

KTC

HG-D2 Screen Cast Device – Antenna Debugging Report V2

Electrical Department
20250903

I System Environment & Antennas

II Antenna Performance

III Summary

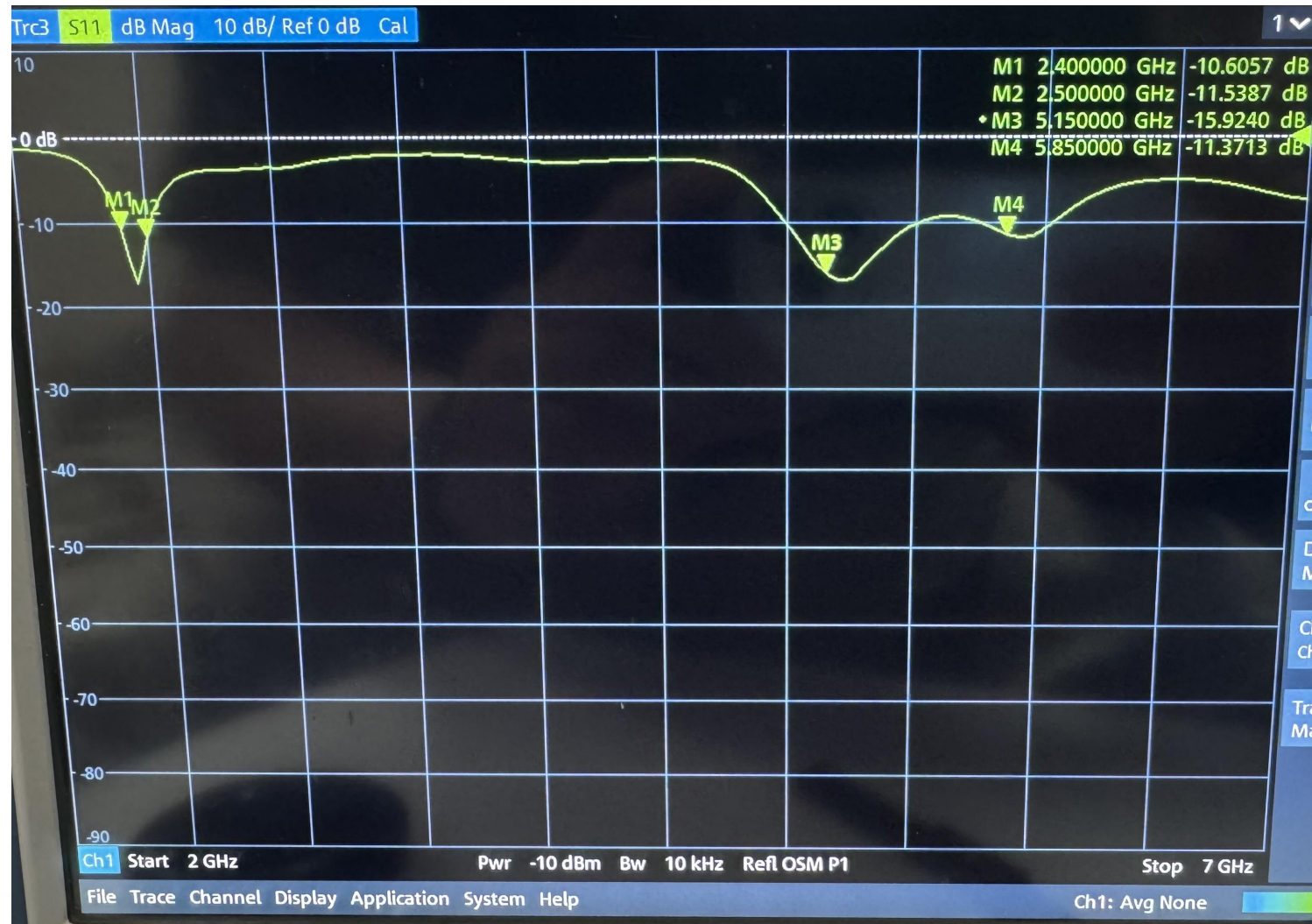
I System Environment & Antennas

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II Antenna Performance – Passive S11

KTC



S11

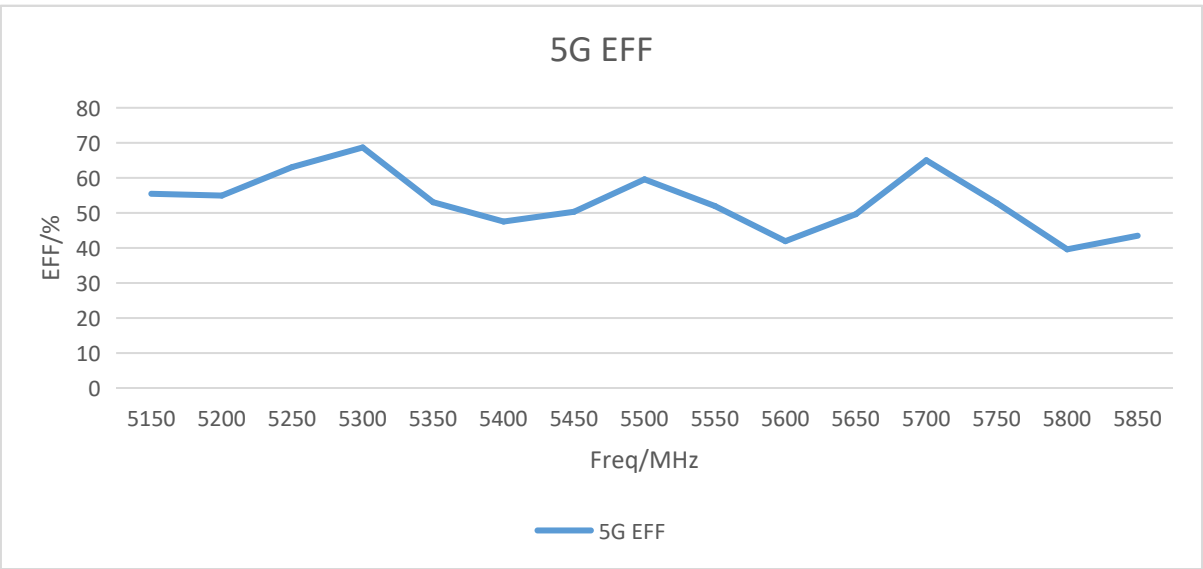
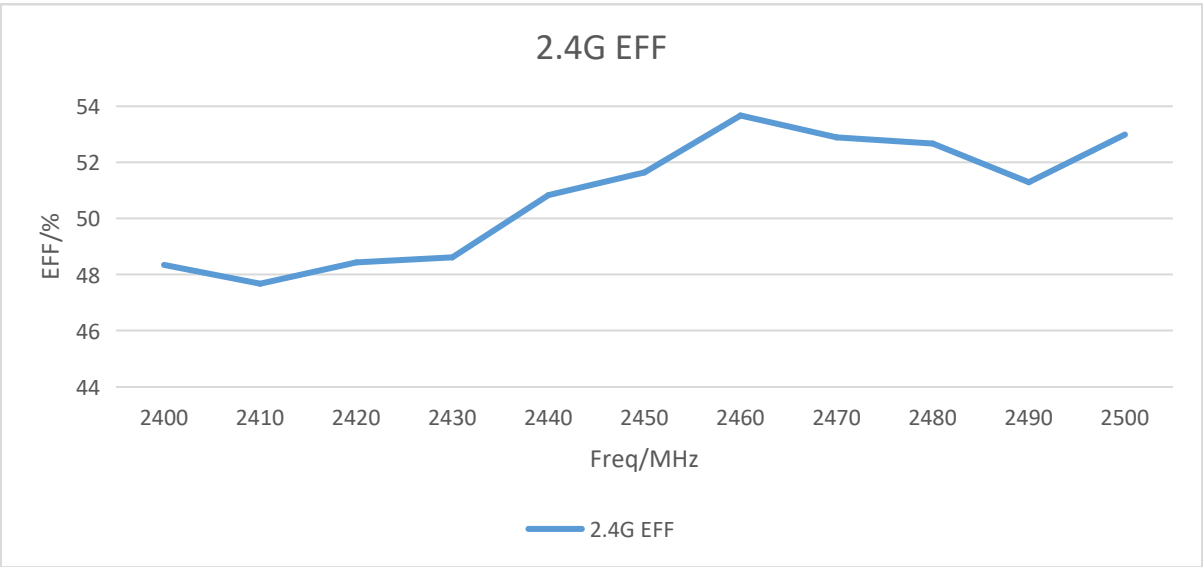
II Antenna Performance – Passive Efficiency (EFF) **KTC**

Freq	Effi	Effi	Gain
(MHz)	(dB)	(%)	(dBi)
2400	-3.16	48.34	3.59
2410	-3.22	47.67	3.11
2420	-3.15	48.43	3.19
2430	-3.13	48.61	3.13
2440	-2.94	50.83	3.85
2450	-2.87	51.64	4.16
2460	-2.7	53.67	4.29
2470	-2.77	52.89	3.97
2480	-2.78	52.67	3.79
2490	-2.9	51.29	3.53
2500	-2.76	52.99	3.88
AVG	-2.94	50.82	3.68

2.4G

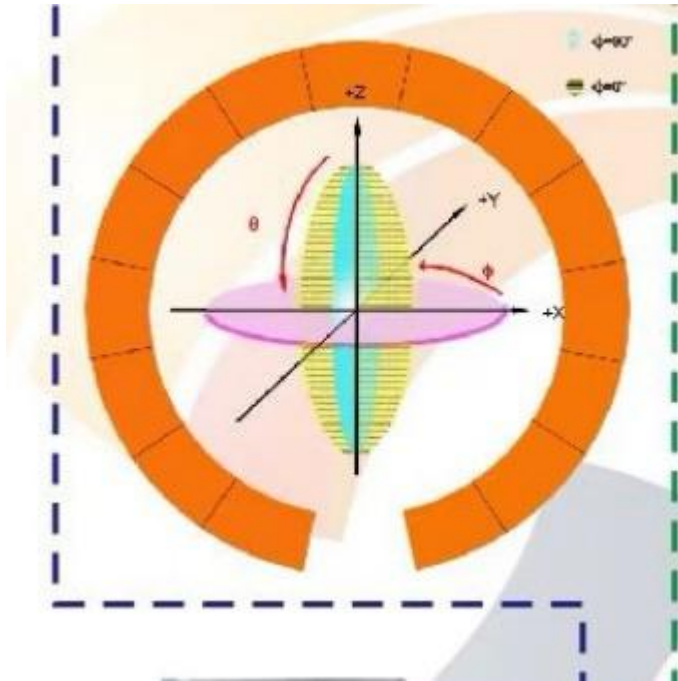
Freq	Effi	Effi	Gain
(MHz)	(dB)	(%)	(dBi)
5150	-2.56	55.46	2.38
5200	-2.6	54.95	1.97
5250	-2	63.09	2.72
5300	-1.63	68.68	3.49
5350	-2.75	53.05	2.77
5400	-3.23	47.54	2.36
5450	-2.98	50.33	2.61
5500	-2.25	59.58	3.66
5550	-2.84	51.96	3.24
5600	-3.77	41.94	2.17
5650	-3.04	49.64	2.85
5700	-1.87	65.03	4.08
5750	-2.77	52.82	3.18
5800	-4.02	39.61	2.06
5850	-3.62	43.49	2.12
AVG	-2.80	53.14	2.78

5G

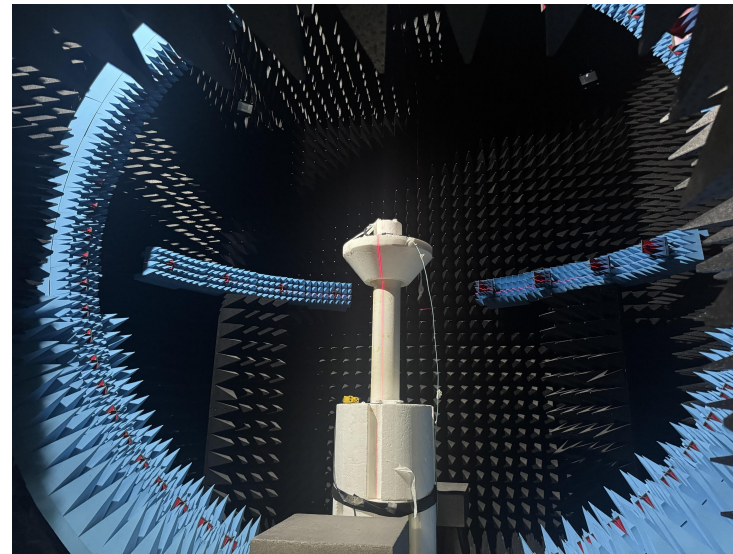


II Antenna Performance - Passive Pattern - Chamber Coordinates & Positions

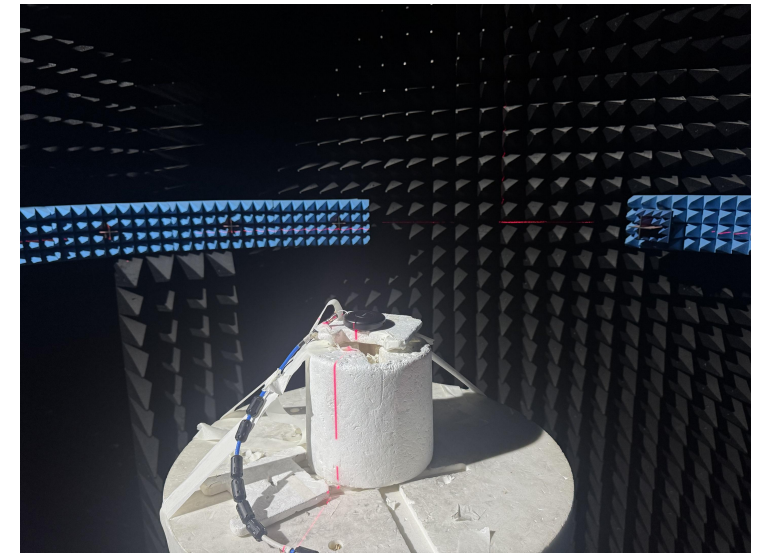
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Chamber Coordinates



DUT Relative Position in Chamber

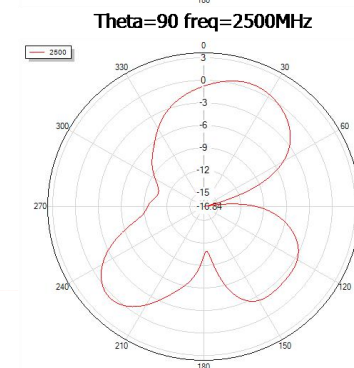
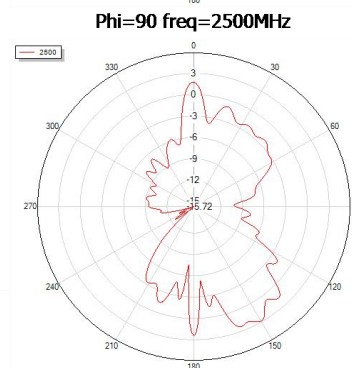
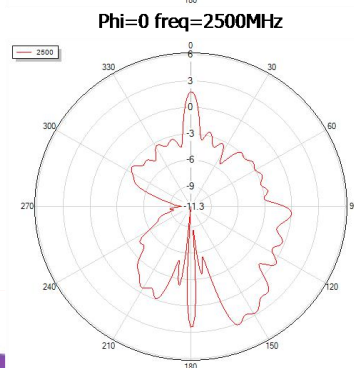
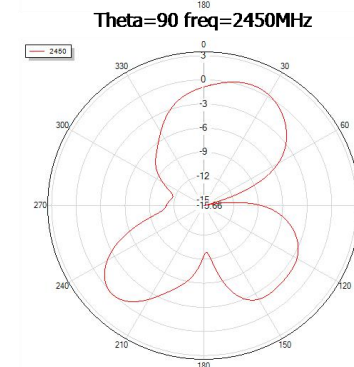
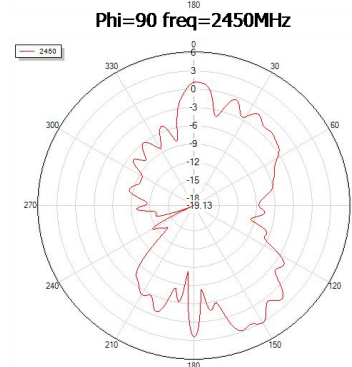
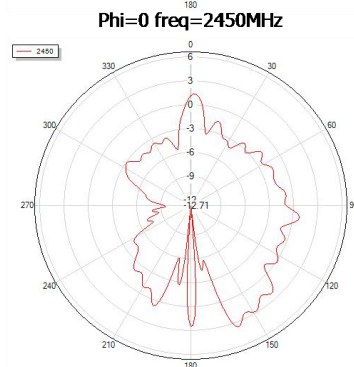
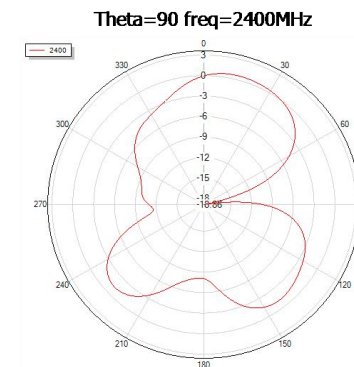
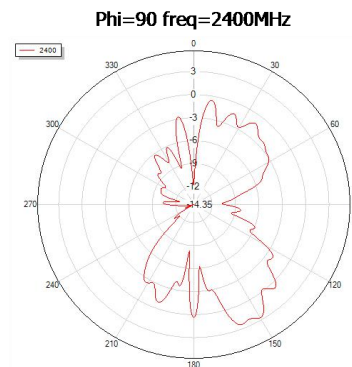
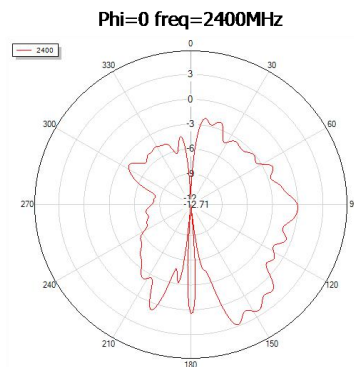


Device Antenna Position

II Antenna Performance - Passive Pattern

KTC

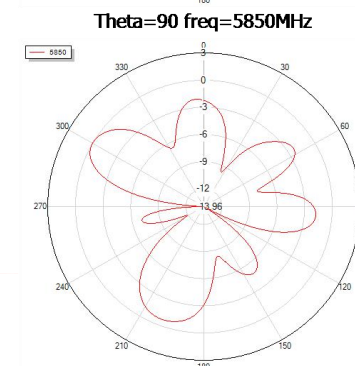
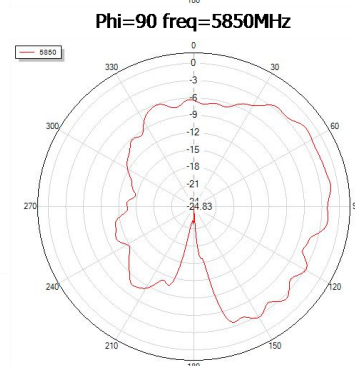
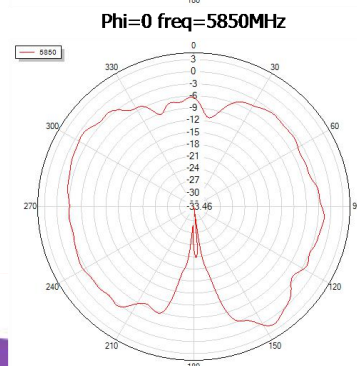
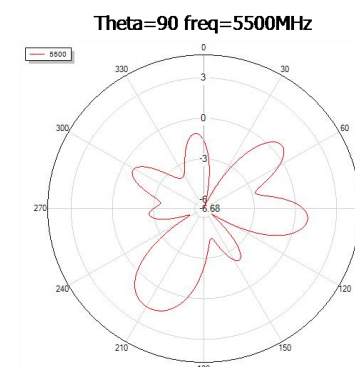
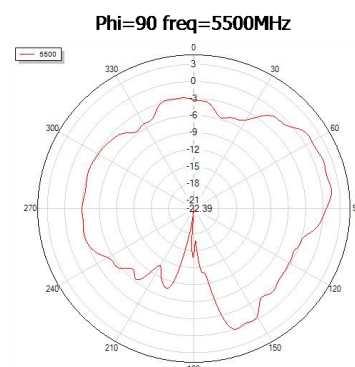
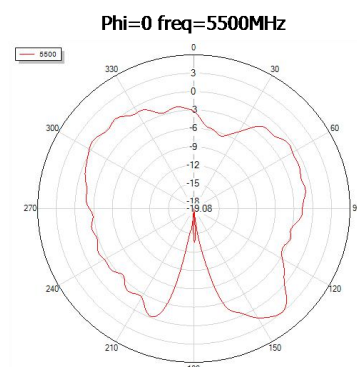
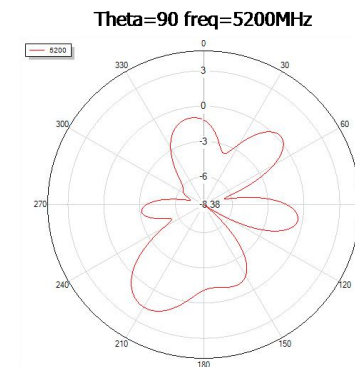
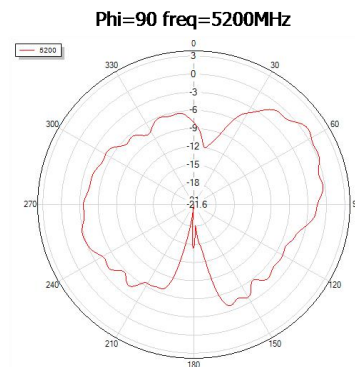
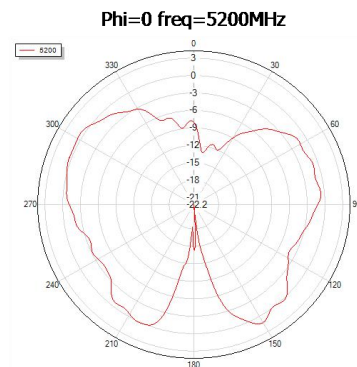
2.4G



II Antenna Performance - Passive Pattern

KTC

5G



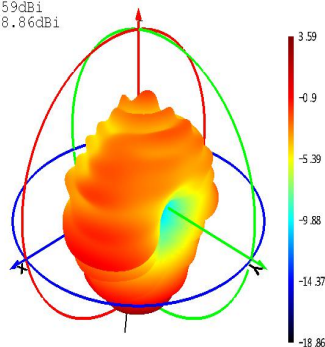
II Antenna Performance - Passive Pattern

KTC

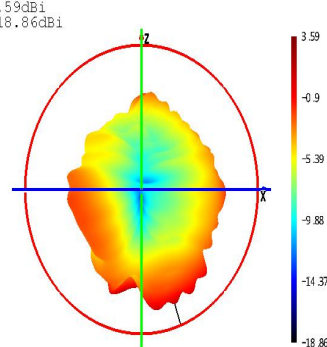
3D Pattern - 2.4G

2.4G

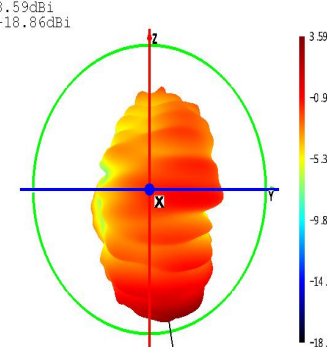
MAX: 3.59dBi
MIN: -18.86dBi



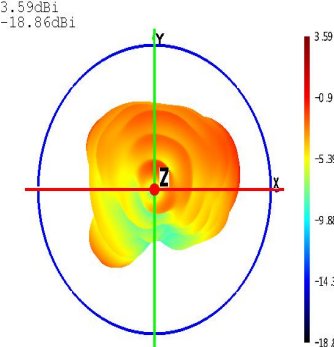
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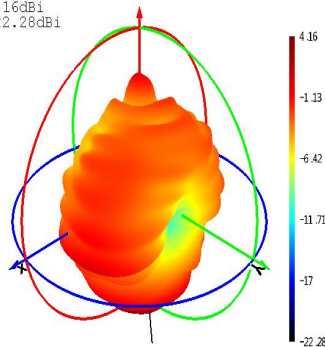


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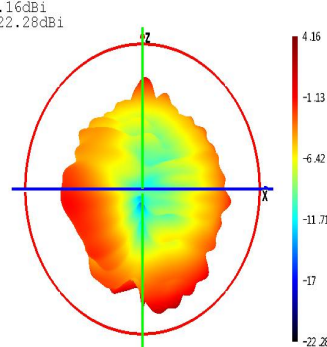


2.45G

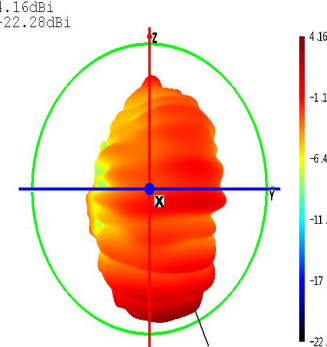
MAX: 4.16dBi
MIN: -22.28dBi



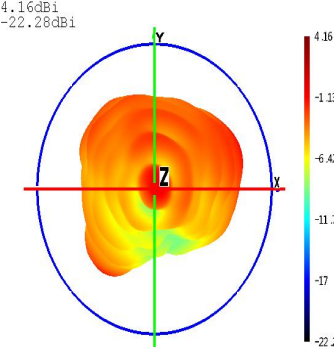
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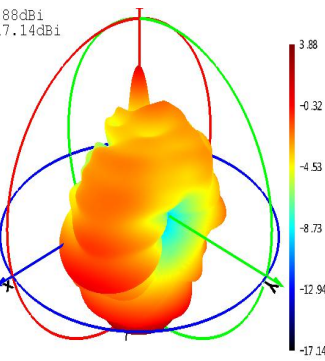


MAX: 4.16dBi
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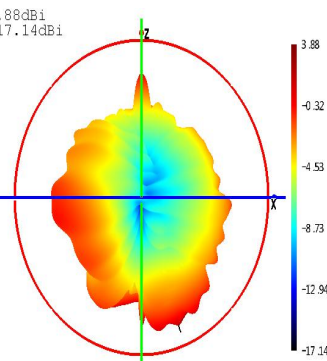


2.5G

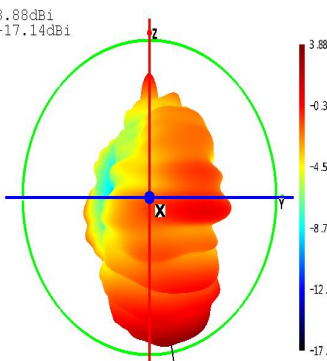
MAX: 3.88dBi
MIN: -17.14dBi



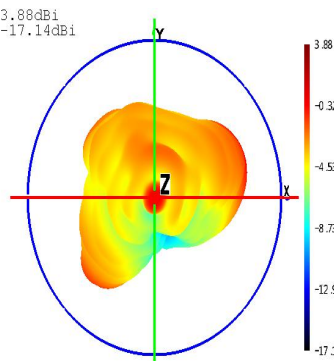
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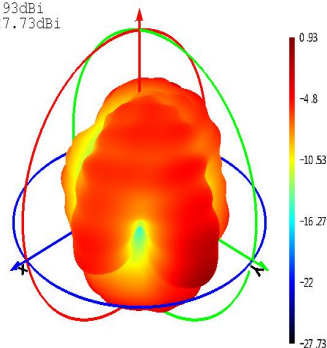
II Antenna Performance - Passive Pattern

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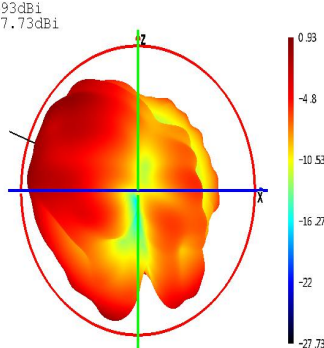
3D Pattern - 5G

5.15G

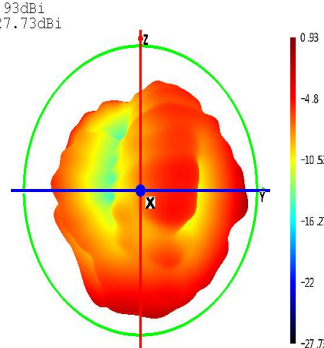
MAX: 0.93dBi
MIN: -27.73dBi



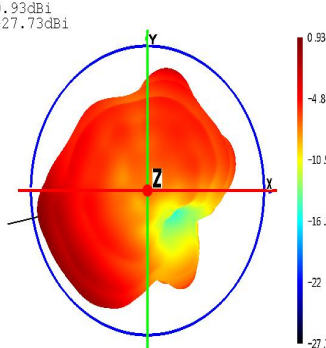
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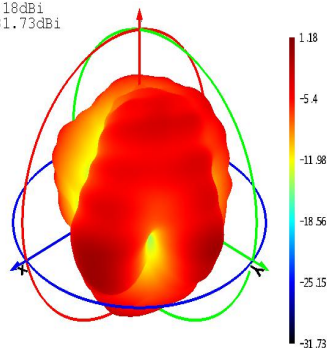


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MIN: -27.73dBi

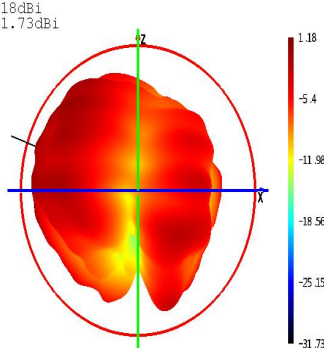


5.5G

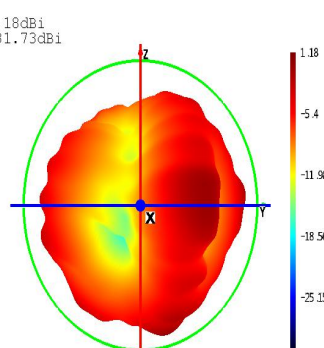
MAX: 1.18dBi
MIN: -31.73dBi



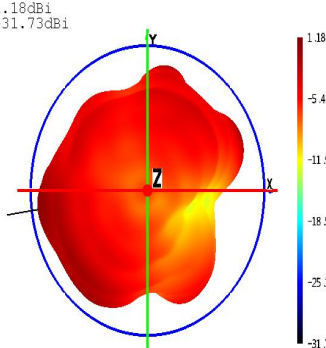
MAX: 1.18dBi
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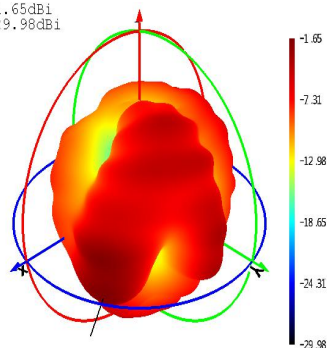


MAX: 1.18dBi
MIN: -31.73dBi

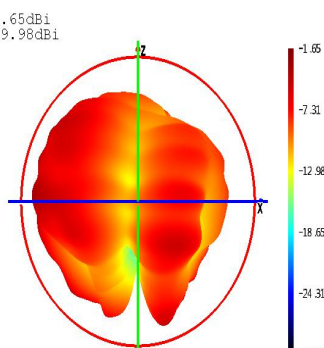


5.85G

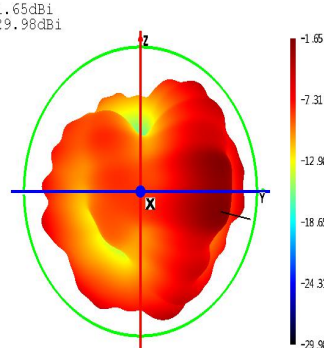
MAX: -1.65dBi
MIN: -29.98dBi



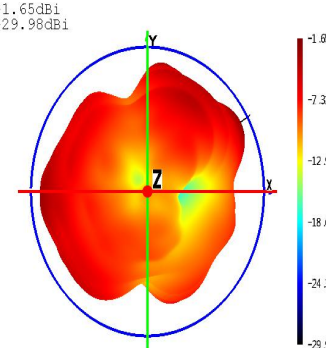
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III Summary

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Average efficiency at 2.4 GHz: 50.82%

Average efficiency at 5 GHz: 53.14%