Acknowledgement

SPECIFICATION FOR APPROVAL

Customer Name

CUSTOMER NAME:

Product name

PRODUCT NAME: L46 Circular 2.4G/5.8G Antenna

Customer Document Number

CUSTOMER P/N:

Shengda Electronics Material Number

SD P/N: SDL46WIFI6SJ300 REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:		
APPROVED BY:		
DATE:	2023/2/14	

Address: Building 4, Hanguang Science and Technology Park, Zhangbei Chuangye 4th Road, Ailian Community, Longgang District, Shenzhen
Address in Dongguan: 01,16th Floor, Building 1, Urban Wisdom Valley, No.19 Jinpeng Road, Jin Fenghuang Industrial Zone, Fenggang Town, Dongguan
telephone: 0755-89985492
Fax: 0755-89916753
URL: www.szsdtx.com

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Shenzhen Address: Building 4, Hanguang Science and Technology Park, Zhangbei Chuangye 4th Road, Ailian Community, Longgang District, Shenzhen; Dongguan Address: 16th Floor, Building 1, Urban Wisdom Valley, No.19 Jinpeng Road, Jinfenghuang Industrial Zone, Fenggang Town, Dongguan 01

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1. 1 Specification Table:

Main Technical Specifications of the Product

The key technical indexes		Main technical specifications	
Frequency Range (MHz)	2400-2500/5150-5850	Frequency Range (MHZ)	2400-2500/5150-5850
Characteristic impedance (Ω)	50	Impedance(Ω)	50
Peak Gain (dBi)	2.5	Gain(dBi)	2.5
Output Voltage Standing Wave Ratio	≤2. 2Max	VSWR	≤2. 2Max
Cable Length (mm)	300±20	Line L Length	300±20
Cable Specifications	RG174	Cable specification	RG174
Polarization Method	Vertical/Horizontal	Polarization	Vertical and horizontal
Connection Method	SMA Male Head and Needle	Connector Type	SMAJ-J
Physical property		Physical Properties	
Material of the antenna body itself	ABS	Antenna Base	ABS
Working temperature	-20℃~+50℃	Operating Temp	-20℃~+50℃
Humidity	Humidity95%~100%RH	Humidity	Humidity95%~100%RH

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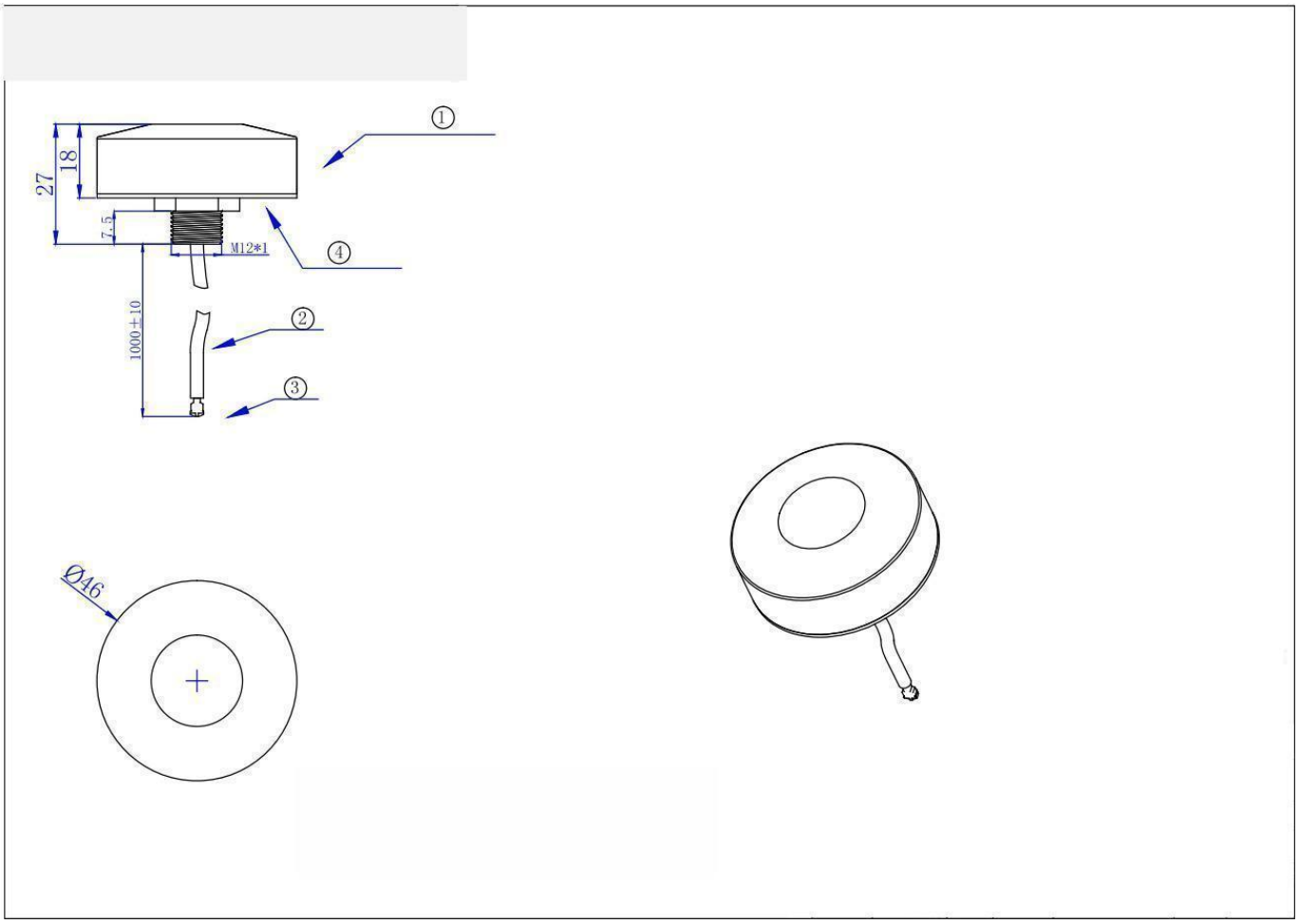
2. Final Product Image



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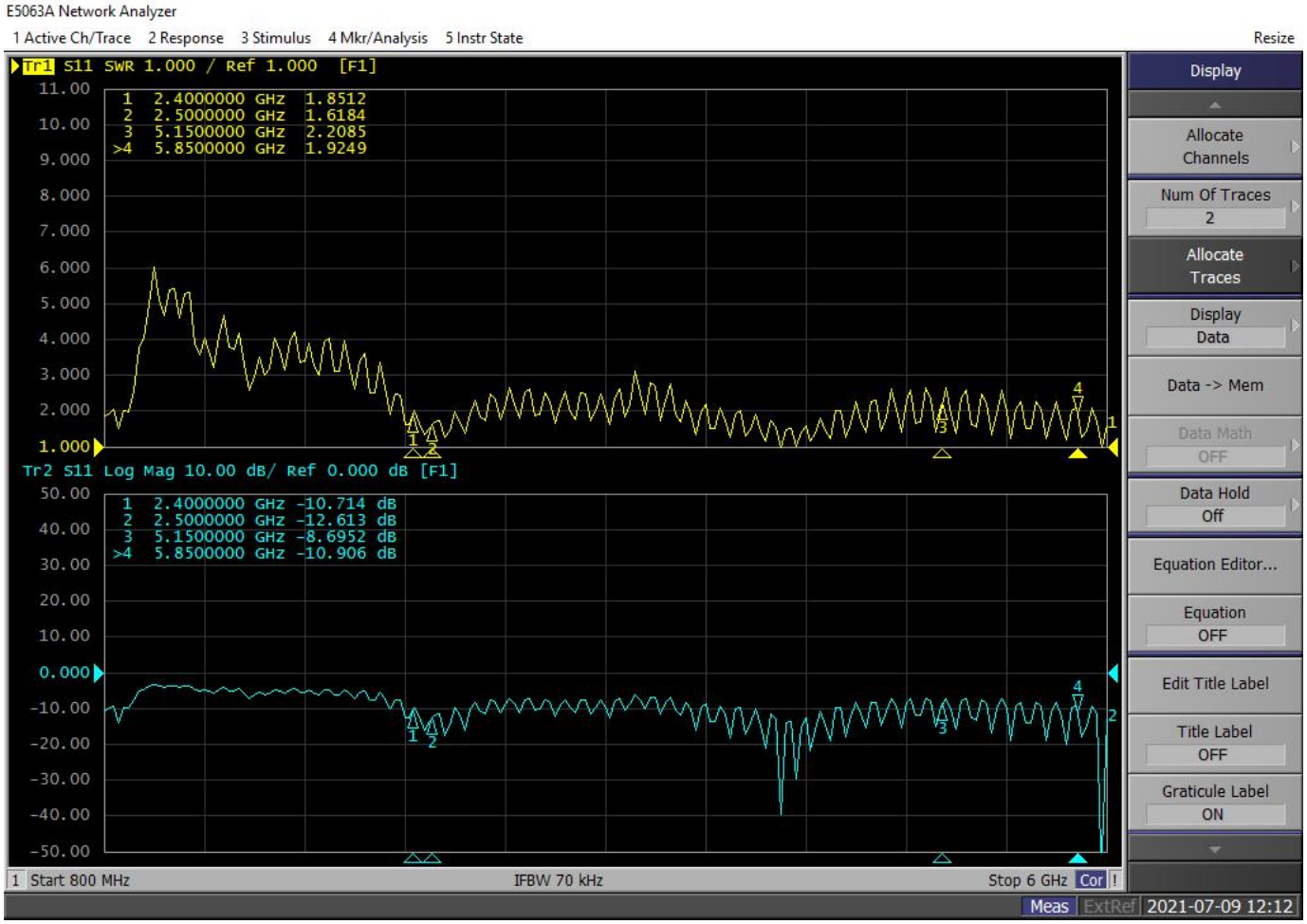
3. Test Report

3.1: Network analyzer tests the typical VSWR



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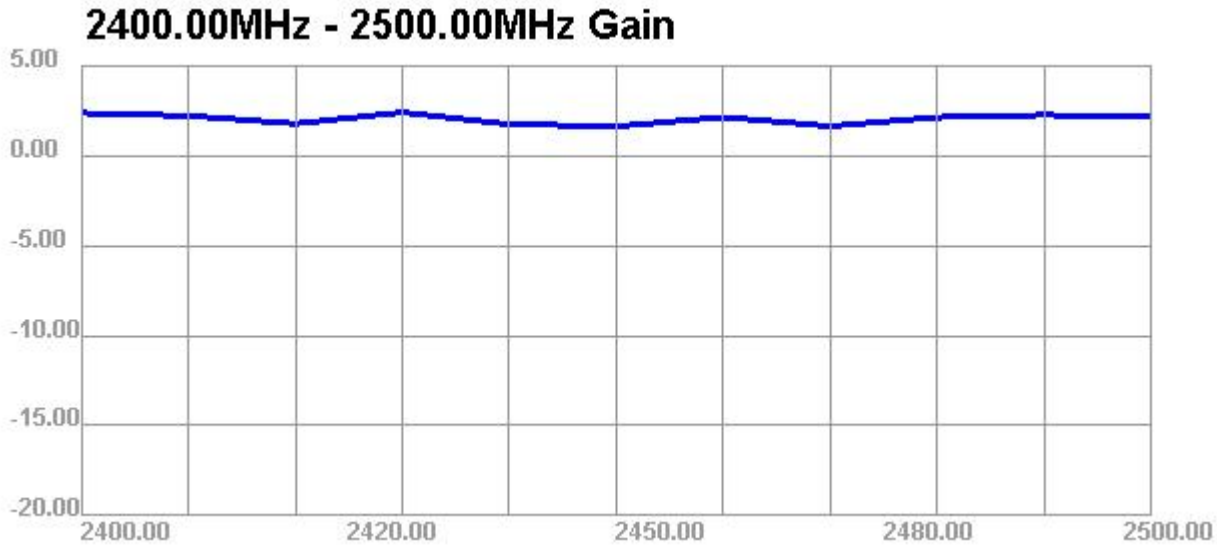
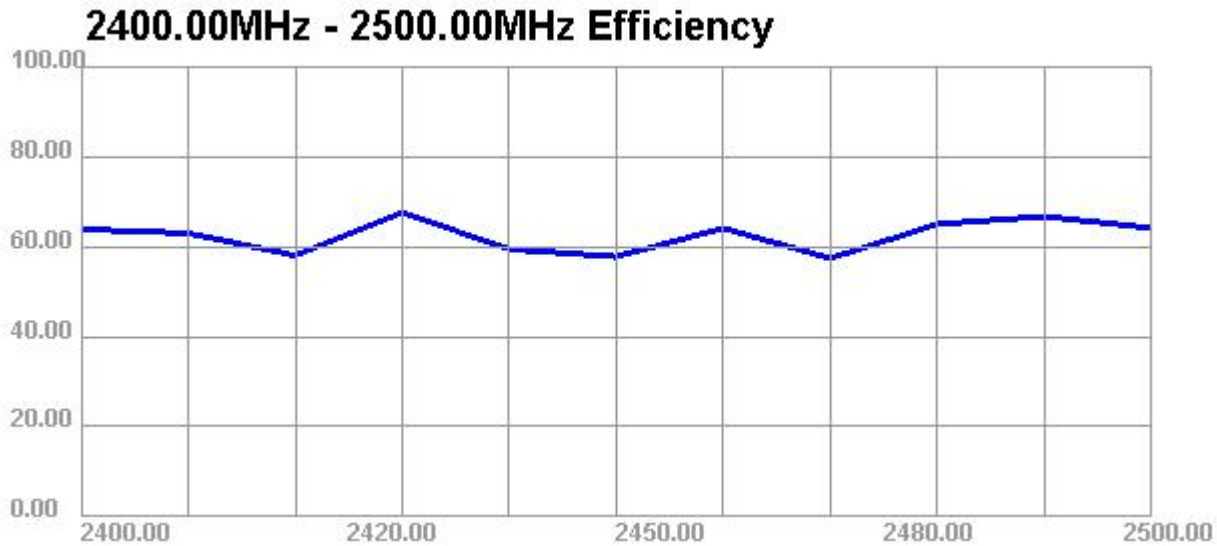
3.2. Dark Room 2D,3D Radiation Pattern





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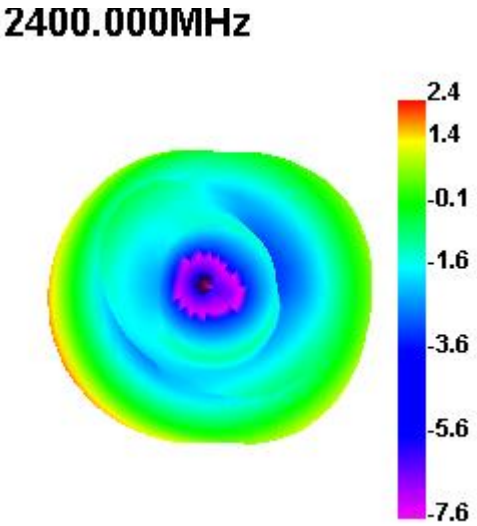
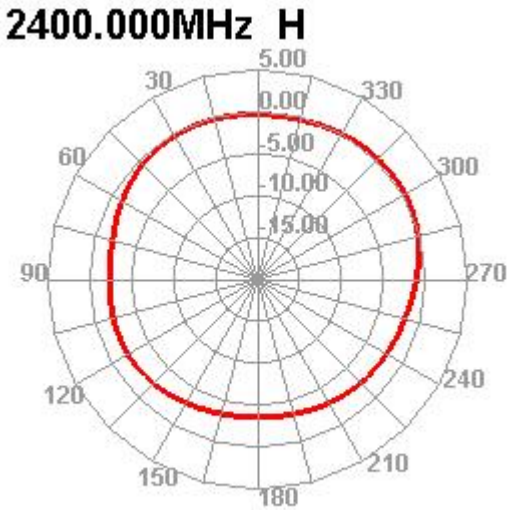
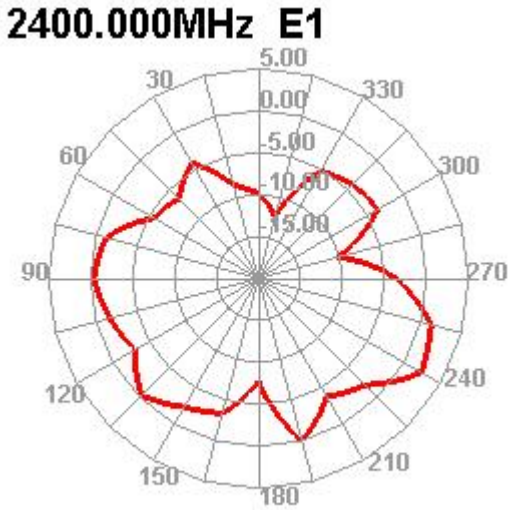
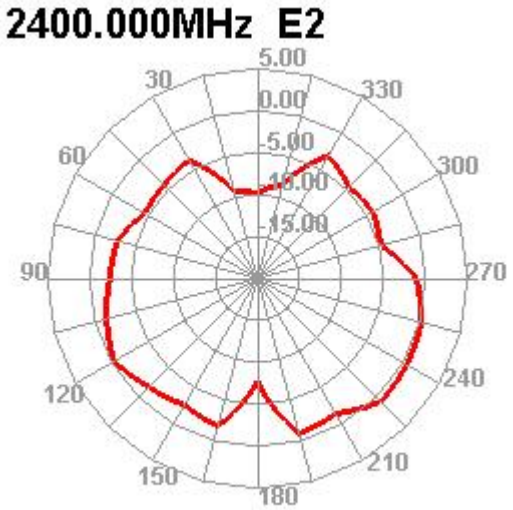
Passive Test For 2.4G												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2300	56.31	-2.49	2.51	0.36	25.545	30.763	2.51	-15.59	5.01	0	45.58	45.42
2350	58.07	-2.36	2.44	0.29	25.477	32.589	2.44	-13.84	4.8	0	45.5	45.31
2400	57.27	-2.42	2.33	0.18	24.056	33.216	2.33	-13.66	4.75	0	45.97	45.77
2450	54.91	-2.6	2.2	0.05	22.513	32.393	2.2	-12.15	4.81	0	45.54	45.4
2500	57.49	-2.4	2.38	0.23	24.27	33.218	2.38	-12.19	4.79	0	45.88	45.75
2550	56.94	-2.45	2.28	0.13	26.037	30.901	2.28	-18.66	4.72	0	45.65	45.5
2600	57.23	-2.42	2.2	0.05	27.926	29.304	2.2	-16.39	4.62	0	45.95	45.8









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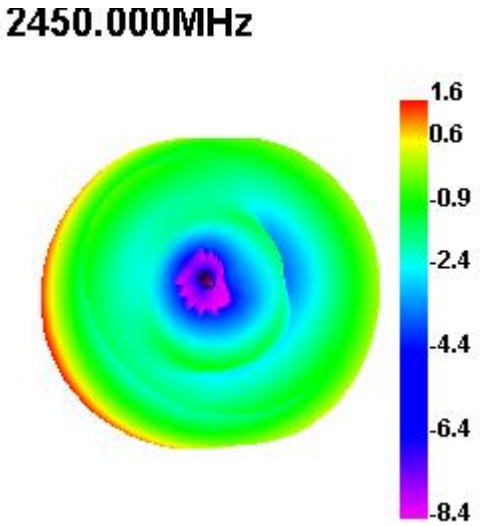

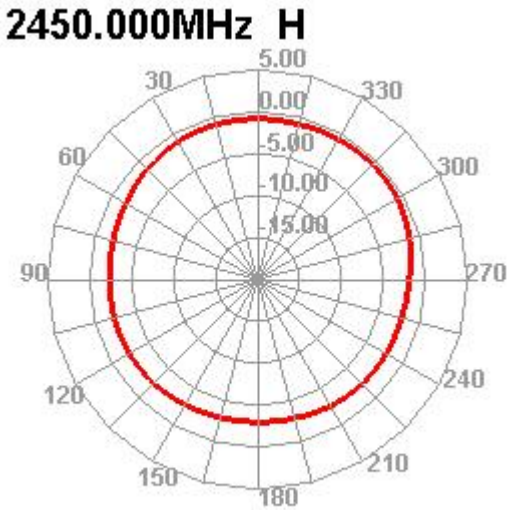

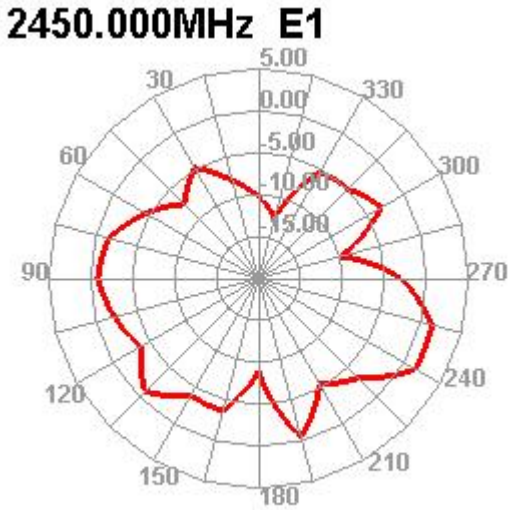

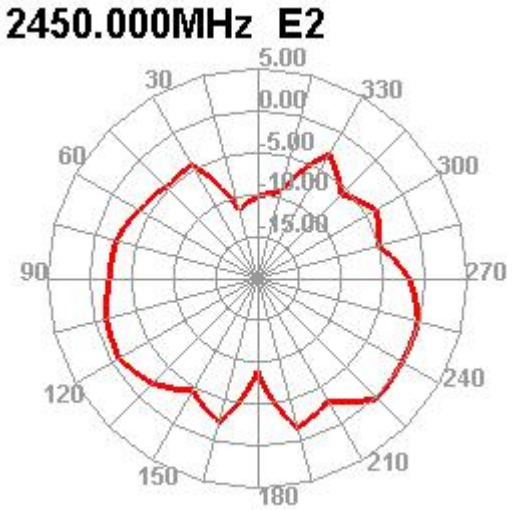

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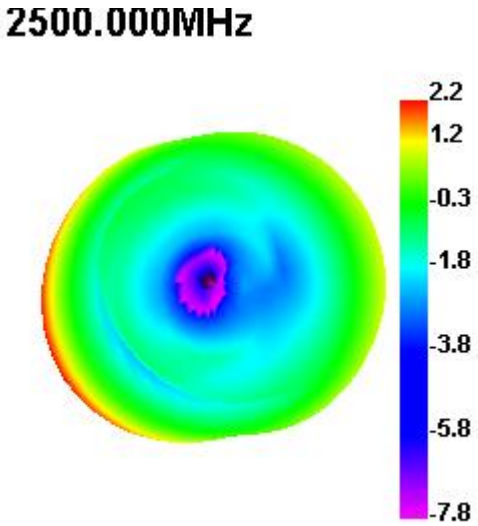

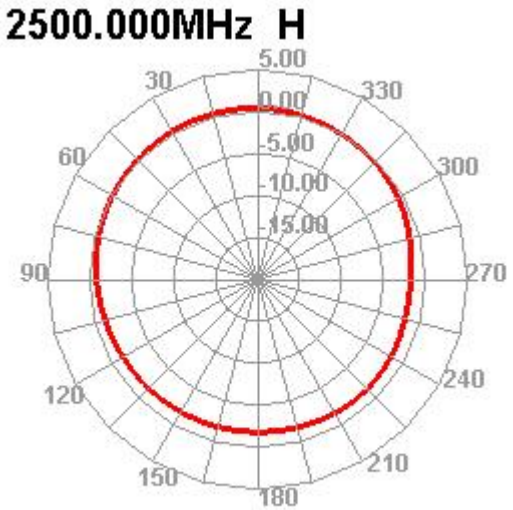

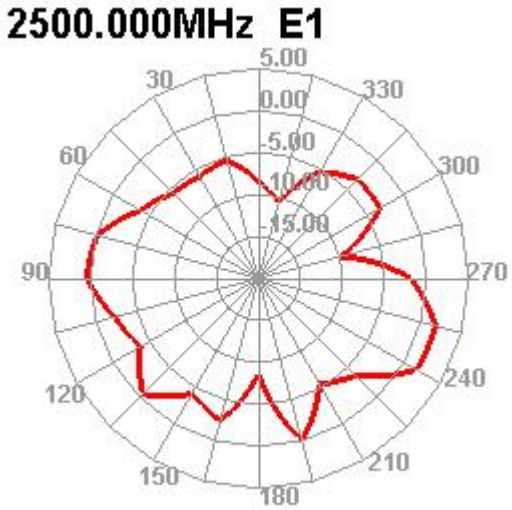

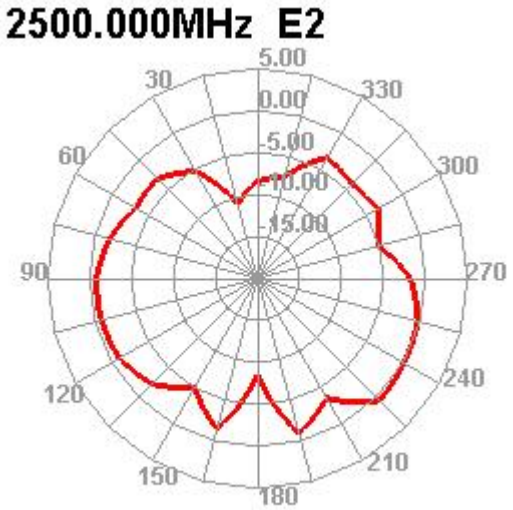

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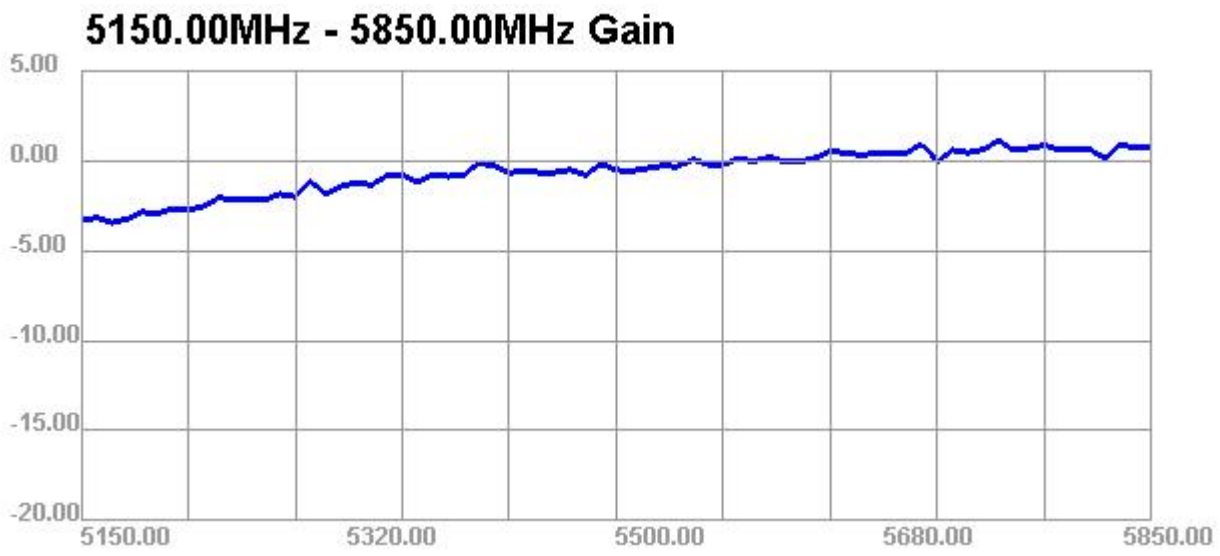

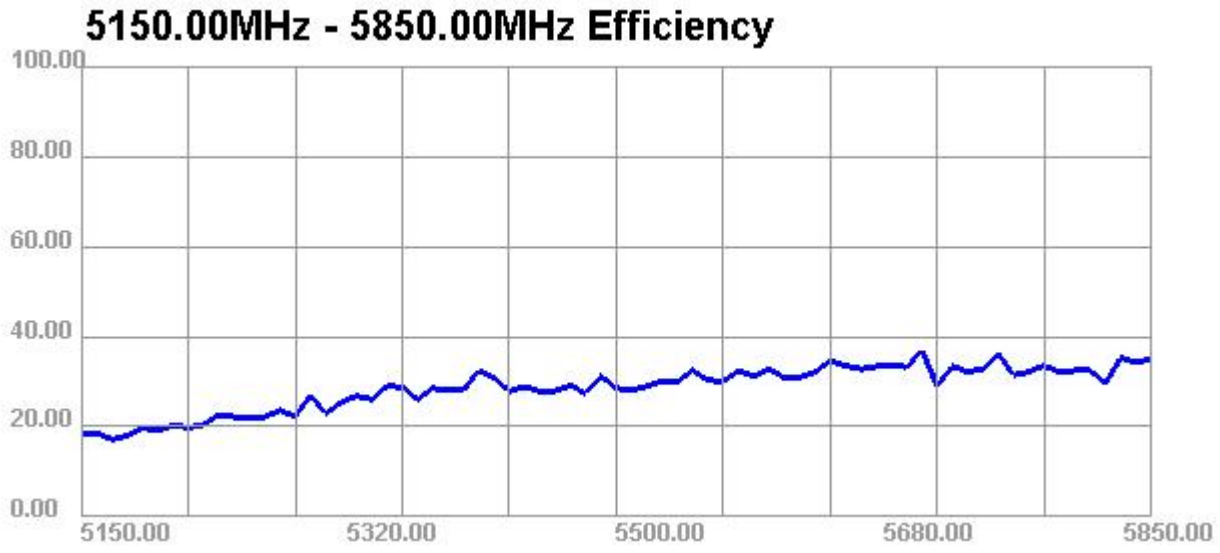

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Passive Test For 5.8G												
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5150	18.62	-7.3	-3.3	-5.45	0	0	-3.3	-31.43	7.3	30	49.61	49.76
5160	18.57	-7.31	-3.17	-5.32	0	0	-3.17	-30.29	7.31	30	49.56	49.97
5170	17.2	-7.64	-3.44	-5.59	0	0	-3.44	-29.63	7.64	30	49.44	49.75
5180	18.01	-7.45	-3.24	-5.39	0	0	-3.24	-29.71	7.45	30	49.48	49.83
5190	19.74	-7.05	-2.85	-5	0	0	-2.85	-29.79	7.05	30	49.53	49.84
5200	19.19	-7.17	-2.95	-5.1	0	0	-2.95	-30.89	7.17	30	49.63	49.96
5210	20.37	-6.91	-2.64	-4.79	0	0	-2.64	-30.23	6.91	30	49.89	50.14
5220	19.77	-7.04	-2.72	-4.87	0	0	-2.72	-28.94	7.04	30	49.65	49.96
5230	20.45	-6.89	-2.53	-4.68	0	0	-2.53	-27.79	6.89	30	50.1	50.4
5240	22.65	-6.45	-2.07	-4.22	0	0	-2.07	-26.76	6.45	30	49.79	49.97
5250	22.19	-6.54	-2.16	-4.31	0	0	-2.16	-27.18	6.54	30	49.73	49.93
5260	22.22	-6.53	-2.17	-4.32	0	0	-2.17	-27.87	6.53	30	49.98	50.11
5270	22.2	-6.54	-2.16	-4.31	0	0	-2.16	-27.52	6.54	30	49.94	49.97
5280	23.58	-6.27	-1.85	-4	0	0	-1.85	-26.11	6.27	30	49.91	49.96
5290	22.42	-6.49	-1.99	-4.14	0	0	-1.99	-25.08	6.49	30	50.03	50.03
5300	26.85	-5.71	-1.15	-3.3	0	0	-1.15	-23.48	5.71	30	50.25	50.17
5310	22.92	-6.4	-1.85	-4	0	0	-1.85	-24.01	6.4	30	49.92	49.93
5320	25.46	-5.94	-1.42	-3.57	0	0	-1.42	-23.81	5.94	45	50.75	50.61
5330	26.81	-5.72	-1.23	-3.38	0	0	-1.23	-23.57	5.72	45	50.01	49.93
5340	26.08	-5.84	-1.34	-3.49	0	0	-1.34	-23.5	5.84	45	50.38	50.29
5350	28.97	-5.38	-0.82	-2.97	0	0	-0.82	-22.29	5.38	45	50.47	50.32
5360	28.84	-5.4	-0.8	-2.95	0	0	-0.8	-21.85	5.4	30	50.28	50.15
5370	26.07	-5.84	-1.19	-3.34	0	0	-1.19	-23.44	5.84	45	50.53	50.38
5380	28.55	-5.44	-0.79	-2.94	0	0	-0.79	-23.74	5.44	45	50.39	50.29
5390	28.07	-5.52	-0.87	-3.02	0	0	-0.87	-23.58	5.52	45	50.26	50.1
5400	28.11	-5.51	-0.81	-2.96	0	0	-0.81	-22.47	5.51	45	50.75	50.75
5410	32.42	-4.89	-0.14	-2.29	0	0	-0.14	-20.94	4.89	30	50.48	50.28
5420	30.91	-5.1	-0.29	-2.44	0	0	-0.29	-21.09	5.1	30	50.4	50.4
5430	27.93	-5.54	-0.7	-2.85	0	0	-0.7	-22	5.54	30	50.07	50.04
5440	28.85	-5.4	-0.53	-2.68	0	0	-0.53	-22.82	5.4	30	50.04	49.98
5450	27.86	-5.55	-0.67	-2.82	0	0	-0.67	-23.22	5.55	30	49.99	49.99
5460	27.98	-5.53	-0.65	-2.8	0	0	-0.65	-22.55	5.53	30	50.18	50.19
5470	29.19	-5.35	-0.51	-2.66	0	0	-0.51	-21.6	5.35	30	50.24	50.2
5480	27.4	-5.62	-0.79	-2.94	0	0	-0.79	-22.13	5.62	30	50.28	50.4
5490	31.25	-5.05	-0.18	-2.33	0	0	-0.18	-21.95	5.05	30	50.27	50.26

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5500	28.54	-5.45	-0.52	-2.67	0	0	-0.52	-22.91	5.45	30	50.18	50.21
5510	28.04	-5.52	-0.57	-2.72	0	0	-0.57	-23.75	5.52	30	50.17	50.22
5520	29.05	-5.37	-0.43	-2.58	0	0	-0.43	-25.08	5.37	30	50.44	50.48
5530	30.14	-5.21	-0.29	-2.44	0	0	-0.29	-27.76	5.21	30	50.29	50.31
5540	29.99	-5.23	-0.32	-2.47	0	0	-0.32	-31.36	5.23	30	50.46	50.42
5550	32.59	-4.87	0.07	-2.08	0	0	0.07	-32.77	4.87	30	50.38	50.52
5560	30.28	-5.19	-0.22	-2.37	0	0	-0.22	-30.3	5.19	30	50.81	50.62
5570	30.17	-5.2	-0.22	-2.37	0	0	-0.22	-28.08	5.2	30	50.51	50.68
5580	32.42	-4.89	0.11	-2.04	0	0	0.11	-26.34	4.89	30	51	50.75
5590	31.14	-5.07	-0.04	-2.19	0	0	-0.04	-25.33	5.07	30	50.32	50.36
5600	32.9	-4.83	0.2	-1.95	0	0	0.2	-23.97	4.83	30	50.56	50.48
5610	30.9	-5.1	-0.07	-2.22	0	0	-0.07	-23.09	5.1	30	50.38	50.34
5620	31.05	-5.08	-0.04	-2.19	0	0	-0.04	-21.99	5.08	30	50.62	50.44
5630	32.04	-4.94	0.14	-2.01	0	0	0.14	-21.36	4.94	30	50.52	50.4
5640	34.74	-4.59	0.55	-1.6	0	0	0.55	-20.54	4.59	30	51.01	50.94
5650	33.54	-4.74	0.42	-1.73	0	0	0.42	-20.47	4.74	30	50.75	50.65
5660	32.83	-4.84	0.32	-1.83	0	0	0.32	-20.82	4.84	30	51.02	50.93
5670	33.36	-4.77	0.4	-1.75	0	0	0.4	-20.91	4.77	30	50.79	50.58
5680	33.79	-4.71	0.46	-1.69	0	0	0.46	-20.66	4.71	30	50.85	50.74
5690	33.24	-4.78	0.43	-1.72	0	0	0.43	-20.27	4.78	30	50.8	50.75
5700	36.87	-4.33	0.94	-1.21	0	0	0.94	-19.26	4.33	30	51.01	50.89
5710	29.08	-5.36	-0.04	-2.19	0	0	-0.04	-20.01	5.36	30	51.04	50.9
5720	33.46	-4.76	0.59	-1.56	0	0	0.59	-19.25	4.76	30	50.9	50.82
5730	32.2	-4.92	0.45	-1.7	0	0	0.45	-19.53	4.92	30	51.15	51.09
5740	32.82	-4.84	0.61	-1.54	0	0	0.61	-19.56	4.84	30	50.89	50.87
5750	36.21	-4.41	1.12	-1.03	0	0	1.12	-19.31	4.41	15	50.87	50.75
5760	31.45	-5.02	0.59	-1.56	0	0	0.59	-20.24	5.02	15	50.93	50.81
5770	32.19	-4.92	0.7	-1.45	0	0	0.7	-20.16	4.92	15	50.7	50.72
5780	33.62	-4.73	0.85	-1.3	0	0	0.85	-20.75	4.73	15	50.78	50.75
5790	32	-4.95	0.6	-1.55	0	0	0.6	-21.01	4.95	15	50.71	50.67
5800	32.5	-4.88	0.63	-1.52	0	0	0.63	-20.66	4.88	15	50.85	50.75
5810	32.5	-4.88	0.61	-1.54	0	0	0.61	-20.66	4.88	15	50.82	50.83
5820	29.58	-5.29	0.15	-2	0	0	0.15	-20.94	5.29	15	51.28	51.2
5830	35.32	-4.52	0.89	-1.26	0	0	0.89	-20.76	4.52	15	50.98	51.06
5840	34.21	-4.66	0.71	-1.44	0	0	0.71	-21.82	4.66	15	51.5	51.25
5850	35.07	-4.55	0.81	-1.34	0	0	0.81	-21.63	4.55	15	51.03	51.11

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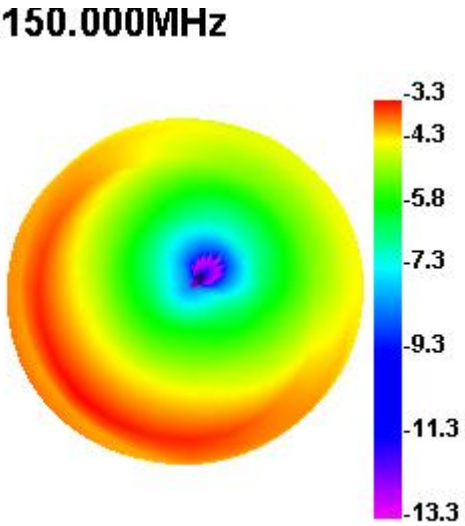

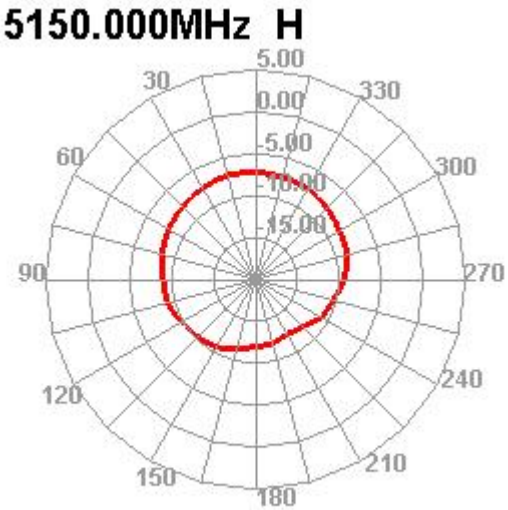

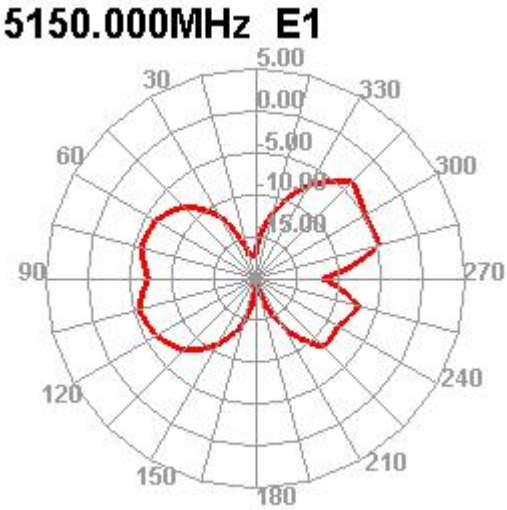

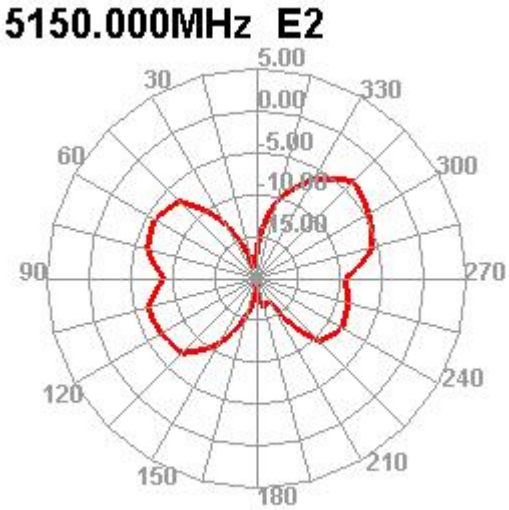

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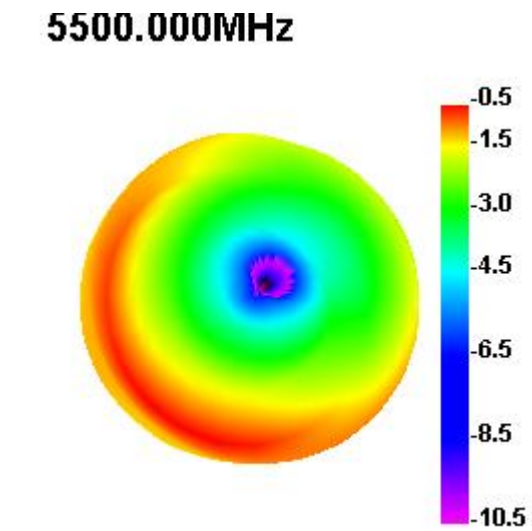

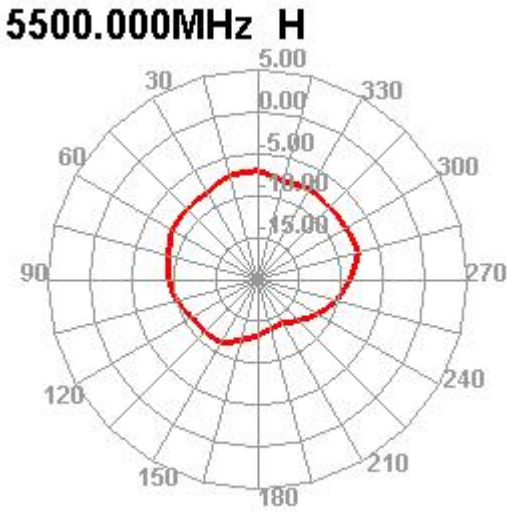

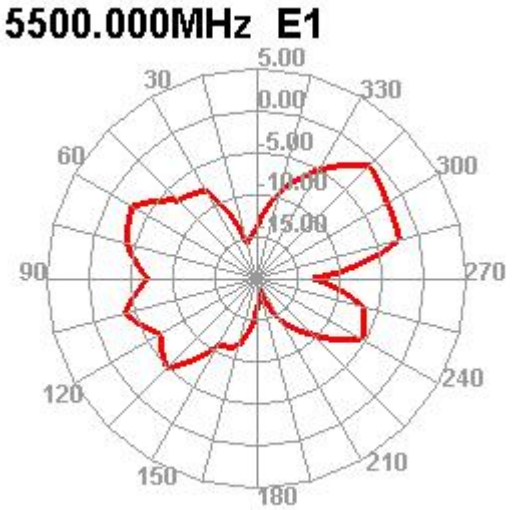

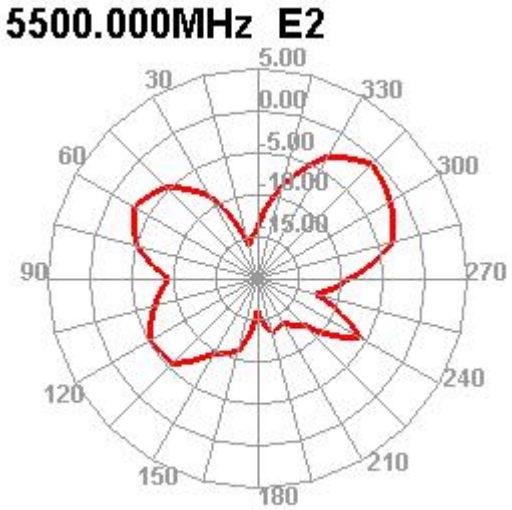

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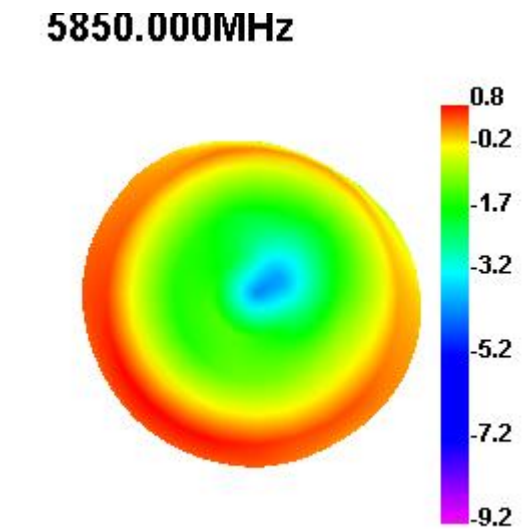

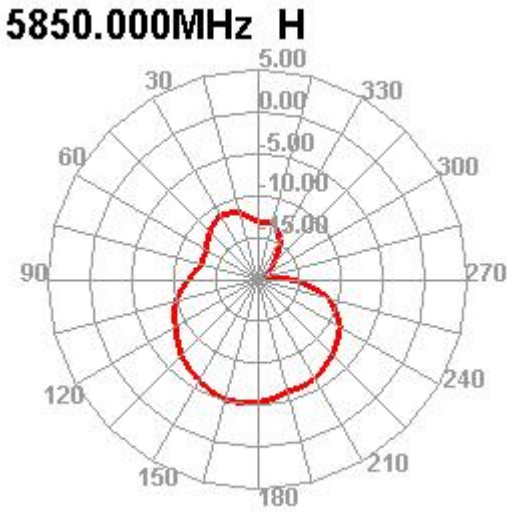

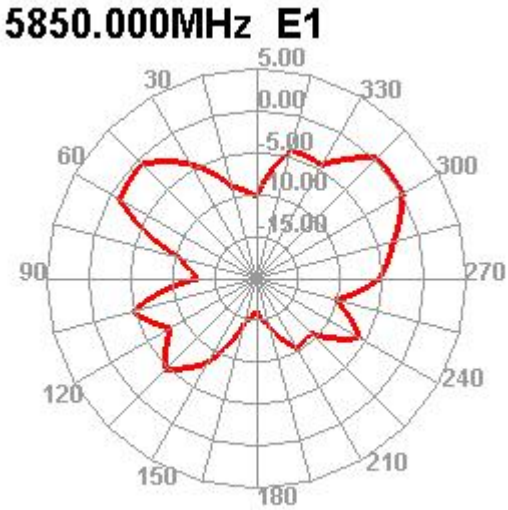

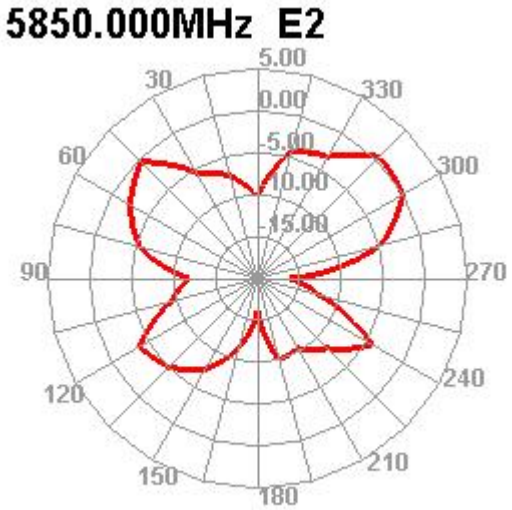

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