

OTA TEST REPORT

Report No. NRL-OTA-2024-0086

Applicant	Cherub Technology Co., Ltd.
Address	No.10, Keji 9th Road, Tangjiawan Town, Zhuhai High-tech Zone, Guangdong, China, 519080
Telephone	13760243937
Manufacturer	Cherub Technology Co., Ltd.
Address	No.10, Keji 9th Road, Tangjiawan Town, Zhuhai High-tech Zone, Guangdong, China, 519080
Telephone	13760243937
Product Name	Wireless in-ear monitor system
Model	B-7 PRO
Sample Source	Customer delivery
Delivery Date	2024.10.17
Test Date	2024.10.18
Reference Documents	See Appendix A
Testing Content	Passive
Verdict	/
Report Date	2024.10.21

Compiled by



Reviewed by
Xu Tao



Approved by
Shi Yang

(Authorized signatory)



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1. EUT Information

EUT No.	2024-0089-0001
Type	B-7 PRO
IMEI/SN	/
SW Version	/
HW Version	/
Testing Environment	25°C 35%RH

EUT No.	2024-0089-0002
Type	B-7 PRO
IMEI/SN	/
SW Version	/
HW Version	/
Testing Environment	25°C 35%RH

2. Lab Information

Company Name	Core Wireless (Beijing) Communication Technology Co., LTD
Company Address	Room 101, Building 62, Jinghai 3rd Road, No.109, BDA, Beijing, China 100176
Laboratory Address	Room 101, Building 62, Jinghai 3rd Road, No.109, BDA, Beijing, China 100176
Contacts	Shiyang
Telephone	+86-10-67870336
E-mail	shiyang@newradiolab.com

3. Equipments

No.	Name	Model	S/N	Manufacturer	Cal. Date
1	ENA Vector Network Analyzer	E5071C	MY42202610	Agilent	2024/09/26
2	Anechoic Chamber	AMS8500	N/A	ETS-Lindgren	N/A
3	Switch Controller	TS-RSP	100365	R&S	N/A
4	Multi-Device Positioning Controller	2090	00060093	ETS-Lindgren	N/A
5	Diagonal Dual Polarized Horns	3164-04	1009	ETS-Lindgren	N/A
6	EMQuest	V1.16	N/A	ETS-Lindgren	N/A

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4. Test Results

4.1 EUT No. 2024-0089-0001

Frequency (MHz)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
2400	8.2595	-1.6445	68.4786	6.615
2410	8.3023	-1.7394	66.9972	6.5629
2420	8.3903	-2.1046	61.5947	6.2858
2430	8.4738	-2.031	62.6475	6.4428
2440	8.5104	-1.8753	64.9344	6.6352
2450	8.5696	-1.7612	66.6617	6.8084
2460	8.5113	-1.7445	66.9186	6.7668
2470	8.5048	-1.7456	66.9024	6.7593
2480	8.5297	-2.0577	62.2624	6.472
2490	8.5512	-2.0549	62.3038	6.4964
2500	8.5311	-1.7403	66.984	6.7908

4.2 EUT No. 2024-0089-0002

Frequency (MHz)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
2400	4.8442	-2.4397	57.0206	2.4045
2410	4.8953	-2.5158	56.0294	2.3794
2420	4.9654	-2.9472	50.7317	2.0182
2430	4.9843	-2.8626	51.7302	2.1217
2440	5.1111	-2.6561	54.2483	2.455
2450	5.1137	-2.4606	56.7468	2.6532
2460	5.0976	-2.3844	57.7515	2.7132
2470	5.0696	-2.3526	58.176	2.7171
2480	5.0735	-2.6404	54.4449	2.4331
2490	5.0958	-2.5442	55.6643	2.5516
2500	5.3755	-2.1008	61.6477	3.2747

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Appendix A: Reference Documents

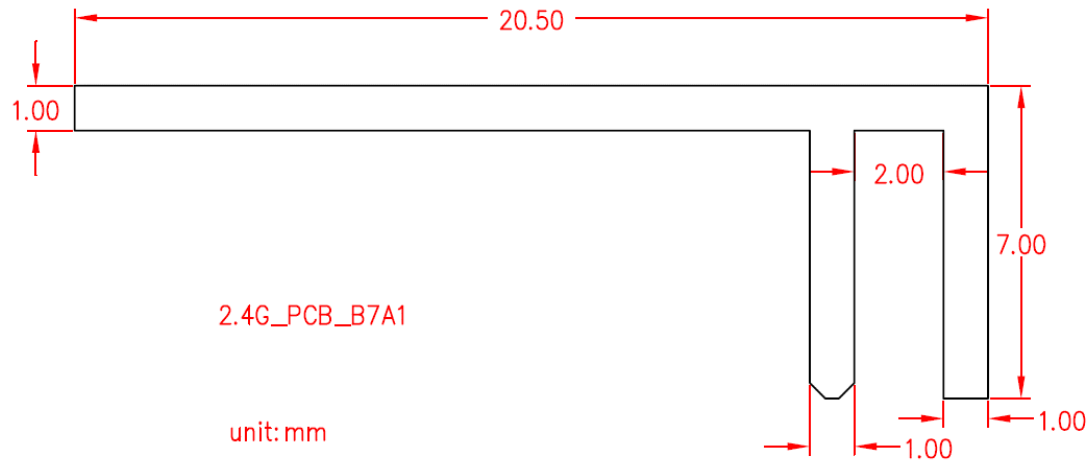
Reference	Title	Version
IEEE Std 149	IEEE Recommended Practice for Antenna Measurements	2021
GB/T 9410	General specification for antennas used in the mobile communications	2008

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Appendix B: EUT Photographs

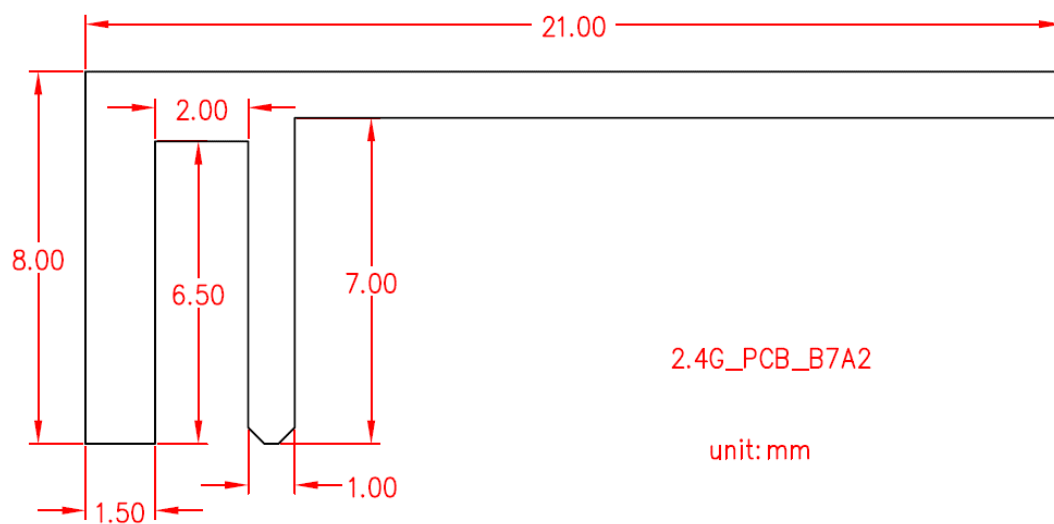
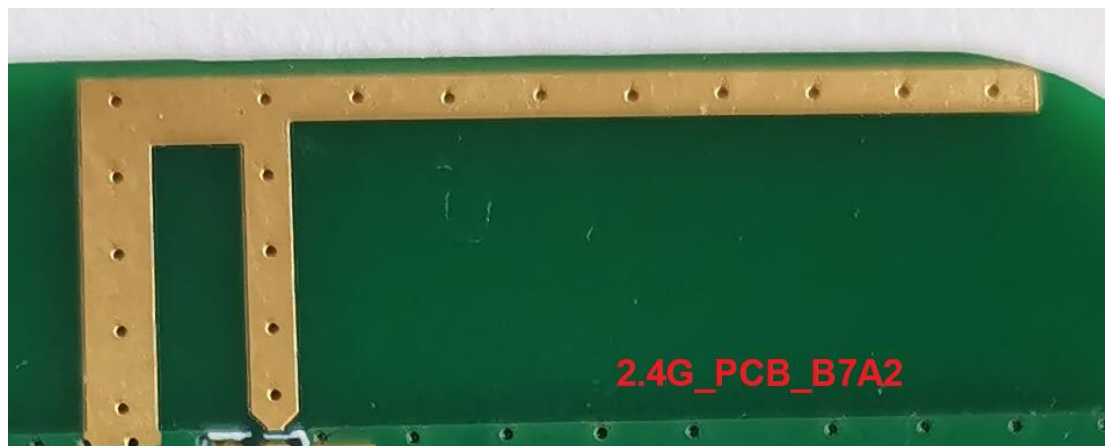
EUT No. 2024-0089-0001



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EUT No. 2024-0089-0002



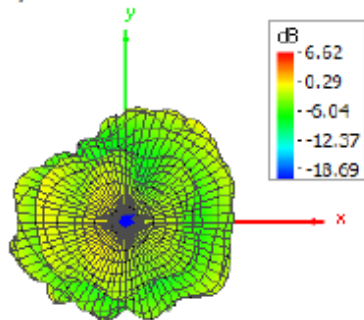
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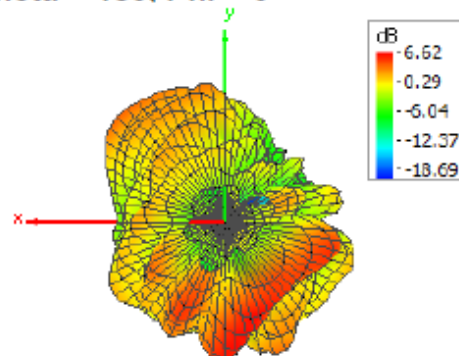
Appendix C: 3D Pattern Plots

EUT No. 2024-0089-0001

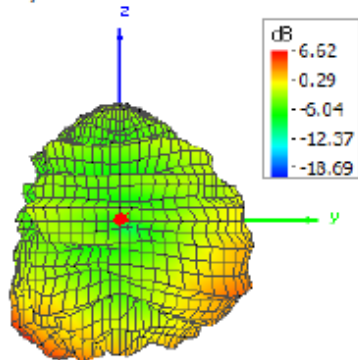
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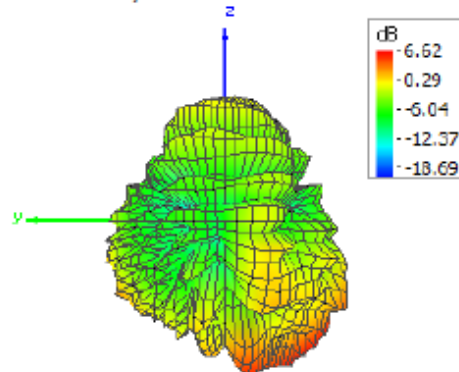
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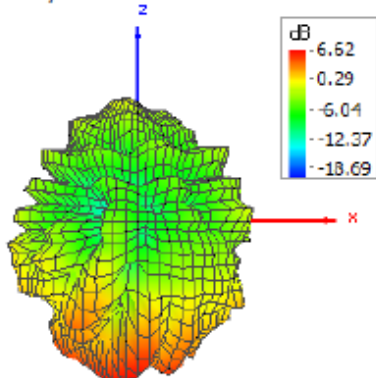
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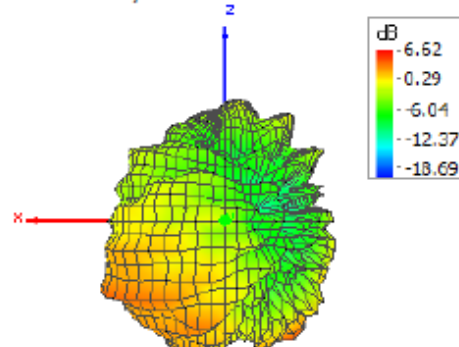
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

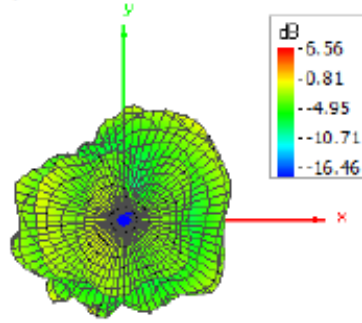


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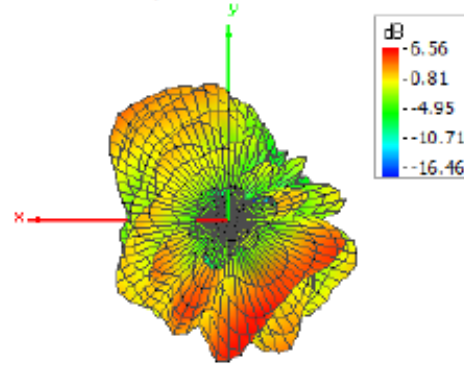
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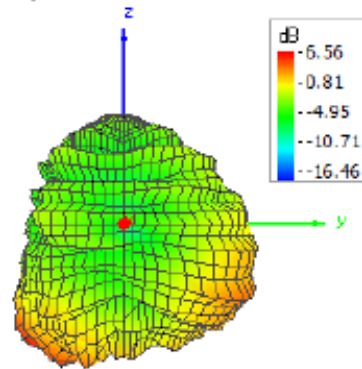
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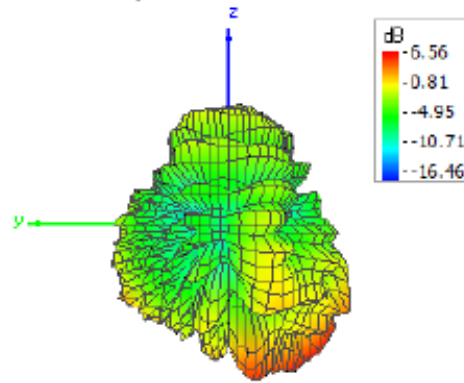
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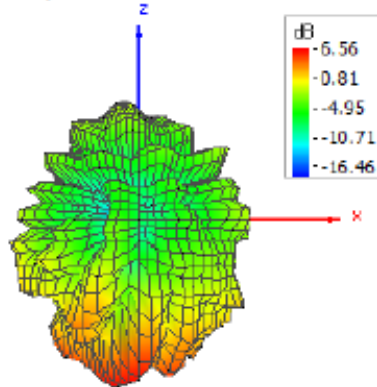
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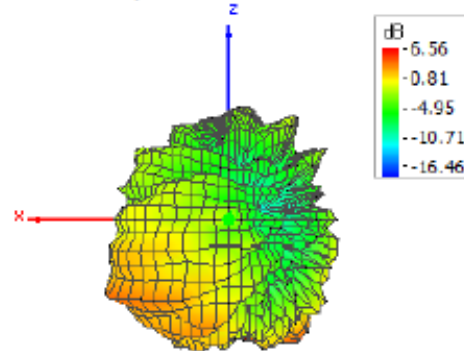
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Theta = 90, Phi = 270



Theta = 90, Phi = 90

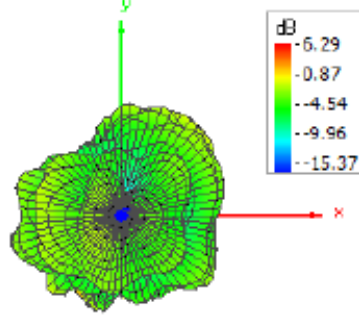


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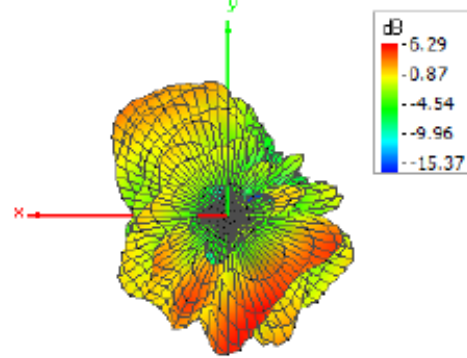
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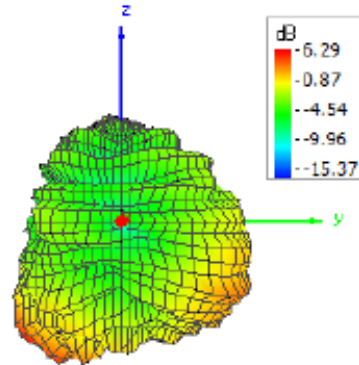
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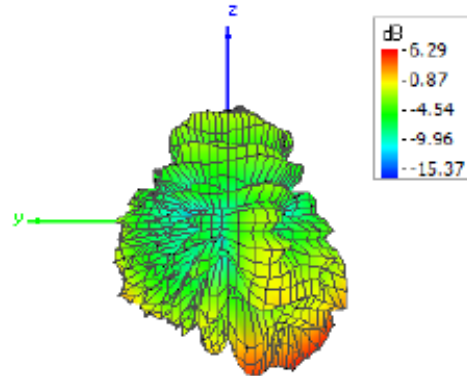
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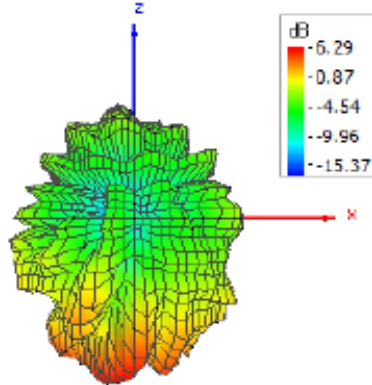
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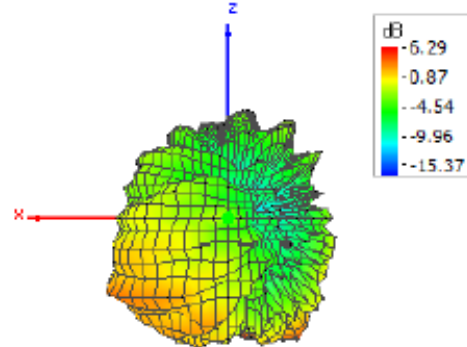
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Theta = 90, Phi = 270



Theta = 90, Phi = 90

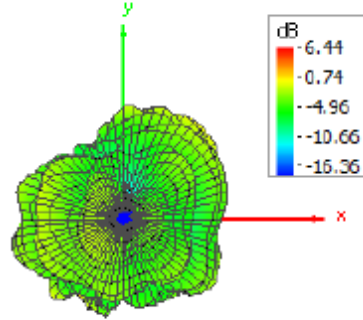


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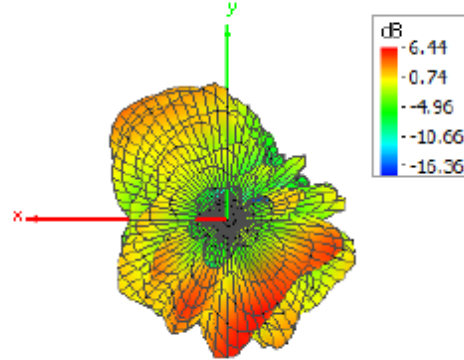
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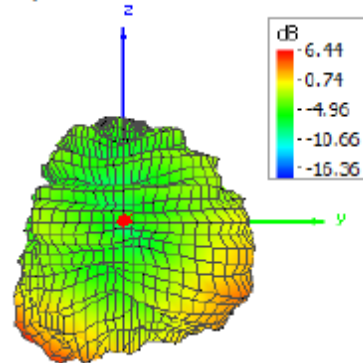
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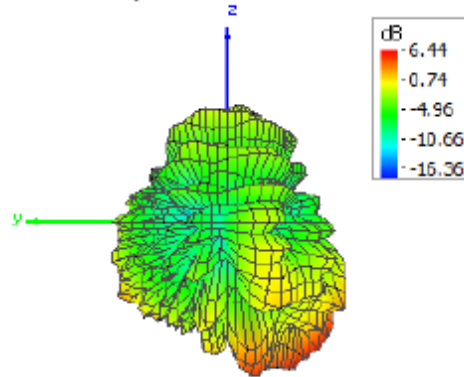
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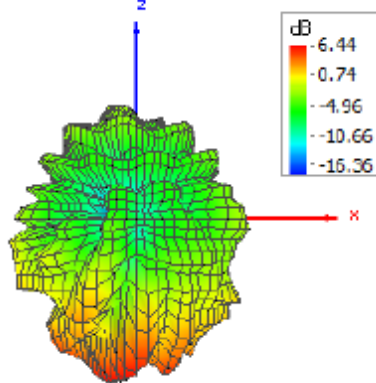
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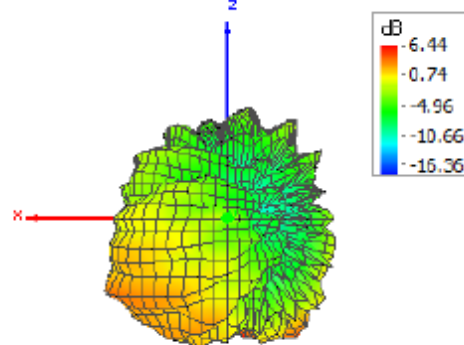
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

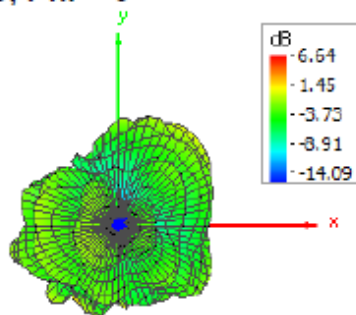


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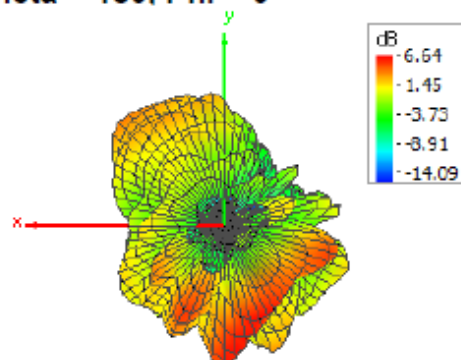
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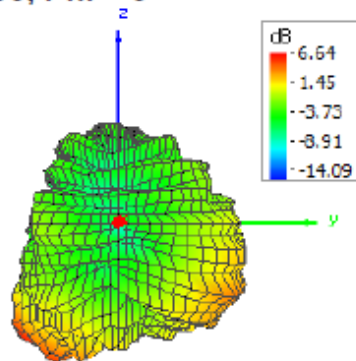
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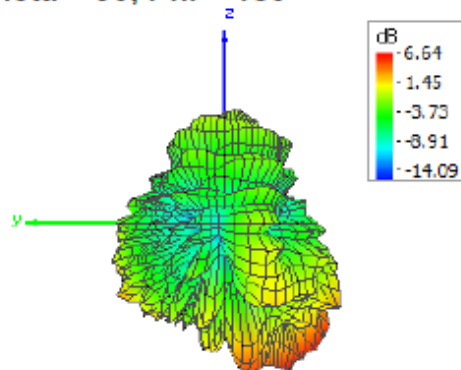
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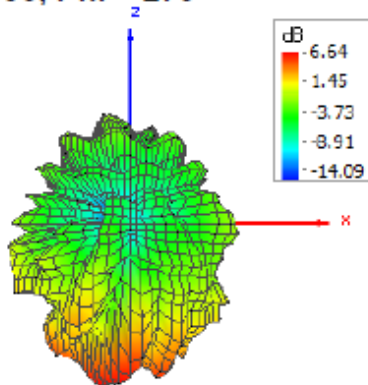
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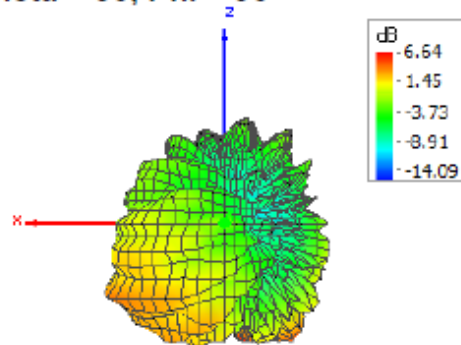
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

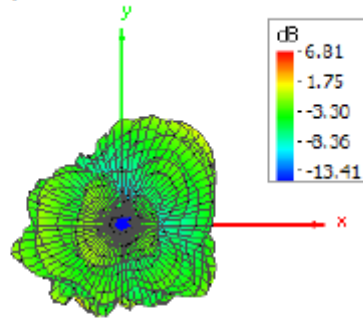


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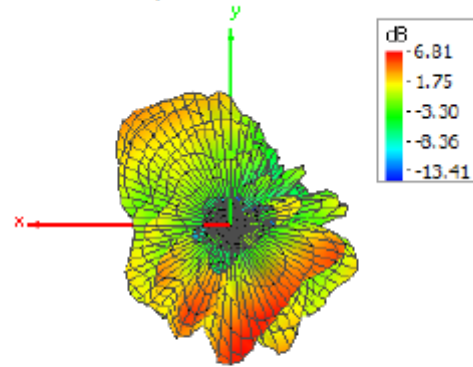
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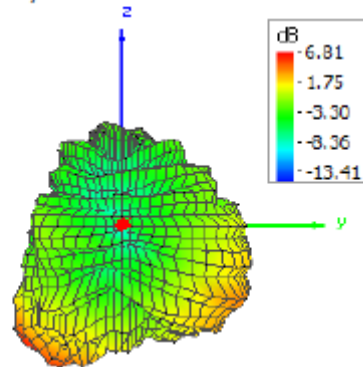
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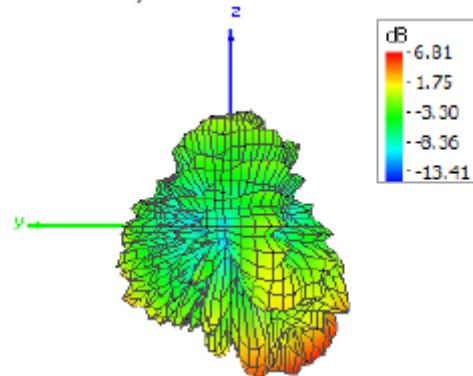
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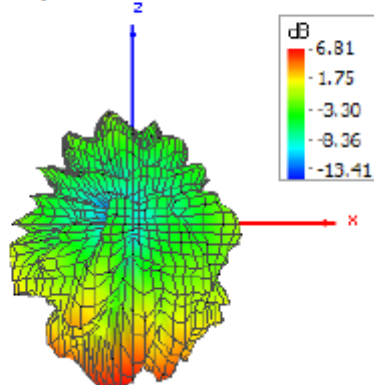
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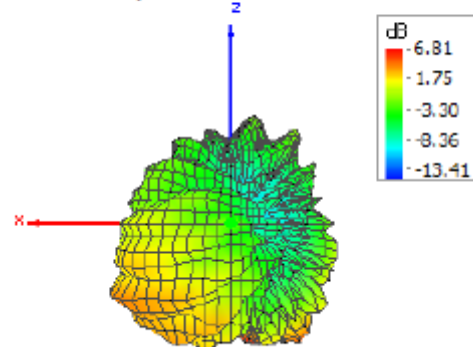
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

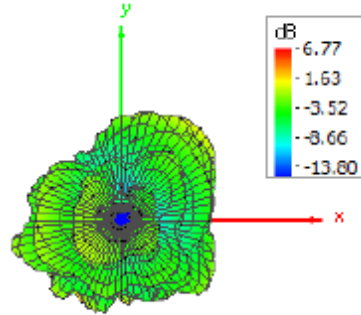


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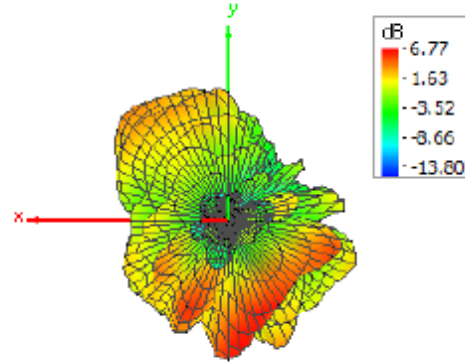
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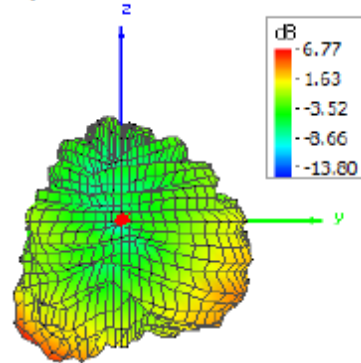
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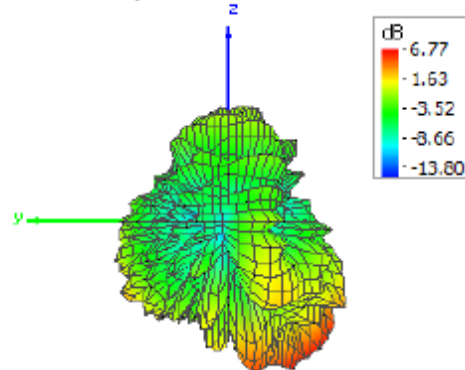
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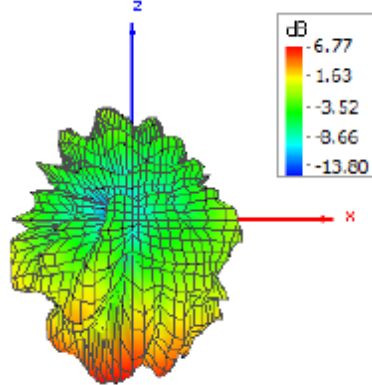
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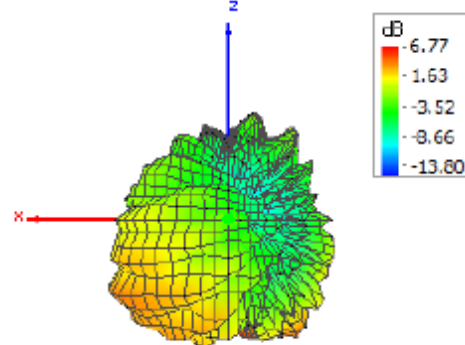
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

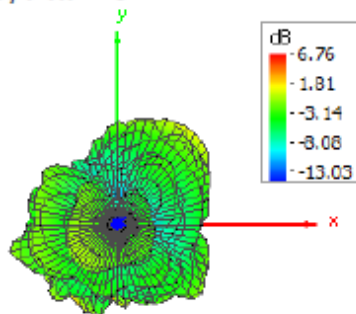


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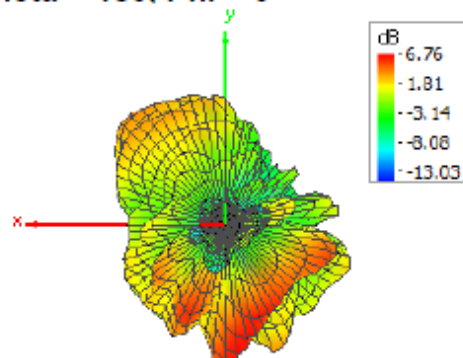
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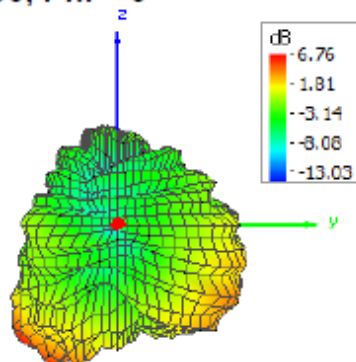
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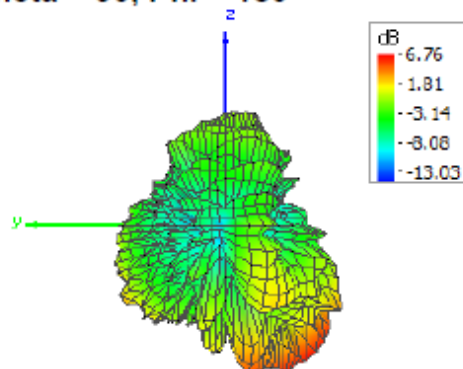
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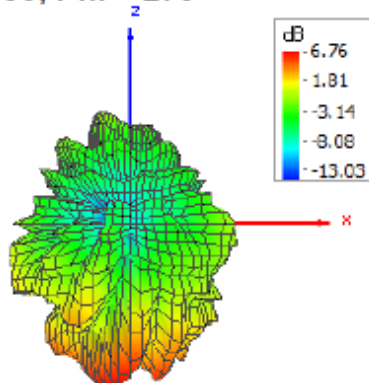
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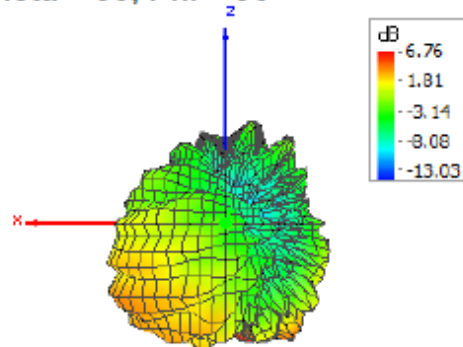
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

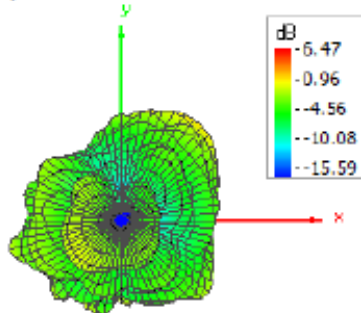


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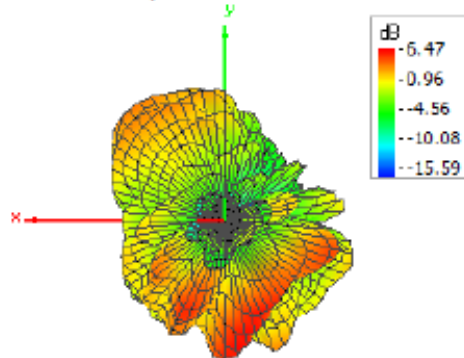
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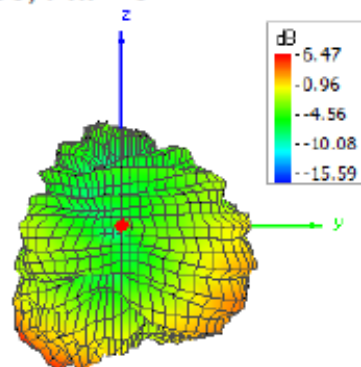
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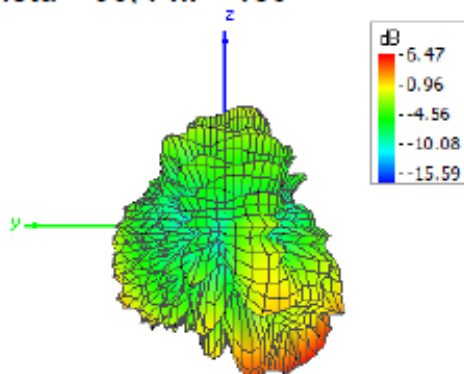
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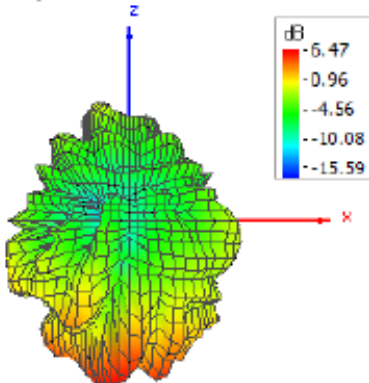
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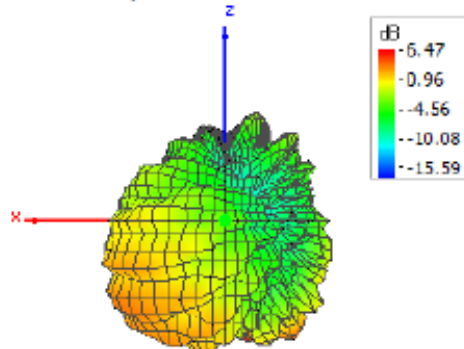
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

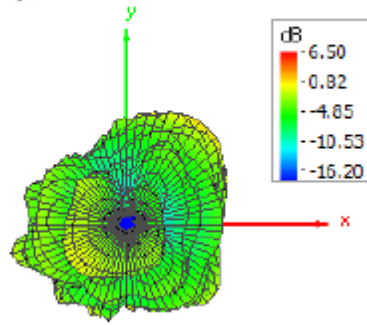


2480M

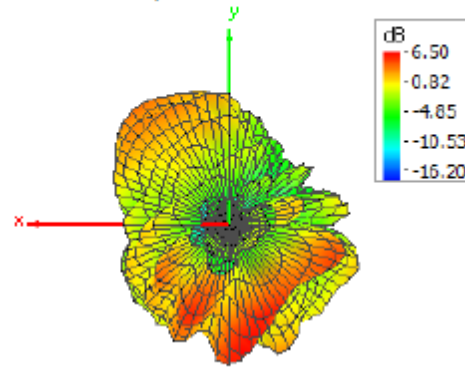
Note:

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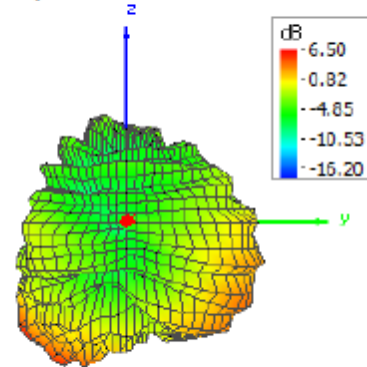
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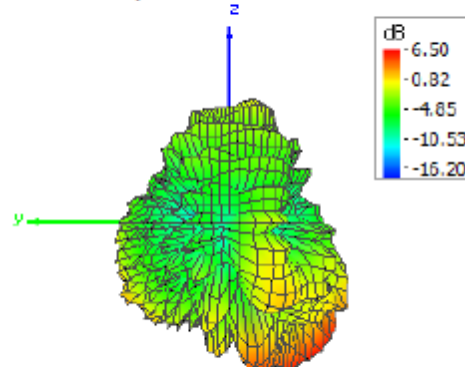
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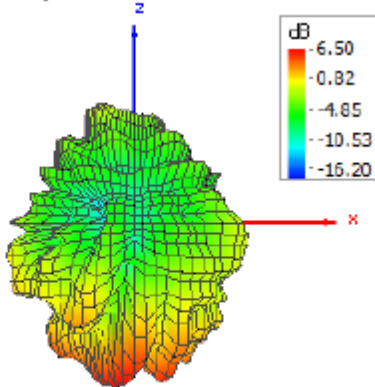
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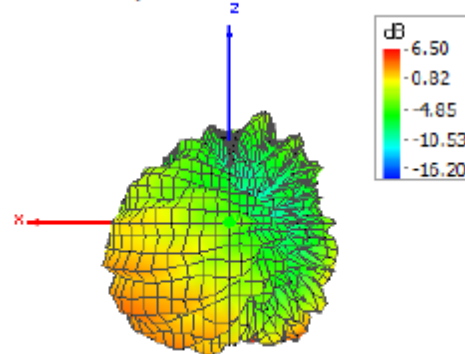
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

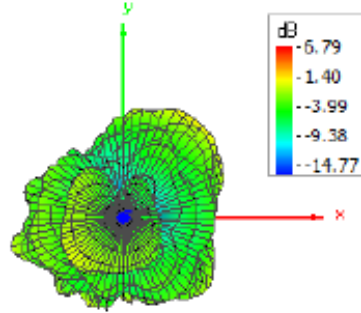


2490M

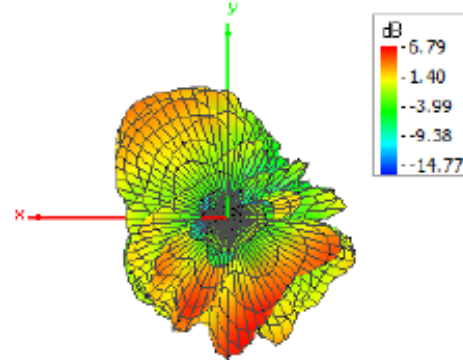
Note:

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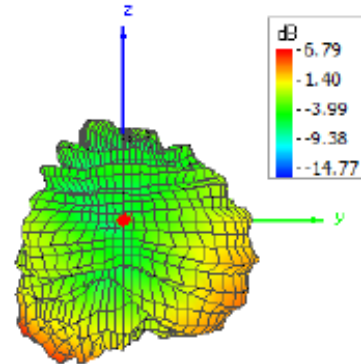
Theta = 0, Phi = 0



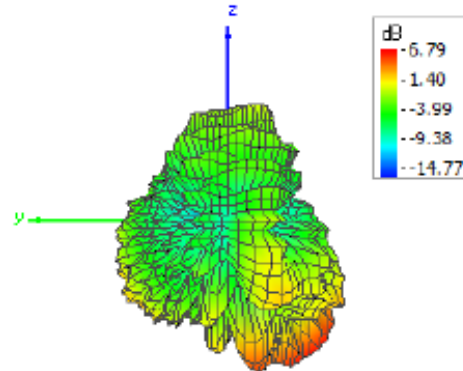
Theta = 180, Phi = 0



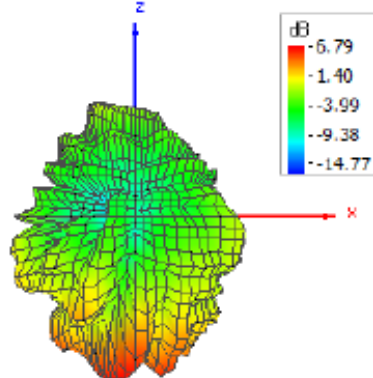
Theta = 90, Phi = 0



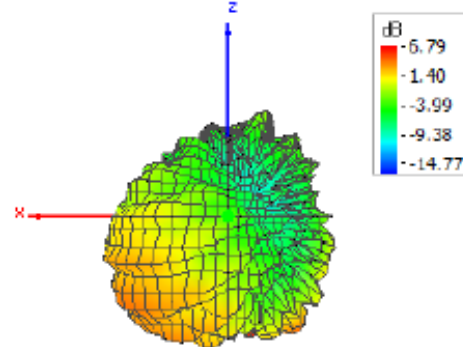
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90



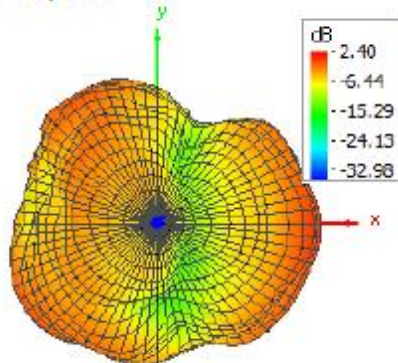
2500M

Note:

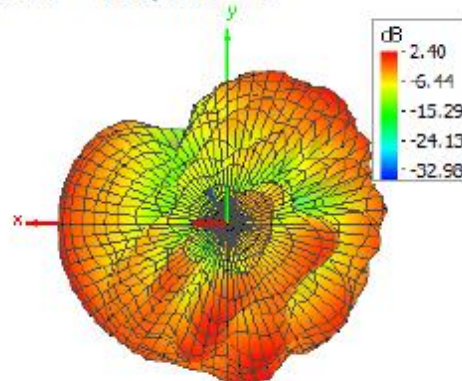
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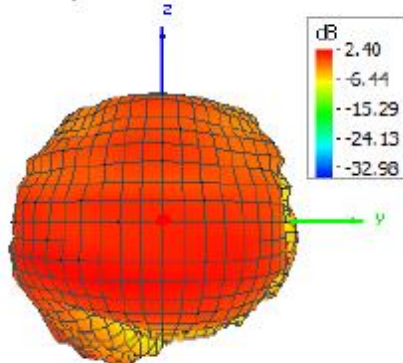
Theta = 0, Phi = 0



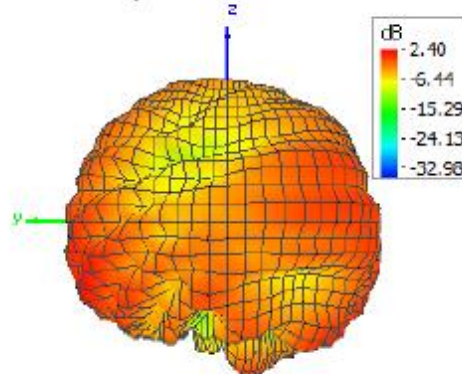
Theta = 180, Phi = 0



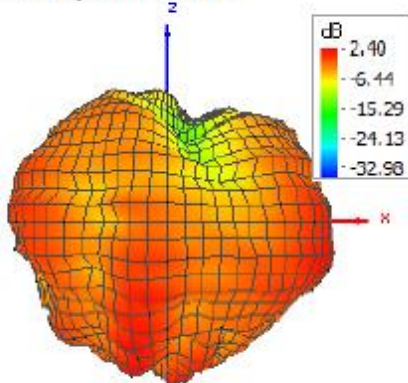
Theta = 90, Phi = 0



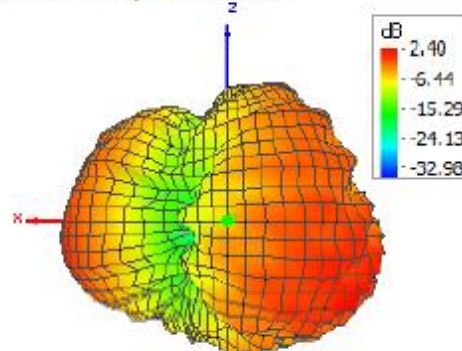
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

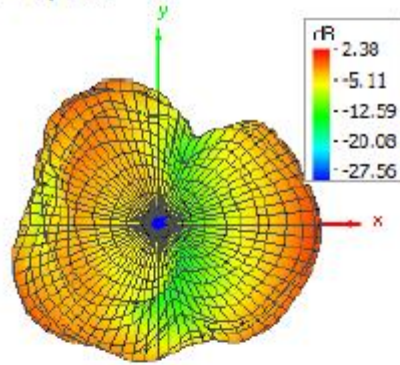


2400M

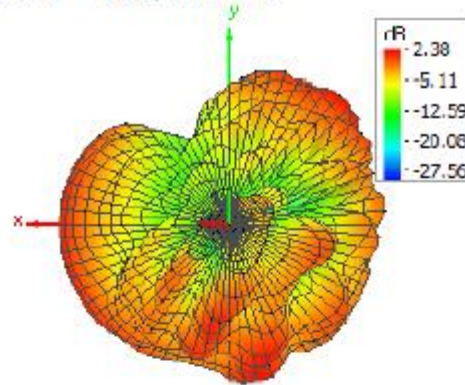
Note:

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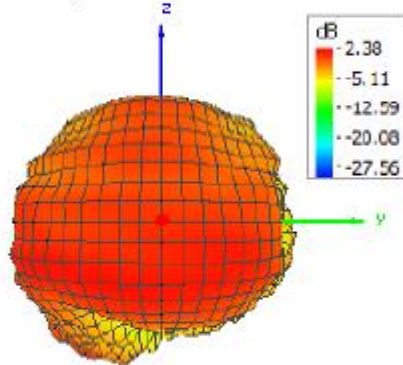
Theta = 0, Phi = 0



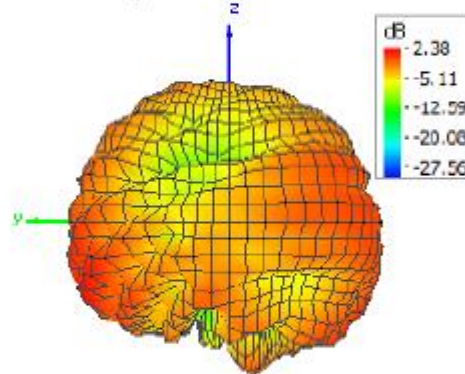
Theta = 180, Phi = 0



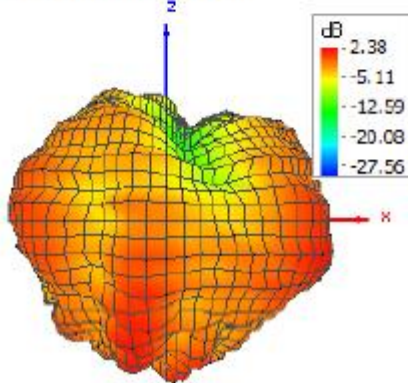
Theta = 90, Phi = 0



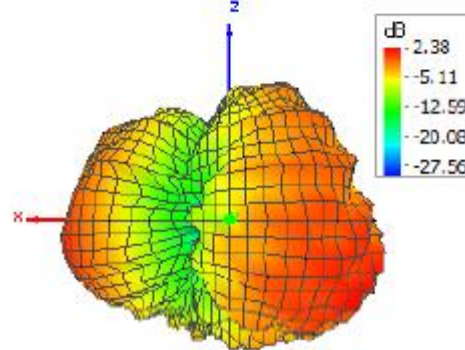
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

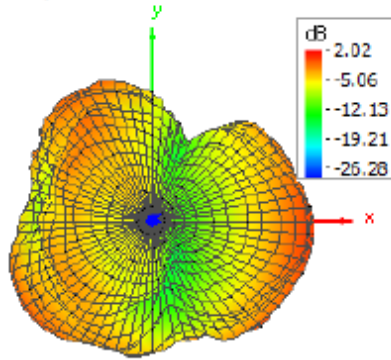


2410M

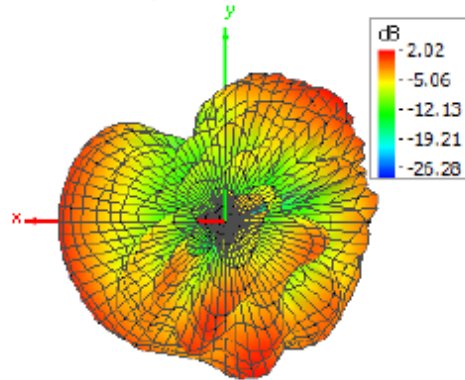
Note:

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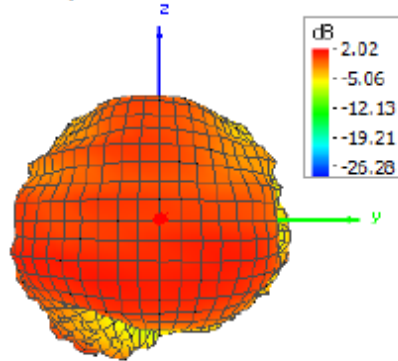
Theta = 0, Phi = 0



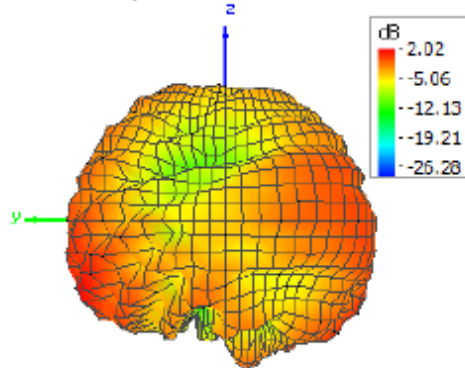
Theta = 180, Phi = 0



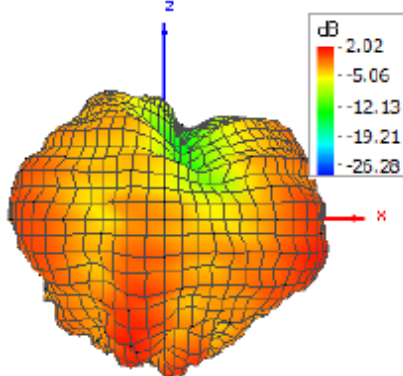
Theta = 90, Phi = 0



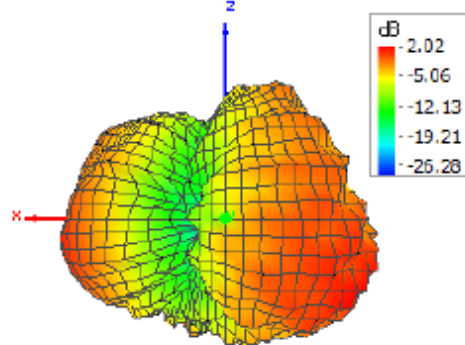
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

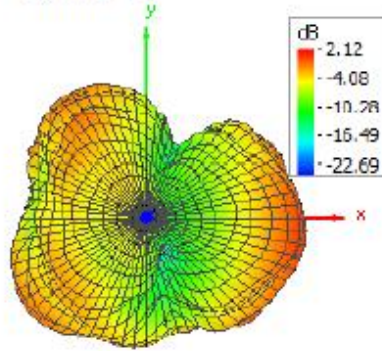


2420M

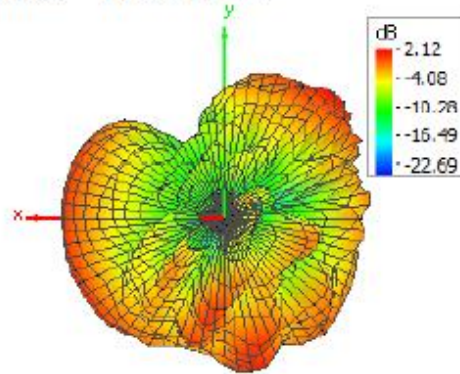
Note:

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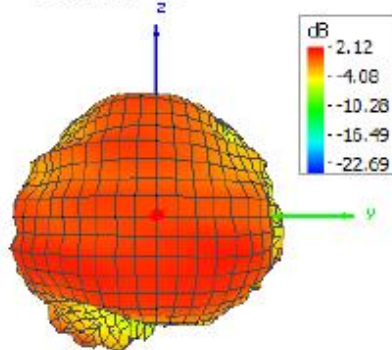
Theta = 0, Phi = 0



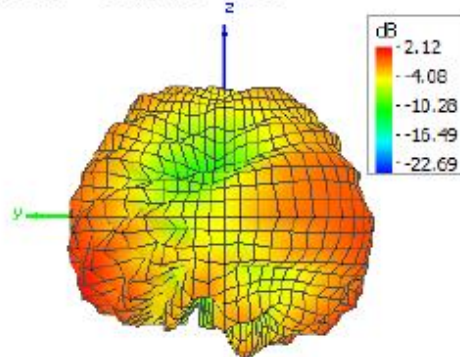
Theta = 180, Phi = 0



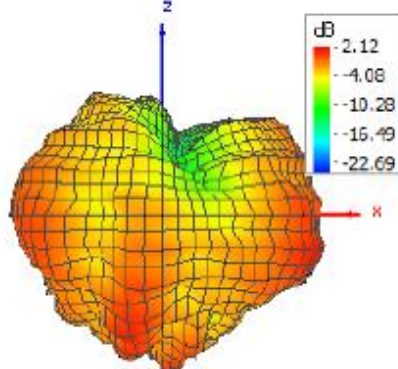
Theta = 90, Phi = 0



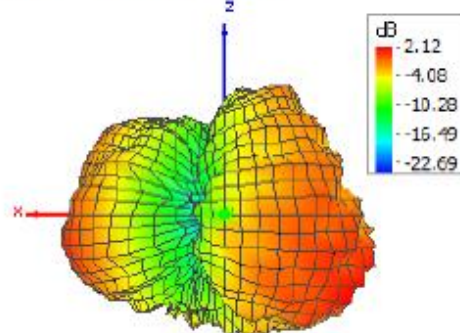
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

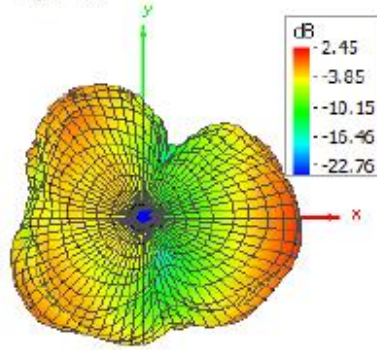


2430M

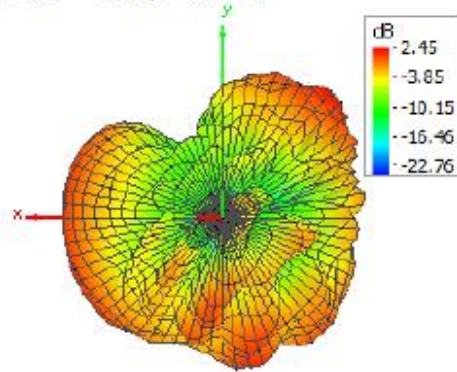
Note:

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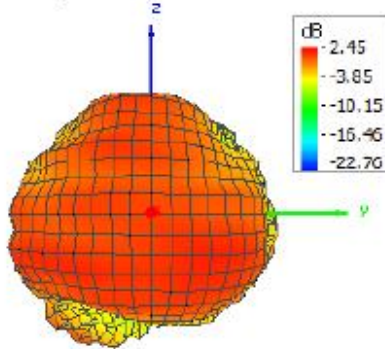
Theta = 0, Phi = 0



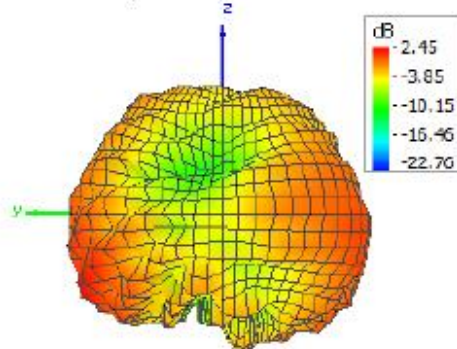
Theta = 180, Phi = 0



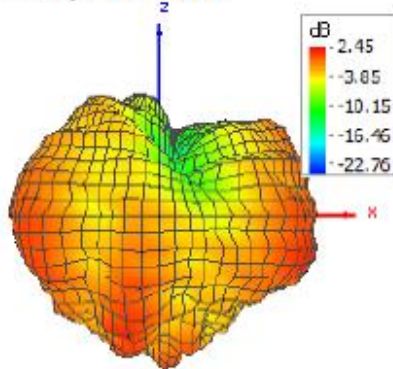
Theta = 90, Phi = 0



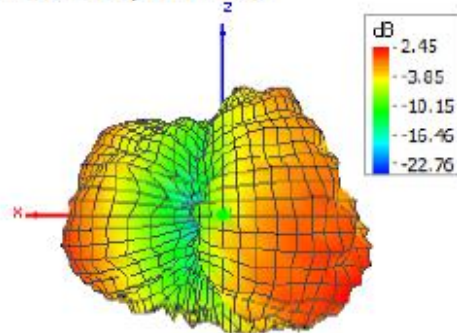
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

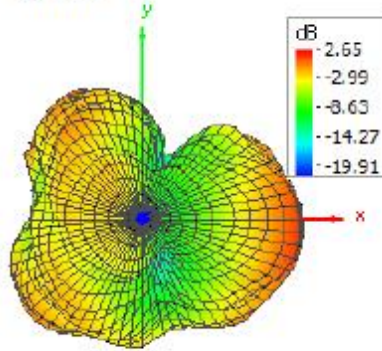


2440M

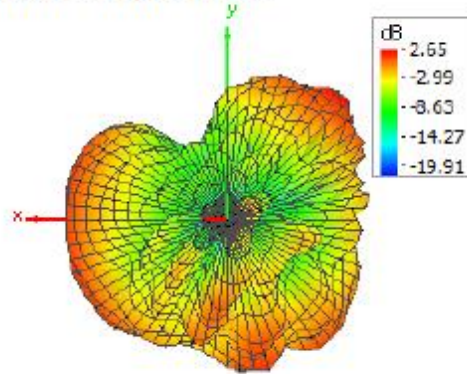
Note:

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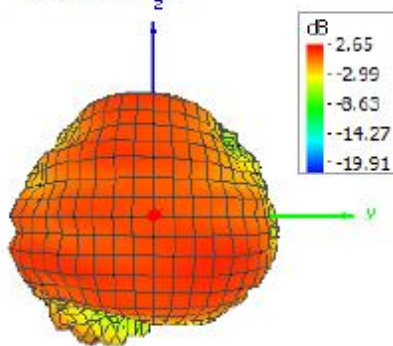
Theta = 0, Phi = 0



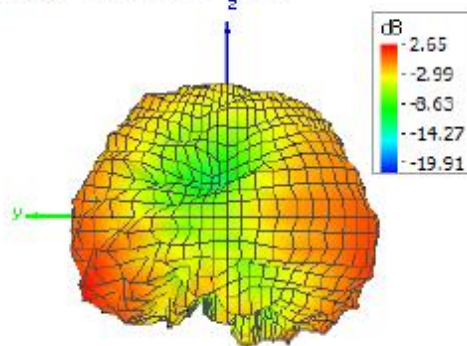
Theta = 180, Phi = 0



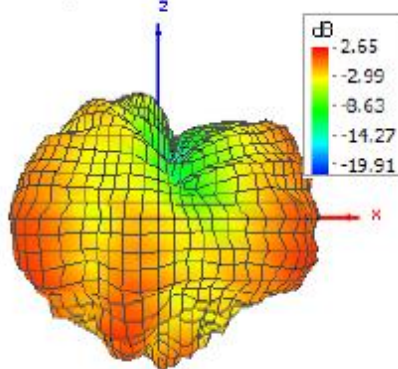
Theta = 90, Phi = 0



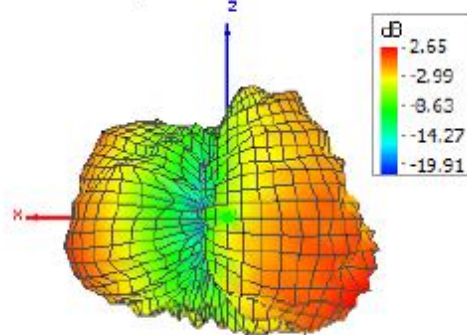
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

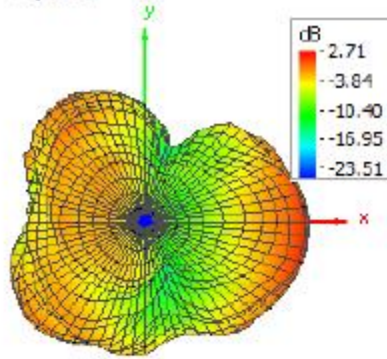


2450M

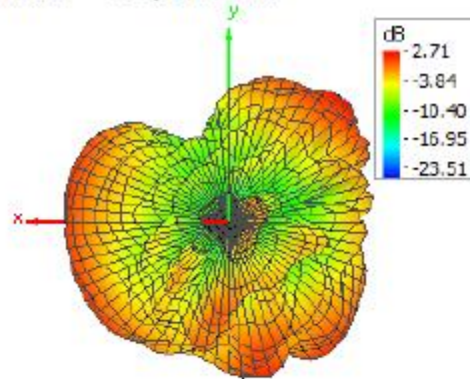
Note:

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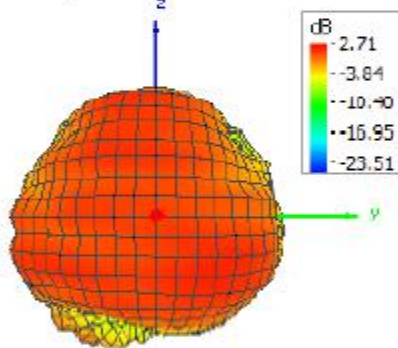
Theta = 0, Phi = 0



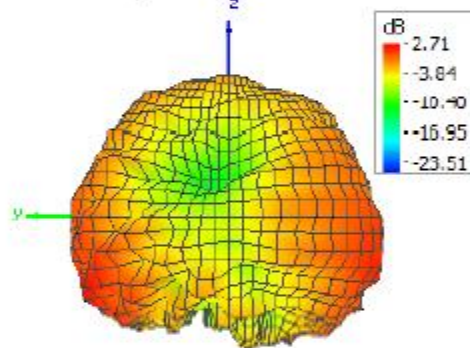
Theta = 180, Phi = 0



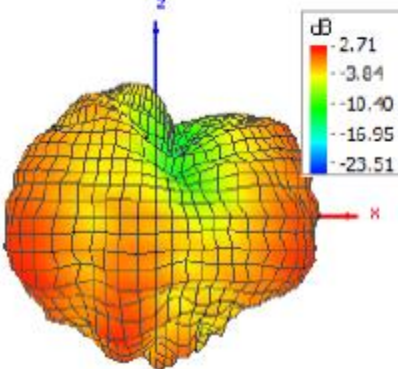
Theta = 90, Phi = 0



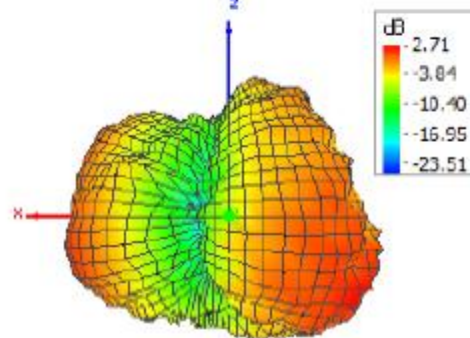
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

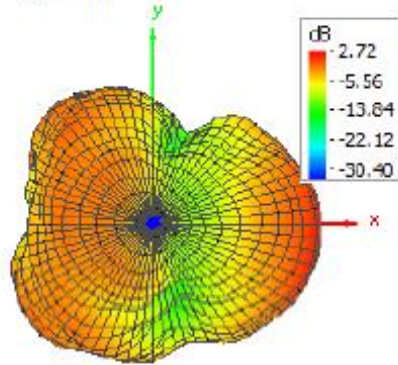


2460M

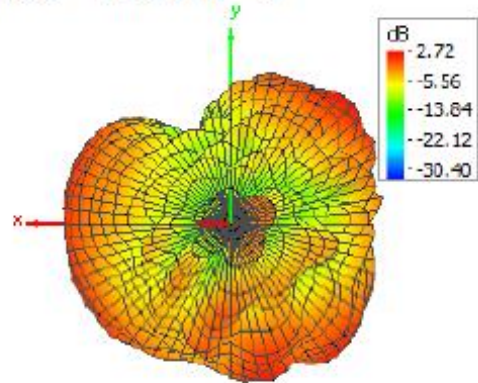
Note:

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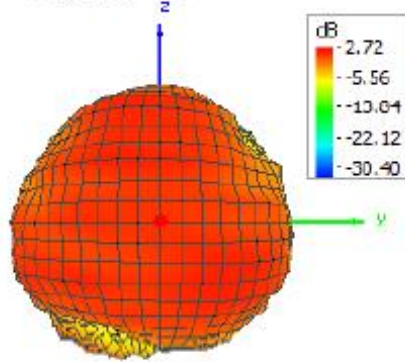
Theta = 0, Phi = 0



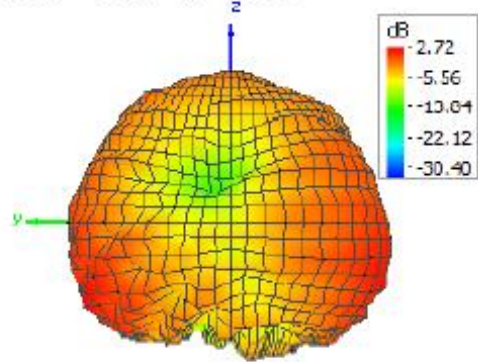
Theta = 180, Phi = 0



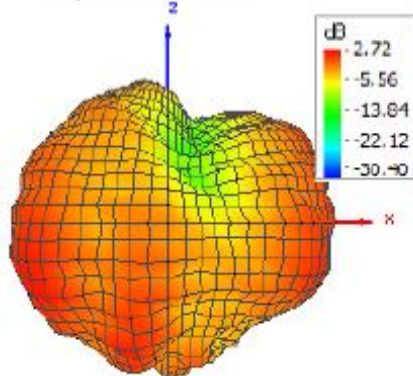
Theta = 90, Phi = 0



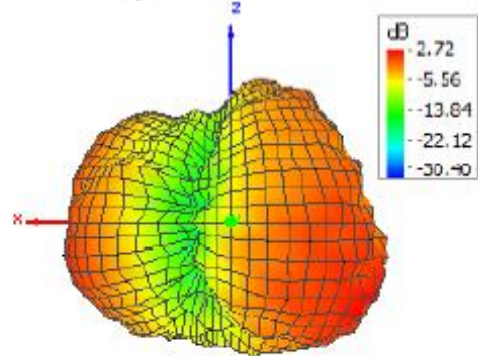
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

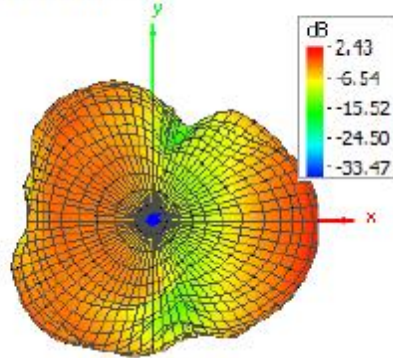


2470M

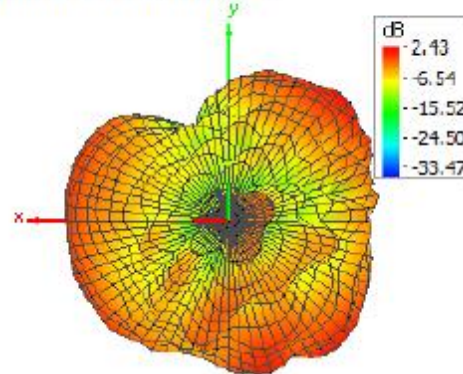
Note:

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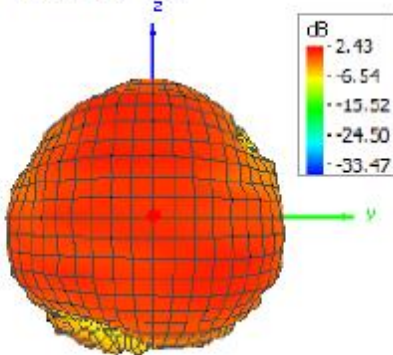
Theta = 0, Phi = 0



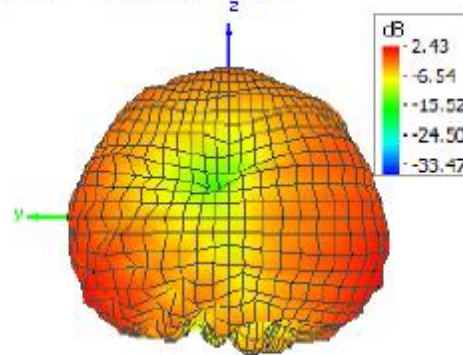
Theta = 180, Phi = 0



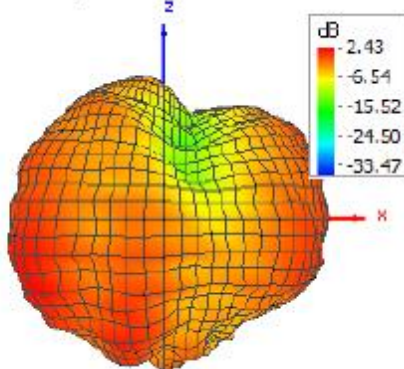
Theta = 90, Phi = 0



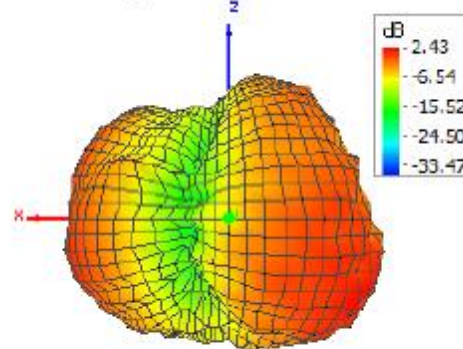
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

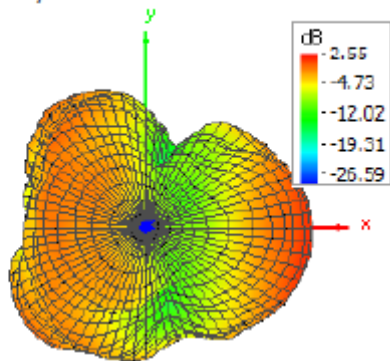


2480M

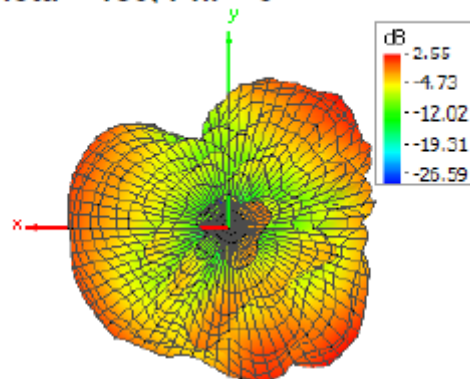
Note:

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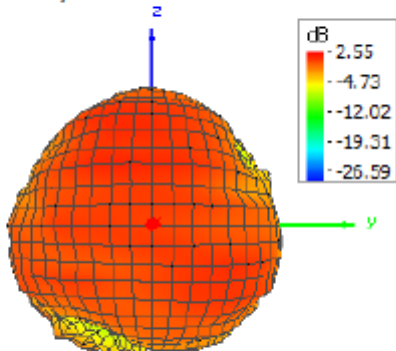
Theta = 0, Phi = 0



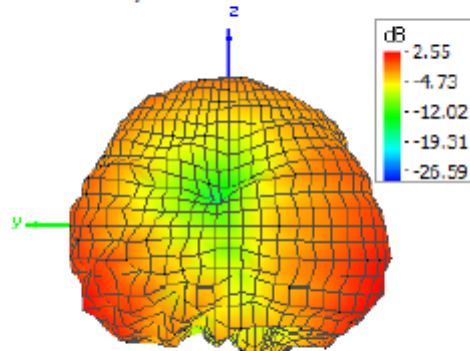
Theta = 180, Phi = 0



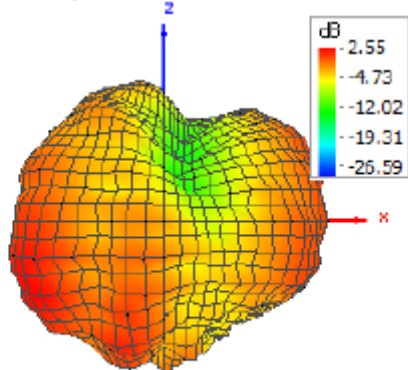
Theta = 90, Phi = 0



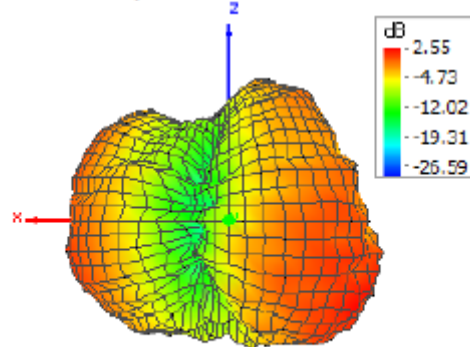
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90

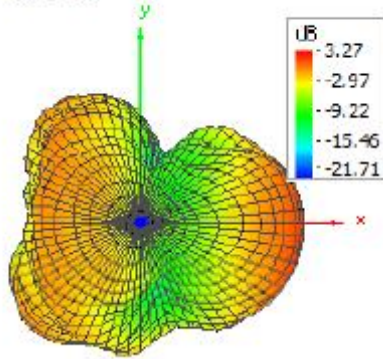


2490M

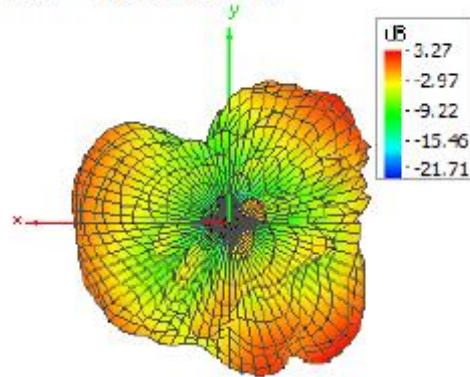
Note:

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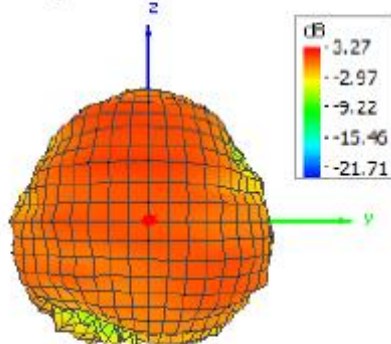
Theta = 0, Phi = 0



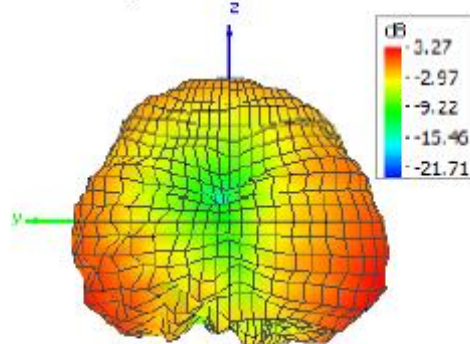
Theta = 180, Phi = 0



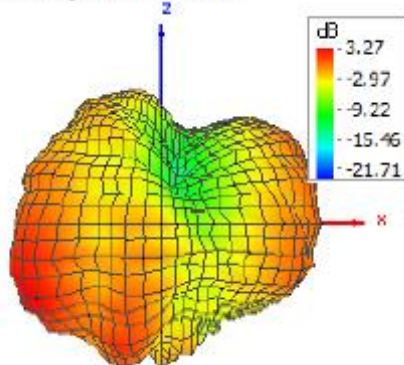
Theta = 90, Phi = 0



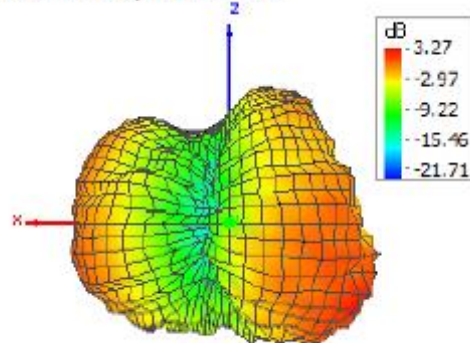
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90



2500M

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