

1 Basic information

1.1 Testing institution

Company Name	Shenzhen Barun Technology Co., Ltd.
ground Address	1st Floor, Zone B, Baisha Technology Industrial Park, Shahe West Road, Nanshan District, Shenzhen City, Guangdong Province
ElectricityWords	+86 755 6685 010
Pass on True	+86 755 6182 4271

1.2 Test location

Testing institution	Shenzhen Barun Technology Co., Ltd.
Address	1st Floor, Zone B, Baisha Technology Industrial Park, Shahe West Road, Nanshan District, Shenzhen City
Qualification of test site	The laboratory has been accredited by CNAS, with the certificate number L6791. It has also been accredited by CMA, with the certificate number 2014192290Z.
Testing equipment	All the measuring facilities used in the tests in the report are fixed and installed in Area B, 1st Floor, Baisha Technology Industrial Park, Shahuai West Road, Nanshan District, Shenzhen City.

1.3 Test environment

ambient temperature	22°C - 25°C
relative humidity	45% - 55%
atmospheric pressure	100 kPa - 102 kPa

2 Sample information

2.1 Applying institution

Applicant institution	Chengdu Asining Technology Co., Ltd.
Address	Building 5, Guoteng Science and Technology Park, No. 3 Xixi Road, West High-tech Zone, Chengdu

2.2 Manufacturer

Manufacturer	Chengdu Asining Technology Co., Ltd.
Address	Building 5, Guoteng Science and Technology Park, No. 3 Xixi Road, West High-tech Zone, Chengdu

2.3 Factory

factory	N/A
Address	N/A

2.4 Sample information

Sample Name	SPI wireless module
Test model	AS01-ML01DP6
Sample size	14mm x 6mm

2.5 Attachment information

N/A

3 Test standards and summary of results

3.1 Test standards

Number	Standard number	Standard Name
1	GB/T 9410-2008	General Technical Specification for Mobile Communication Antennas

3.2 Test results

Report Chapters	Test items	Note
Appendix A.1	Gain and efficiency	--
Appendix B	Radiation pattern	--

3.3 Uncertainty

Uncertainty is calculated in accordance with the "Guide to the Expression of Uncertainty in Measurement" (GUM) issued by ISO. The expanded uncertainty is expressed with a coverage factor of $K = 2$ and a confidence level of 95%.

Project	uncertainty
Standing wave ratio	± 0.2
gain	± 0.5 dB

Appendix A Test Results

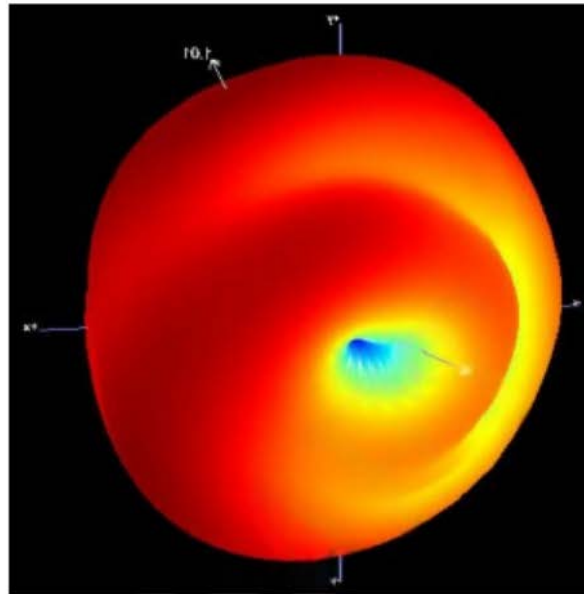
A.1 Gain and efficiency

频率	最大增益(dBi)	效率 (%)
2400MHz	1.01	53
2401MHz	0.97	52
2402MHz	0.94	52
2403MHz	0.90	51
2404MHz	0.84	51
2405MHz	0.79	50
2406MHz	0.74	50
2407MHz	0.70	49
2408MHz	0.67	49
2409MHz	0.65	49
2410MHz	0.62	49
2411MHz	0.58	48
2412MHz	0.53	48
2413MHz	0.49	47
2414MHz	0.46	47
2415MHz	0.44	47
2416MHz	0.43	46
2417MHz	0.42	46
2418MHz	0.42	46
2419MHz	0.43	46
2420MHz	0.42	46
2421MHz	0.44	46
2422MHz	0.44	46
2423MHz	0.44	46
2424MHz	0.44	46
2425MHz	0.46	46
2426MHz	0.48	46
2427MHz	0.50	46
2428MHz	0.52	46
2429MHz	0.51	45
2430MHz	0.48	45
2431MHz	0.40	45
2432MHz	0.32	44
2433MHz	0.24	44
2434MHz	0.17	43
2435MHz	0.09	43
2436MHz	0.01	42
2437MHz	-0.09	41
2438MHz	-0.20	40

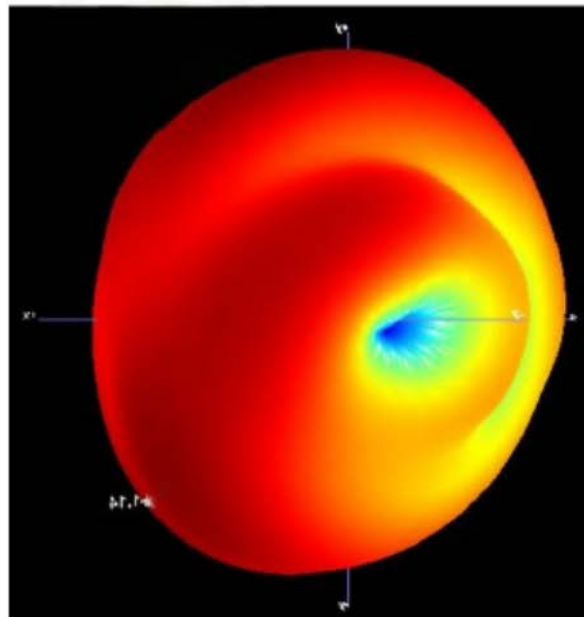
2439MHz	-0.30	40
2440MHz	-0.39	39
2441MHz	-0.44	39
2442MHz	-0.47	38
2443MHz	-0.52	38
2444MHz	-0.58	38
2445MHz	-0.62	37
2446MHz	-0.67	37
2447MHz	-0.69	36
2448MHz	-0.71	36
2449MHz	-0.72	36
2450MHz	-0.73	36
2451MHz	-0.75	36
2452MHz	-0.79	35
2453MHz	-0.83	35
2454MHz	-0.87	35
2455MHz	-0.91	35
2456MHz	-0.95	35
2457MHz	-0.98	34
2458MHz	-1.00	34
2459MHz	-1.03	34
2460MHz	-1.08	34
2461MHz	-1.08	34
2462MHz	-1.11	34
2463MHz	-1.14	34
2464MHz	-1.16	34
2465MHz	-1.16	34
2466MHz	-1.15	34
2467MHz	-1.14	34
2468MHz	-1.13	34
2469MHz	-1.15	34
2470MHz	-1.17	34
2471MHz	-1.22	33
2472MHz	-1.26	33
2473MHz	-1.28	33
2474MHz	-1.29	33
2475MHz	-1.31	33
2476MHz	-1.34	33
2477MHz	-1.39	33
2478MHz	-1.44	32
2479MHz	-1.50	32
2480MHz	-1.53	32
2481MHz	-1.55	32
2482MHz	-1.58	31

B.1 3D Directional Diagram

B.1.1 2400MHz

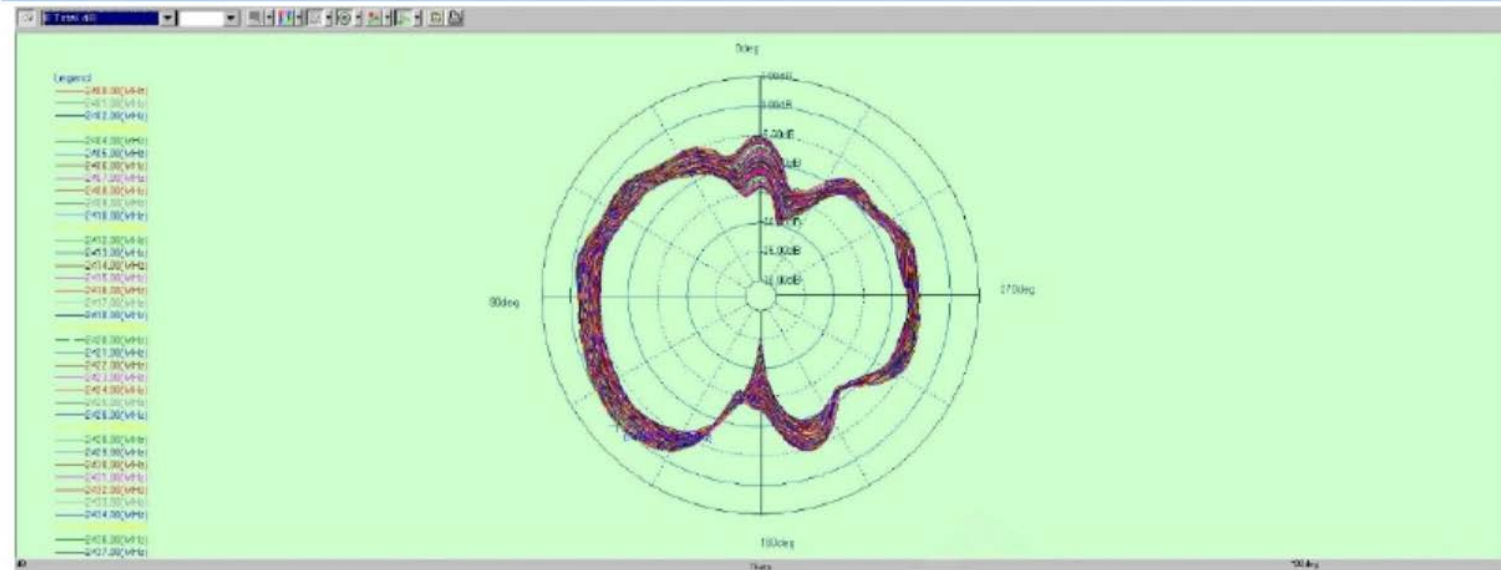


B.1.2 2463MHz

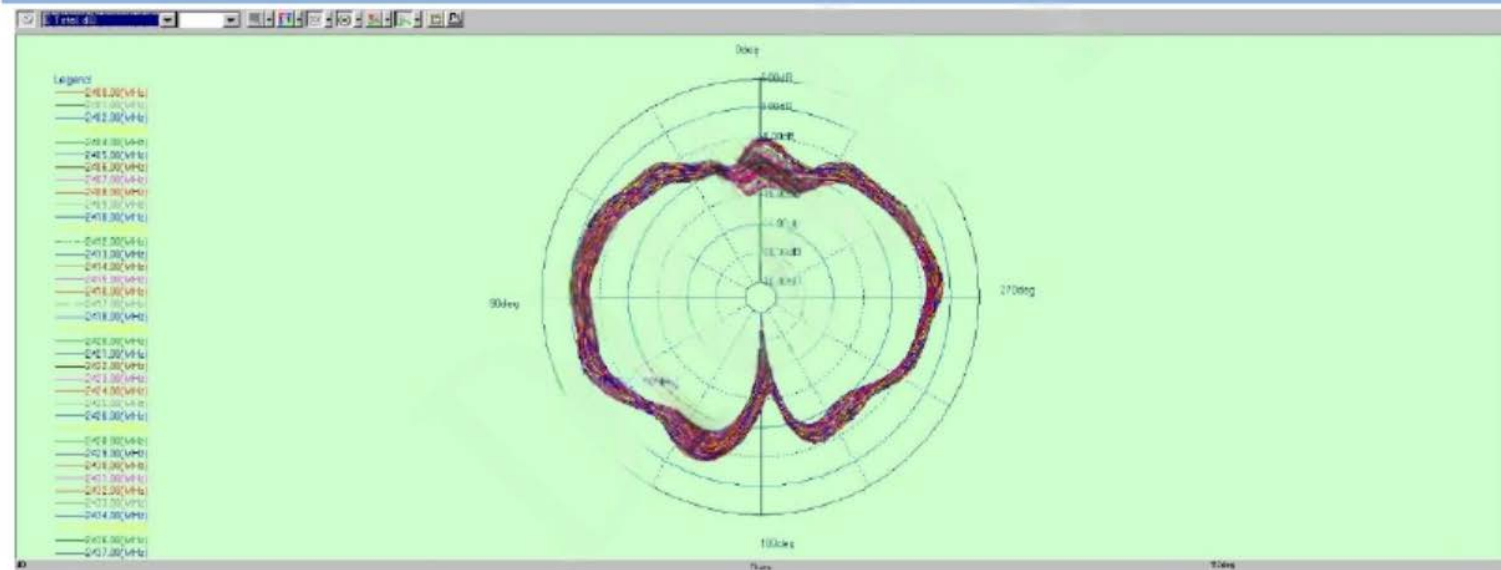


B.2 1D Directional Diagram

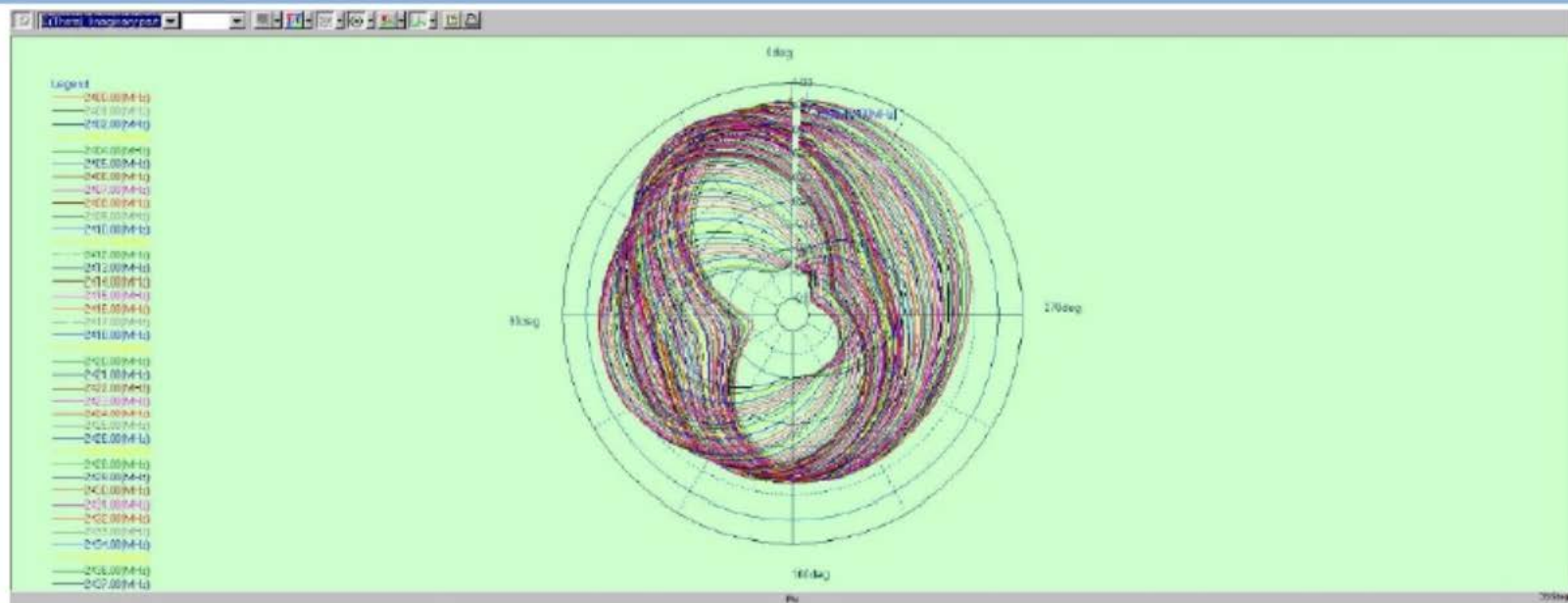
B.2.1 $\text{PHI}=0$



B.2.2 $\text{PHI}=90$



THETA=90



Appendix C Sample Photos

