

Shenzhen Qinxin Technology Co., LTD

Antenna Data Sheet

customer name	OYUYAO SUNNY OPTICAL INTELLIGENCE TECHNOLOGY CO.,LTD.	Project frequency band	WiFi2.4G/5.8G
project name		Tab date	2024/12/03
Machine type number		date changed	--
Customer material number		Peak Gain	1.77dBi
The RF Engineer / RF	Huang Wenbo	construction engineer /MD	Xiao-ping ye
project manager /PM			
Customer confirmation			

Shenzhen Qinxin Technology Co., LTD	SHENZHEN QIN XIN INDUSTRY CO.,LTD
303, Building A, Sino Building, Zhongshan Road, Nanshan District, Shenzhen, Guangdong Province, China Tel.: 0755-28404650 Fax: 0755-28404639 Company email address: Sales@sz-qinxin.com Company website: www.sz-qinxin.com Postcode: 518000	Shenzhen Nanshan District Hi-tech Industrial park(Central District)Sabrina Gene Therapy Park Building A 3rd Floor303 , TEL: 28404650 FAX: 0755-28404639 E-Mail: Sales@sz-qinxin.com Website: www.sz-qinxin.com Post Code: 518000

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1 Antenna profile

1.1 Antenna sample



1.2 Antenna Composition There is one antenna for this project:

WiFi2.4G/5.8G, composed of FPC + copper axis. The whole antenna provided by our company is as shown in Table 1-1.

Table 1-1, Detailed table of the antenna

name	Y40812A-WIFI			
material quality	The FPC + copper axis			
quantity (pcs)	1			

2 The antenna test environment

2.1 External test environment

Our main test equipment is shown in the table below.

Table 2-2. Main test equipment

order number	device name	Device pictures	Measurement index	operational environment
1	Agilent 8960 comprehensive test instrument		Active performance	Normal temperature and humidity
2	microwave darkroom			
3	ADVANTEST R3765BH Network analyzer		Passive performance	There is no large metal around it
				Normal temperature and humidity

2.1.1 A passive test

The connection of the test device is: network analyzer test line test equipment.

2.1.2 Active testing

The main performance indicators of active testing: total radiation power (TRP), omnidirectional sensitivity (TIS).

Test site

Microwave dark room: the frequency range is 700 MHz-6GHz, the static area range is 50cm circumference, and the reflectivity is less than-50 dB.

Test instrument

Network analyzer, CMW500, standard horn antenna, GTS1800 test system, printer, etc.

3. Antenna performance

3.1 Matching circuit

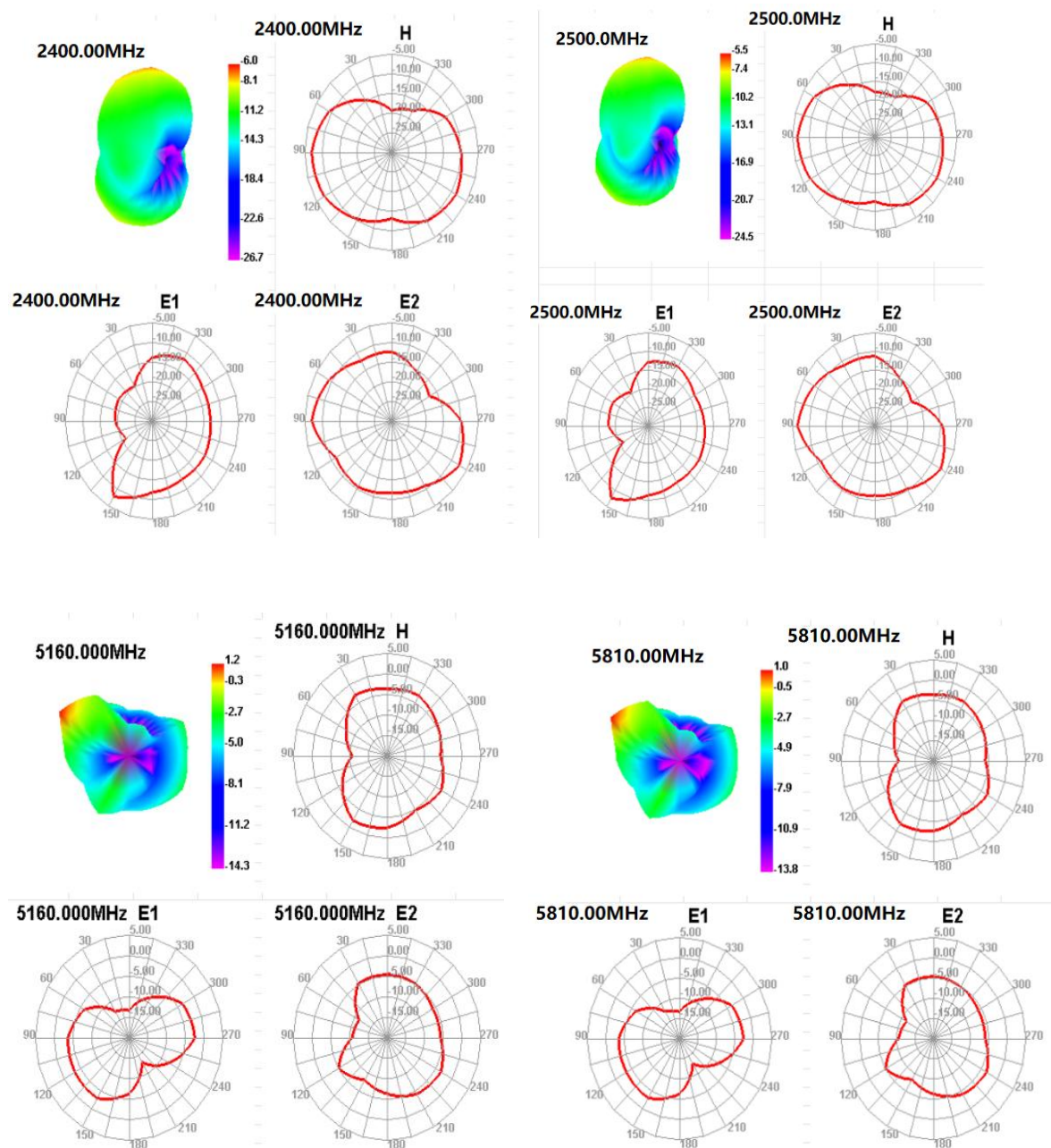
Antenna match has not changed!

3.2 Test results

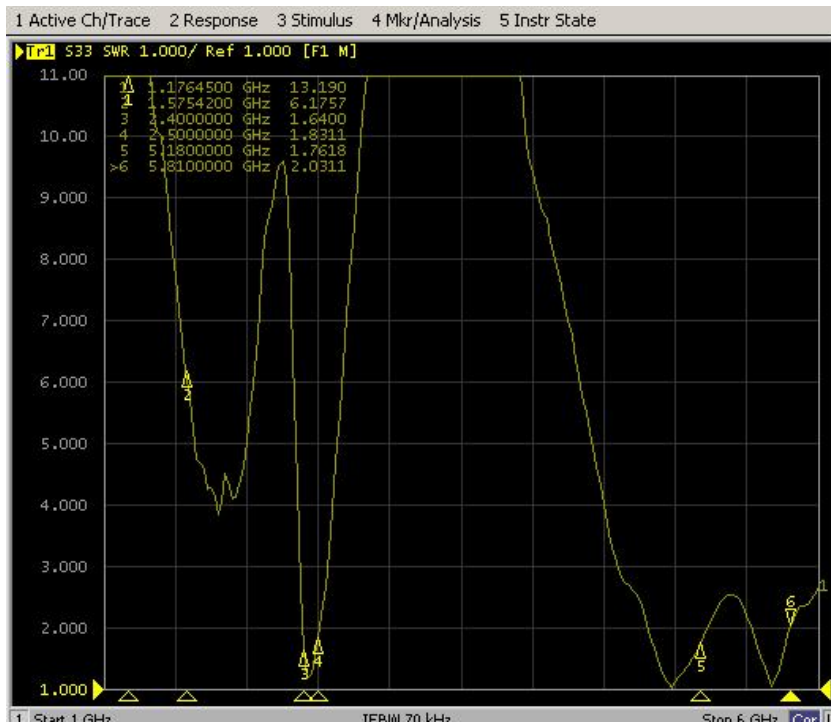
The antenna operating frequency band is at 800 MHz ~ 960 MHz, 1710 MHz ~ 2690 MHz, 3300 MHz ~ 5000 MHz. It is the index of the electrical performance of our designed and mass-produced antenna.

The values of efficiency and gain are shown in the following below:

Freq (MHz)	Effi (%)	Gain (dBi)	5180	38.45	1.74	5500	37.81	0.44
			5190	35.97	1.47	5510	41.82	1.03
2400	38.83	1.69	5200	35.77	1.54	5520	43.8	1.23
2410	39.01	1.77	5210	36.68	1.59	5530	44.27	1.18
2420	38.61	1.56	5220	36.7	1.72	5540	43.64	1.09
2430	38.52	1.42	5230	40.99	2.11	5550	42.38	0.97
2440	37.94	0.98	5240	41.64	2.1	5560	44.78	1.29
2450	38.49	1.17	5250	38.61	1.95	5570	50.63	1.95
2460	38.78	1.26	5260	38.16	1.84	5580	51.22	1.94
2470	37.78	0.66	5270	35.26	1.45	5590	49.65	1.75
2480	38.19	0.89	5280	37.22	1.74	5600	48.7	1.69
2490	37.42	0.53	5290	41.6	2.13	5610	51.02	1.89
2500	36.97	0.18	5300	38.55	1.78	5620	51.31	2.06
			5310	36.9	1.61	5630	54.24	2.39
			5320	36.39	1.58	5640	57.23	2.68
			5330	35.27	1.33	5650	54.14	2.35
			5340	39.47	1.69	5660	53.58	2.25
			5350	43.87	2.06	5670	57.05	2.69
			5360	39.78	1.61	5680	54.96	2.55
			5370	38.44	1.48	5690	57.46	2.69
			5380	36.08	0.95	5700	57.73	2.79
			5390	36.37	0.66	5710	58.7	2.81
			5400	44.76	1.52	5720	57.26	2.89
			5410	48.31	1.75	5730	57.23	2.89
			5420	44.69	1.31	5740	56.89	2.89
			5430	41.58	0.79	5750	56.84	2.99
			5440	41.57	0.73	5760	55.27	2.93
			5450	40.87	0.53	5770	55.1	3
			5460	45.86	0.89	5780	52.78	2.84
			5470	46.11	1.19	5790	51.19	2.77
			5480	43.41	0.8	5800	49.83	2.68
			5490	43.45	0.9	5810	47.97	2.66



4. The antenna standing graph



5. Project pictures



6. conclusion

The antenna is designed on the basis of the customer-provided prototype. Electrical parameters and structural performance have met the technical requirements. Please confirm!

7. Assembly diagram

