



Shenzhen Qianmu Communication Technology Co., Ltd.

Customer: CHITECH SHENZHEN TECHNOLOGY CO., LTD

Model: F107W

Date: 2023.3.22

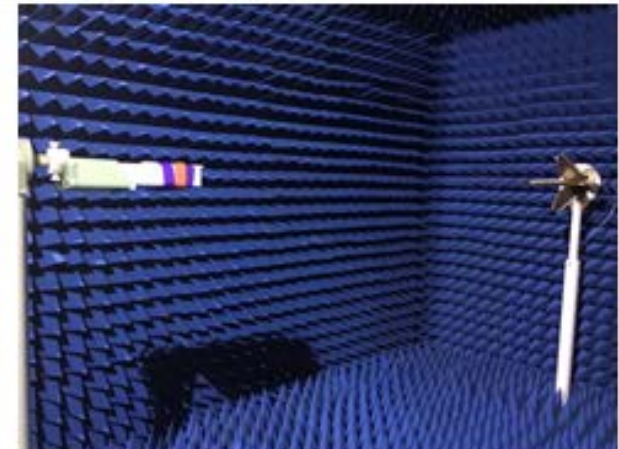
Version: A1

Radio Frequency: LIU CHU SHENG



Test Condition

	Test Item	Equipment
1. S (S-parameter)	1. Return Loss) 2. (VSWR)	: Agilent E5071B HP 8753D
2. (Active)	1. (TRP) 2. (TIS) 3.Frequency error 4.Screen extinction,Screen lighting	1. ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2.Agilent 8960 E5515B × 2 StarPoint SP6011
3. (Passive)	1.Gain) 2. (Efficiency)	1. ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2. Agilent E5071B HP 8753D





Instruction

Equipment	Ipad						
Pattern	Straight plate						
Antenna	Main antenna	radio frenquency		antenna condition	antennaform		
	three-in-one antenna	WIFI/BT	2. 4G-2. 5G 5G-5. 8G	Copper foil	PIFA		
		GPS	1575.42Hz				



Antenna 31mm*10mm



Active Test Data

Antenna Condition	Copper foil		
	WIFI2400~2500Mz 802.11b 11Mbps		
Channel	1	6	11
TRP	9.67	9.52	8.66
TIS	-79.16	-80.61	-78.42
	WIFI5000~5800Mz 802.11a 54Mbps		
Channel	36	161	165
TRP	9.21	8.08	8.62
TIS	-67.18	-67.19	-67.38



Passive 2.4G test data

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-5.52	-5.42	-5.15	-4.85	-4.74	-4.43	-4.42	-4.65	-4.58	-4.38	-4.42
Peak EIRP (dBm)	1.88	1.94	2.13	2.29	2.29	2.46	2.17	1.69	1.68	1.88	1.78
Directivity (dBi)	7.41	7.36	7.28	7.14	7.03	6.89	6.59	6.34	6.26	6.26	6.20
Efficiency (dB)	-5.52	-5.42	-5.15	-4.85	-4.74	-4.43	-4.42	-4.65	-4.58	-4.38	-4.42
Efficiency (%)	28.00	28.70	30.50	32.70	33.60	36.10	36.10	34.30	34.90	36.50	36.10
Gain (dBi)	1.88	1.94	2.13	2.29	2.29	2.46	2.17	1.69	1.68	1.88	1.78
NHPRP $\pm\pi/4$ (dBm)	-7.80	-7.74	-7.53	-7.28	-7.20	-6.91	-6.88	-7.07	-6.98	-6.76	-6.79
NHPRP $\pm\pi/6$ (dBm)	-9.80	-9.80	-9.65	-9.45	-9.43	-9.16	-9.15	-9.34	-9.26	-9.05	-9.07
NHPRP $\pm\pi/8$ (dBm)	-11.39	-11.43	-11.33	-11.18	-11.19	-10.95	-10.94	-11.14	-11.07	-10.89	-10.93
Upper Hem. PRP (dBm)	-8.31	-8.22	-7.94	-7.62	-7.52	-7.22	-7.28	-7.56	-7.52	-7.35	-7.39
Lower Hem. PRP (dBm)	-8.77	-8.65	-8.40	-8.11	-7.99	-7.67	-7.60	-7.76	-7.66	-7.43	-7.48
Upper Hem. PRP (%)	14.75	15.05	16.07	17.28	17.71	18.98	18.72	17.54	17.70	18.39	18.24
Lower Hem. PRP (%)	13.28	13.65	14.47	15.45	15.90	17.08	17.38	16.75	17.16	18.07	17.87



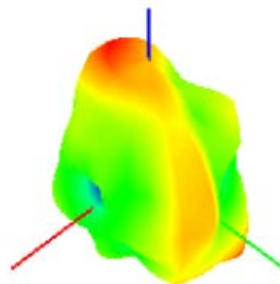
Passive 5.8G test data

Frequency ID	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Frequency (MHz)	5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0	5850.0
Point Values															
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-5.55	-5.32	-5.56	-6.16	-6.31	-5.84	-6.20	-6.84	-6.46	-5.34	-5.22	-5.77	-5.55	-5.33	-5.18
Peak EIRP (dBm)	1.47	1.54	1.28	0.41	0.08	0.75	-0.17	-0.06	0.86	2.46	2.28	2.04	2.49	2.72	2.42
Directivity (dBi)	7.02	6.85	6.84	6.57	6.39	6.58	6.02	6.78	7.31	7.80	7.49	7.81	8.04	8.05	7.60
Efficiency (dB)	-5.55	-5.32	-5.56	-6.16	-6.31	-5.84	-6.20	-6.84	-6.46	-5.34	-5.22	-5.77	-5.55	-5.33	-5.18
Efficiency (%)	27.90	29.40	27.80	24.20	23.40	26.10	24.00	20.70	22.60	29.20	30.10	26.50	27.90	29.30	30.30
Gain (dBi)	1.47	1.54	1.28	0.41	0.08	0.75	-0.17	-0.06	0.86	2.46	2.28	2.04	2.49	2.72	2.42
NHPRP $\pm\pi/4$ (dBm)	-6.74	-6.55	-6.82	-7.37	-7.52	-7.11	-7.43	-8.09	-7.70	-6.48	-6.33	-6.87	-6.66	-6.49	-6.39
NHPRP $\pm\pi/6$ (dBm)	-8.31	-8.17	-8.50	-9.01	-9.17	-8.81	-9.04	-9.69	-9.31	-8.01	-7.83	-8.31	-8.04	-7.85	-7.76
NHPRP $\pm\pi/8$ (dBm)	-9.58	-9.48	-9.89	-10.38	-10.61	-10.31	-10.44	-11.08	-10.69	-9.31	-9.13	-9.54	-9.19	-8.98	-8.88
Upper Hem. PRP (dBm)	-8.84	-8.36	-8.55	-9.12	-9.04	-8.63	-9.10	-9.73	-9.40	-8.34	-8.14	-8.78	-8.55	-8.18	-8.03
Lower Hem. PRP (dBm)	-8.29	-8.29	-8.60	-9.22	-9.62	-9.07	-9.33	-9.98	-9.53	-8.36	-8.32	-8.77	-8.57	-8.50	-8.36
Upper Hem. PRP (%)	13.08	14.58	13.97	12.26	12.49	13.70	12.32	10.64	11.48	14.66	15.36	13.23	13.96	15.21	15.72
Lower Hem. PRP (%)	14.81	14.82	13.81	11.96	10.93	12.39	11.68	10.05	11.14	14.57	14.74	13.27	13.90	14.12	14.60



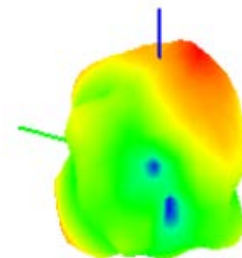
2.4G

2400.00MHz@T45P45



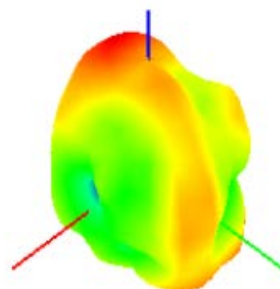
X Axis
Y Axis
Z Axis

2400.00MHz@T45P200



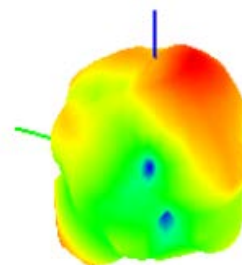
X Axis
Y Axis
Z Axis

2450.00MHz@T45P45



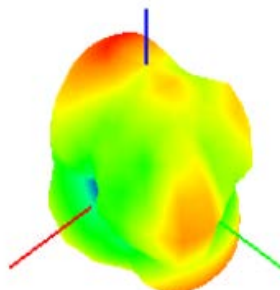
X Axis
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Z Axis

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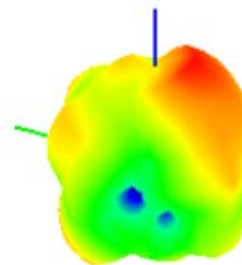
X Axis
Y Axis
Z Axis

2500.00MHz@T45P45



X Axis
Y Axis
Z Axis

2500.00MHz@T45P200

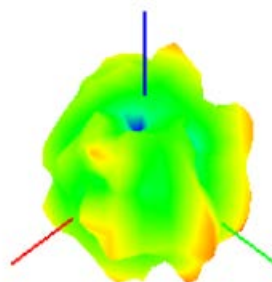


X Axis
Y Axis
Z Axis



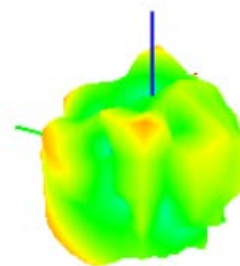
5.8G

5150.00MHz@T45P45



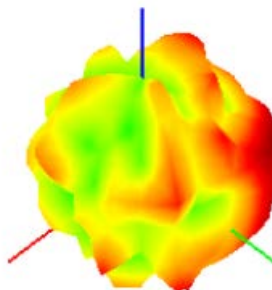
X Axis
Y Axis
Z Axis

5150.00MHz@T45P200



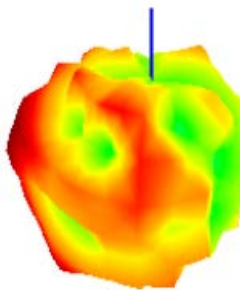
X Axis
Y Axis
Z Axis

5500.00MHz@T45P45



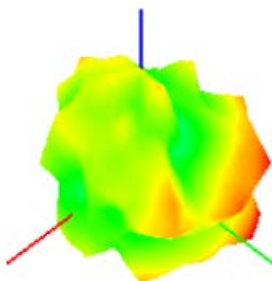
X Axis
Y Axis
Z Axis

5500.00MHz@T45P200



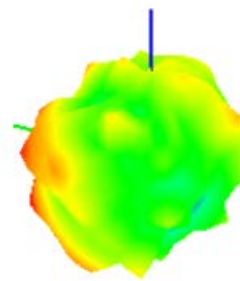
X Axis
Y Axis
Z Axis

5850.00MHz@T45P45



X Axis
Y Axis
Z Axis

5850.00MHz@T45P200



X Axis
Y Axis
Z Axis





THANKS!