



SHUN DA CHENG TECHNOLOGY CO., LTD

Antenna Test Report



Professional design and supplier of
4G/3G/GPS/WIFI and other antenna solutions

Customer Name: Taipower

Project Name: M50-HY

Frequency band: WIFI (2.4G/5.8G)

Version: A

Creation date: 2024-11-27

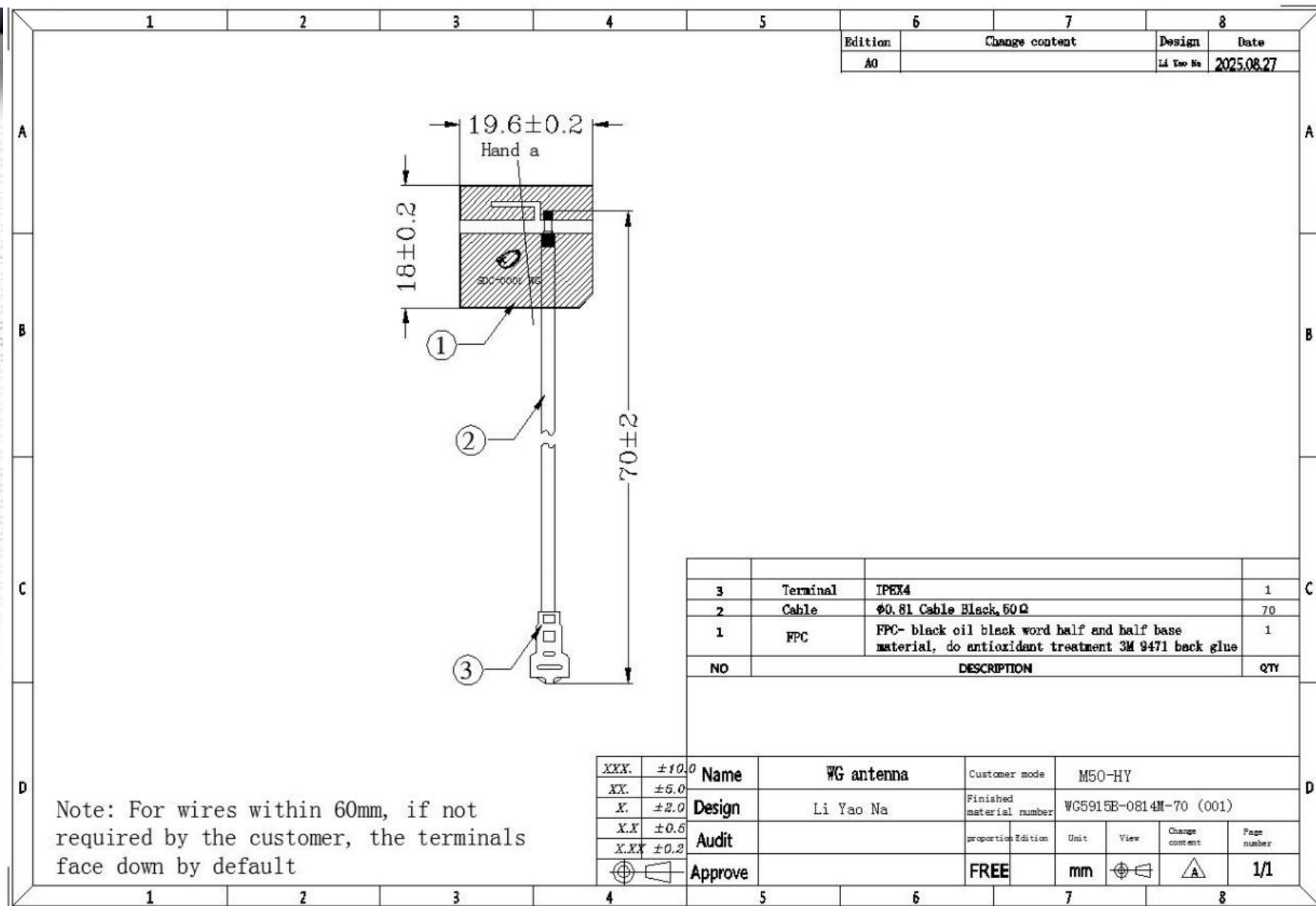


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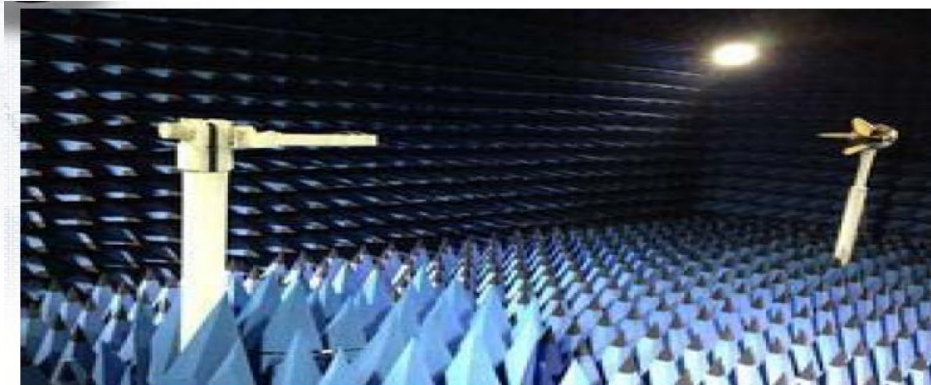




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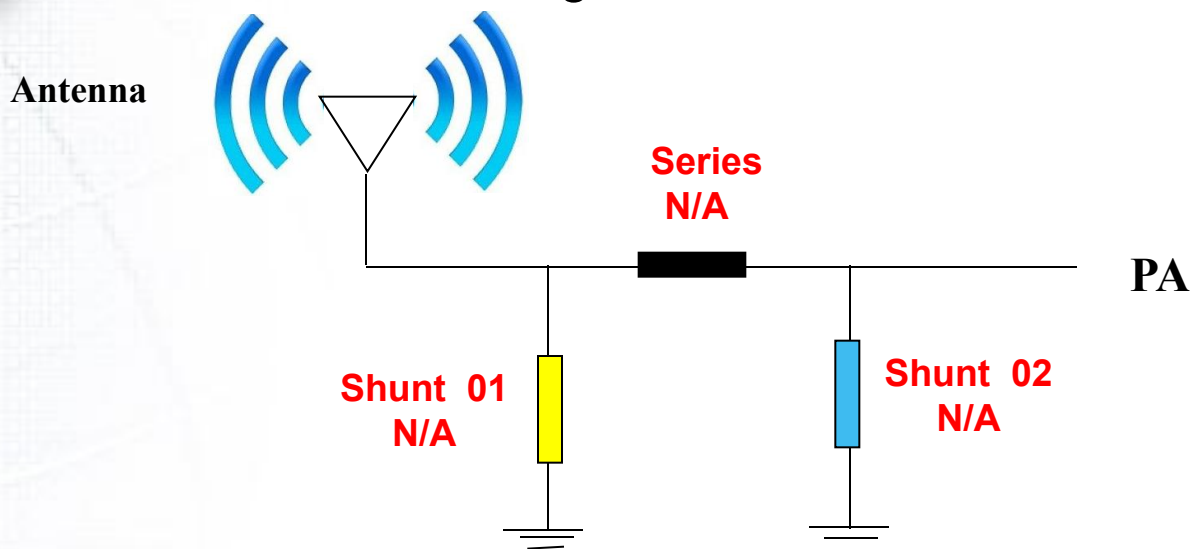
1. Test system

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	Agilent 8960 E5515C& Agilent 4438C&CMW500 &CMW2 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C





2. Antenna Matching Network



Location	Description	Vendor
Shunt 01	N/A	N/A
Series	N/A	N/A
Shunt 02	N/A	N/A

The motherboard matching circuit has not been modified



S11 Parameter-SWR



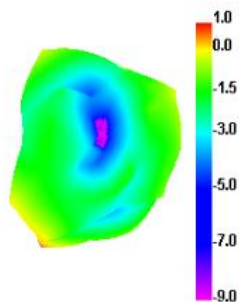
Frequency(MHz)	2400	2450	2500	5150	5720	5850
VSWR	1.64	1.57	1.62	2.26	1.23	1.38



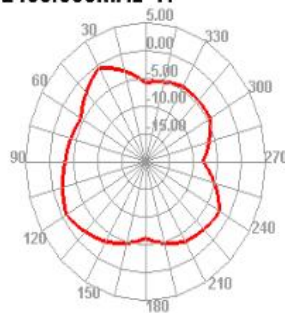
Gain & Efficiency

Passive Test For 2.4G												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	43.54	-3.61	1.03	-1.12	20.581	22.962	1.03	-15.9	4.64	15	48.93	49.09
2425	45.48	-2.97	1.96	-0.19	23.926	26.555	1.96	-16.48	4.93	15	49.09	49.22
2450	36.53	-4.37	0.87	-1.28	17.136	19.397	0.87	-19.74	5.24	15	49.25	49.27
2475	35.97	-4.44	0.52	-1.63	17.205	18.763	0.52	-23.22	4.96	75	49.98	49.91
2500	36.94	-4.32	0.32	-1.83	17.676	19.267	0.32	-18.36	4.64	75	49.71	49.62

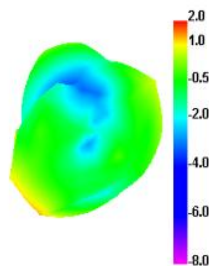
2400.000MHz



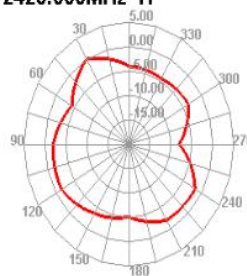
2400.000MHz H



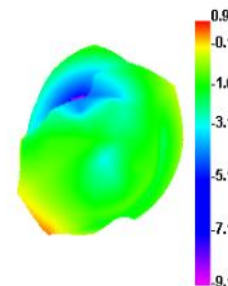
2425.000MHz



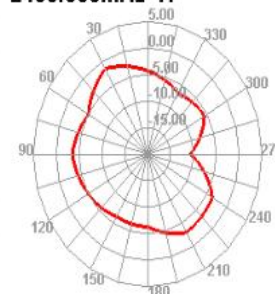
2425.000MHz H



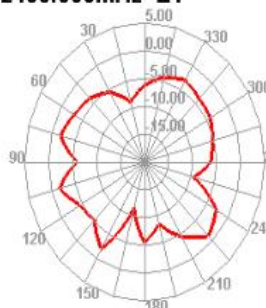
2450.000MHz



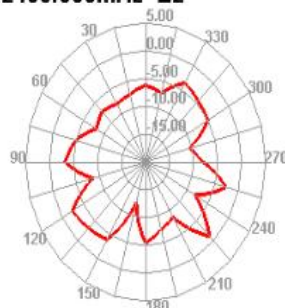
2450.000MHz H



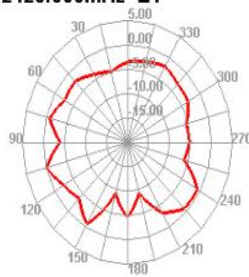
2400.000MHz E1



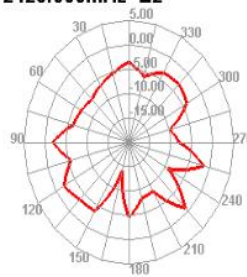
2400.000MHz E2



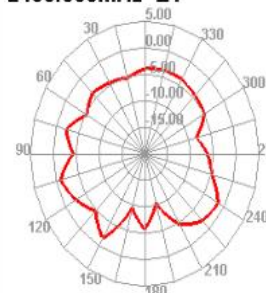
2425.000MHz E1



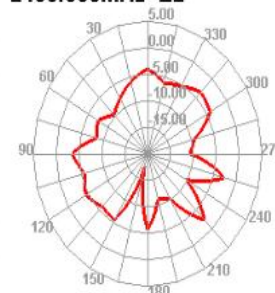
2425.000MHz E2



2450.000MHz E1



2450.000MHz E2

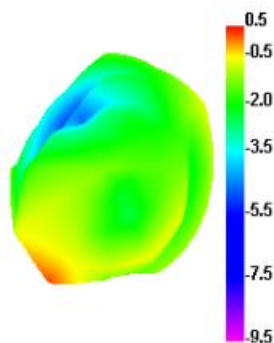




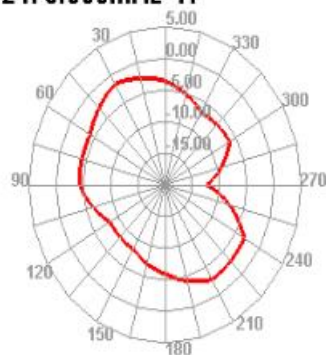
Gain & Efficiency

Passive Test For 2.4G												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
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2425	45.48	-2.97	1.96	-0.19	23.926	26.555	1.96	-16.48	4.93	15	49.09	49.22
2450	36.53	-4.37	0.87	-1.28	17.136	19.397	0.87	-19.74	5.24	15	49.25	49.27
2475	35.97	-4.44	0.52	-1.63	17.205	18.763	0.52	-23.22	4.96	75	49.98	49.91
2500	36.94	-4.32	0.32	-1.83	17.676	19.267	0.32	-18.36	4.64	75	49.71	49.62

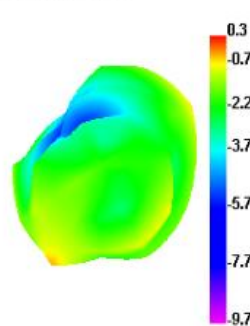
2475.000MHz



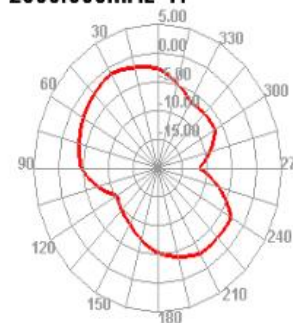
2475.000MHz H



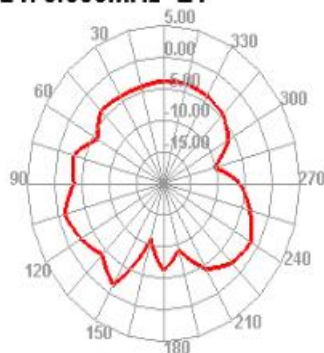
2500.000MHz



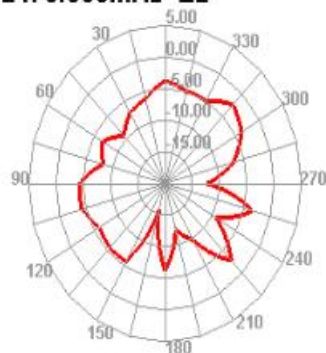
2500.000MHz H



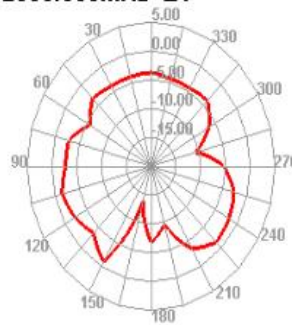
2475.000MHz E1



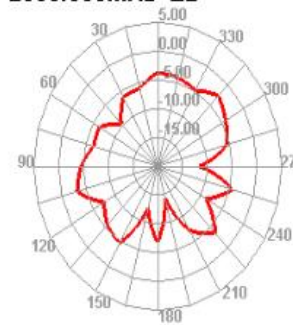
2475.000MHz E2



2500.000MHz E1



2500.000MHz E2



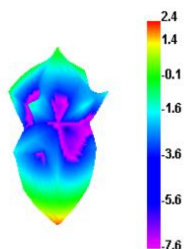


Gain & Efficiency

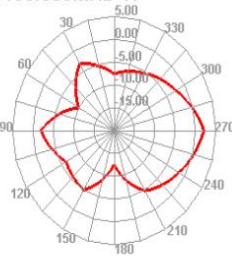
Passive Test For 5.8G

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	irectivit (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
5150	42.13	-3.75	2.36	0.21	16.688	25.441	2.36	-12.69	6.11	0	58.6	58.01
5250	36.5	-4.38	1.37	-0.78	16.245	20.256	1.37	-11.52	5.75	30	58.53	57.74
5350	33.61	-4.73	1.07	-1.08	14.487	19.127	1.07	-15.18	5.81	60	57.99	57.08
5450	38.75	-4.12	2.03	-0.12	14.442	24.308	2.03	-15.14	6.15	0	59.19	57.9
5550	43.16	-3.65	2.14	-0.01	15.599	27.564	2.14	-19.43	5.79	60	60.21	58.81
5650	45.41	-3.43	2.1	-0.05	16.711	28.699	2.1	-20.47	5.53	0	60.31	59.42
5750	46.58	-3.32	2.17	0.02	17.996	28.581	2.17	-18	5.49	30	60.88	60.28
5850	44.83	-3.48	2.78	0.63	18.496	26.336	2.78	-23.77	6.27	30	61.09	60.41

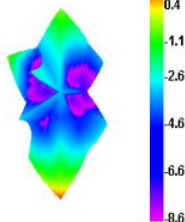
5150.000MHz



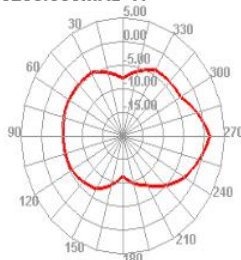
5150.000MHz H



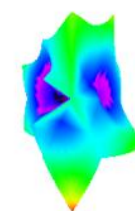
5250.000MHz



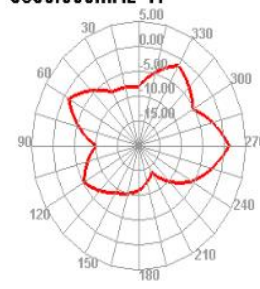
5250.000MHz H



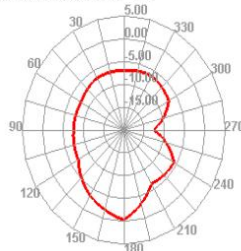
5350.000MHz



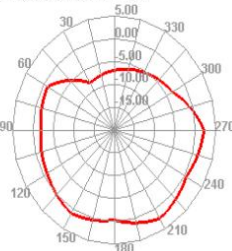
5350.000MHz H



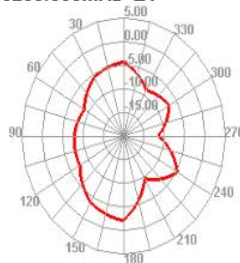
5150.000MHz E1



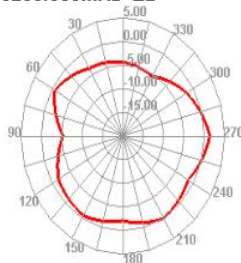
5150.000MHz E2



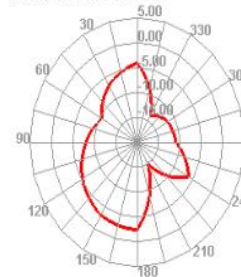
5250.000MHz E1



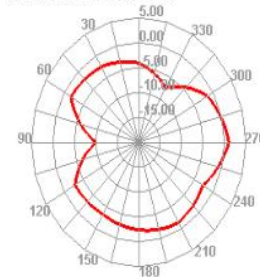
5250.000MHz E2



5350.000MHz E1



5350.000MHz E2



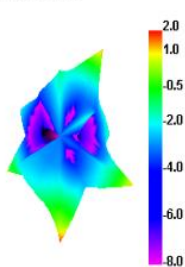


Gain & Efficiency

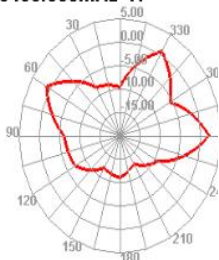
Passive Test For 5.8G

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivit (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
5150	42.13	-3.75	2.36	0.21	16.688	25.441	2.36	-12.69	6.11	0	58.6	58.01
5250	36.5	-4.38	1.37	-0.78	16.245	20.256	1.37	-11.52	5.75	30	58.53	57.74
5350	33.61	-4.73	1.07	-1.08	14.487	19.127	1.07	-15.18	5.81	60	57.99	57.08
5450	38.75	-4.12	2.03	-0.12	14.442	24.308	2.03	-15.14	6.15	0	59.19	57.9
5550	43.16	-3.65	2.14	-0.01	15.599	27.564	2.14	-19.43	5.79	60	60.21	58.81
5650	45.41	-3.43	2.1	-0.05	16.711	28.699	2.1	-20.47	5.53	0	60.31	59.42
5750	46.58	-3.32	2.17	0.02	17.996	28.581	2.17	-18	5.49	30	60.88	60.28
5850	44.83	-3.48	2.78	0.63	18.496	26.336	2.78	-23.77	6.27	30	61.09	60.41

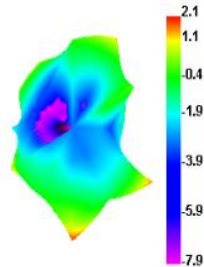
5450.000MHz



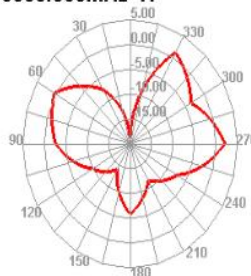
5450.000MHz H



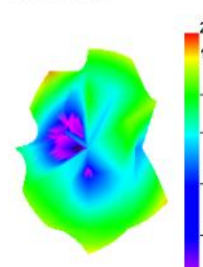
5550.000MHz



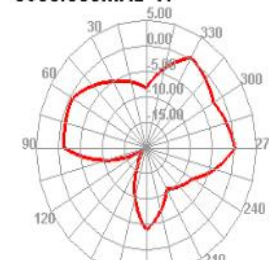
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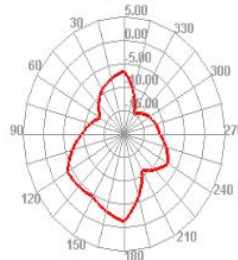
5650.000MHz



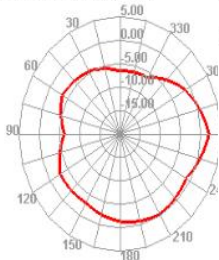
5650.000MHz H



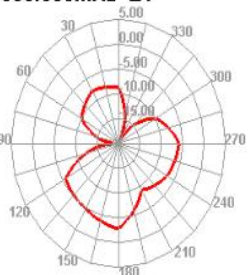
5450.000MHz E1



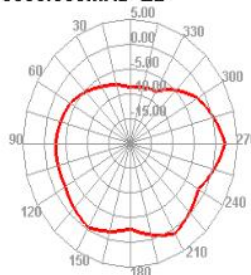
5450.000MHz E2



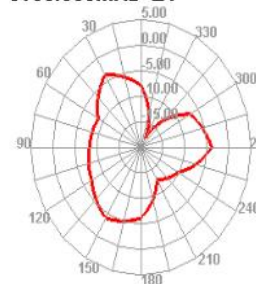
5550.000MHz E1



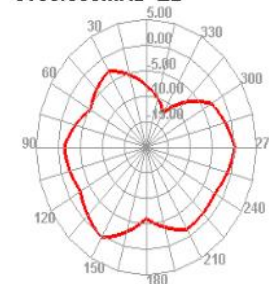
5550.000MHz E2



5650.000MHz E1



5650.000MHz E2



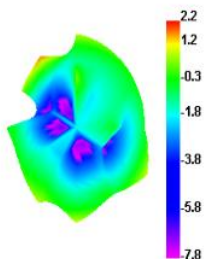


Gain & Efficiency

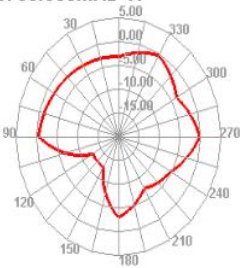
Passive Test For 5.8G

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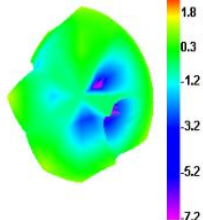
5750.000MHz



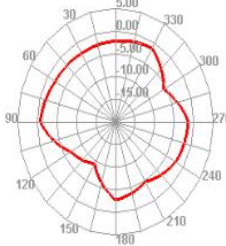
5750.000MHz H



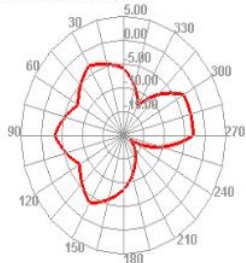
5850.000MHz



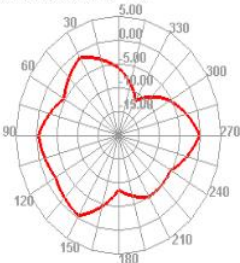
5850.000MHz H



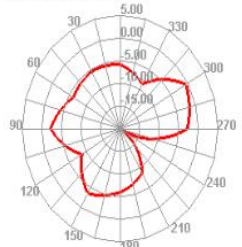
5750.000MHz E1



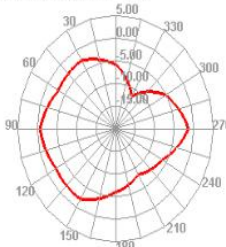
5750.000MHz E2



5850.000MHz E1



5850.000MHz E2





WIFI OTA Data

2.4G	802.11b, (2.4G) 11M		
Channel	CH1	CH6	CH11
TRP	10.37	10.26	11.83
TIS	-79.05	-80.6	-80.55
5.8G	802.11a, (5.8G) 54M		
Channel	CH36	CH60	CH161
TRP	11.63	11.48	11.13
TIS	-70.79	-70.24	-70.73



SHUN DA CHENG TECHNOLOGY CO., LTD

Shun Dacheng thanks you for your support

Company Address: 4th Floor, Building B5, Xinfu Industrial Park,
Chongqing Road, Fuyong Town, Bao 'an District, Shenzhen City