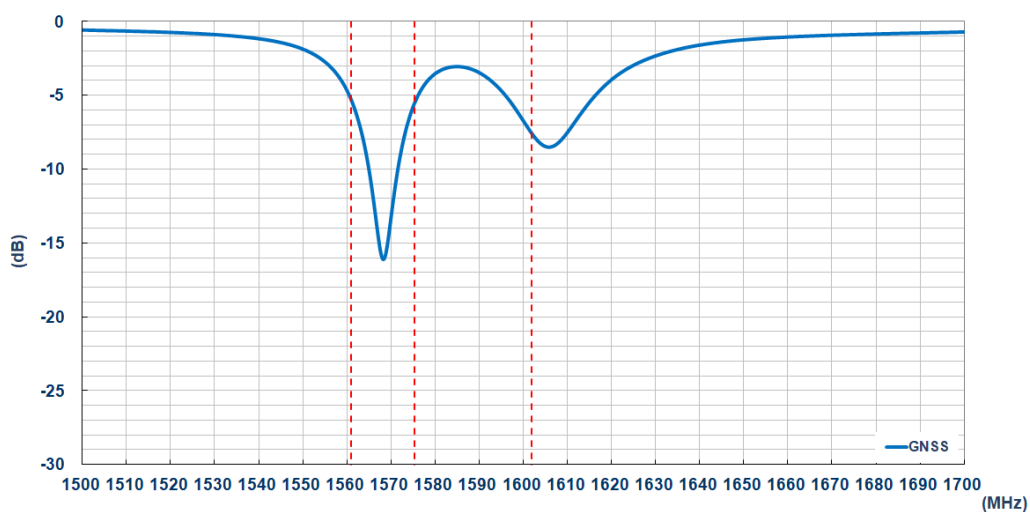
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Peak Gain (dBi)								
Free Space	30cm	3.40	4.03	4.45	3.12	3.48	4.02	3.25
	1m	2.35	2.98	3.40	1.51	2.33	2.34	1.57
	2m	0.85	1.48	1.90	-0.79	-0.43	-0.06	-0.83
	3m	-0.65	-0.02	0.40	-3.09	-2.73	-2.46	-3.23
	5m	-3.65	-3.02	-2.60	-7.69	-7.33	-7.26	-8.03
With 30*30cm Ground Plane	30cm	3.48	4.12	4.68	6.33	4.82	4.93	5.26
	1m	2.43	3.01	3.63	4.49	3.55	3.51	3.44
	2m	0.93	1.57	2.13	2.42	0.91	0.85	1.18
	3m	-0.57	0.07	0.63	0.12	-1.39	-1.55	-1.22
	5m	-3.57	-2.93	-2.37	-4.48	-5.99	-6.35	-6.02
V.S.W.R								
Free Space		< 2						
With 30*30cm Ground Plane		< 2			< 2.32			
Return Loss (dB)								
Free Space		< -10						
With 30*30cm Ground Plane		< -10			< -8			
Impedance (Ω)		50						
Polarization		Linear						
Cable / Length		SNC-200 / 1 meter						
Connector		SMA (Female)						
Mechanical								
Dimension (mm)		φ 102.9(D) x 43.5(H)						
Casing		PC + PBT						
Waterproof Resistant		IP67						
Environmental Conditions								
Operation Temperature (°C)		-40 ~ +85						
Storage Temperature (°C)		-40 ~ +85						
Humidity		95% Non-condensing						

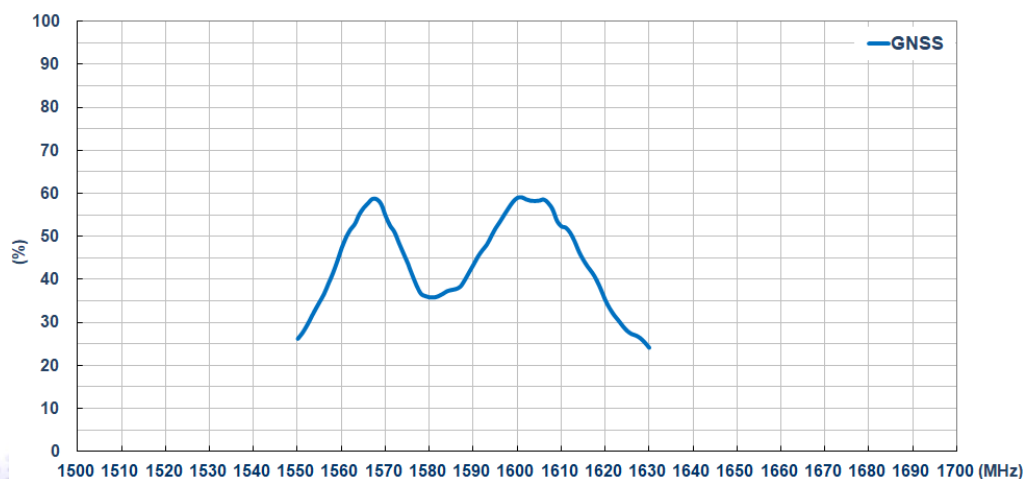
II. Antenna Technical Parameters:

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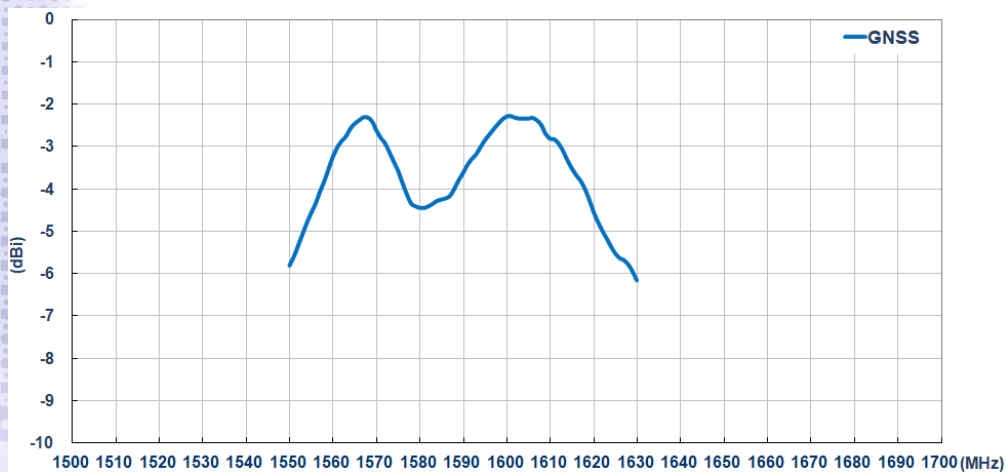
S11 (dB) – GNSS



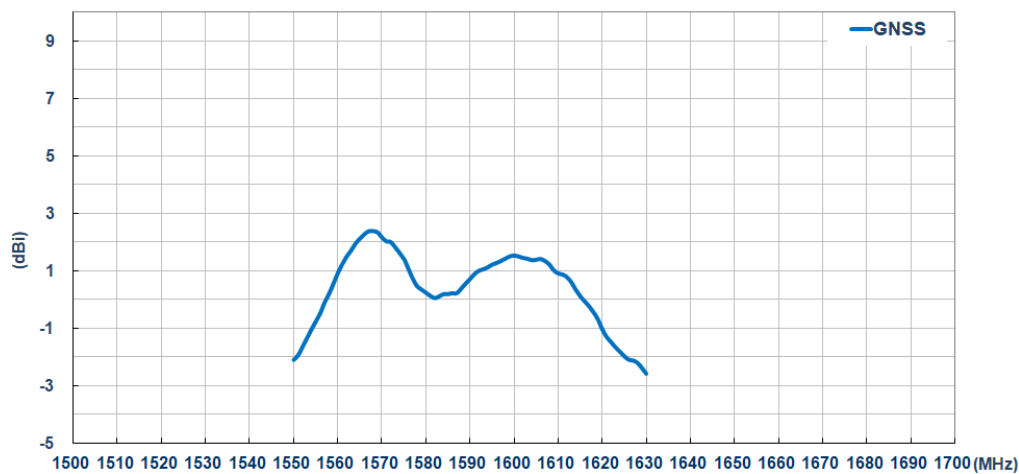
Efficiency (%) - GNSS



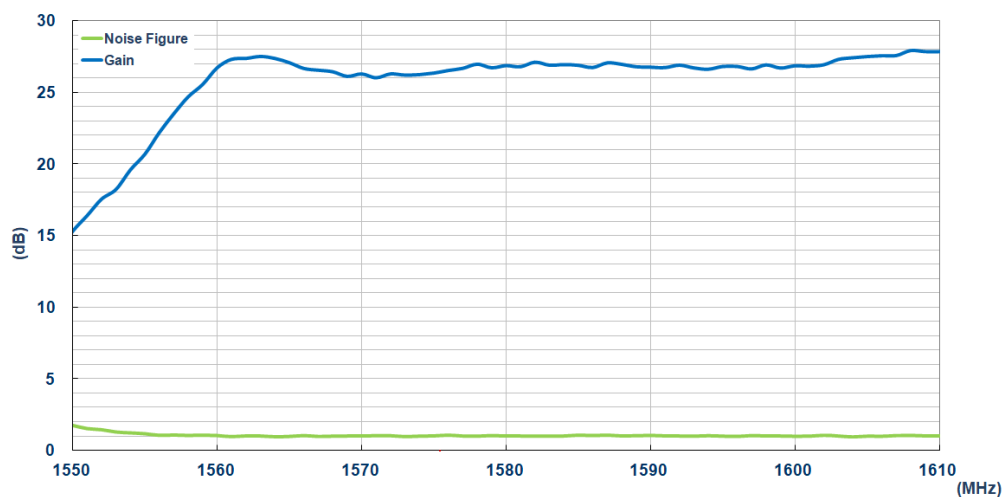
Average Gain (dBi) - GNSS



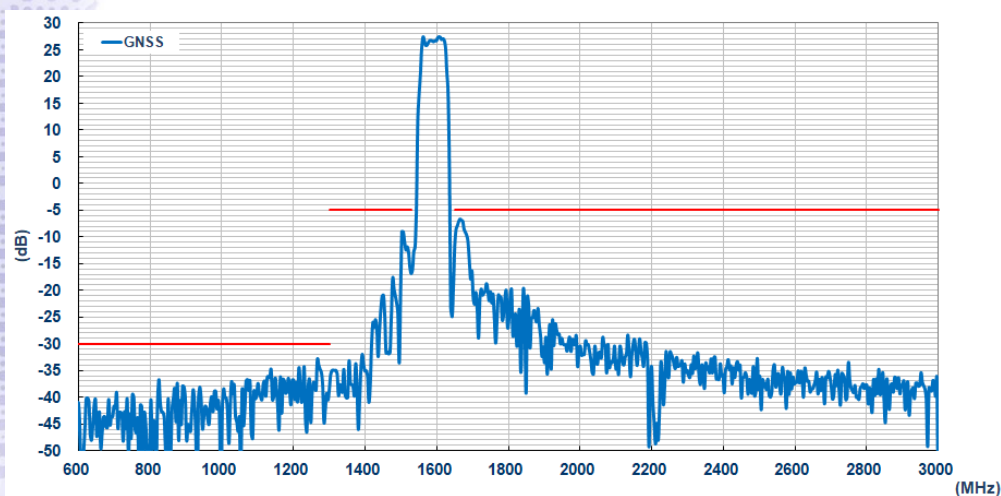
Peak Gain (dBi) - GNSS



Noise Figure & Gain (dB) - GNSS

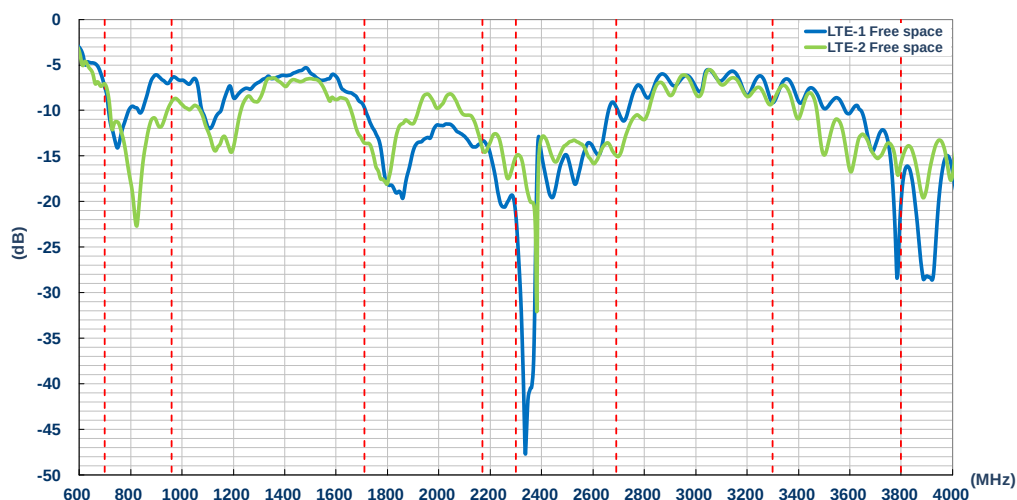


Out of Band Rejection (dB) - GNSS

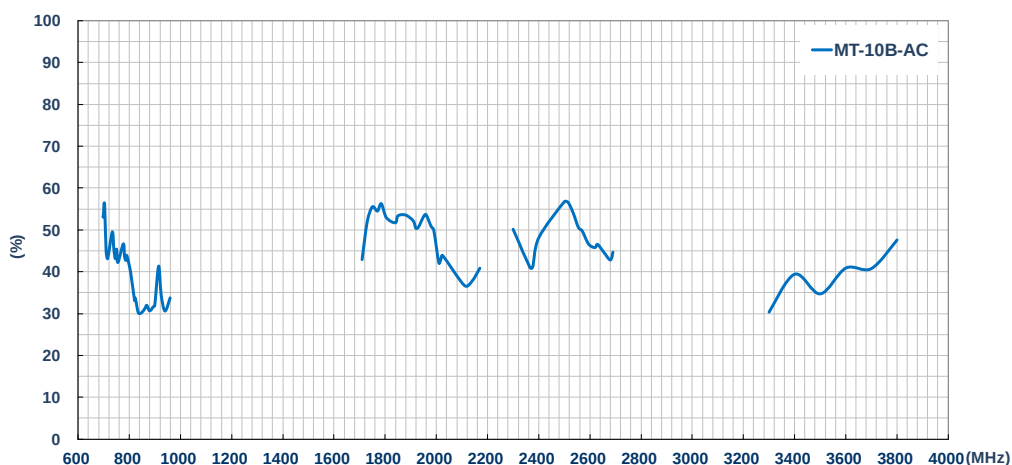


Free Space

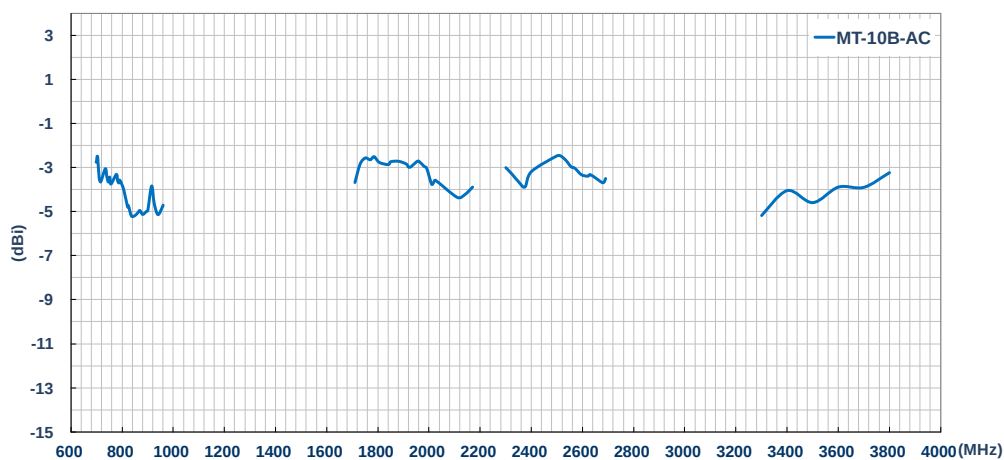
S11 (dB) – LTE 1 & LTE 2



Efficiency (%) – LTE 1

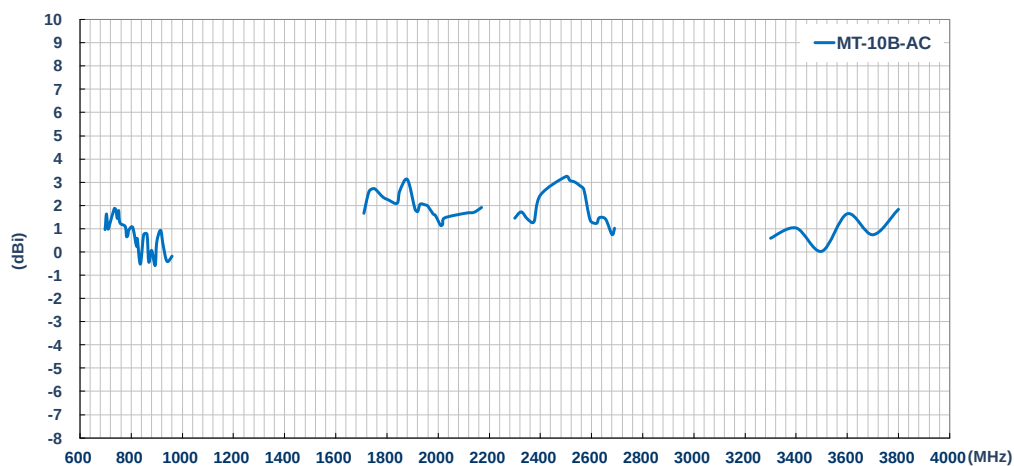


Average Gain (dBi) – LTE 1

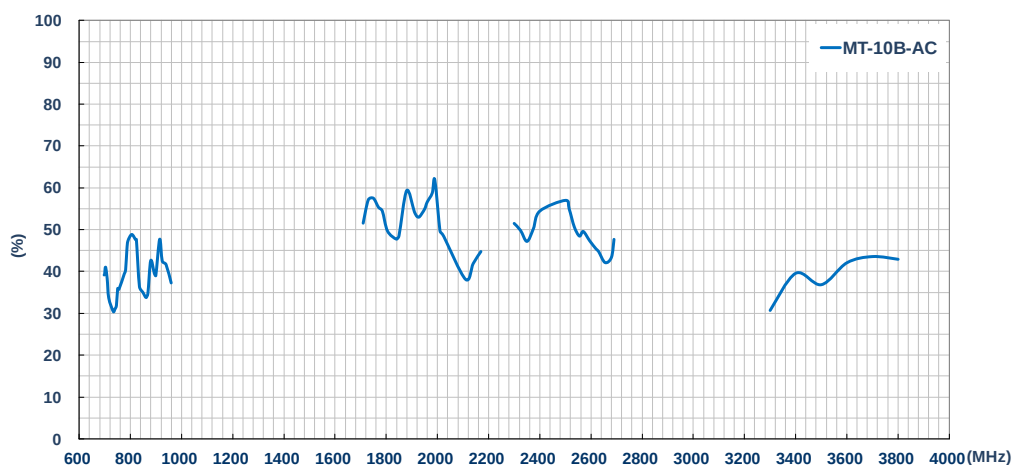


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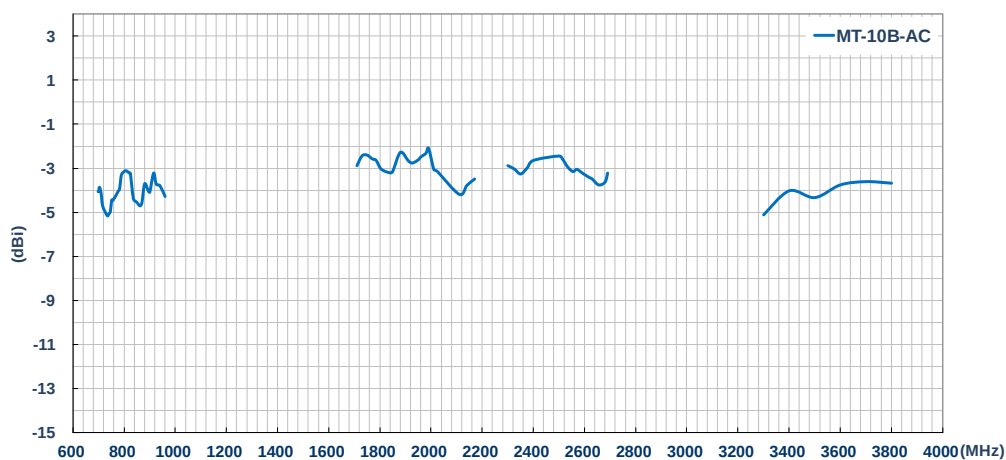
Peak Gain (dBi) – LTE 1



Efficiency (%) – LTE 2

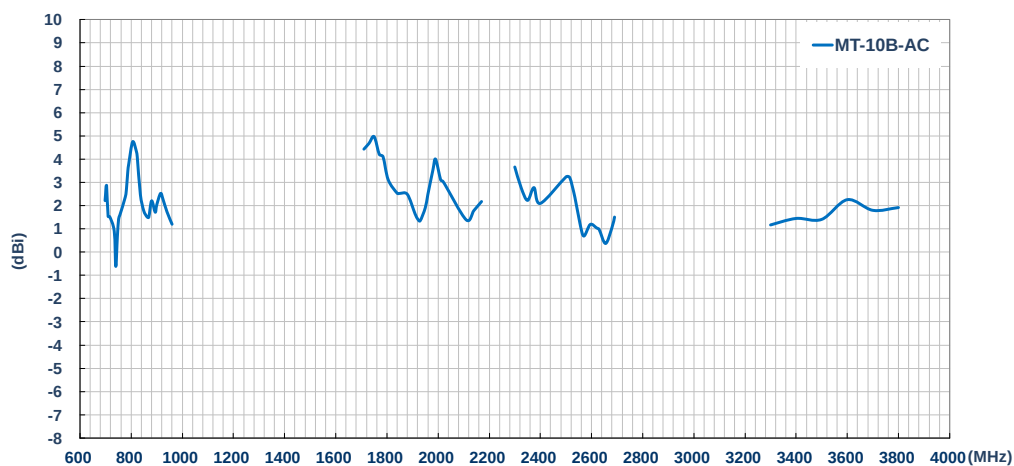


Average Gain (dBi) – LTE 2



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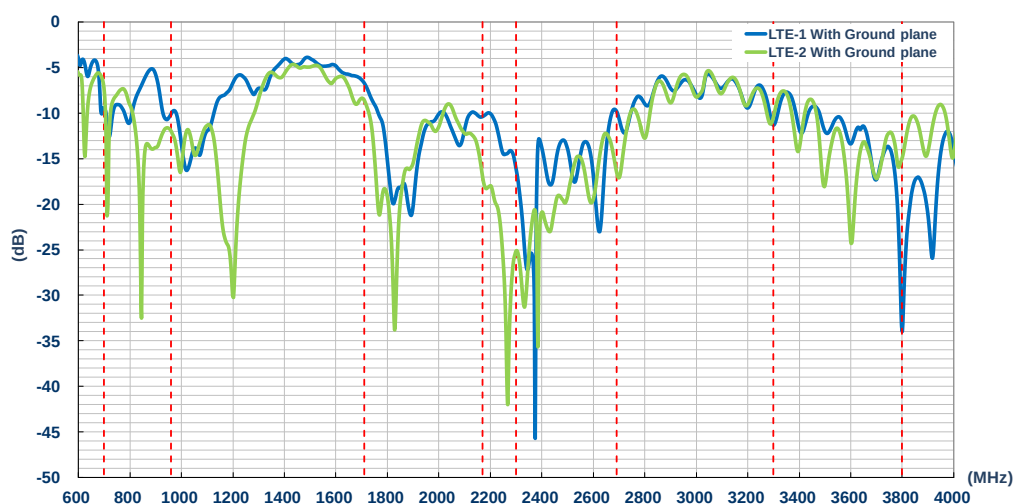
Peak Gain (dBi) – LTE 2



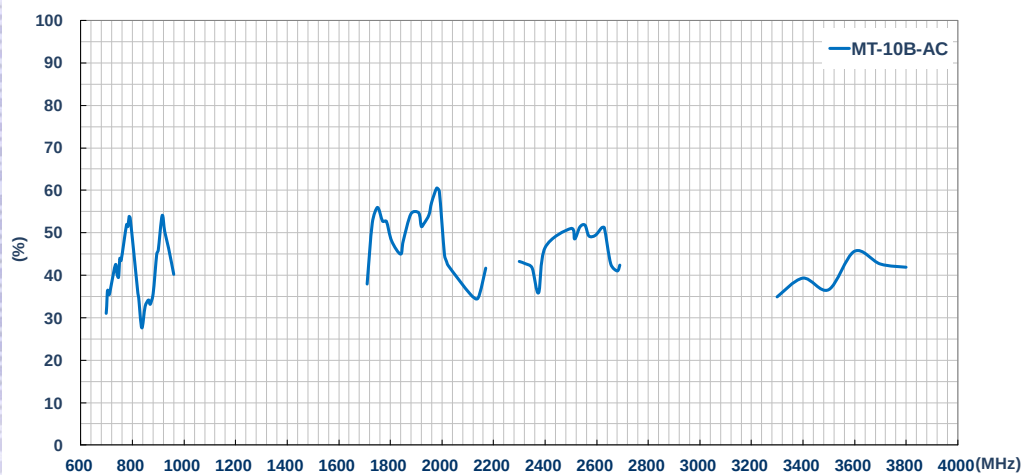
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With Ground Plane

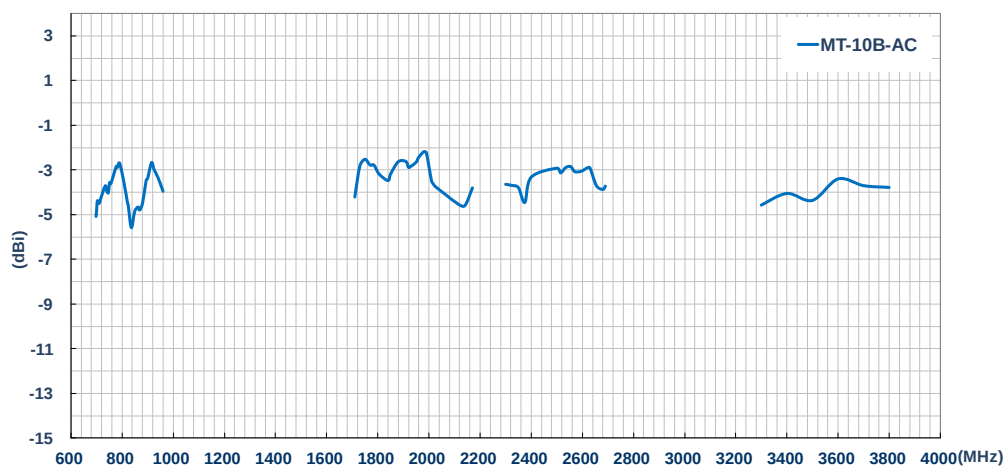
S11 (dB) – LTE 1 & LTE 2



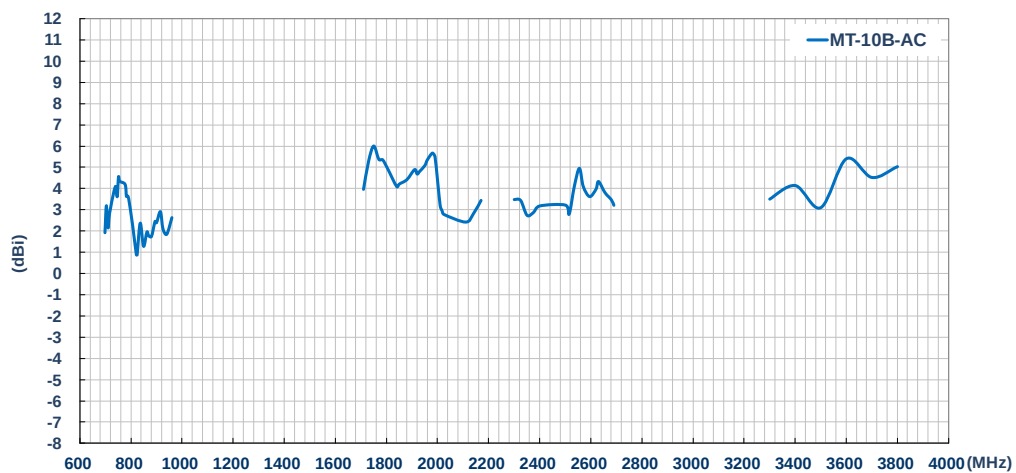
Efficiency (%) – LTE 1



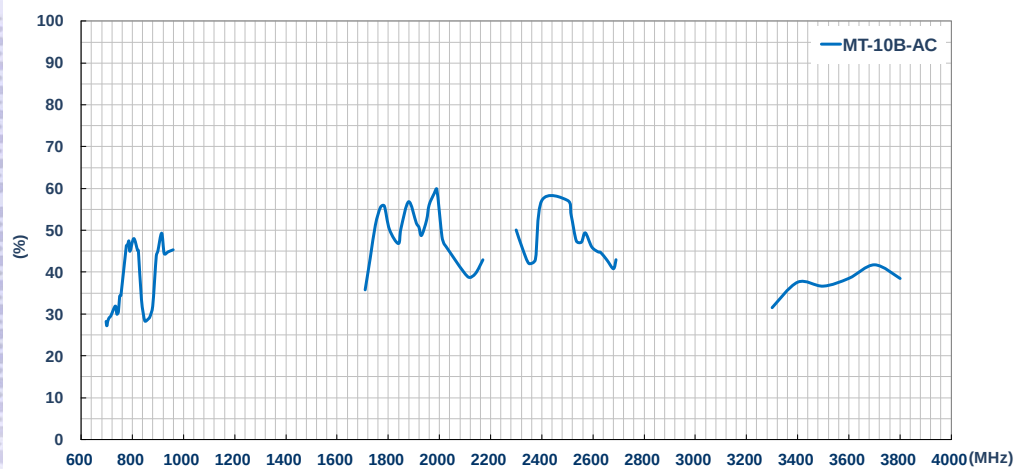
Average Gain (dBi) – LTE 1



Peak Gain (dBi) – LTE 1

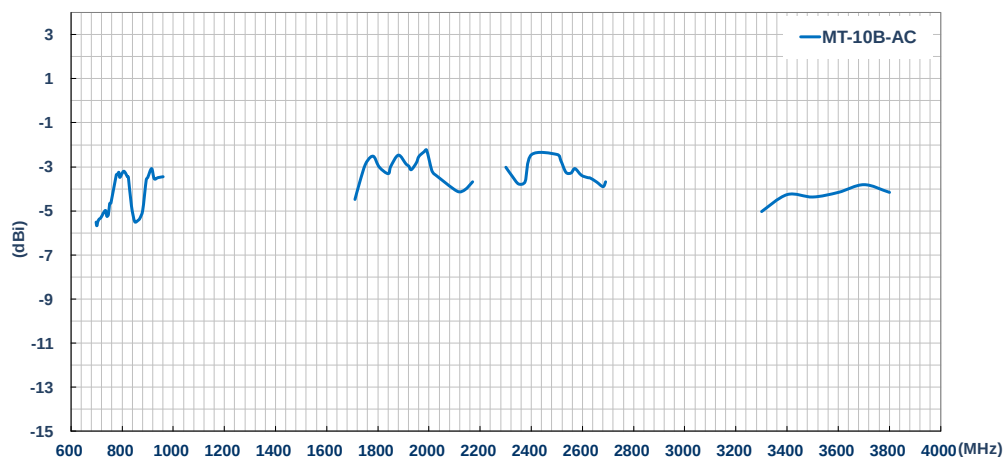


Efficiency (%) – LTE 2

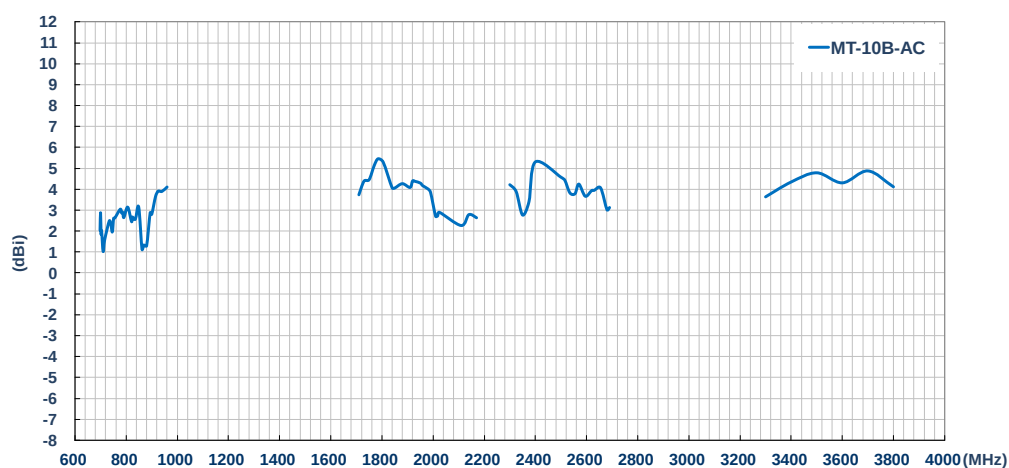


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Average Gain (dBi) – LTE 2

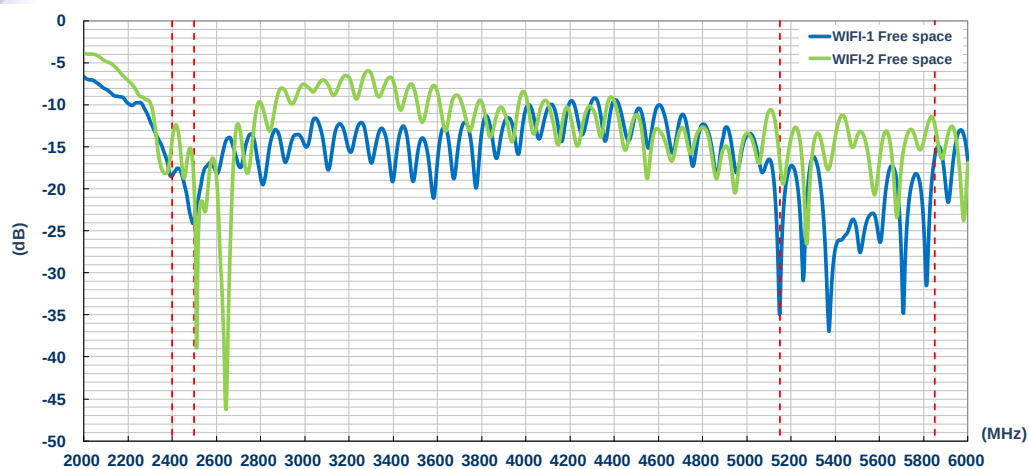


Peak Gain (dBi) – LTE 2

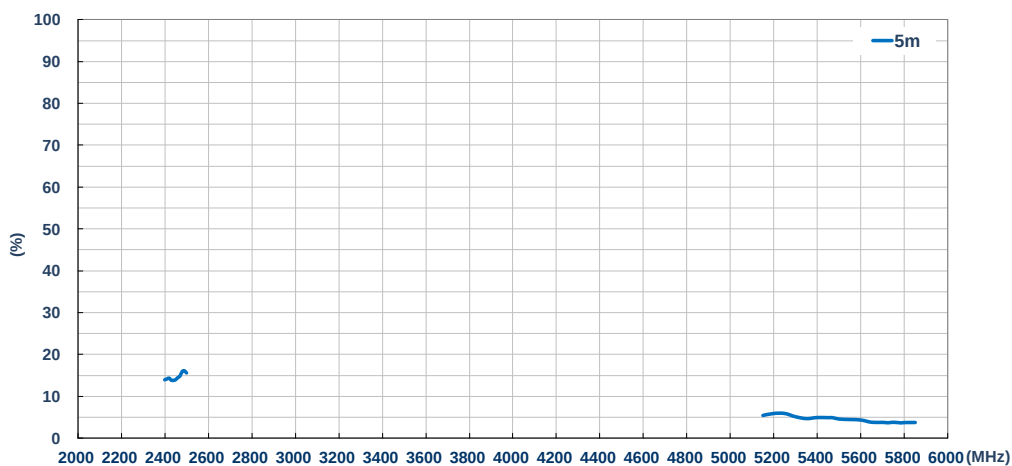


Free Space

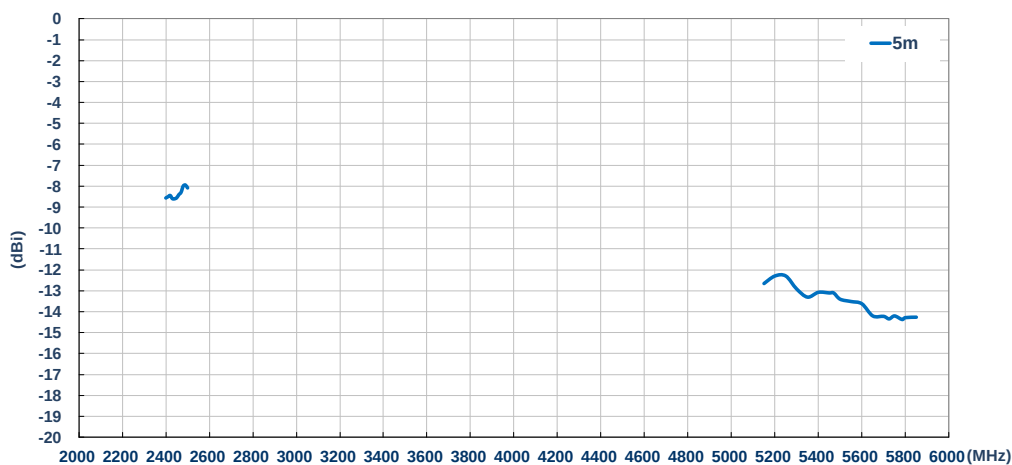
S11 (dB)- WiFi 1 & WiFi 2



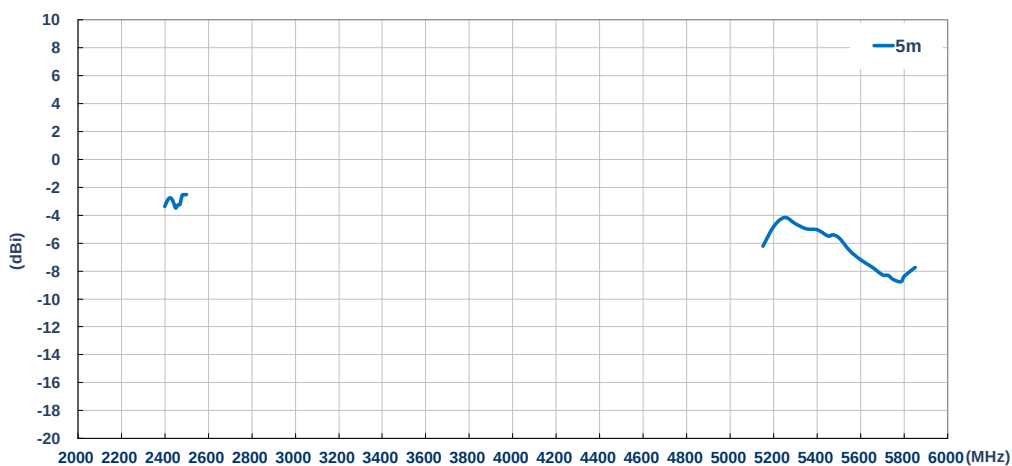
Efficiency (%) – WiFi 1



Average Gain (dBi) – WiFi 1

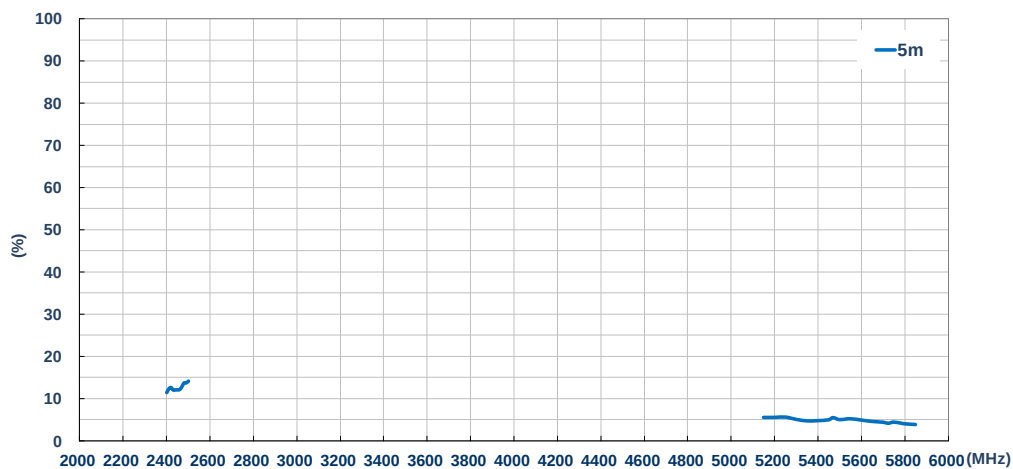


Peak Gain (dBi) – WiFi 1

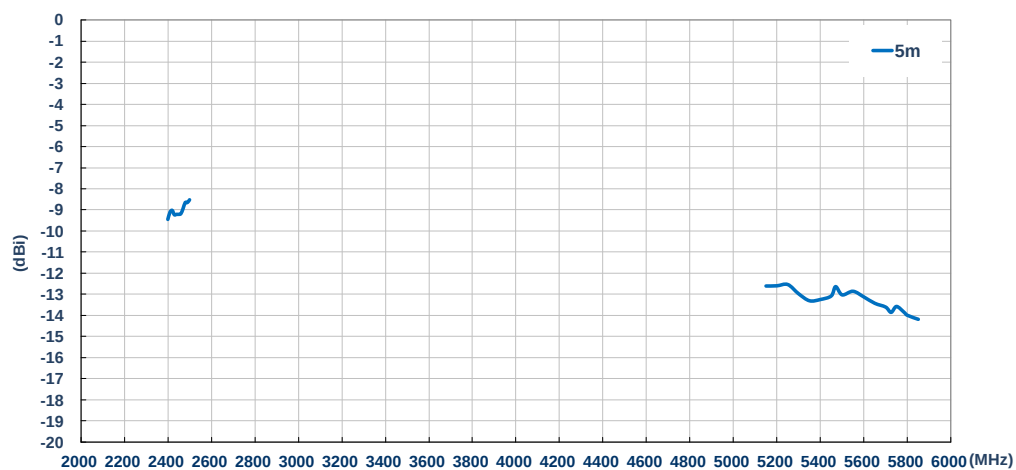


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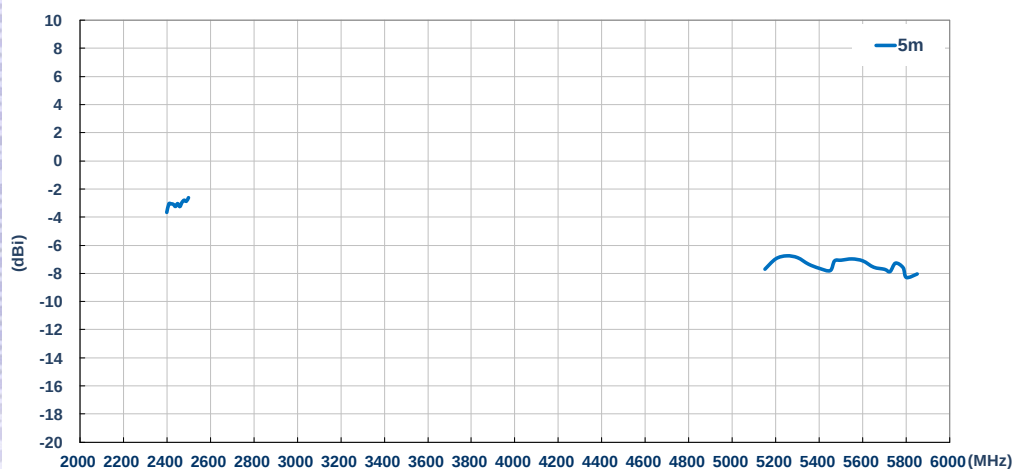
Efficiency (%) – WiFi 2



Average Gain (dBi) – WiFi 2



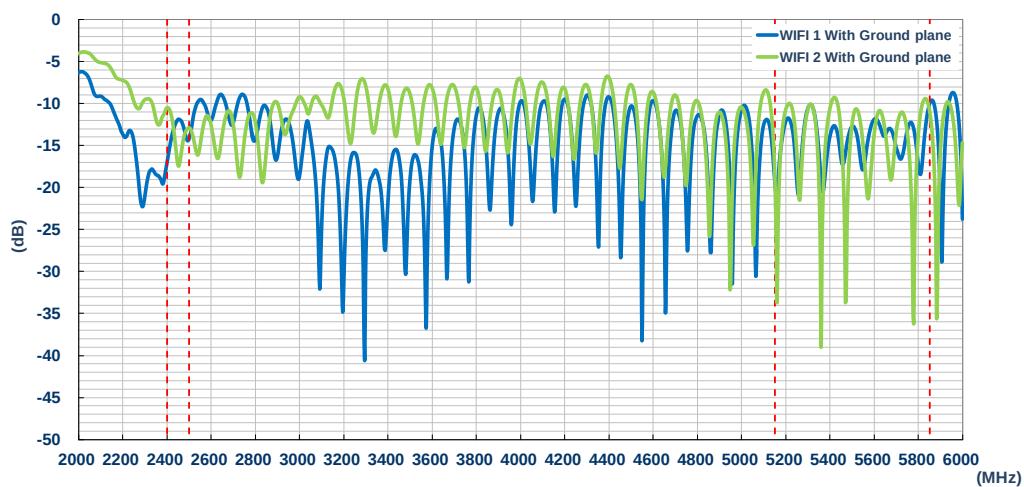
Peak Gain (dBi) – WiFi 2



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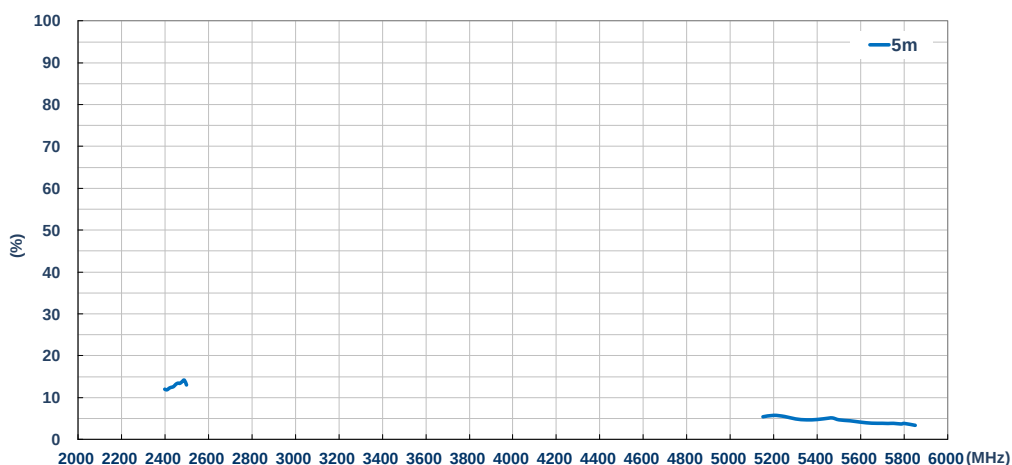
With Ground Plane

S11 (dB) - WiFi 1 & WiFi 2

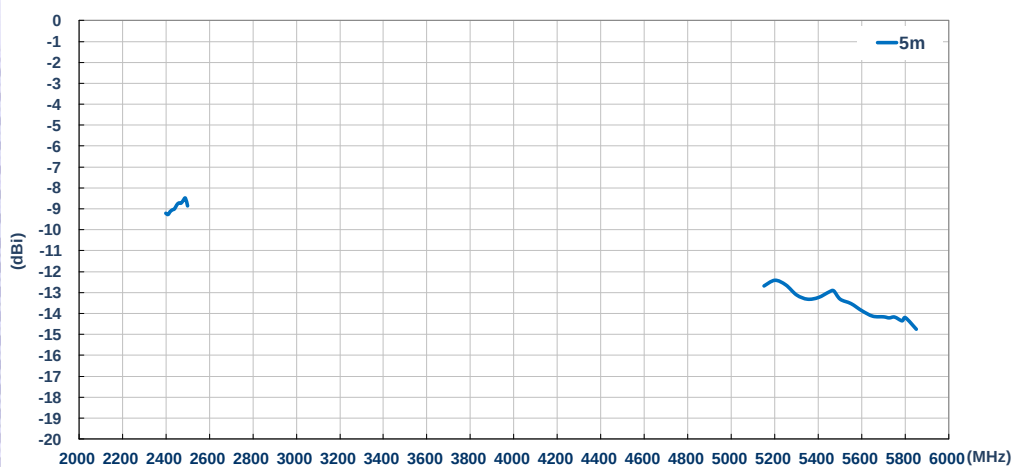


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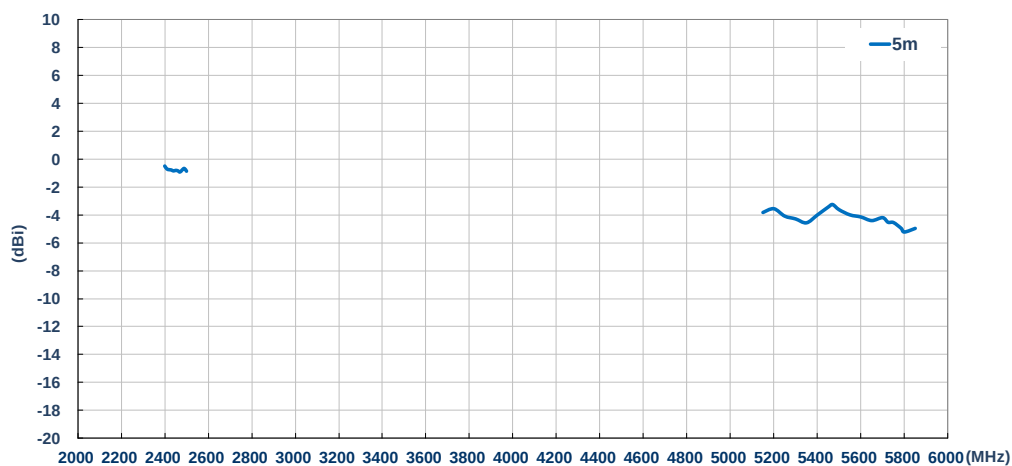
Efficiency (%) - WiFi 1



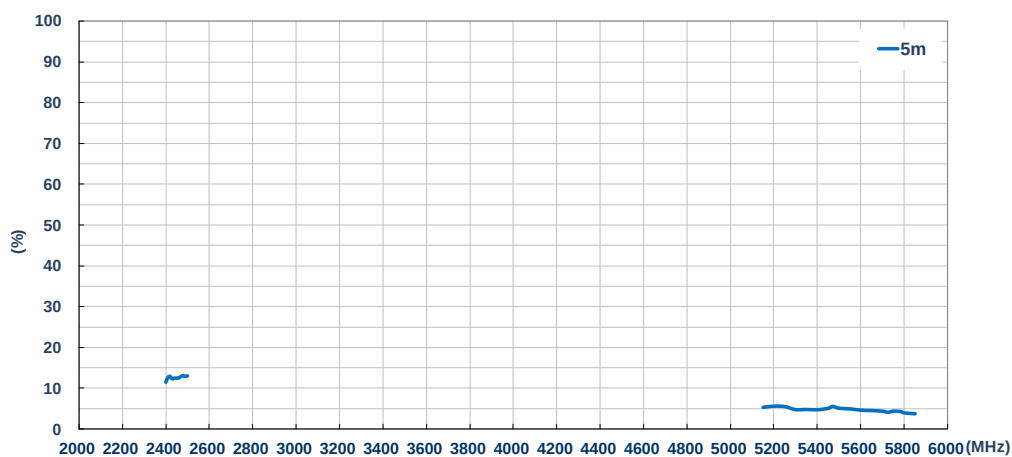
Average Gain (dBi) - WiFi 1



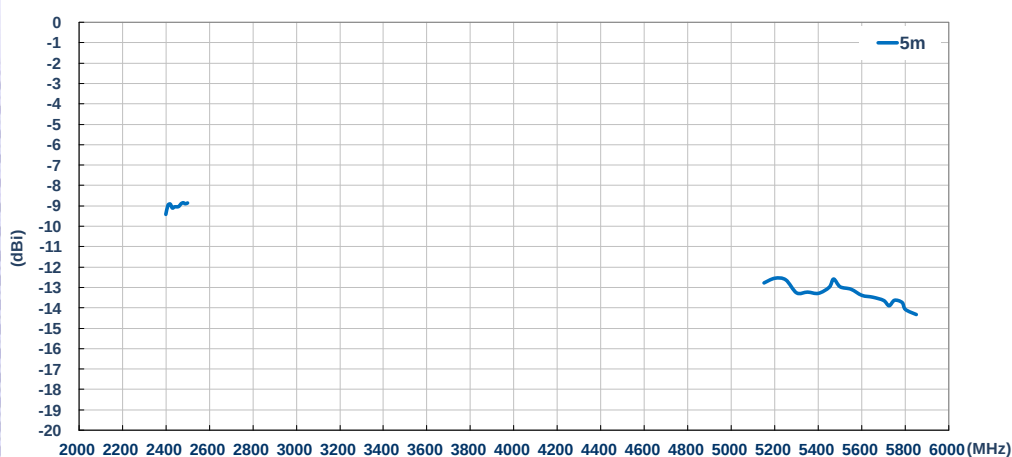
Peak Gain (dBi) - WiFi 1



Efficiency (%) - WiFi 2

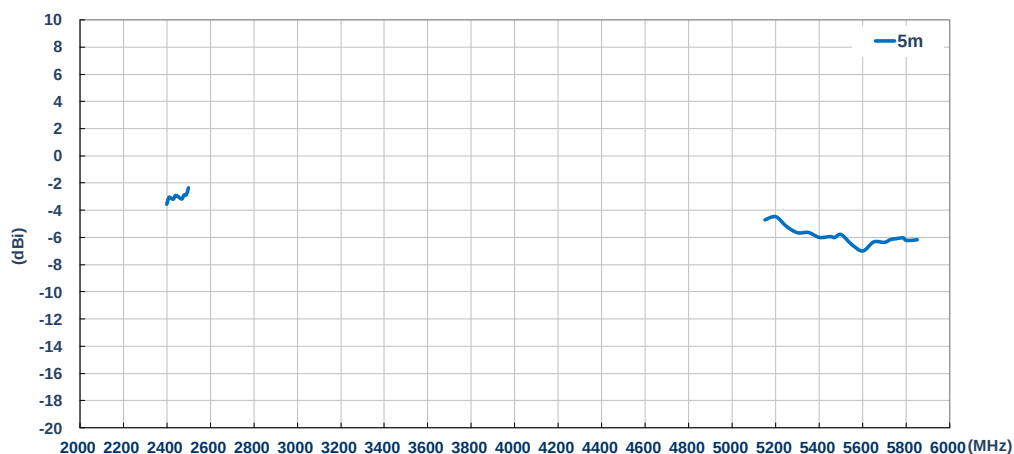


Average Gain (dBi) - WiFi 2



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Peak Gain (dBi) – WiFi 2



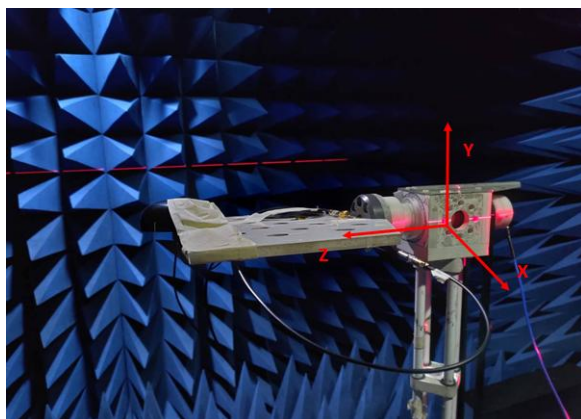
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III. Antenna Radiation Pattern Measurement:

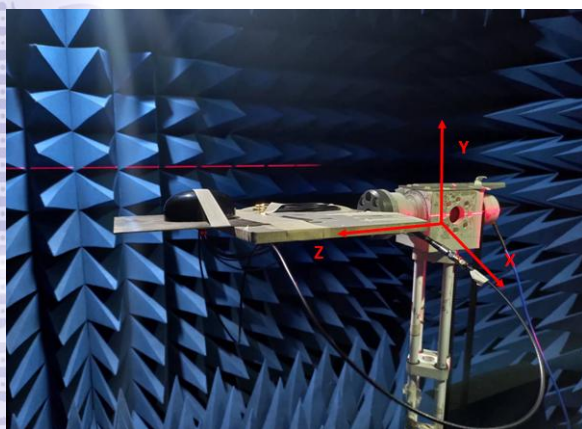
The antenna radiation patterns were measured in Anechoic Chamber.

The measurement setup as below,

Free Space

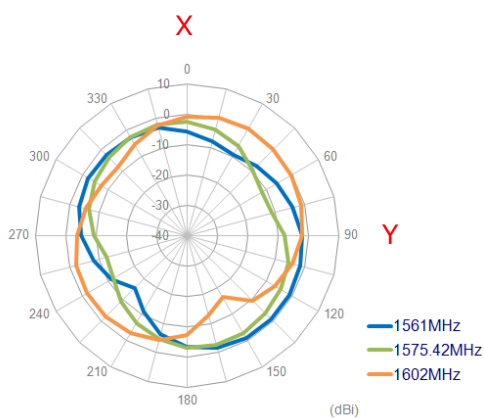


With 30*30cm Ground Plane

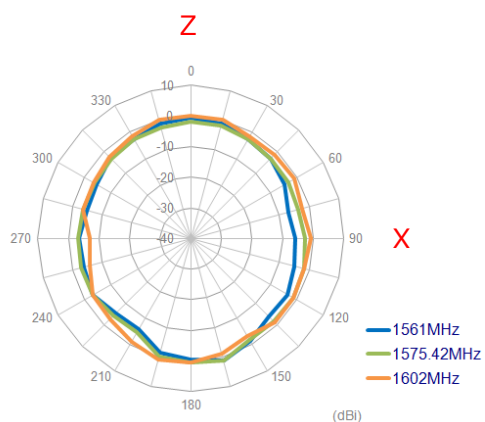


IV. 2D Radiation Pattern:

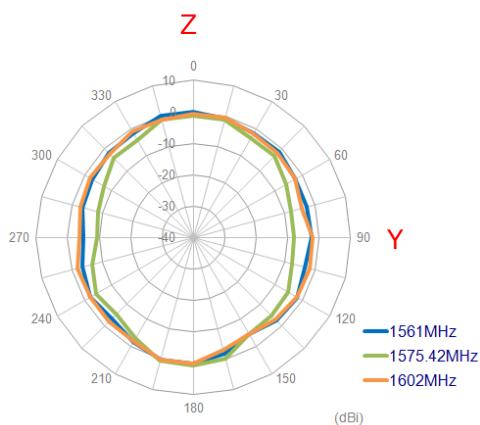
GNSS X-Y Plane



GNSS X-Z Plane

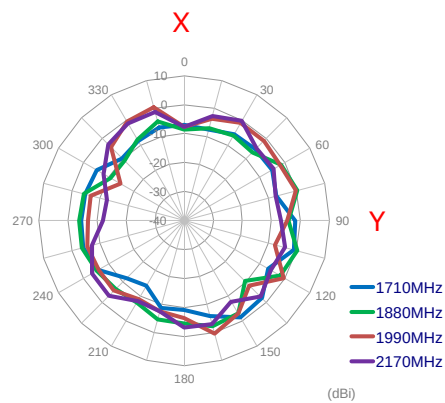
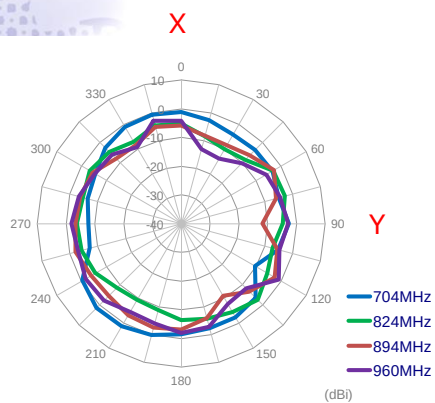


GNSS Y-Z Plane

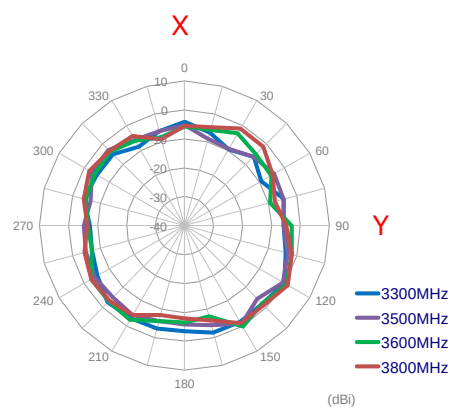
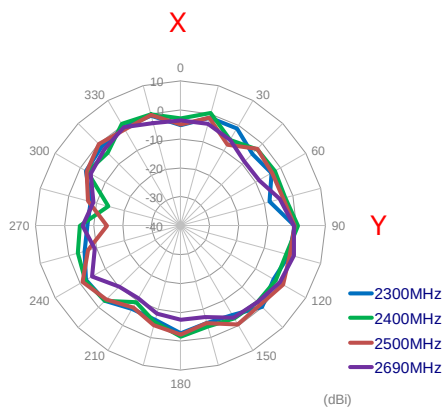


Free Space - LTE 1

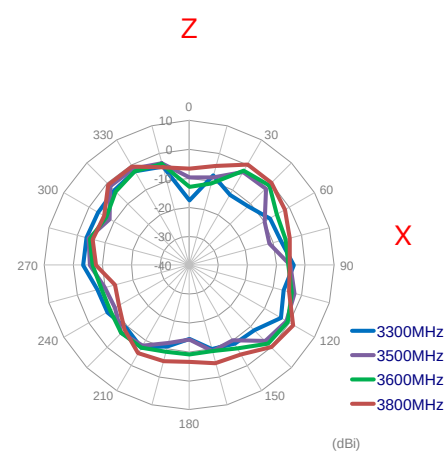
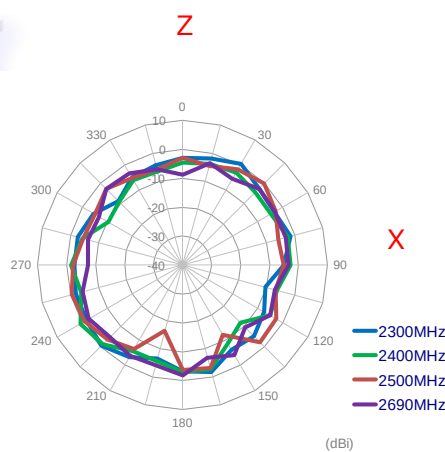
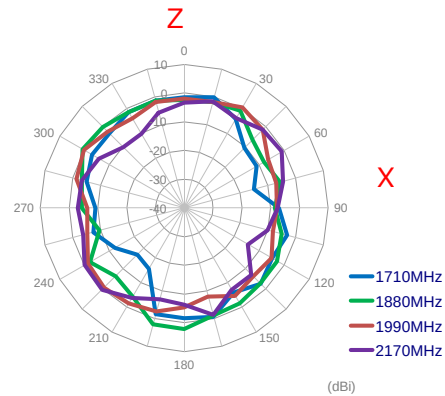
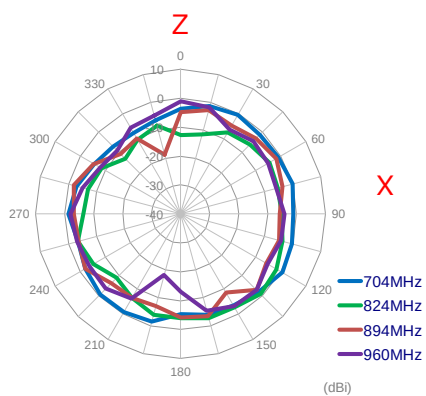
X-Y Plane



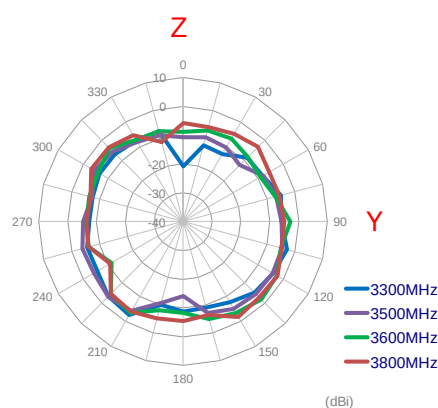
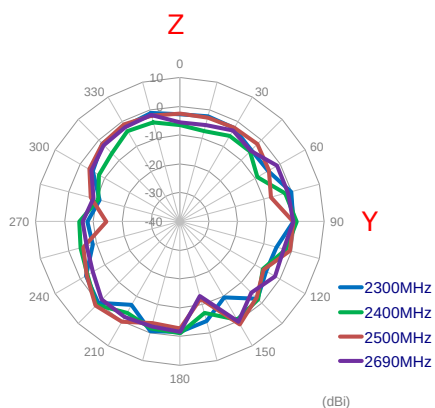
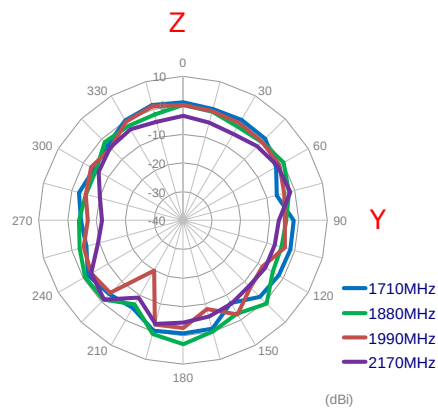
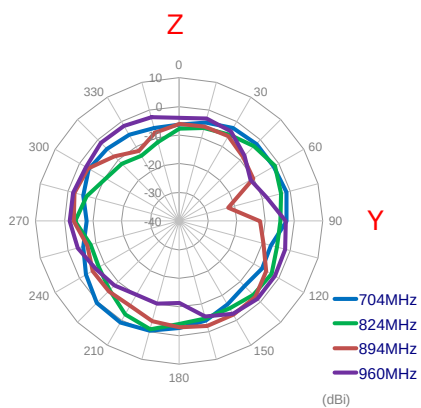
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X-Z Plane

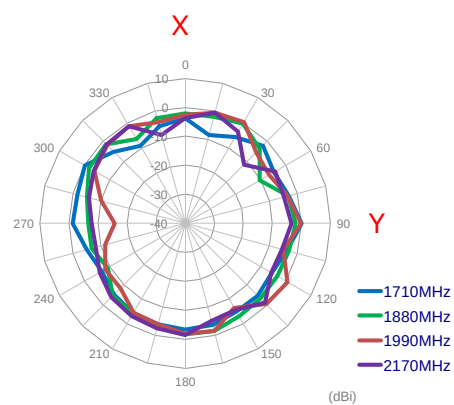
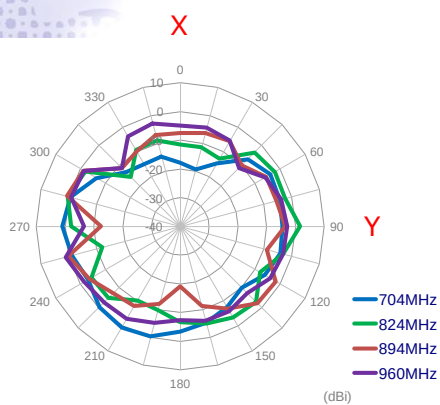


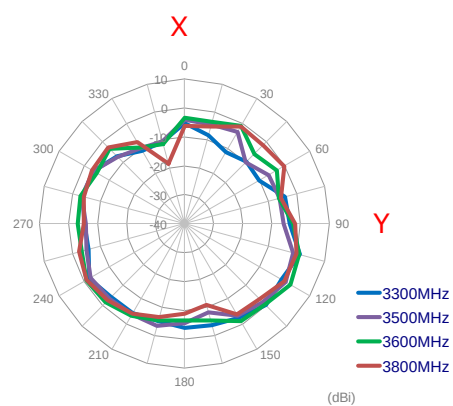
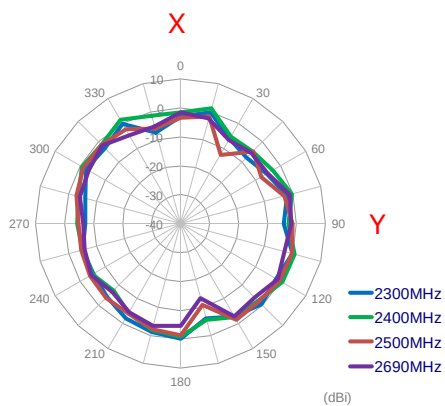
Y-Z Plane



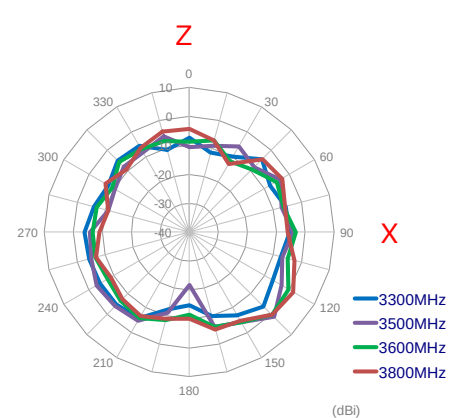
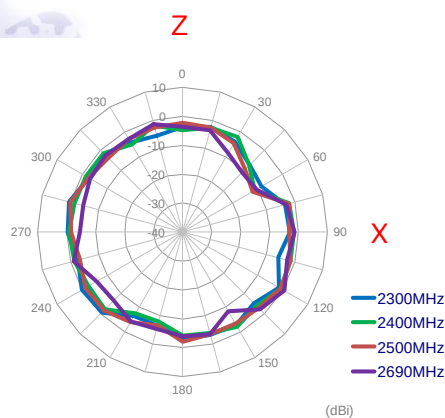
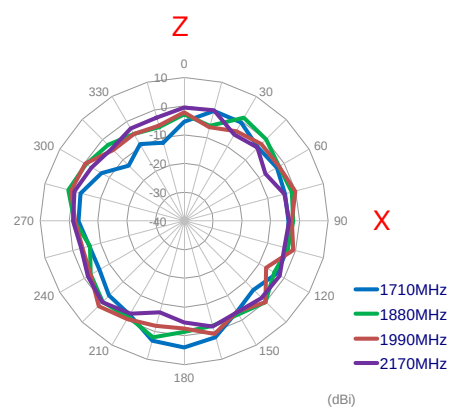
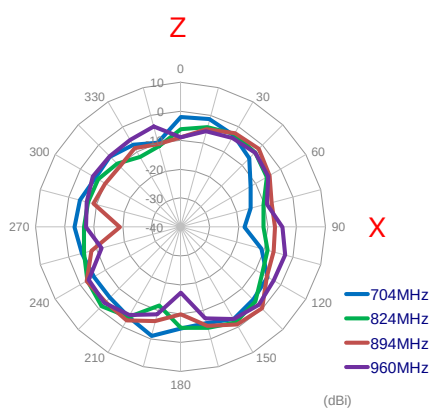
Free Space - LTE 2

X-Y Plane

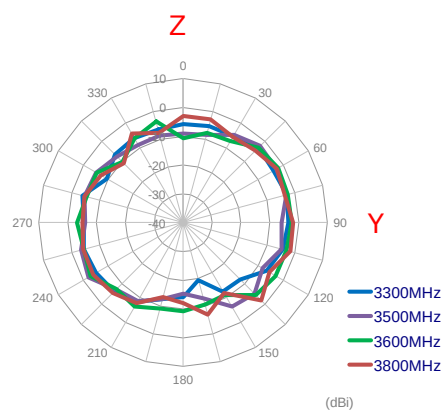
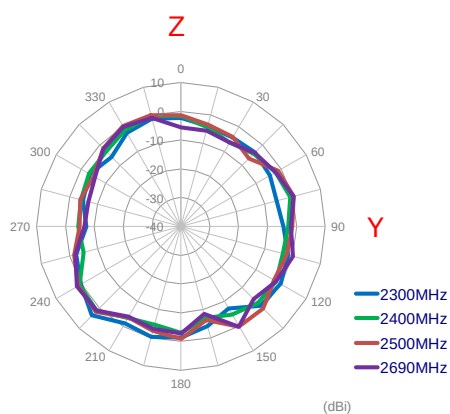
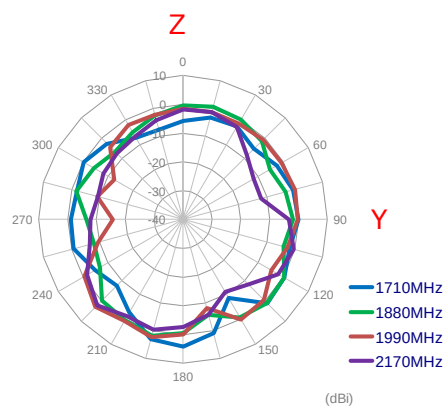
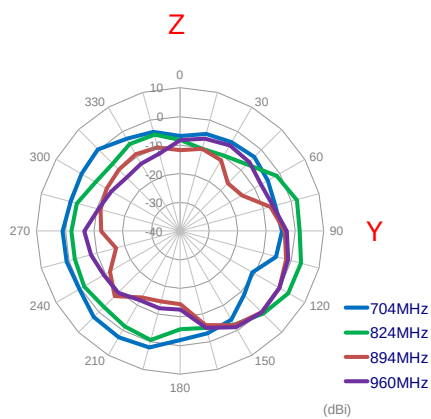




X-Z Plane

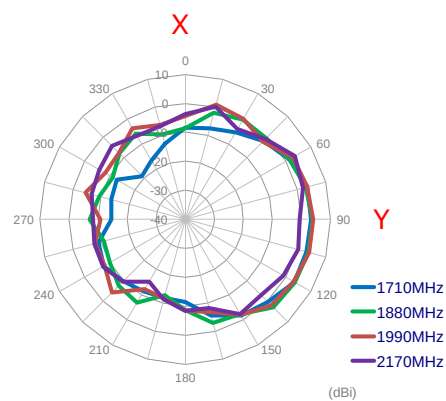
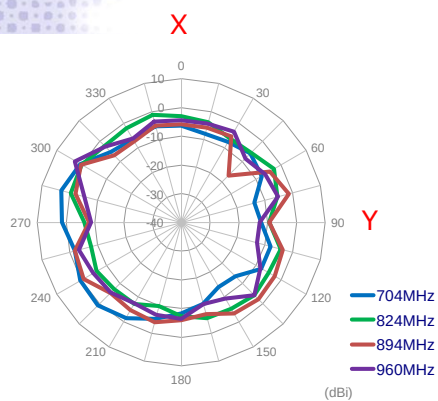


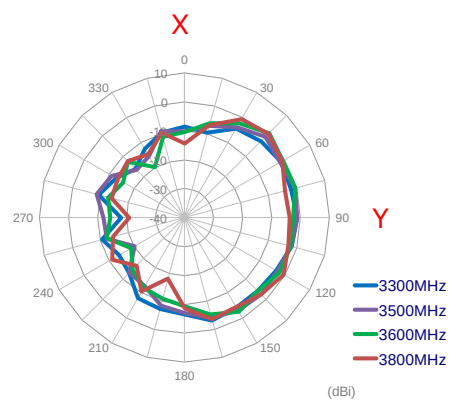
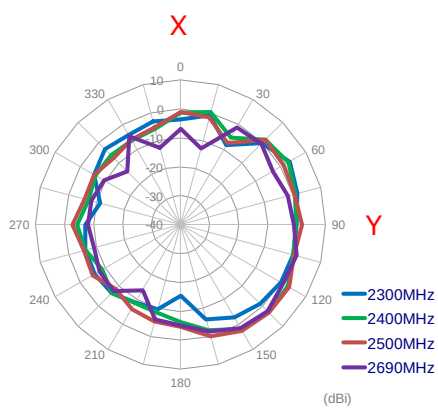
Y-Z Plane



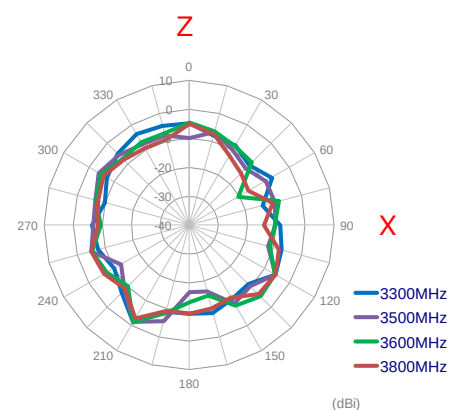
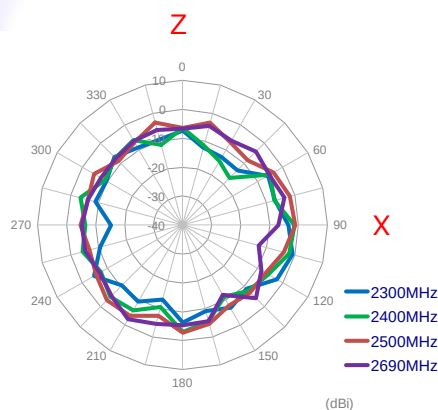
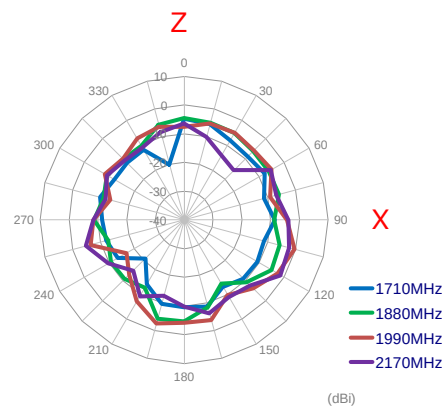
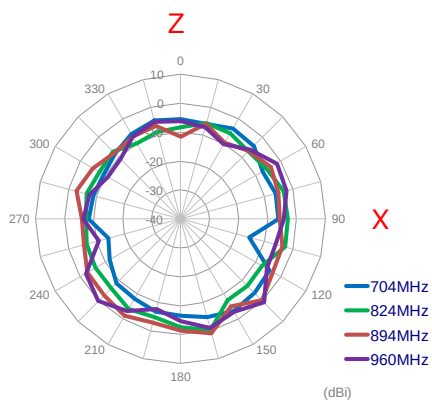
With Ground Plane - LTE 1

X-Y Plane

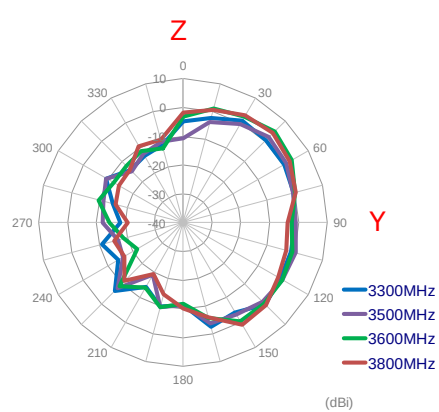
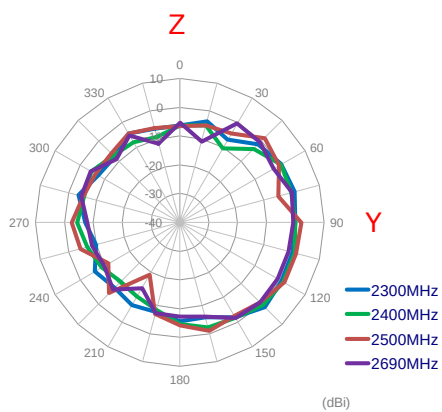
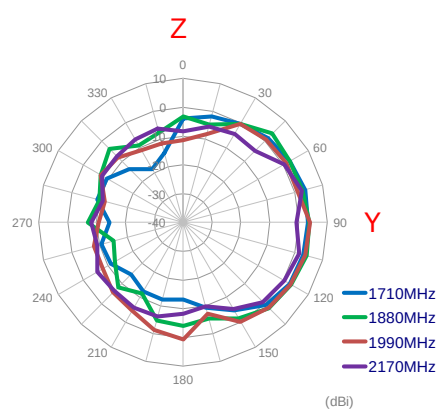
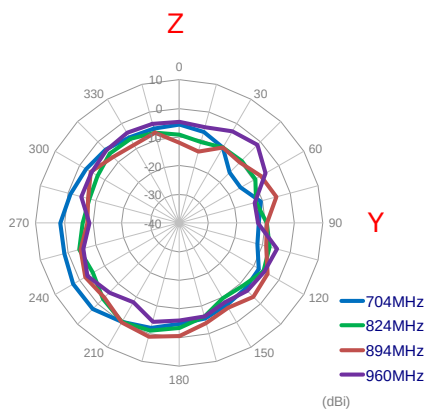




X-Z Plane



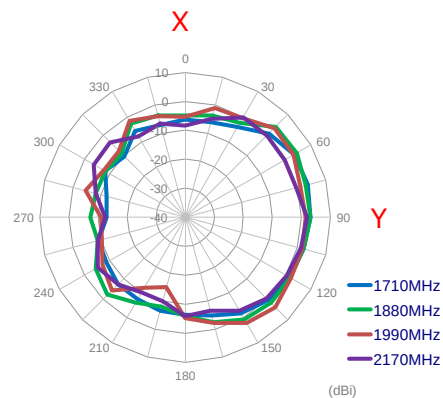
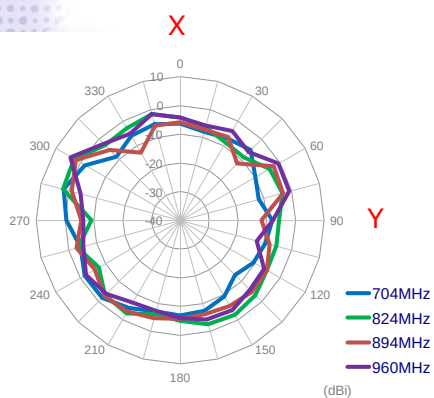
Y-Z Plane

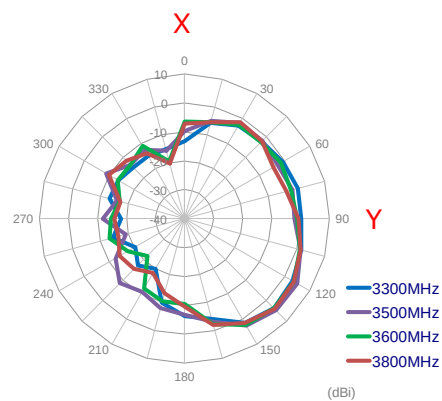
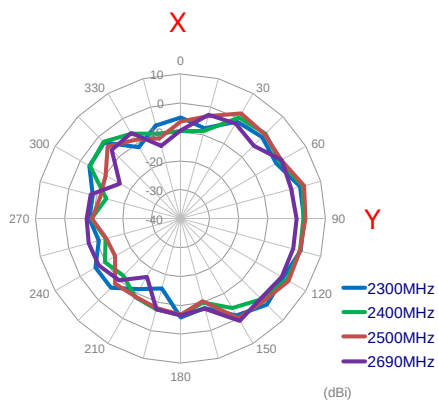


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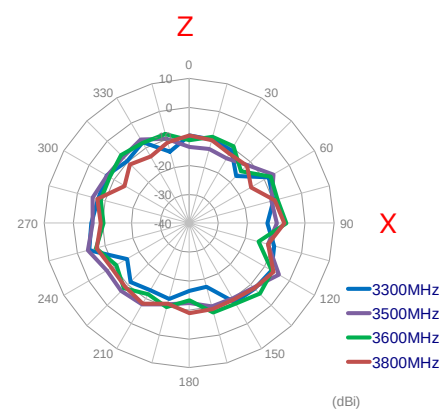
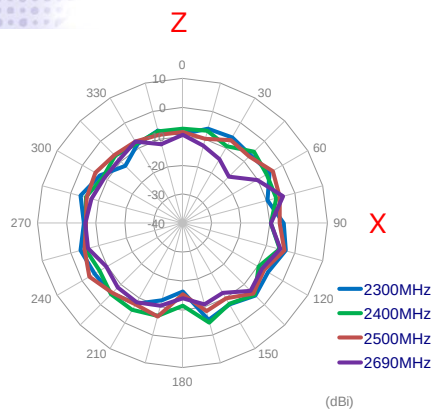
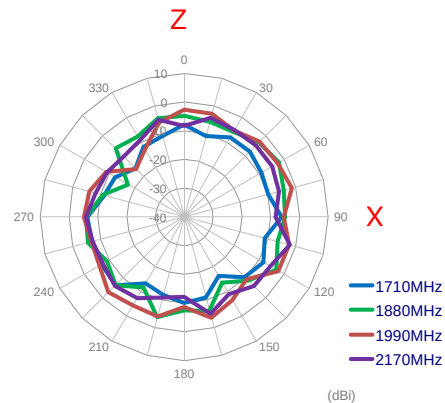
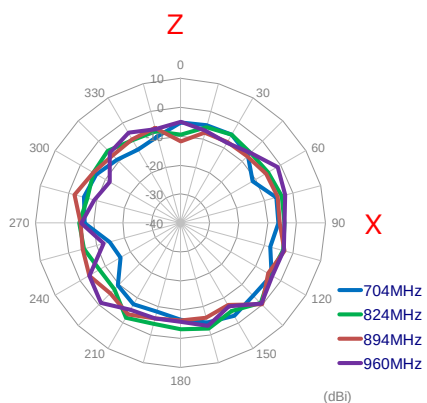
With Ground Plane - LTE 2

X-Y Plane

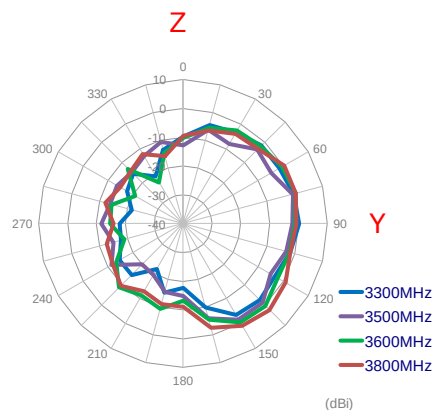
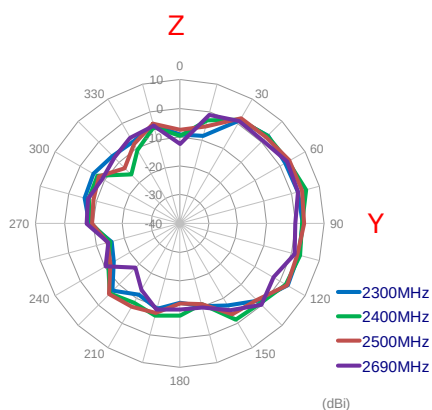
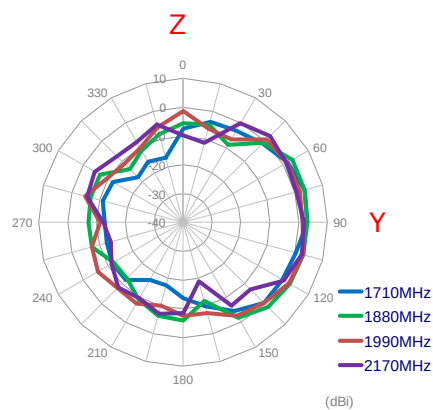
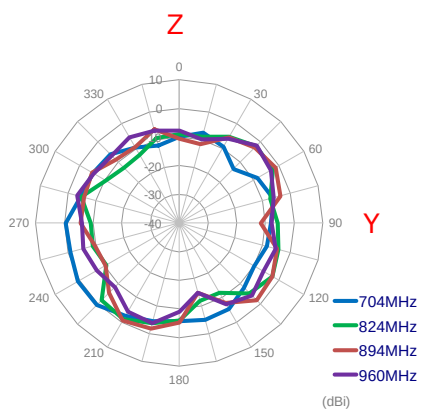




X-Z Plane

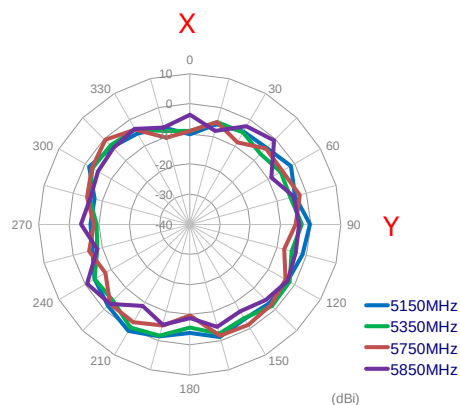
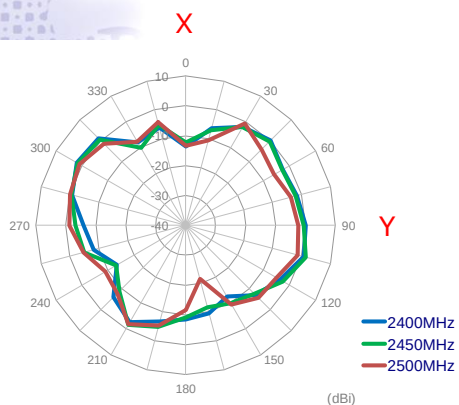


Y-Z Plane

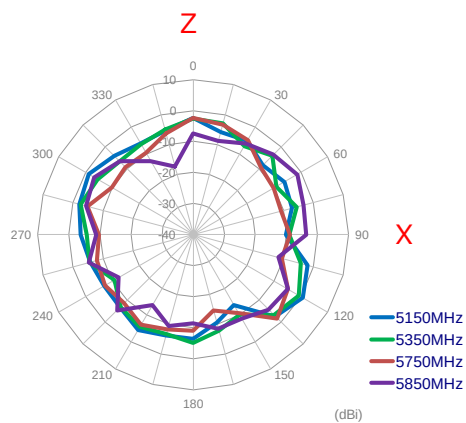
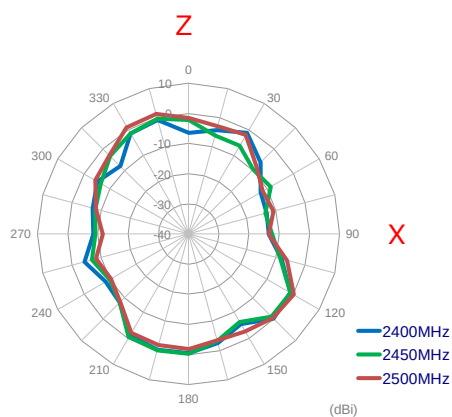


Free Space – WiFi 1

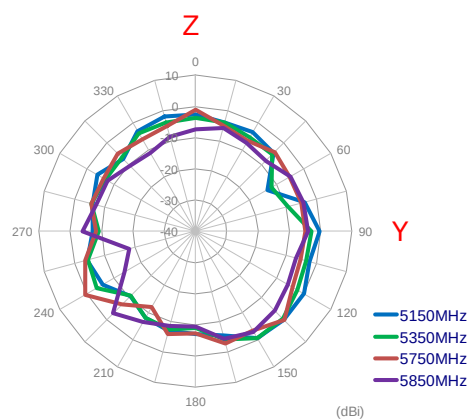
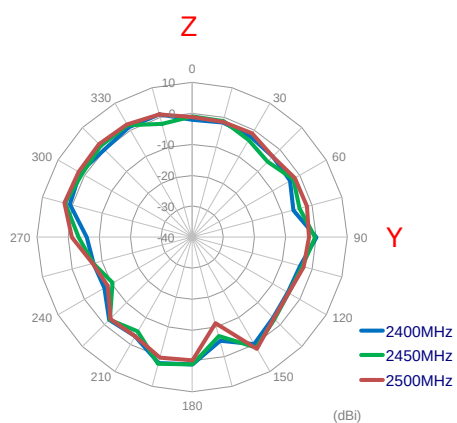
X-Y Plane



X-Z Plane

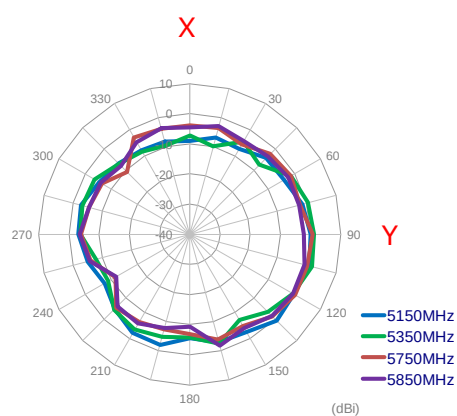
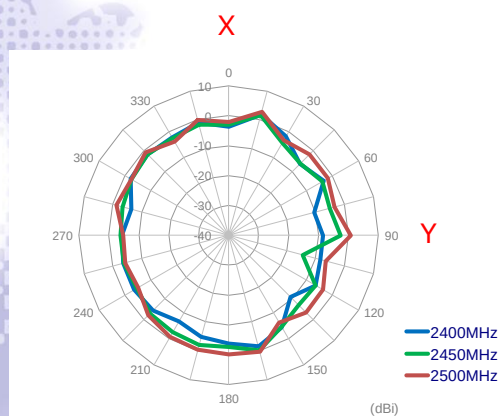


Y-Z Plane



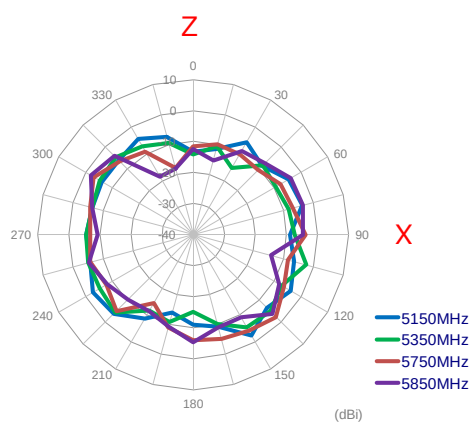
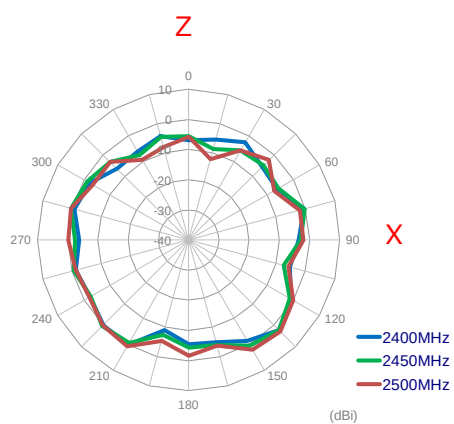
Free Space – WiFi 2

X-Y Plane

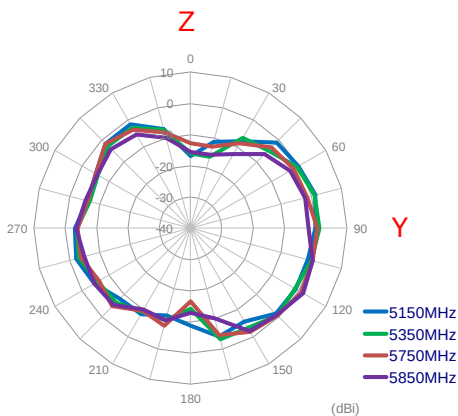
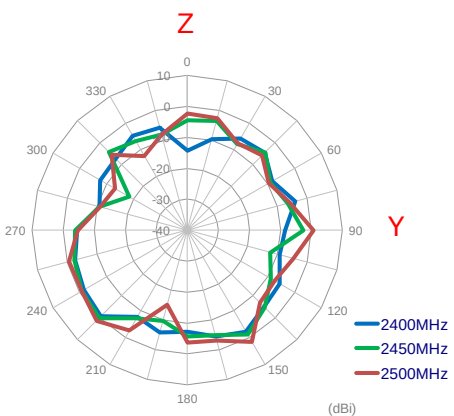


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X-Z Plane

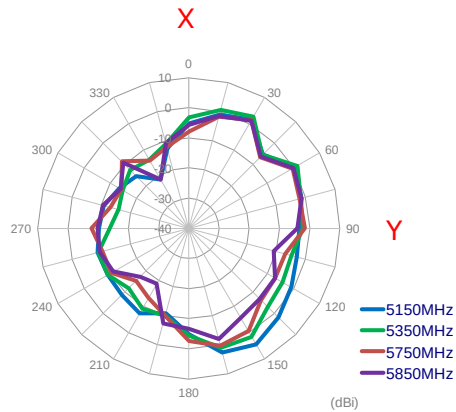
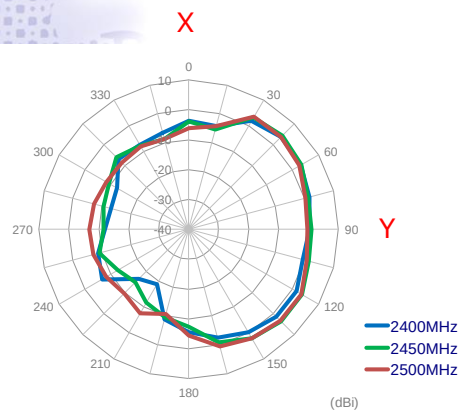


Y-Z Plane



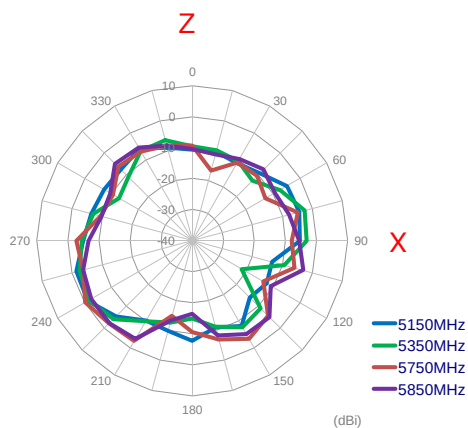
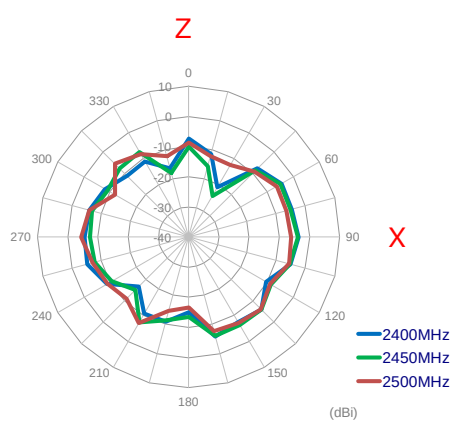
With Ground Plane – WiFi 1

X-Y Plane

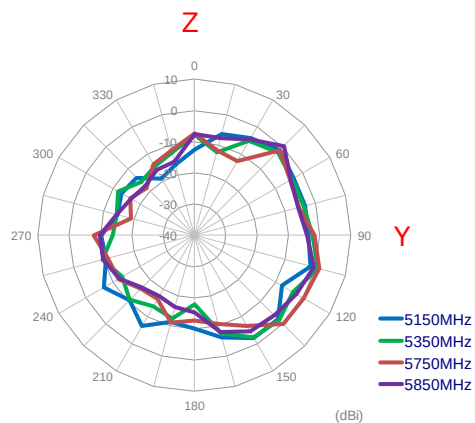
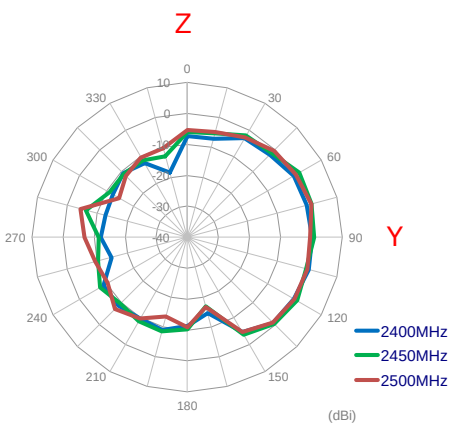


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X-Z Plane

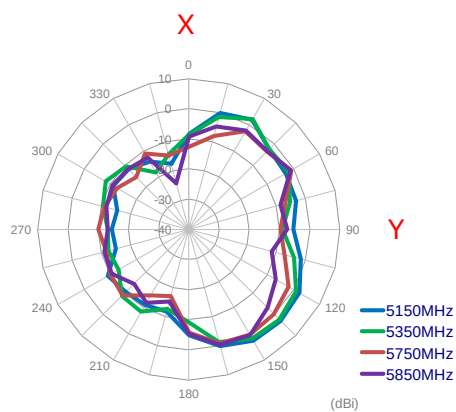
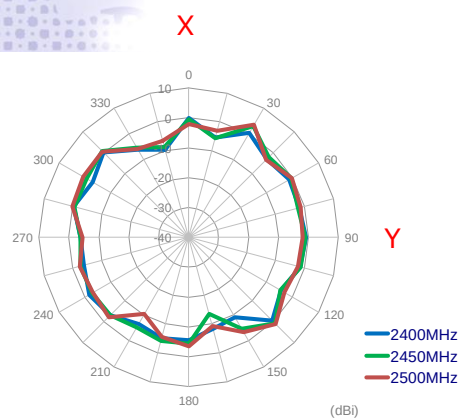


Y-Z Plane



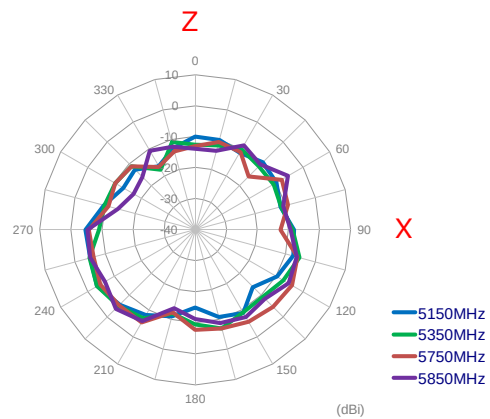
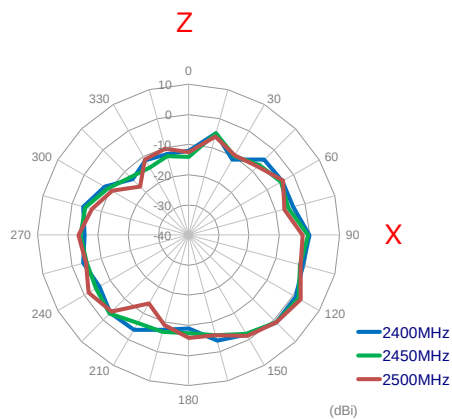
With Ground Plane – WiFi 2

X-Y Plane

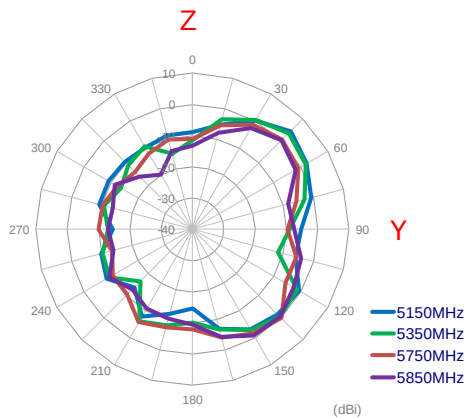
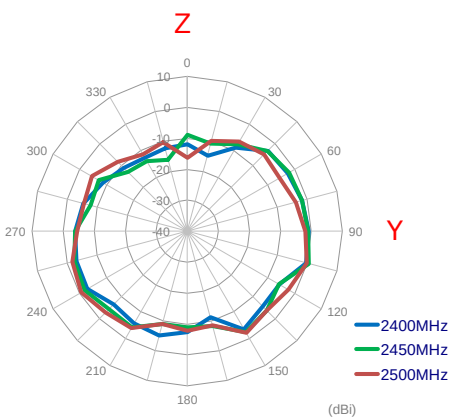


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X-Z Plane



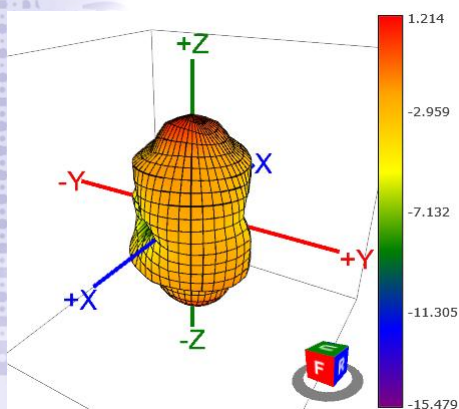
Y-Z Plane



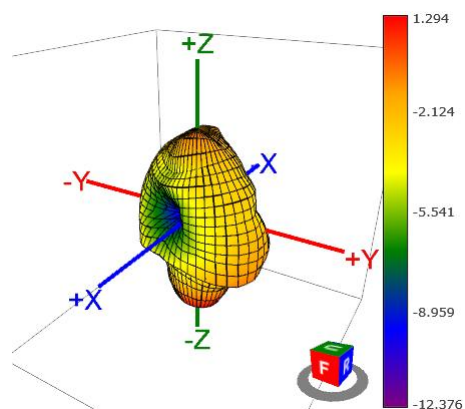
V. 3D Radiation Pattern:

GNSS

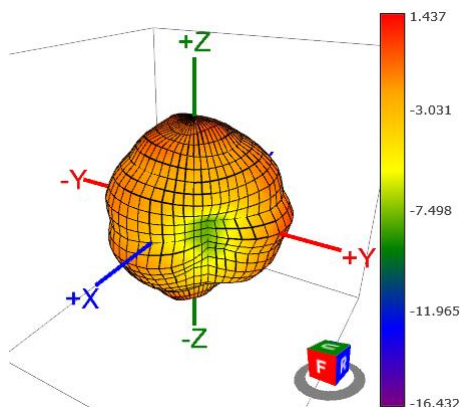
1561MHz



1575.42MHz

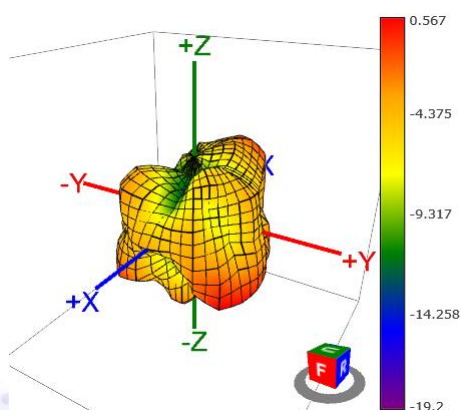


1602MHz

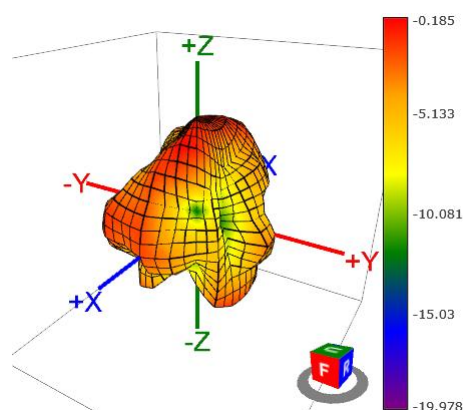


Free Space - LTE 1

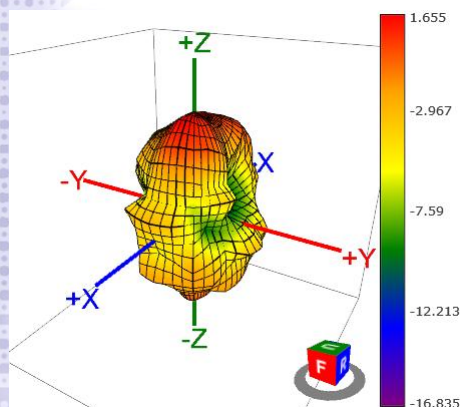
824MHz



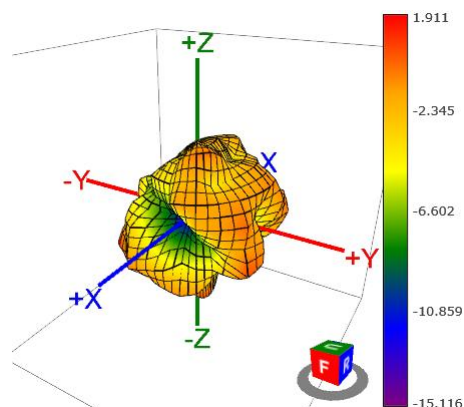
960MHz



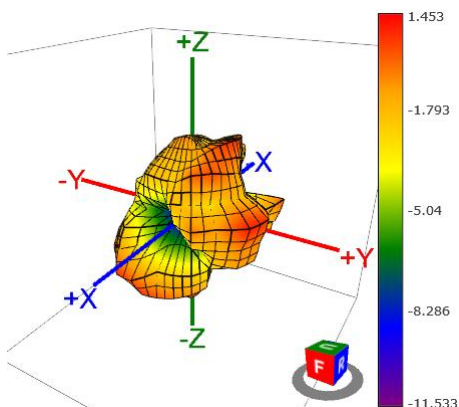
1710MHz



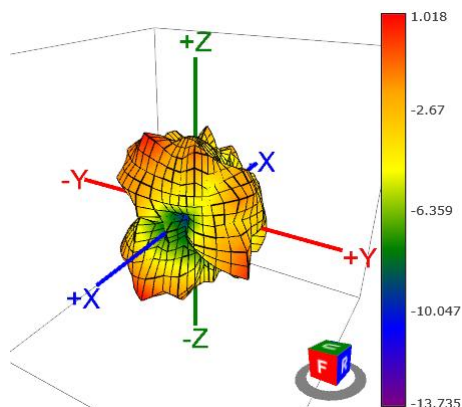
2170MHz



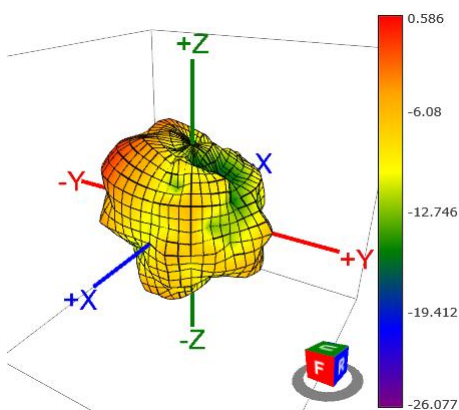
2300MHz



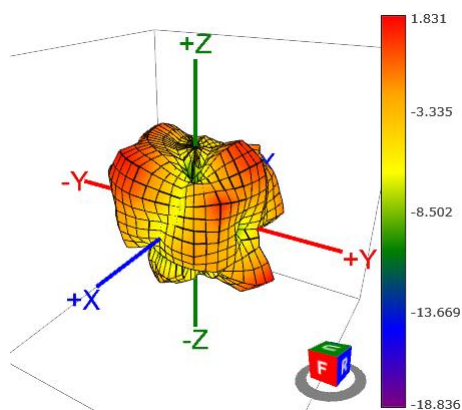
2690MHz



3300MHz

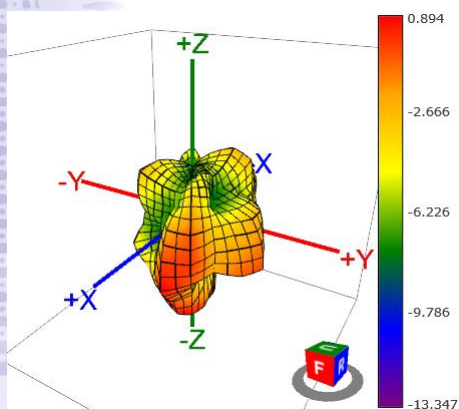


3800MHz

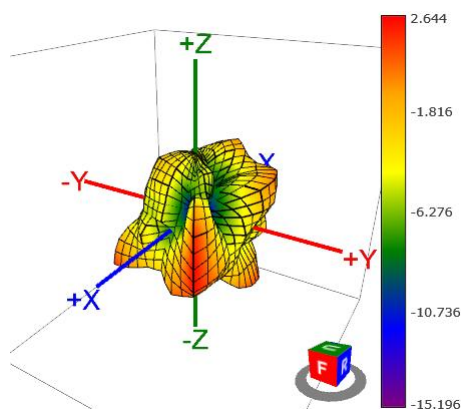


With Ground Plane - LTE 1

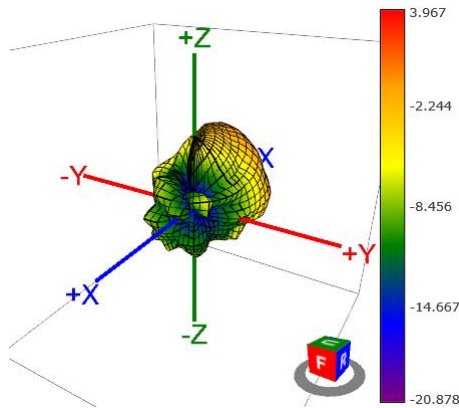
824MHz



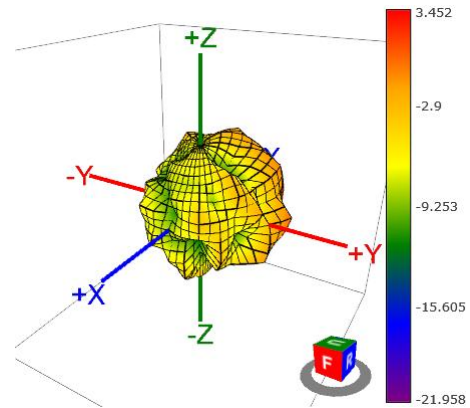
960MHz



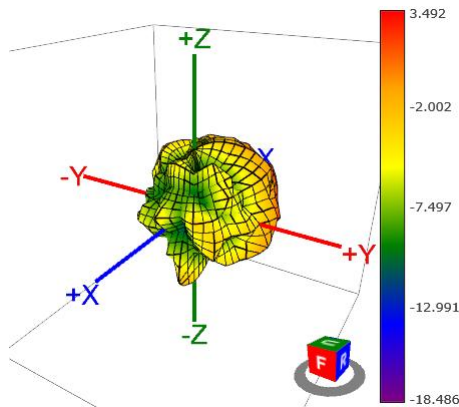
1710MHz



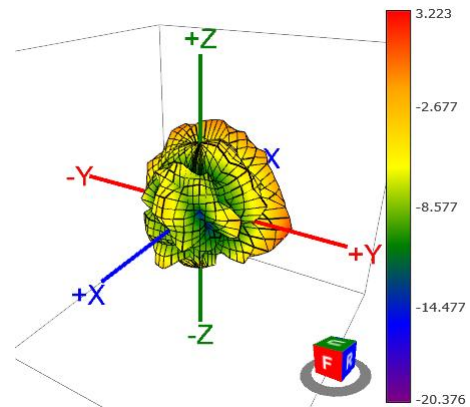
2170MHz



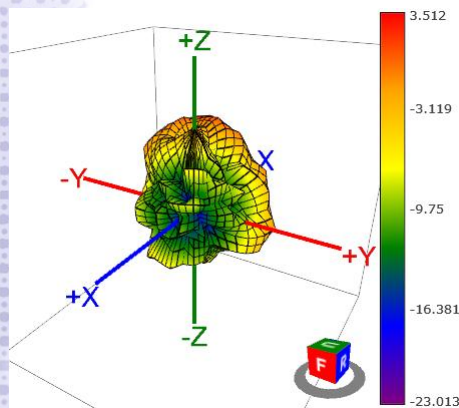
2300MHz



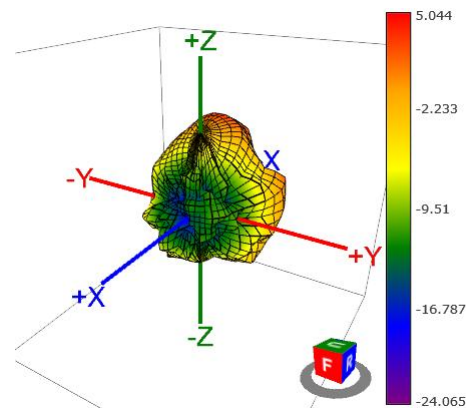
2690MHz



3300MHz

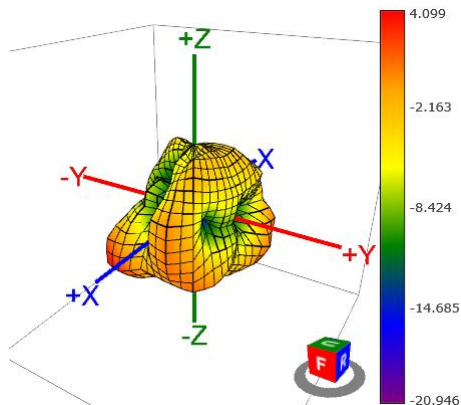


3800MHz

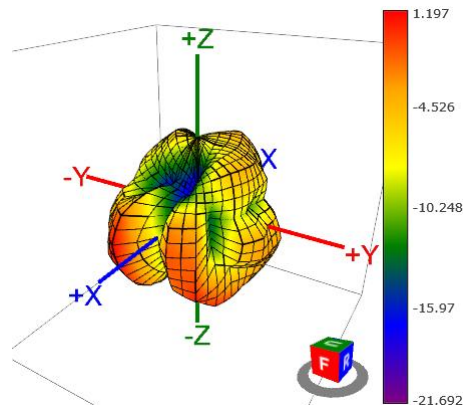


Free Space - LTE 2

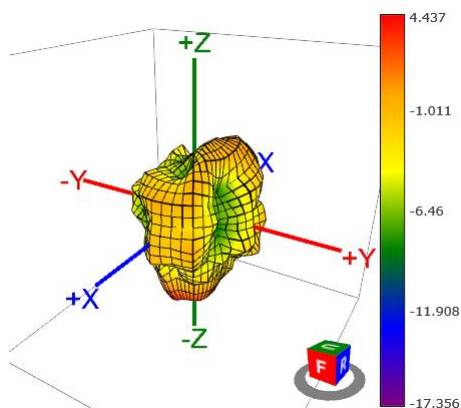
824MHz



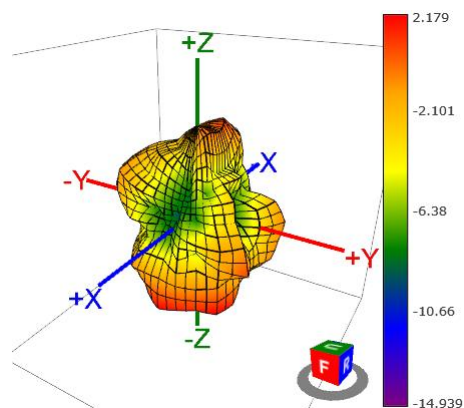
960MHz



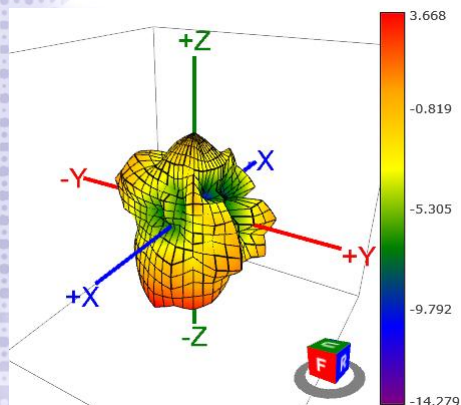
1710MHz



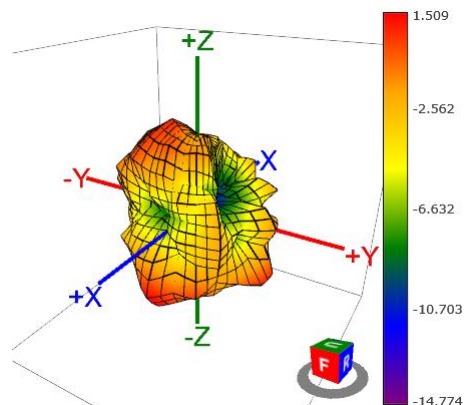
2170MHz



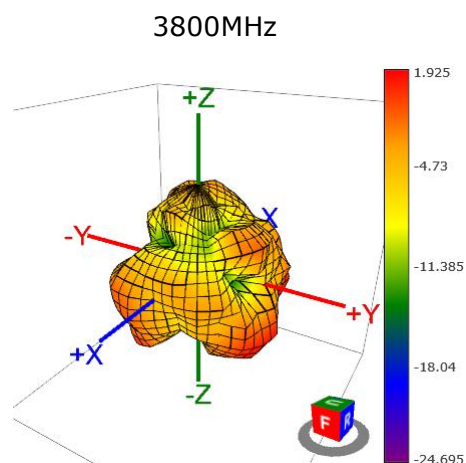
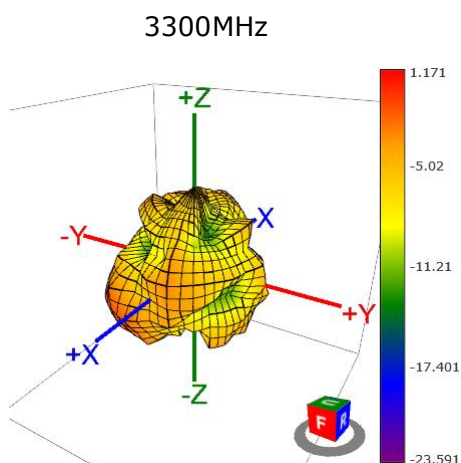
2300MHz



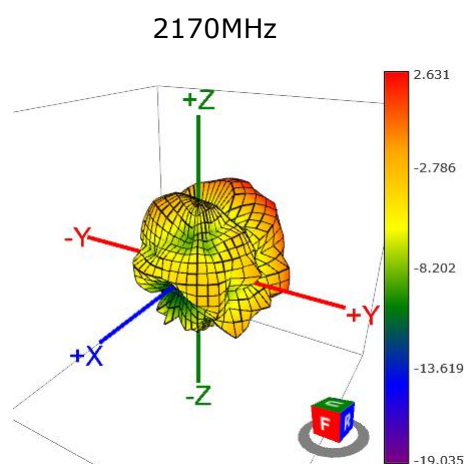
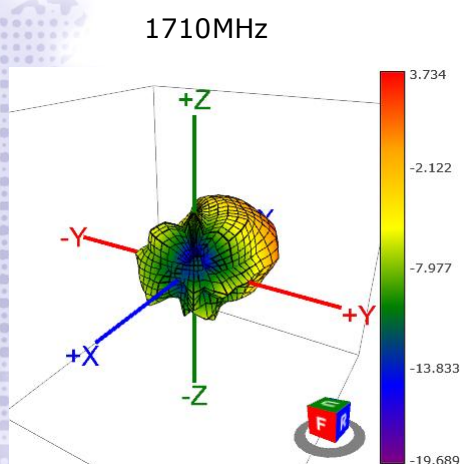
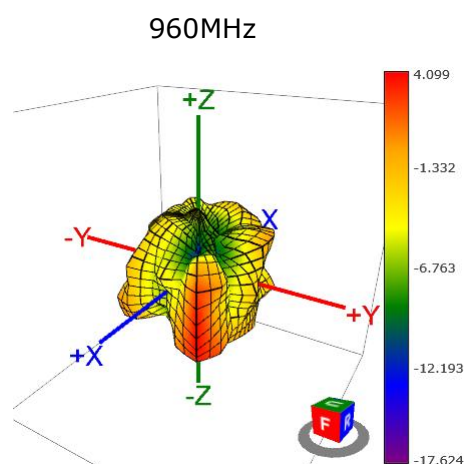
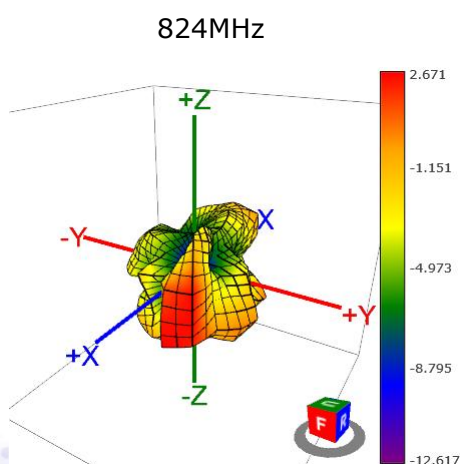
2690MHz



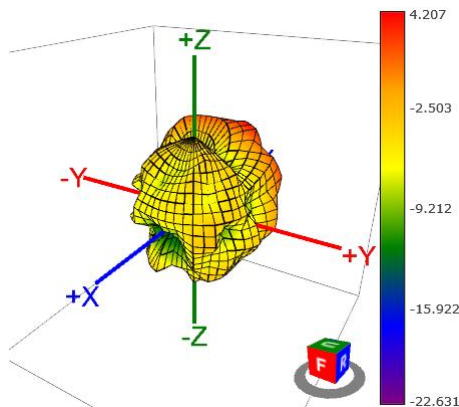
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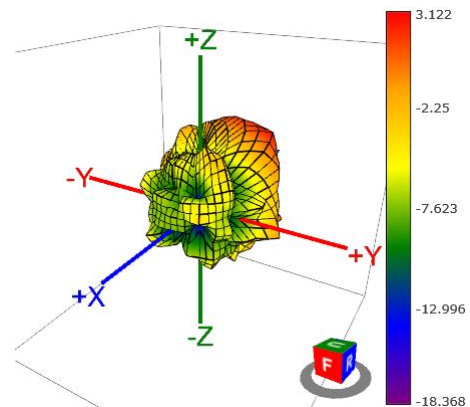
With Ground Plane - LTE 2



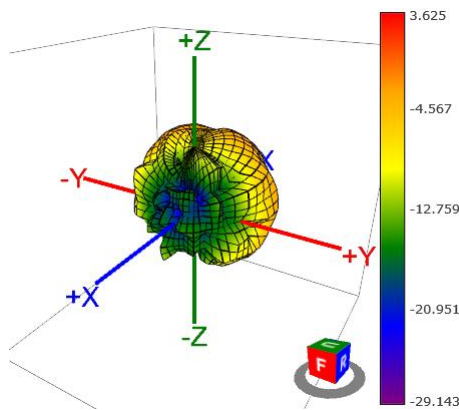
2300MHz



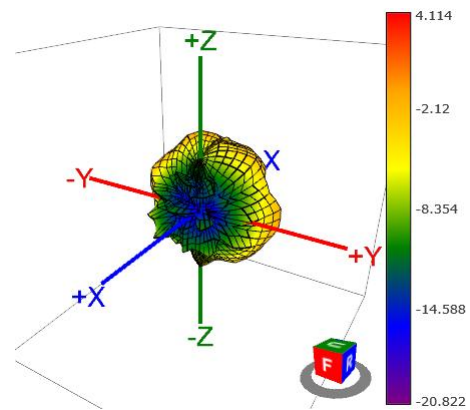
2690MHz



3300MHz

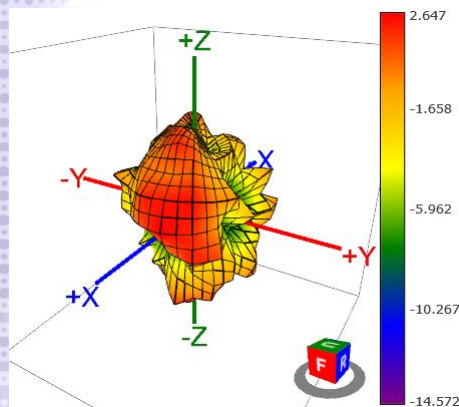


3600MHz

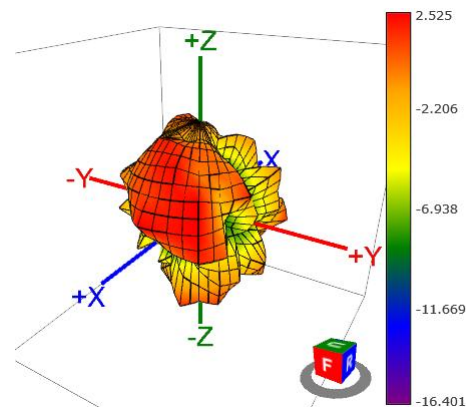


Free Space – WiFi 1

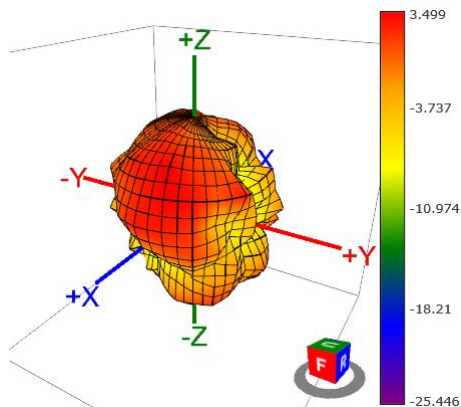
2400MHz



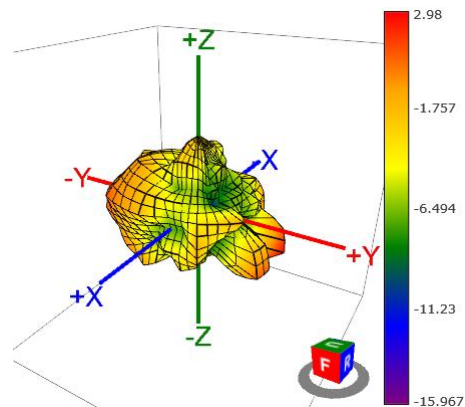
2450MHz



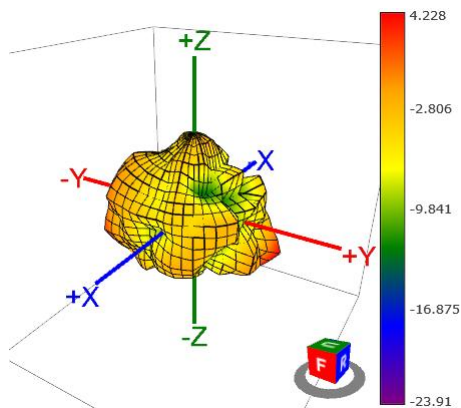
2500MHz



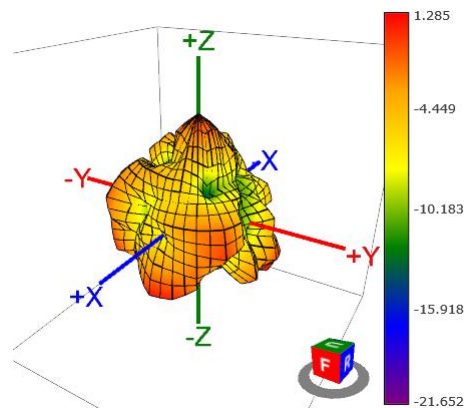
5150MHz



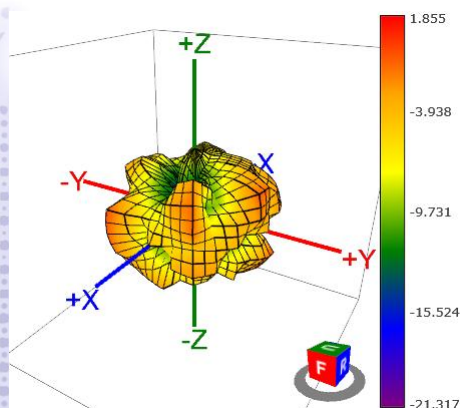
5350MHz



5750MHz



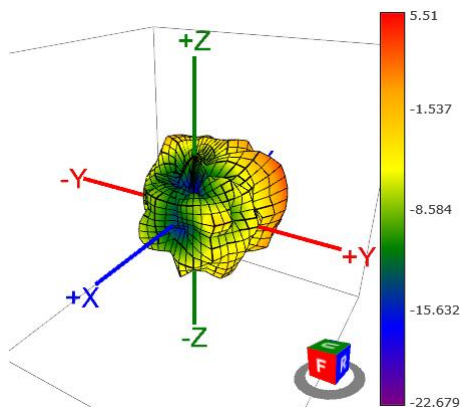
5850MHz



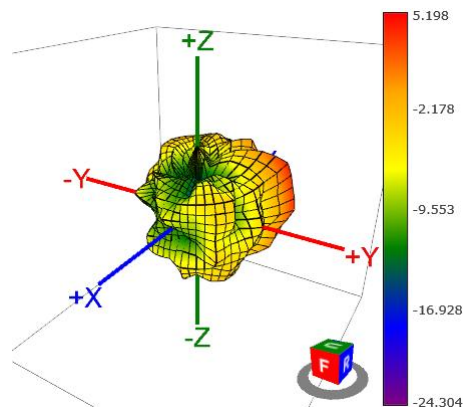
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With Ground Plane – WiFi 1

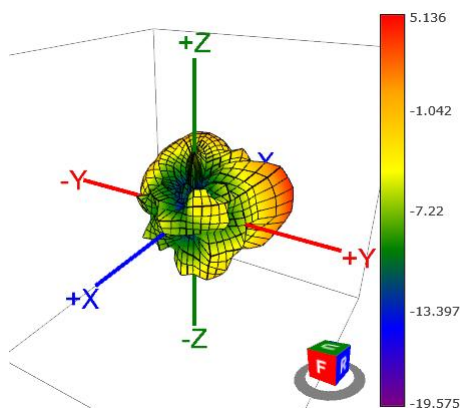
2400MHz



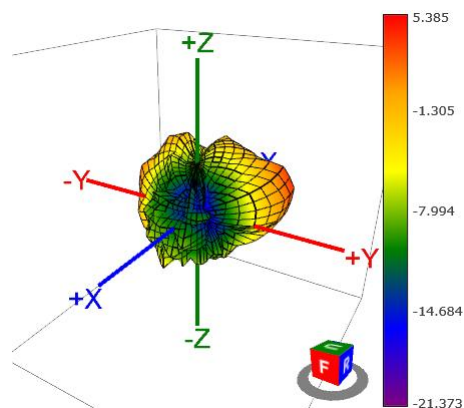
2450MHz



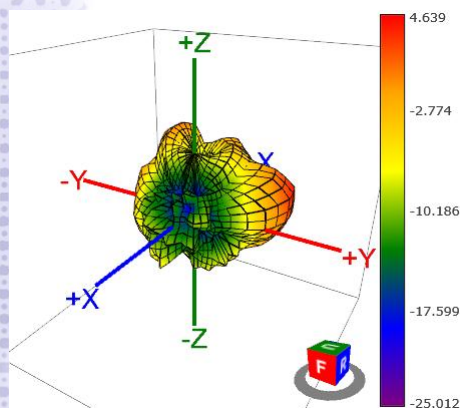
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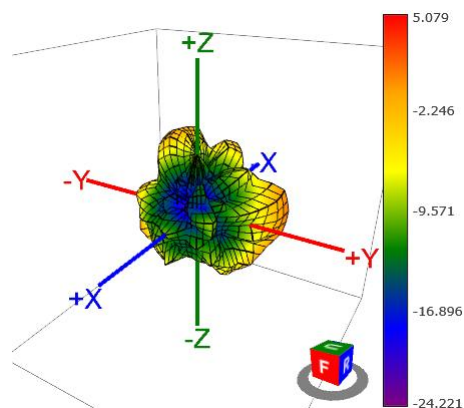
5150MHz



5350MHz

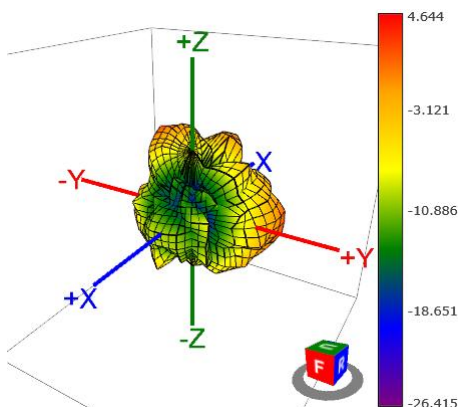


5750MHz



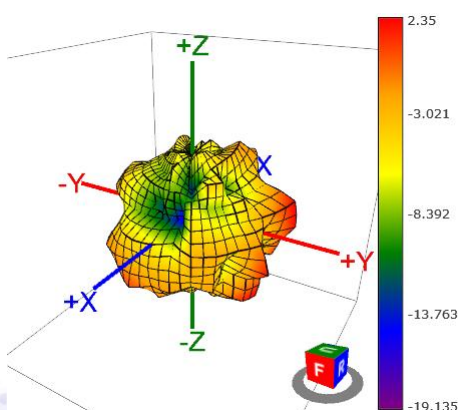
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5850MHz

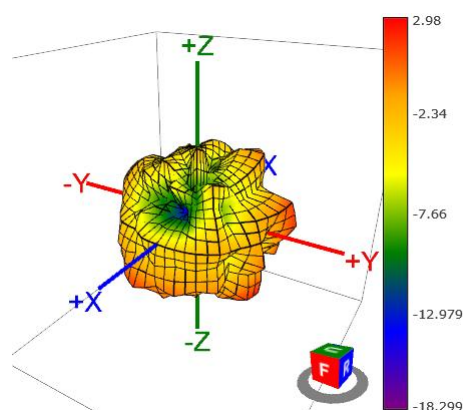


Free Space – WiFi 2

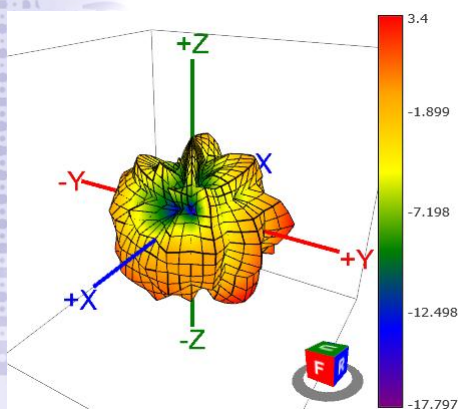
2400MHz



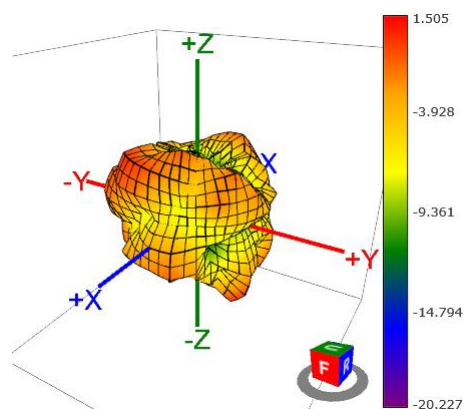
2450MHz



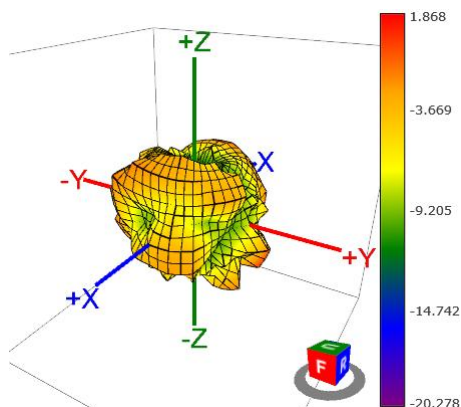
2500MHz



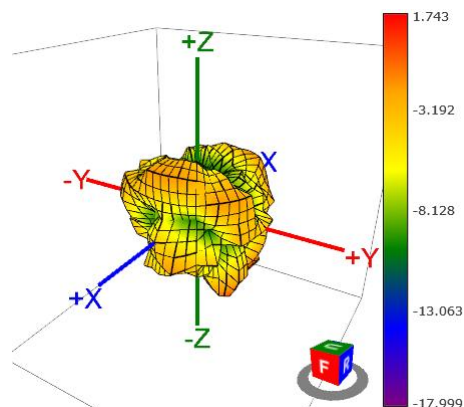
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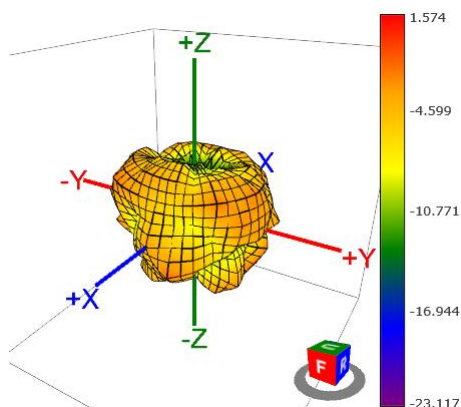
5350MHz



5750MHz

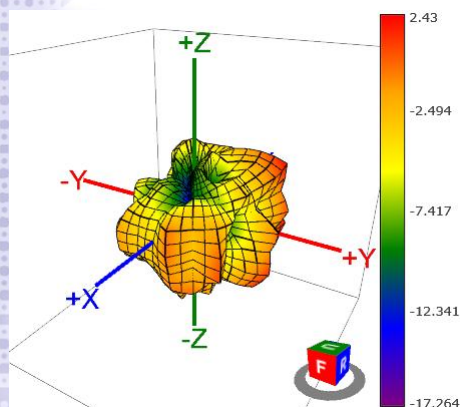


5850MHz

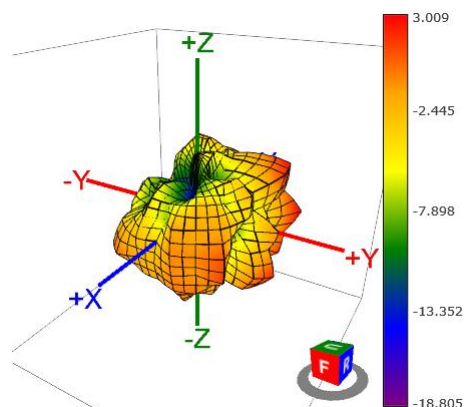


With Ground Plane – WiFi 2

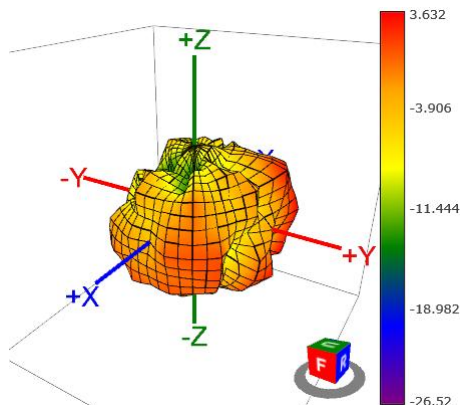
2400MHz



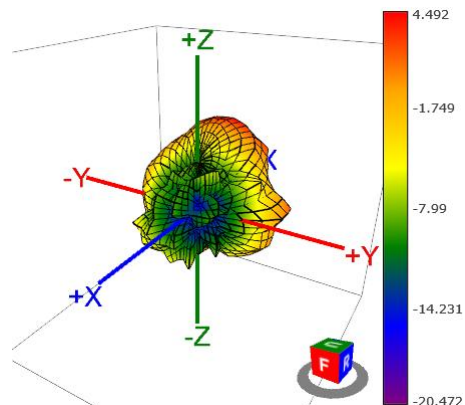
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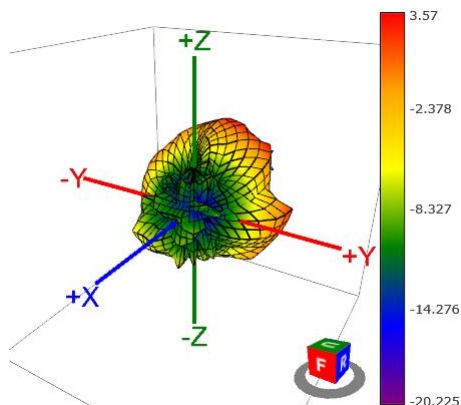
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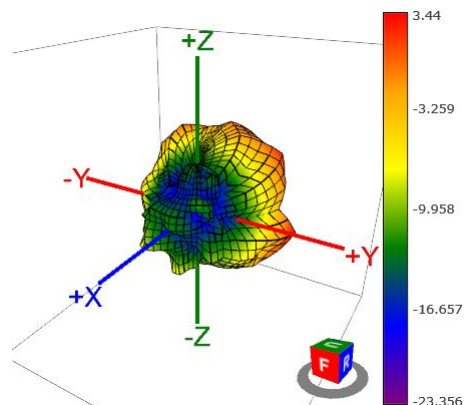
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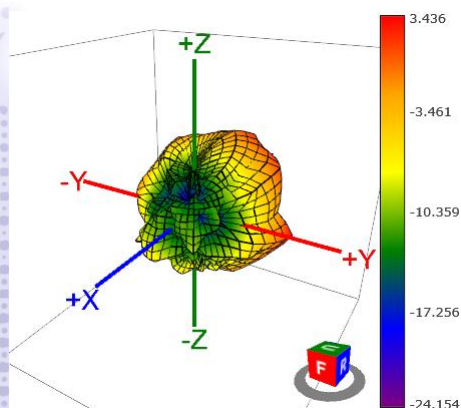
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5750MHz

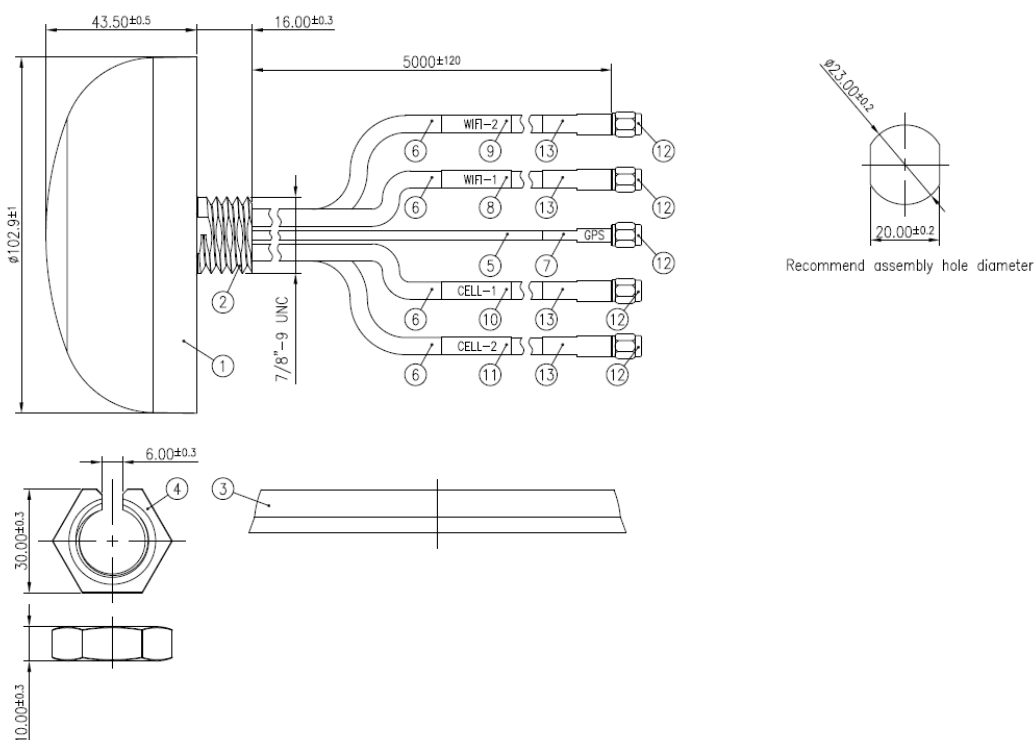


5850MHz



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VI. Mechanical Drawing (Unit:mm):



13	Heat Shrink Tube	EVA	Black	4
12	SMA(M) Connector	Brass	Au Plated	5
11	CELL-2 Heat Shrink Tube	CTMS	White	1
10	CELL-1 Heat Shrink Tube	CTMS	White	1
9	WIFI-2 Heat Shrink Tube	CTMS	Yellow	1
8	WIFI-1 Heat Shrink Tube	CTMS	Yellow	1
7	GPS Heat Shrink Tube	CTMS	Blue	1
6	Cable SNC-200	PVC	Black	4
5	Cable H-100	PVC	Black	1
4	Nut	Steel	Ni Plated	1
3	Gasket	EPDM	Black	1
2	Bottom Housing	ABS	Black	1
1	Top Housing	PC+PBT	White	1
No	NAME	MATERIAL	FINISH	Q'TY

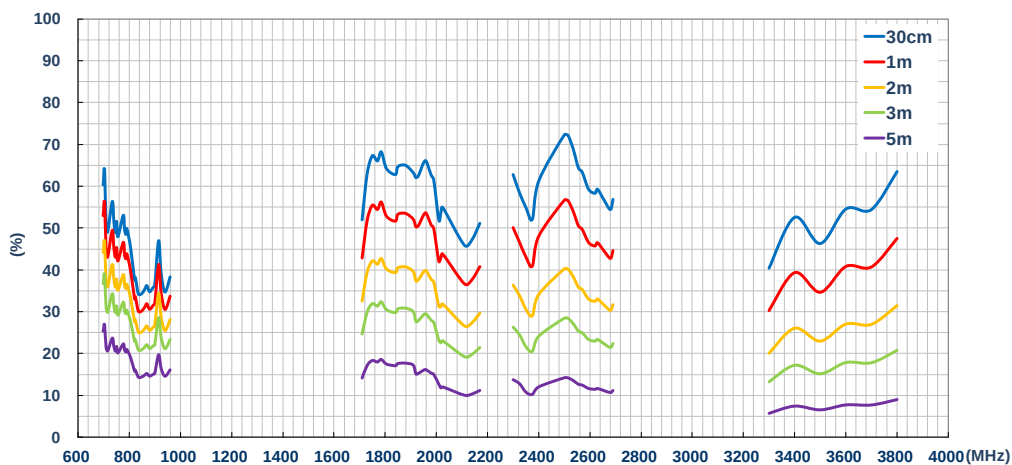
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VII. Applications Note:

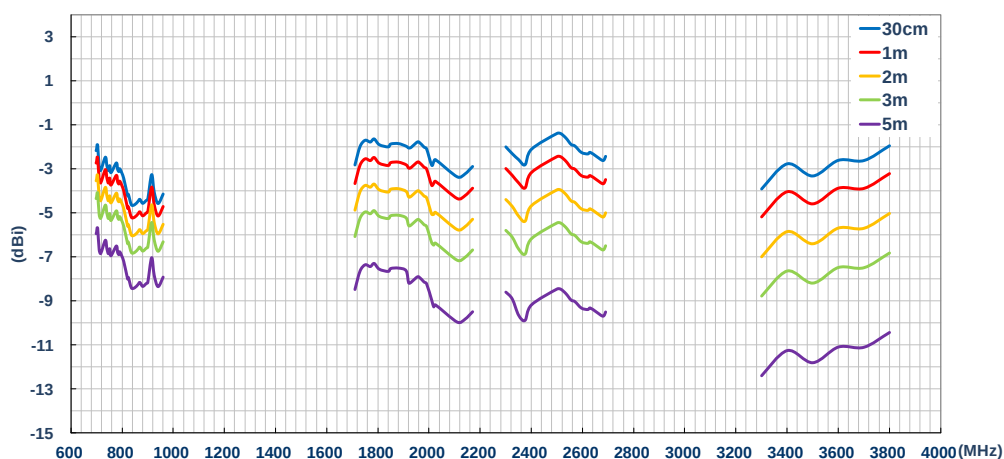
The antenna performance with different cable lengths is shown below.

Free Space – LTE 1

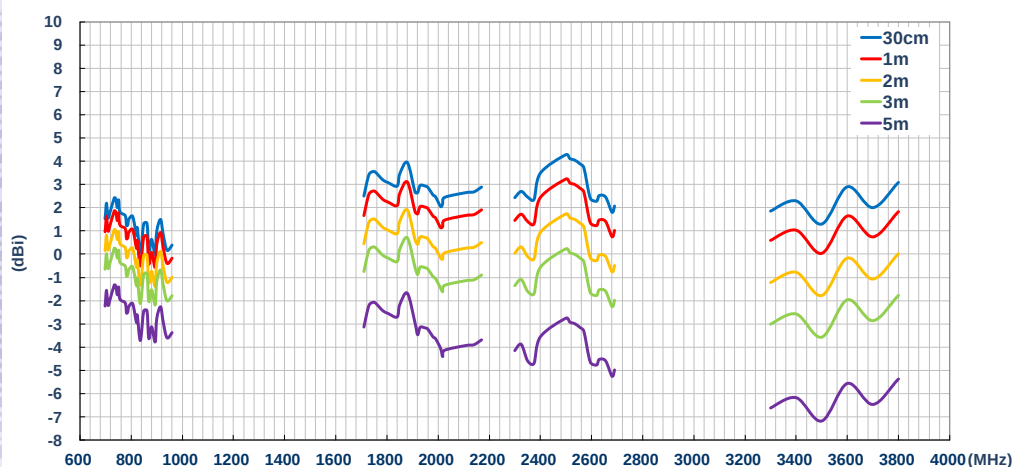
Efficiency (%)



Average Gain (dBi)



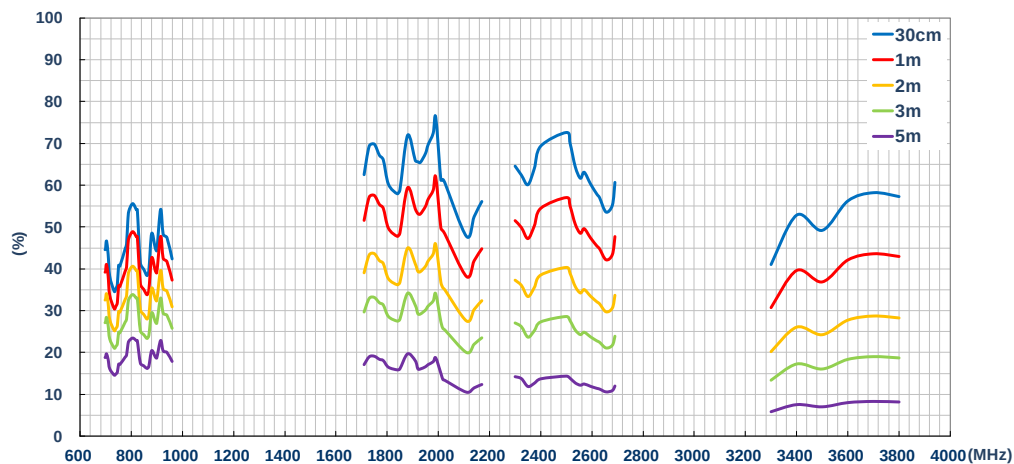
Peak Gain (dBi)



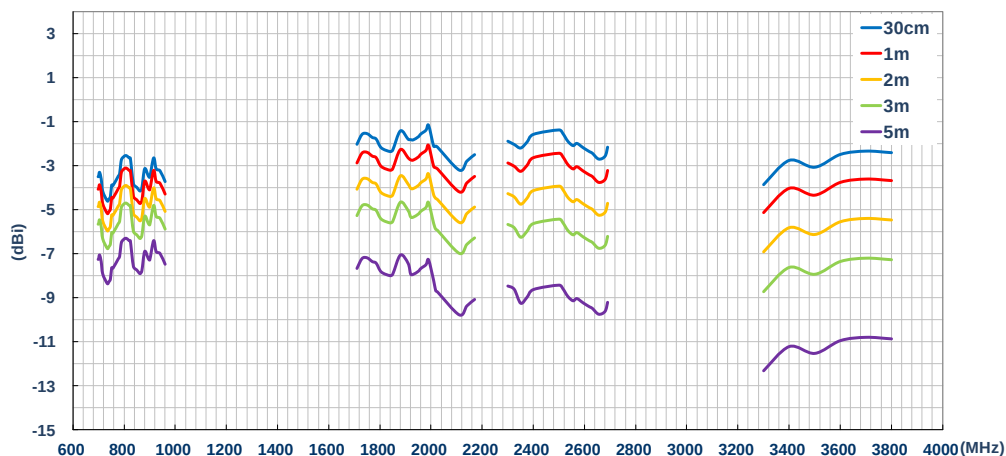
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Free Space – LTE 2

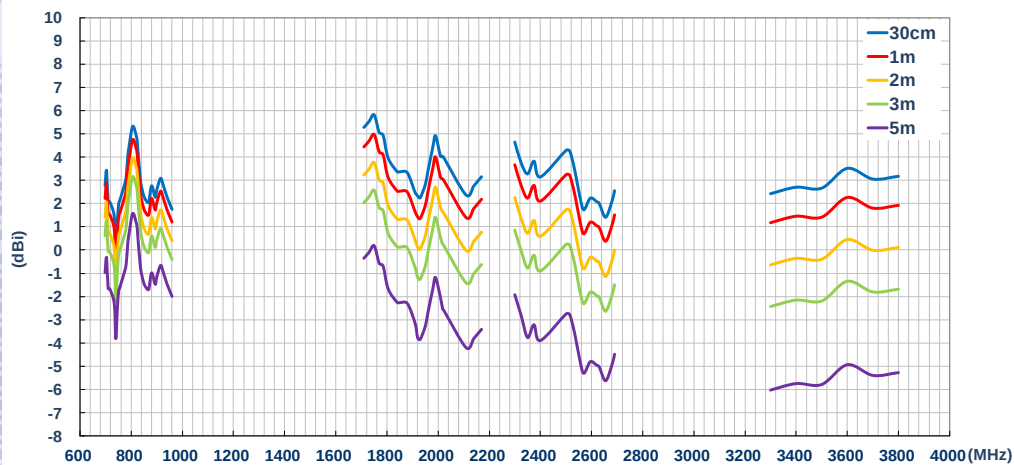
Efficiency (%)



Average Gain (dBi)



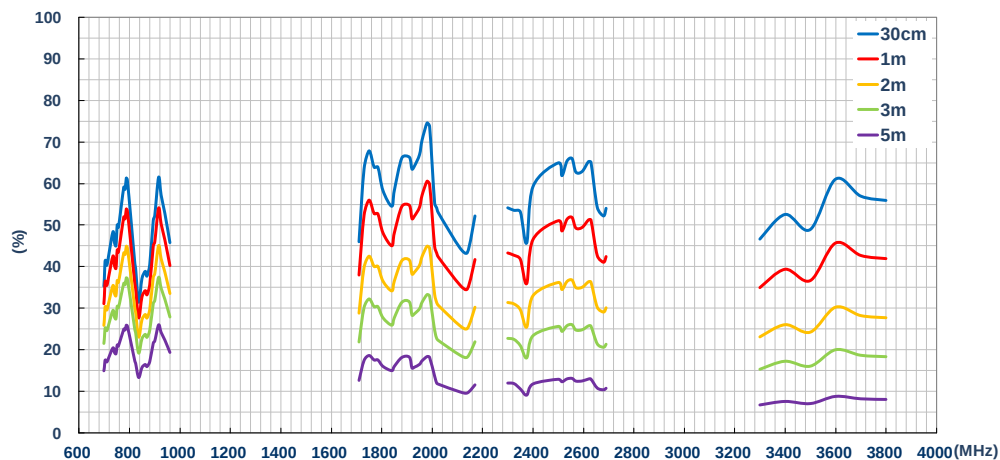
Peak Gain (dBi)



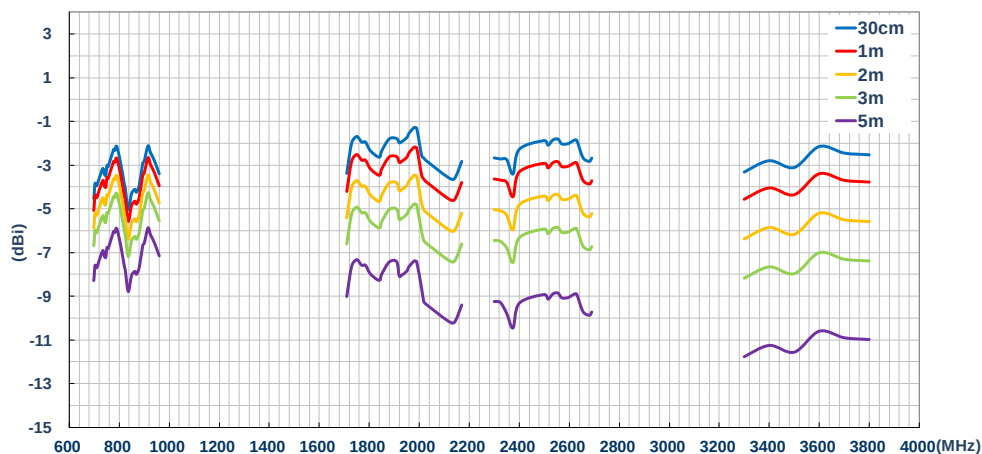
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With Ground Plane – LTE 1

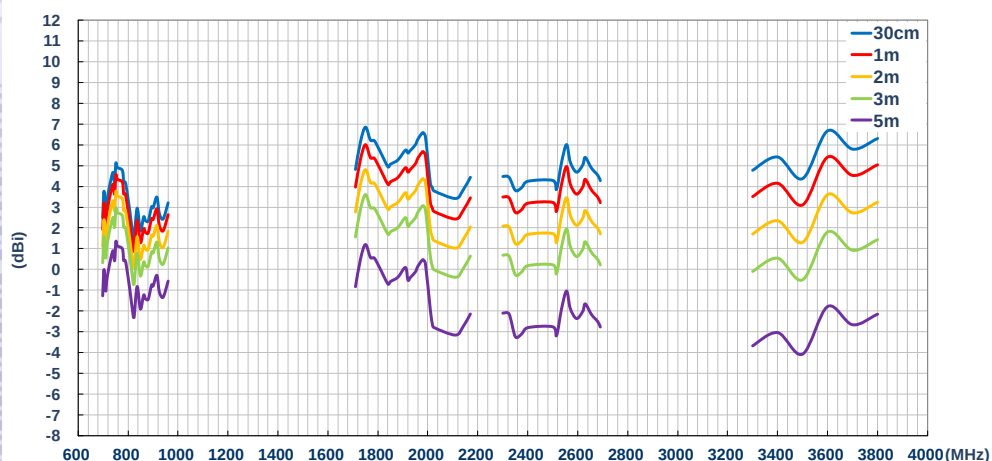
Efficiency (%)



Average Gain (dBi)



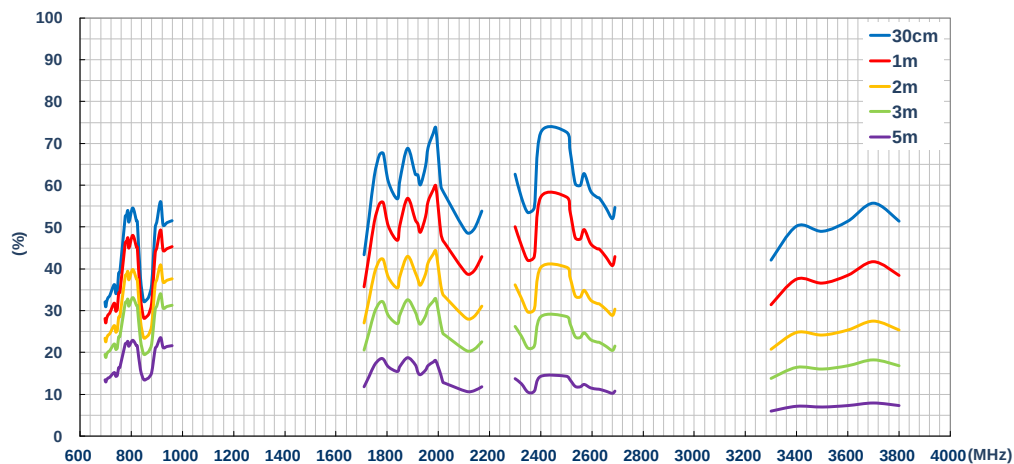
Peak Gain (dBi)



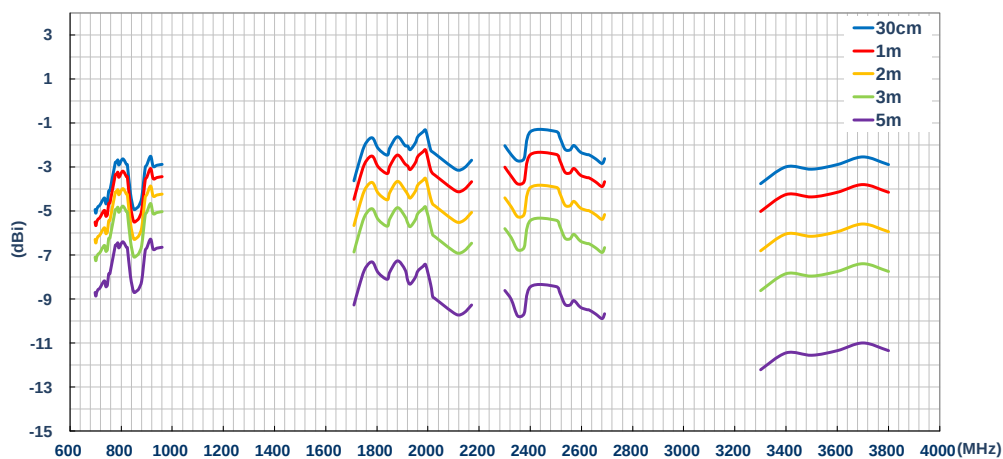
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With Ground Plane – LTE 2

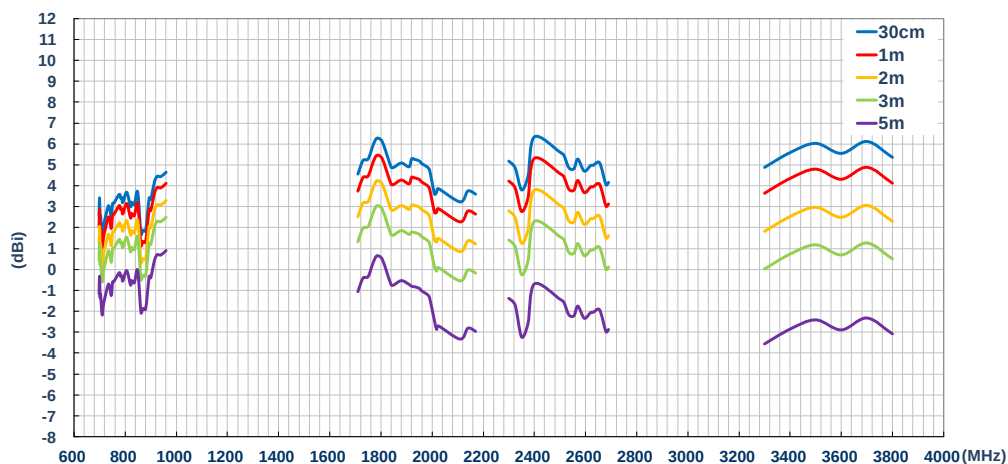
Efficiency (%)



Average Gain (dBi)



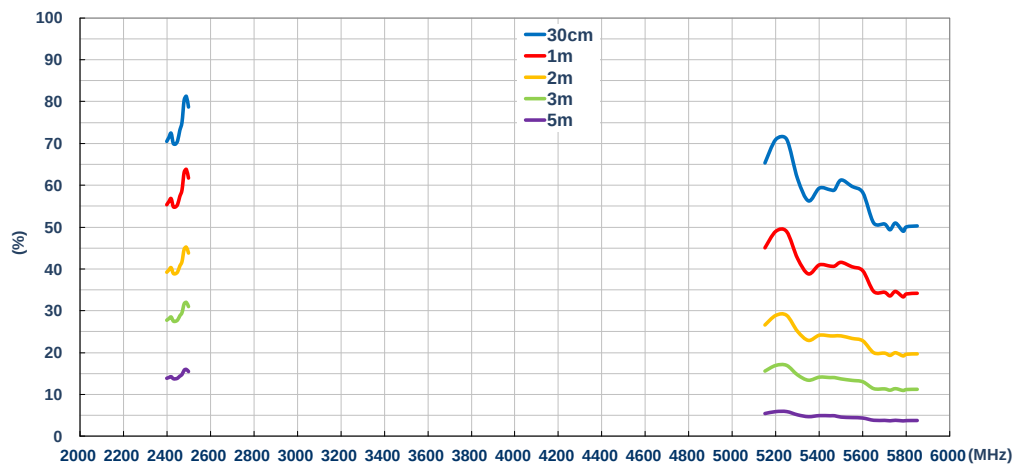
Peak Gain (dBi)



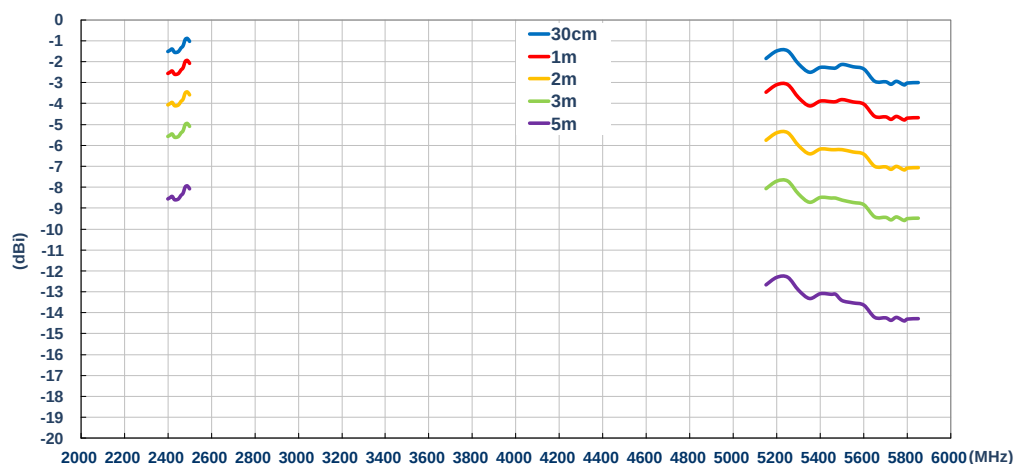
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Free Space – WiFi 1

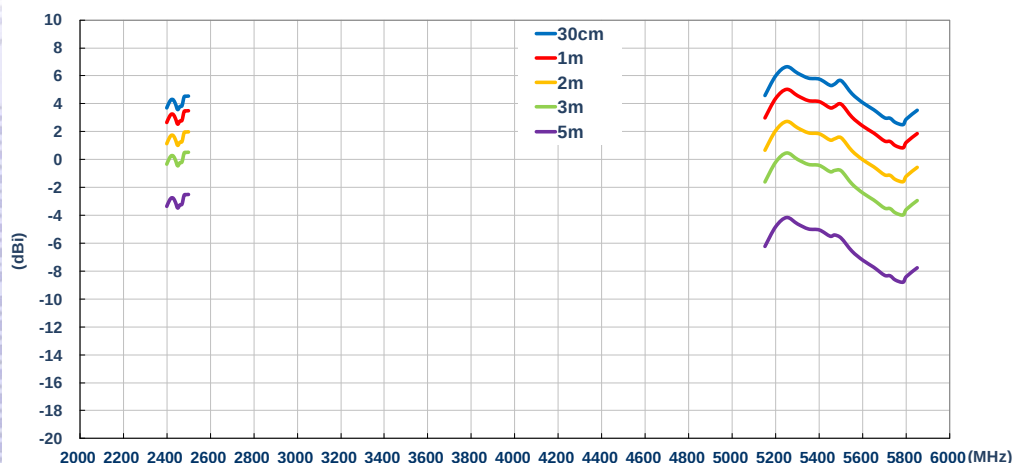
Efficiency (%)



Average Gain (dBi)



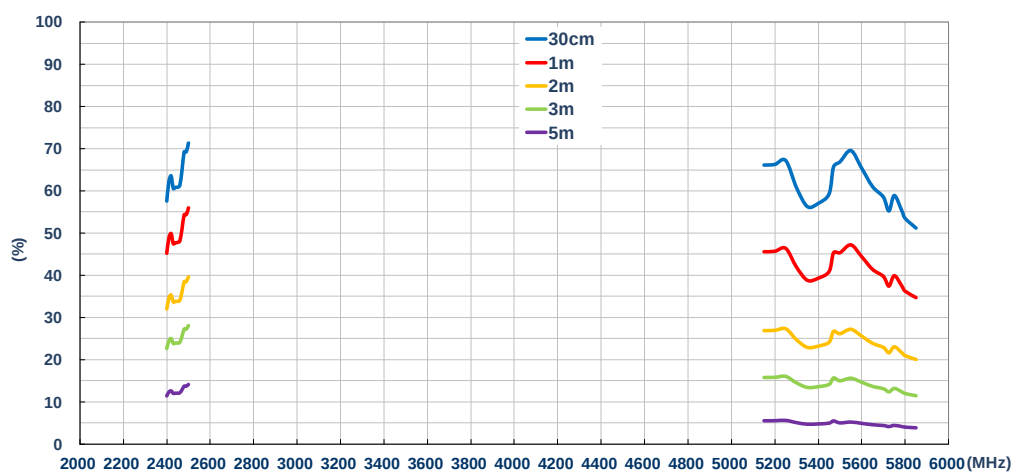
Peak Gain (dBi)



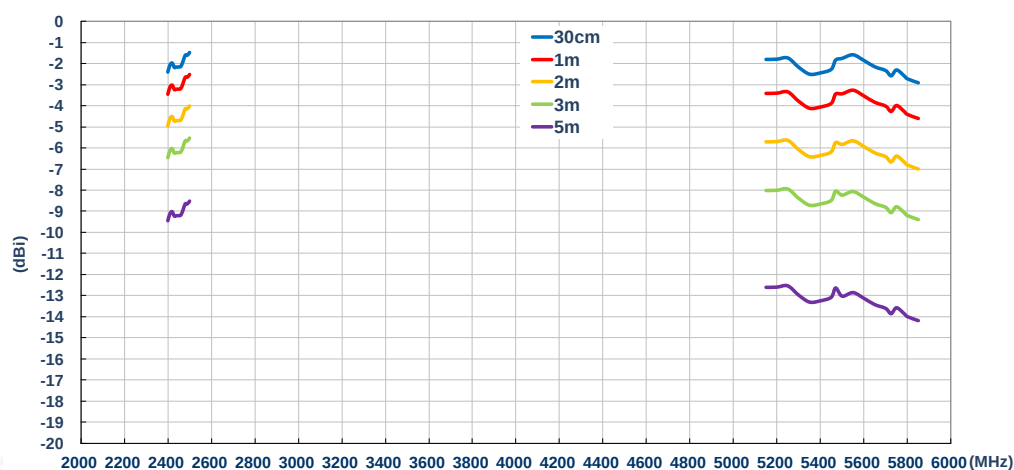
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All specifications subject to change without notice.

Free Space – WiFi 2

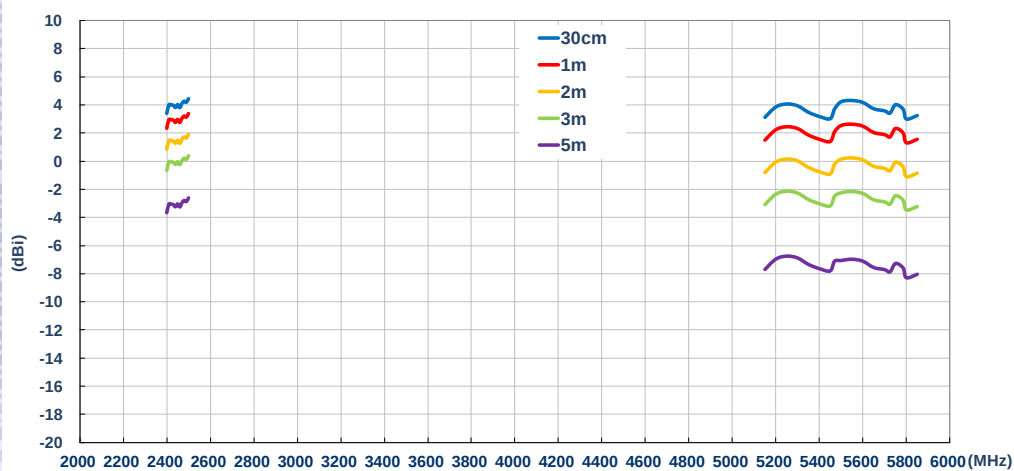
Efficiency (%)



Average Gain (dBi)



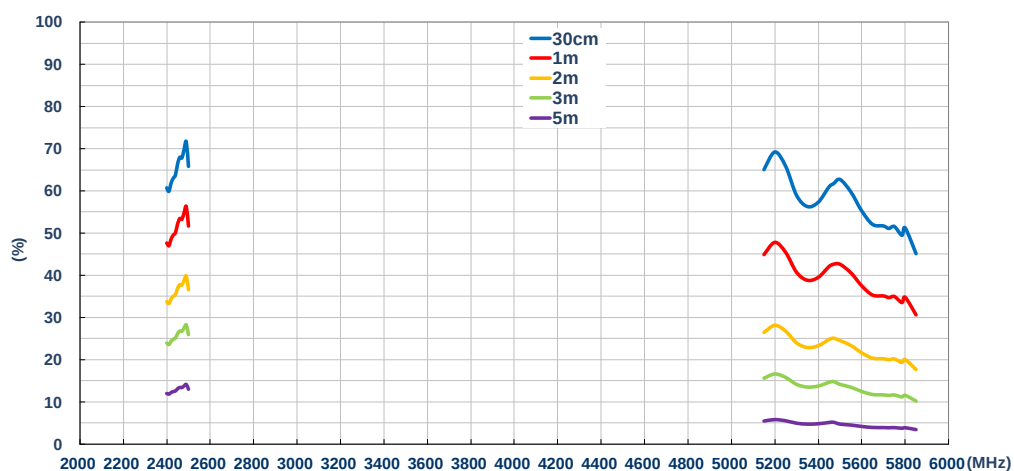
Peak Gain (dBi)



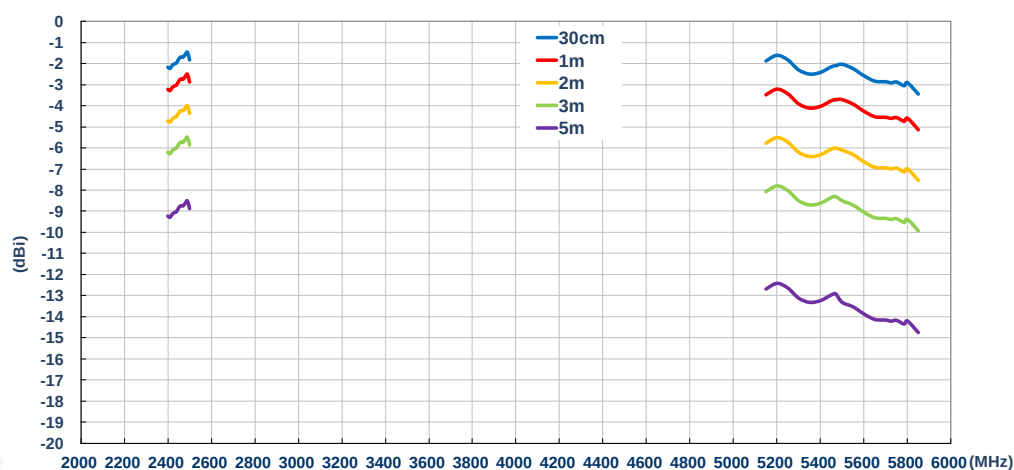
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With Ground Plane – WiFi 1

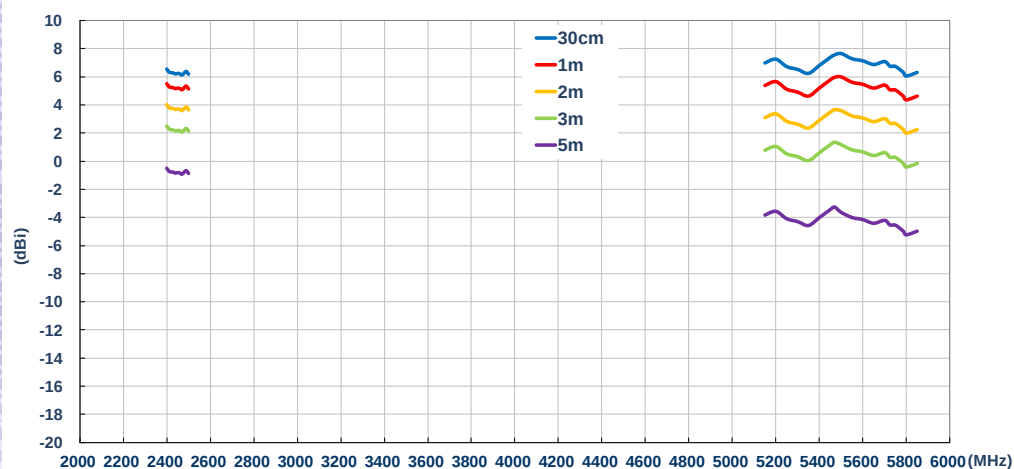
Efficiency (%)



Average Gain (dBi)



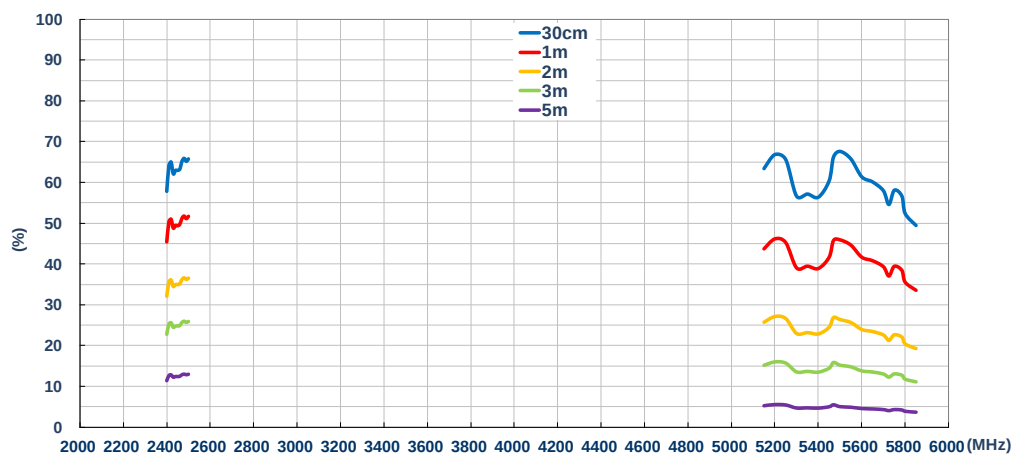
Peak Gain (dBi)



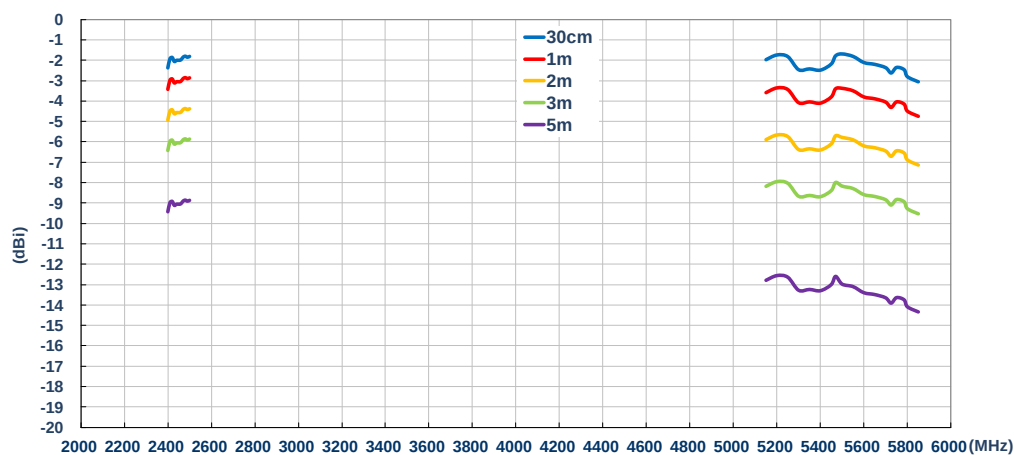
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With Ground Plane – WiFi 2

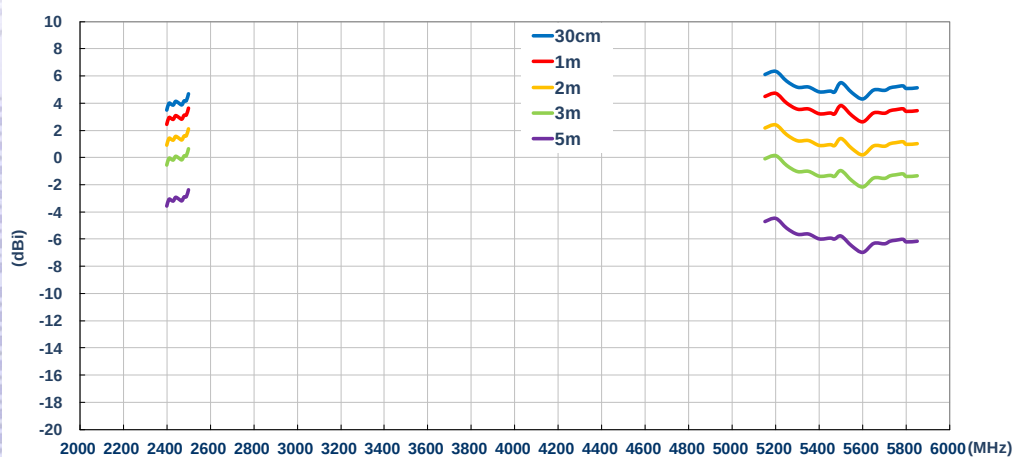
Efficiency (%)



Average Gain (dBi)



Peak Gain (dBi)



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