

Antenna Specification

SPECIFICATION

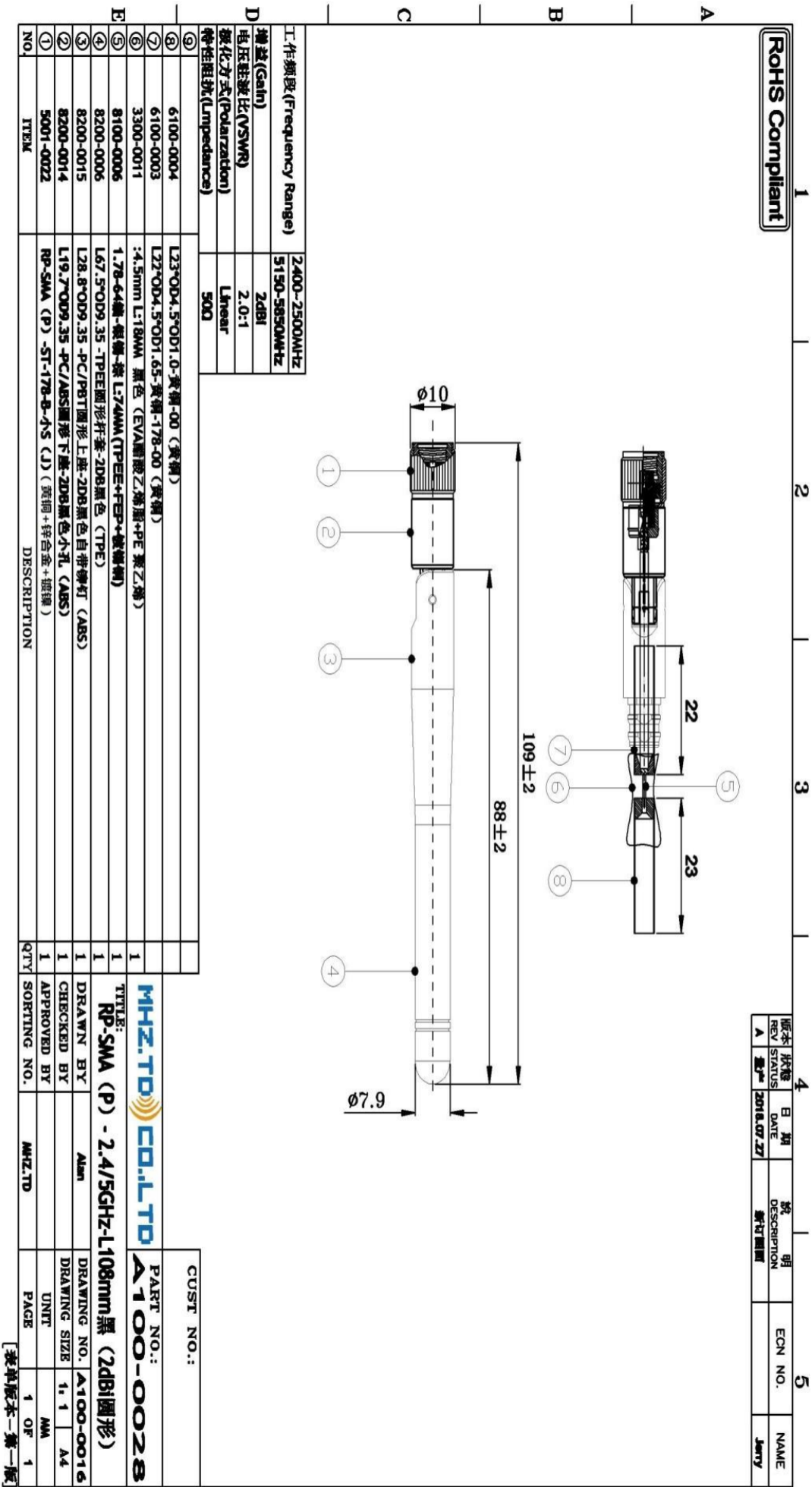
Product Name: 2.4G&5G Black External 108MM Foldable Antenna

Supplier: Shenzhen Yangcheng Communication Antenna Co., Ltd.

Supplier Material Code: YCR-1010-3

1 Product Parameters

No.	Item	Specification	Allowable Additional Deviation
4.1.1	Operating Frequency Range	2.4G~2.5GHz/5.1-5.8GHz	——
4.1.2	Voltage Standing Wave Ratio	Refer to waveform	——
4.1.3	Radiation Pattern	Omni-directional	——
4.1.4	Radiating Element	1/4 Wave Helical	——
4.1.5	Polarization Mode	Linear Vertical Polarization	——
4.1.6	Max Power	1W	——
4.1.7	Characteristic Impedance	50 OHM	——
4.1.8	Connector Type	SMA	——
4.1.9	Weight	7.57g	±0.3g



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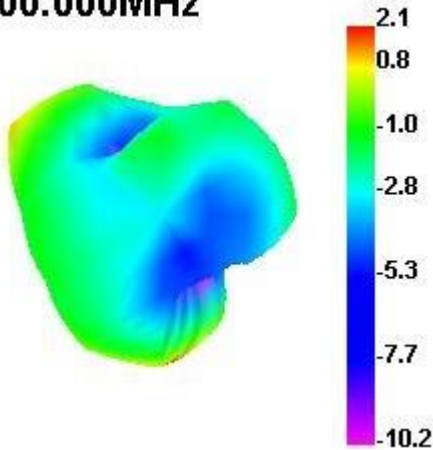
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3 Anechoic Chamber Test Report

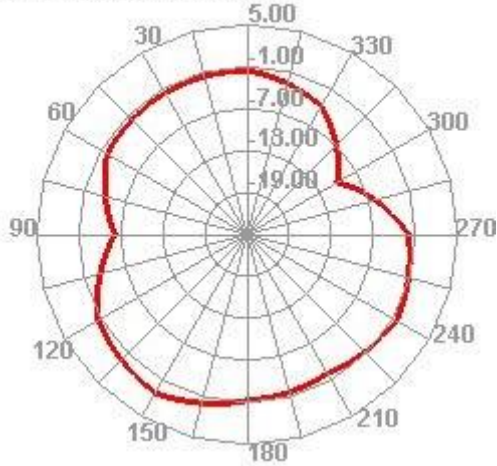
2.4G

Passive Test For 2400-2500									
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	62.4	-2.05	2.06	26.7	35.695	2.06	-10.16	48.55	48.51
2410	62	-2.08	1.81	26.8	35.218	1.81	-9.81	48.59	48.53
2420	56.2	-2.5	1.17	24.5	31.7	1.17	-10.26	48.73	48.42
2430	53.4	-2.73	0.73	23.7	29.639	0.73	-10.6	48.44	48.12
2440	60.9	-2.16	1.05	27.6	33.234	1.05	-9.96	48.55	48.21
2450	64.7	-1.89	1.02	30	34.742	1.02	-9.68	48.76	48.47
2460	60.5	-2.19	0.47	28.6	31.893	0.47	-10.02	49.04	48.68
2470	57.3	-2.42	0.19	27.4	29.903	0.19	-10.08	48.91	48.68
2480	63.6	-1.97	0.57	30.8	32.767	0.57	-9.97	48.86	48.43
2490	73.2	-1.35	1.21	36	37.26	1.21	-9.61	49.07	48.72
2500	69.7	-1.57	1.06	34.7	35.013	1.06	-10.33	49.21	48.76

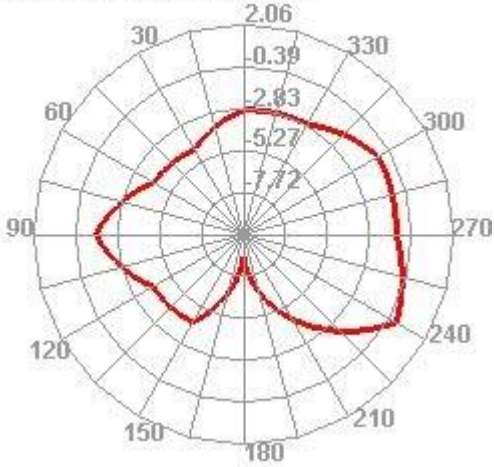
2400.000MHz



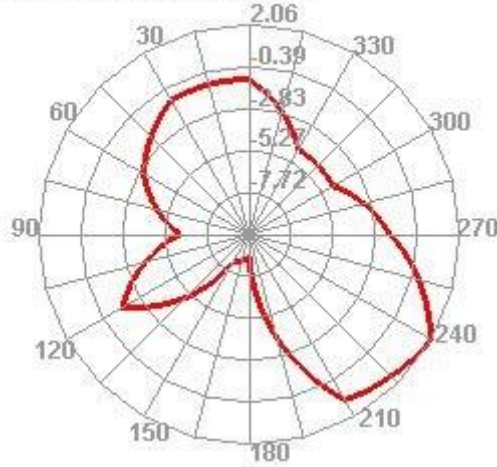
2400.000MHz H



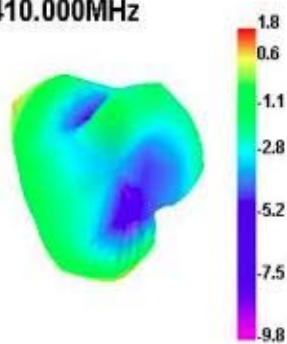
2400.000MHz E1



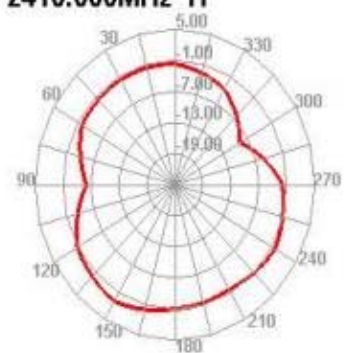
2400.000MHz E2



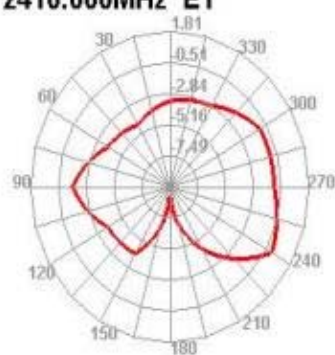
2410.000MHz



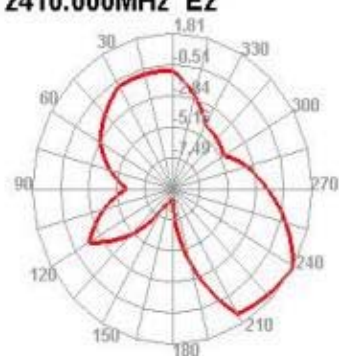
2410.000MHz H



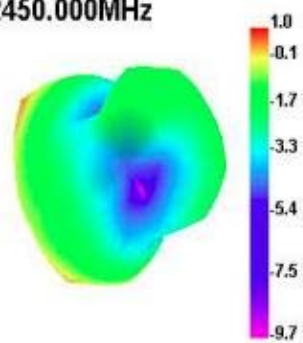
2410.000MHz E1



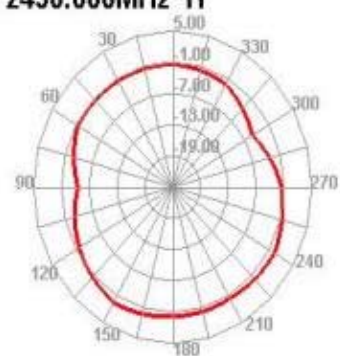
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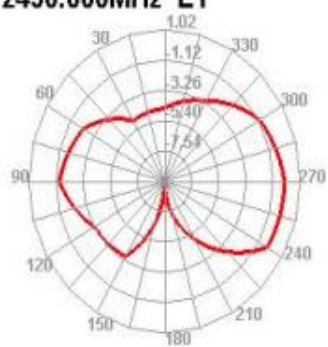
2450.000MHz



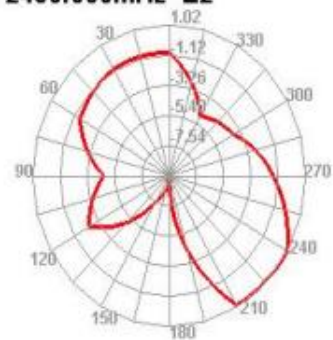
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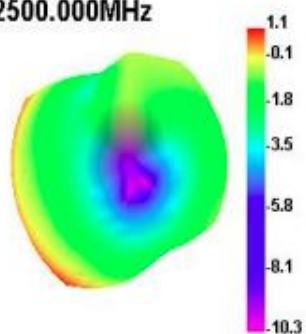
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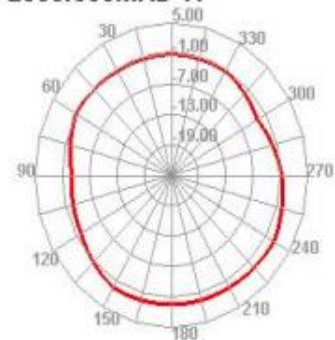
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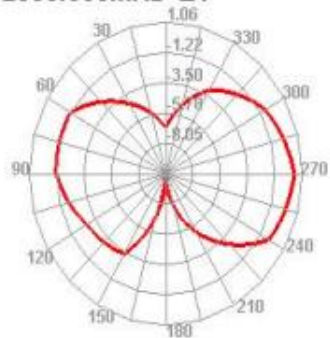
2500.000MHz



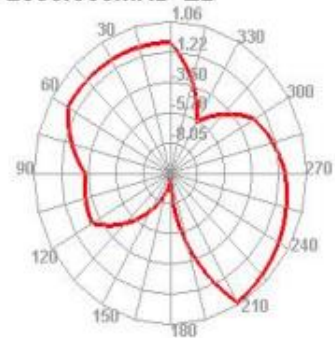
2500.000MHz H



2500.000MHz E1

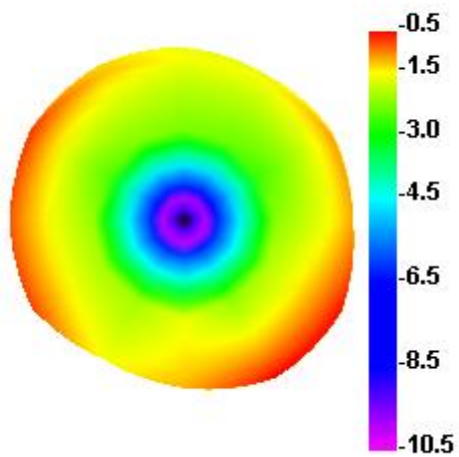


2500.000MHz E2

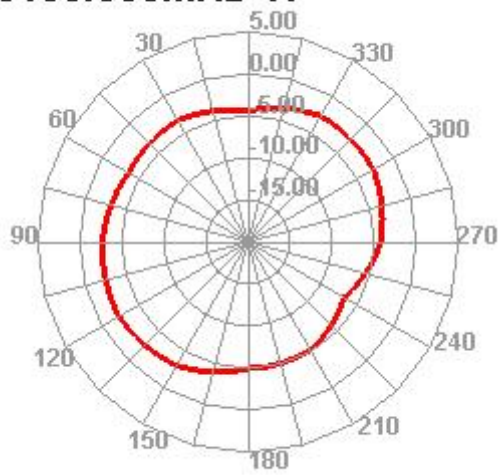


Passive Test For 5150-5850												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
5150	41.43	-3.83	-0.55	-2.7	27.19 8	14.23 4	-0.55	- 19.25	3.28	30	52.64	52.17
5200	43.27	-3.64	0.17	-1.98	28.94 3	14.32 6	0.17	-15.5	3.81	30	51.8	51.32
5250	56.88	-2.45	1.78	-0.37	37.67	19.20 8	1.78	- 11.71	4.23	30	52.04	51.42
5300	58.78	-2.31	1.91	-0.24	38.45 7	20.32 8	1.91	- 15.13	4.22	30	51.92	51.21
5350	47.82	-3.2	0.86	-1.29	31.46 3	16.36 1	0.86	-17	4.06	30	52.07	51.42
5400	30.26	-5.19	-0.88	-3.03	20.49 1	9.769	-0.88	- 21.54	4.31	30	51.99	51.15
5450	33.14	-4.8	-0.61	-2.76	22.38 5	10.75	-0.61	- 20.15	4.19	0	52.14	51.26
5500	34.24	-4.65	-0.16	-2.31	22.81 2	11.43 1	-0.16	- 22.24	4.49	0	52.69	51.66
5550	47.6	-3.22	0.74	-1.41	31.09	16.50 8	0.74	- 24.43	3.96	30	53.94	52.96
5600	55.27	-2.58	-0.12	-2.27	34.21	21.05 8	-0.12	- 15.86	2.45	60	54.4	53.68
5650	59.31	-2.27	1.37	-0.78	29.54 1	29.77 1	1.37	- 14.75	3.63	0	54	53.69
5700	54.46	-2.64	1.56	-0.59	21.97 5	32.48 9	1.56	- 19.59	4.2	0	53.82	53.64
5750	40.46	-3.93	0.2	-1.95	14.62	25.84 2	0.2	- 19.03	4.13	0	54.22	53.98
5800	36.21	-4.41	-0.44	-2.59	12.64 8	23.56 5	-0.44	-17	3.97	0	54.31	53.81
5850	39.59	-4.02	-0.27	-2.42	14.66 4	24.92 7	-0.27	- 20.91	3.76	0	54.26	53.49

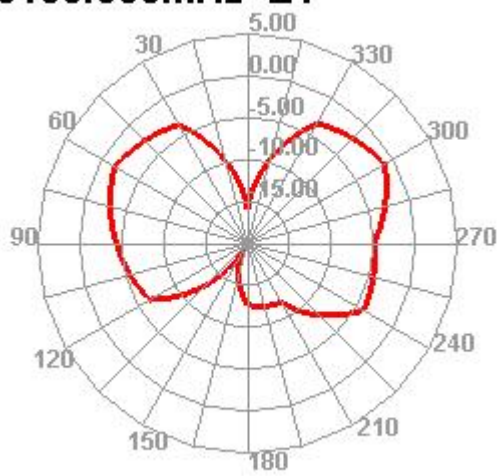
5150.000MHz



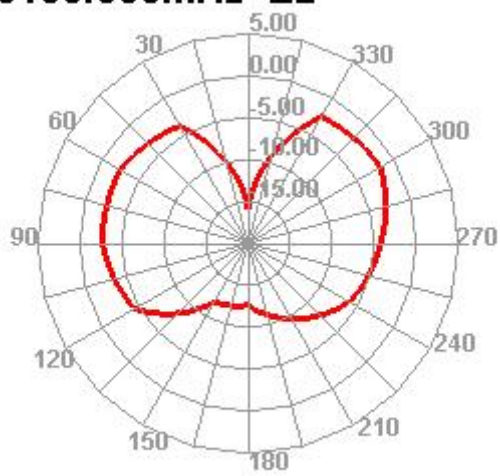
5150.000MHz H



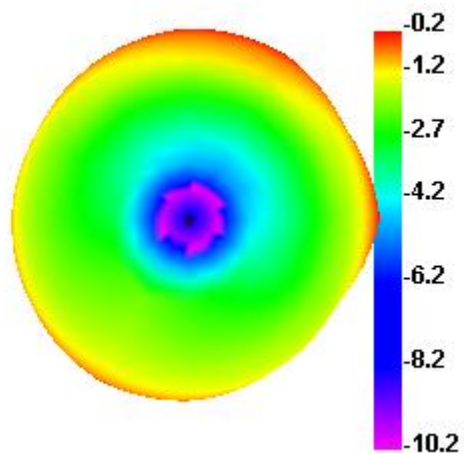
5150.000MHz E1



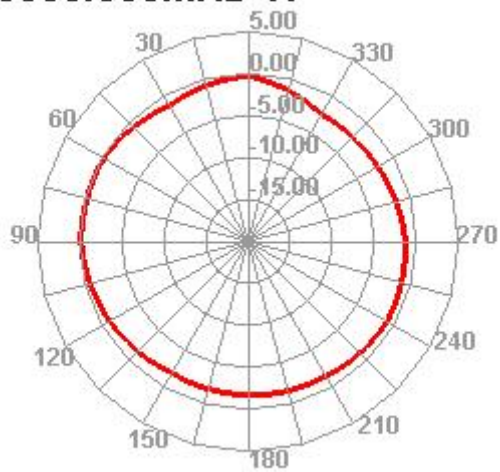
5150.000MHz E2



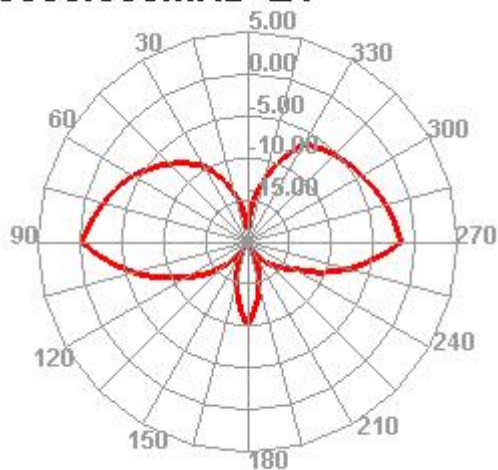
5500.000MHz



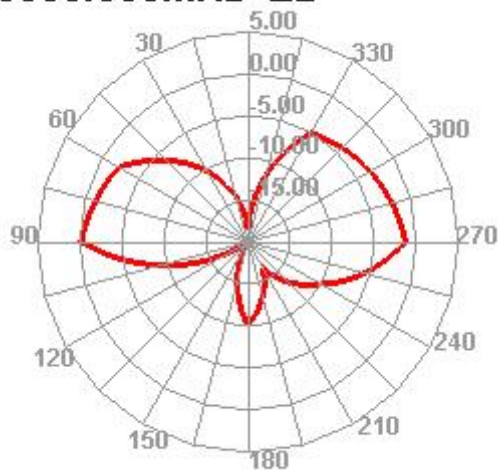
5500.000MHz H



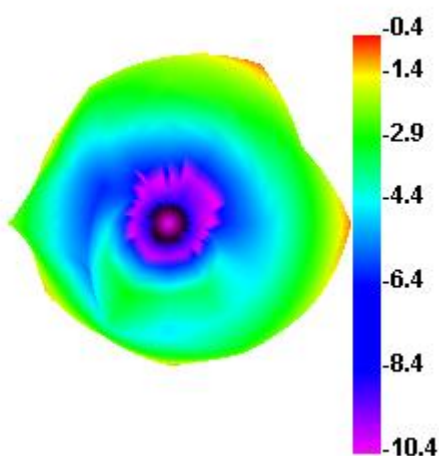
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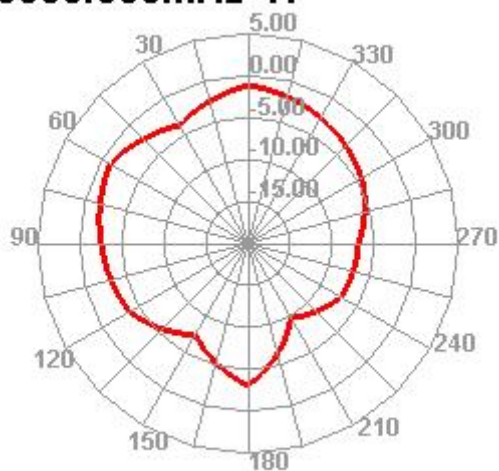
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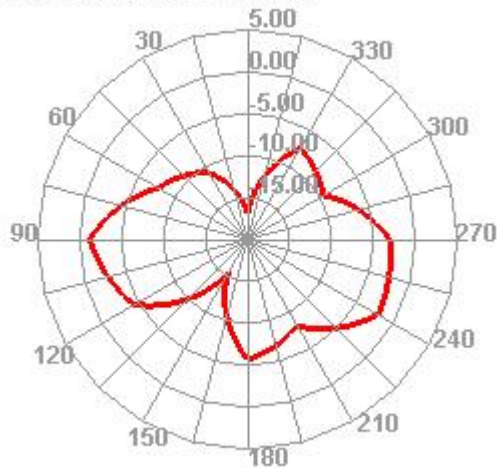
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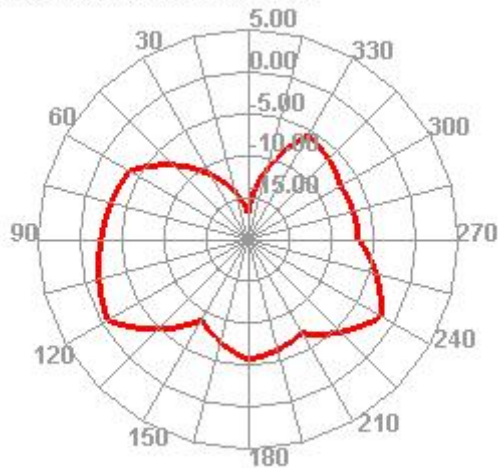
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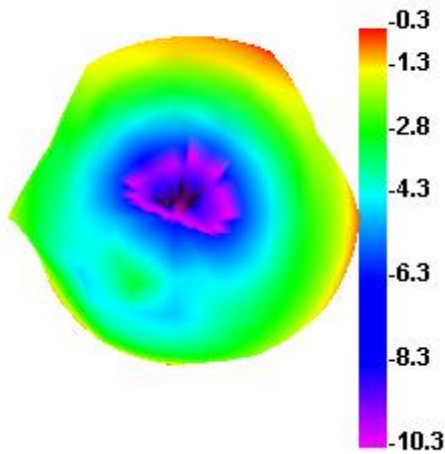
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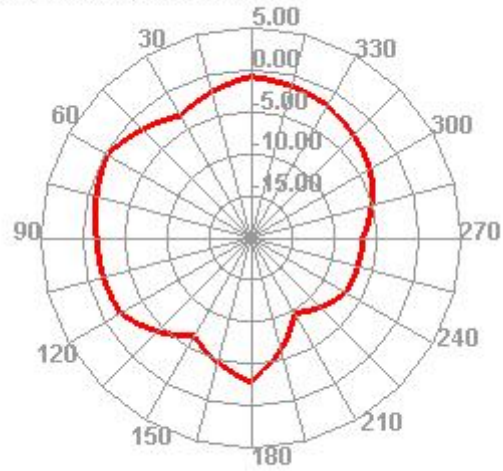
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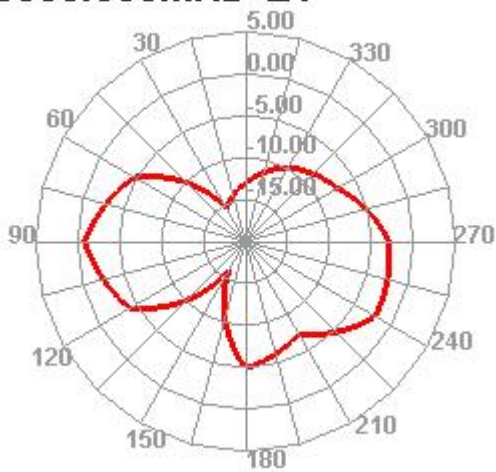
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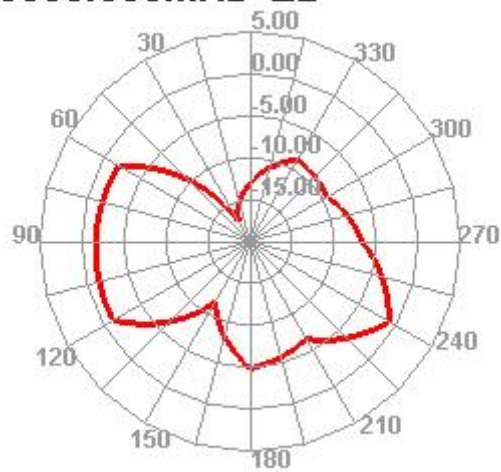
5850.000MHz H



5850.000MHz E1



5850.000MHz E2



4 Experimental Test

Test Item	Test Condition	Specification Requirement
Storage Environment	Without special specification: 1. Temperature: $-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$ 2. Relative Humidity: $45\% \sim 85\%$ 3. Air Pressure: $86\text{kPa} \sim 106\text{kPa}$	Electrical and mechanical performance shall be normal
Voltage Standing Wave Ratio	Perform 5 temperature cycles between $-40^{\circ}\text{C} \sim 70^{\circ}\text{C}$, then place under normal environment for 1-2 hours; inspect appearance and quality	Dimension, mechanical and electrical performance shall meet specifications
Constant Humidity & Heat Test	Relative humidity: $95 \pm 3\%$, test temperature: 40°C , duration: 2H. After test, measure electrical performance within 5min; place under normal environment for 1-2H then inspect appearance	Dimension, mechanical and electrical performance shall meet specifications
Vibration Test	Frequency range: 10-55Hz, displacement amplitude: 0.35MM, acceleration amplitude: 50.0M/S, sweep cycle: 30 times	Electrical and mechanical performance shall be normal
Drop Test	Free drop 3 times along mutually perpendicular axes from	Electrical and mechanical

Test Item	Test Condition	Specification Requirement
	1m height	performance shall be normal
Withstand Voltage Test	1. Insulation spark voltage: 1.5KV 2. Sheath spark voltage: 1.5KV 3. Insulation to sheath withstand voltage: 0.5KV	Electrical and mechanical performance shall be normal
Torsion Test	Fix the threaded sleeve, rotate 360° with torsion meter, test torque value: 2N	No torsion failure