

Shenzhen Huasifei Technology Co., Ltd

Antenna Test Report

Customer: HUASIFEI

Project: W01

Product: 2.4G&5.8GWIFI Antenna

Report date: 2021.12.21



Purpose

This report is to measure the performance of SLK for Master Antenna on HUASIFEI. All measure date are showed below.

Content

1. Product Overview
2. Test Result
 - 2.1 Radiation pattern
 - 2.2 Test data

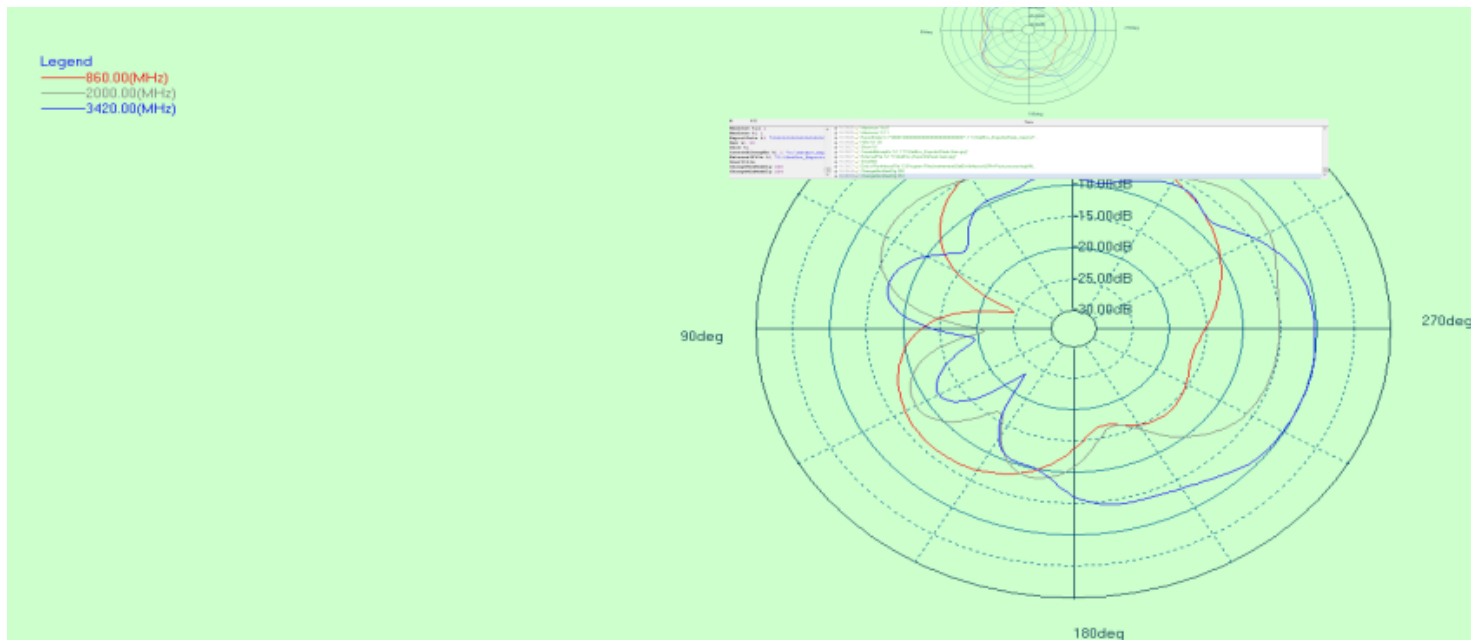
■ 1. Product Overview & Dimension

- | | |
|------------------------|---|
| 1. Dimension | $160 \pm 2\text{mm}$ |
| 2. Connector | Sma-Female |
| 3. Radome color | black |
| 4. Working temperature | $-20^{\circ}\text{C} \sim 85^{\circ}\text{C}$ |
| 5. Storage temperature | $-40^{\circ}\text{C} \sim 90^{\circ}\text{C}$ |



2. Test Result

2.1 Radiation pattern

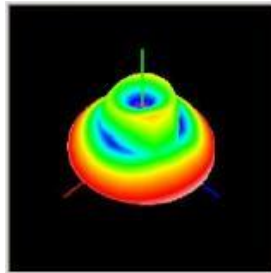


2.2 Test data

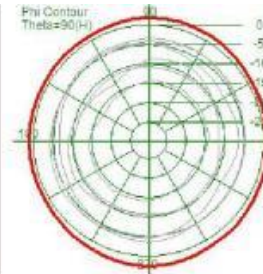
Test Point ID	Freq. (MHz)	TRP (dBm)	Gain (dBi)	Directivity (dBi)	Efficiency (%)	Efficiency (dB)	Max (dBm)	Theta of Max	Phi of Max	Min (dBm)	Theta of Min	Phi of Min	AVG (dBm)	Max/Min (dB)	Max/AVG (dB)	Min/AVG (dB)
1	2400.0	2400.00	5.60	6.57	79.9%	-0.98	5.60	75	120	-24.42	120	315	-1.87	30.02	7.46	-22.56
2	2410.0	2410.00	5.31	6.44	77.2%	-1.12	5.31	75	120	-21.76	120	315	-2.03	27.08	7.35	-19.73
3	2420.0	2420.00	5.12	6.35	75.3%	-1.23	5.12	75	120	-20.52	120	300	-2.17	25.64	7.29	-18.34
4	2430.0	2430.00	5.07	6.31	75.2%	-1.24	5.07	75	120	-19.40	120	255	-2.23	24.48	7.30	-17.17
5	2440.0	2440.00	5.00	6.27	74.6%	-1.28	5.00	75	120	-22.43	120	255	-2.30	27.43	7.30	-20.13
6	2450.0	2450.00	4.88	6.14	74.8%	-1.26	4.88	75	120	-23.13	120	255	-2.30	28.01	7.18	-20.83
7	2460.0	2460.00	4.54	5.93	72.6%	-1.39	4.54	75	120	-22.85	135	30	-2.42	27.38	6.96	-20.42
8	2470.0	2470.00	4.26	5.74	71.1%	-1.48	4.26	75	120	-20.34	135	30	-2.52	24.60	6.78	-17.82
9	2480.0	2480.00	4.35	5.70	73.2%	-1.36	4.35	75	120	-17.91	135	30	-2.43	22.26	6.78	-15.48
10	2490.0	2490.00	4.37	5.78	72.3%	-1.41	4.37	75	120	-17.08	135	30	-2.51	21.45	6.88	-14.57

Test Point ID	Freq. (MHz)	TRP (dBm)	Gain (dBi)	Directivity (dBi)	Efficiency (%)	Efficiency (dB)	Max (dBm)	Theta of Max	Phi of Max	Min (dBm)	Theta of Min	Phi of Min	AVG (dBm)	Max/Min (dB)	Max/AVG (dB)	Min/AVG (dB)
1	5700	5700	3.63	5.94	58.80%	-2.31	3.63	135	150	-22.73	0	30	-2.86	26.36	6.49	-19.87
2	5710	5710	3.83	5.87	62.50%	-2.04	3.83	135	150	-19.64	0	165	-2.61	23.47	6.44	-17.03
3	5720	5720	4.32	5.85	70.30%	-1.53	4.32	135	165	-17.03	0	0	-2.11	21.35	6.43	-14.91
4	5730	5730	3.99	5.73	66.90%	-1.74	3.99	135	165	-17.28	0	15	-2.35	21.27	6.34	-14.92
5	5740	5740	3.44	5.72	59.20%	-2.27	3.44	135	150	-18.29	0	15	-2.89	21.73	6.34	-15.4
6	5750	5750	3.29	5.71	57.30%	-2.42	3.29	45	180	-22.11	0	15	-3.14	25.4	6.43	-18.97
7	5760	5760	3.09	5.71	54.70%	-2.62	3.09	45	180	-18.4	30	315	-3.3	21.49	6.4	-15.1
8	5770	5770	3.25	5.74	56.50%	-2.48	3.25	45	210	-16.75	0	45	-3.17	20	6.43	-13.57
9	5780	5780	3.18	5.64	56.70%	-2.46	3.18	45	180	-16.47	0	45	-3.16	19.65	6.34	-13.31
10	5790	5790	2.57	5.67	48.90%	-3.1	2.57	45	210	-16.72	0	15	-3.82	19.28	6.39	-12.89
11	5800	5800	2.59	5.84	47.30%	-3.25	2.59	45	210	-16.97	0	0	-3.98	19.56	6.56	-12.99
12	5810	5810	2.95	5.83	51.50%	-2.88	2.95	45	210	-17.14	165	285	-3.61	20.09	6.56	-13.53
13	5820	5820	3.34	5.87	55.80%	-2.53	3.34	45	210	-15.59	165	285	-3.27	18.92	6.6	-12.32
14	5830	5830	3.36	5.77	57.40%	-2.41	3.36	45	210	-17.47	165	285	-3.15	20.82	6.51	-14.32
15	5840	5840	2.71	5.48	52.80%	-2.77	2.71	45	210	-17.87	165	285	-3.5	20.58	6.21	-14.36
16	5850	5850	2.66	5.63	50.50%	-2.97	2.66	45	210	-20.16	165	285	-3.7	22.82	6.36	-16.46

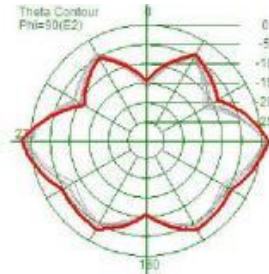
Darkroom 2D, 3DRaditation Pattern



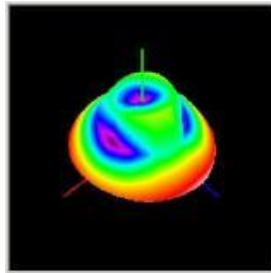
2.4GHz



Gain: 5.60dBi



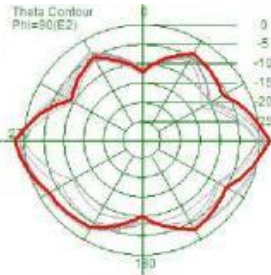
Efficiency: 70.15%



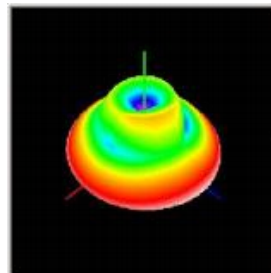
2.45GHz



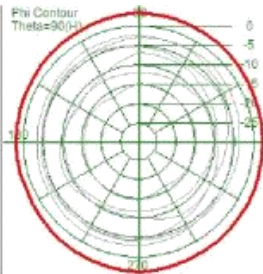
Gain: 4.88dBi



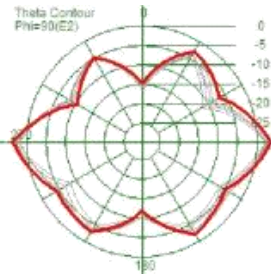
Efficiency: 73.23%



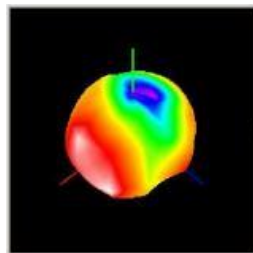
2.49GHz



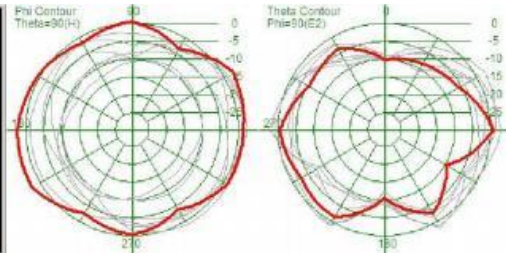
Gain: 4.37dBi



Efficiency: 74.09%

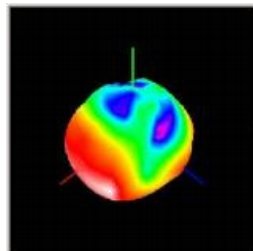


5.7GHz

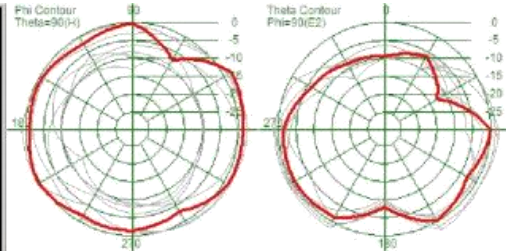


Gain: 3.63dBi

Efficiency: 70.49%

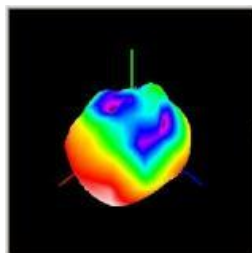


5.77GHz

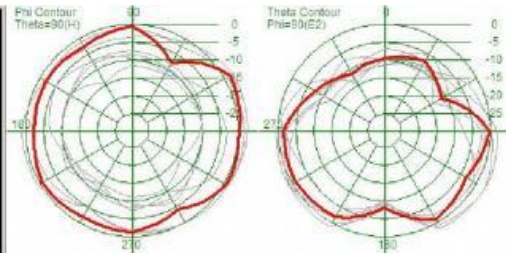


Gain: 3.25dBi

Efficiency: 71.61%



5.85GHz



Gain: 2.66dBi

Efficiency: 72.37%