

GY-SUC5F1-1 天线测试报告

Antenna OTA Test Report

For

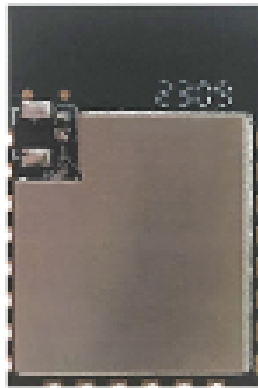
ESP-ANT-A

Customer	广云物联网科技 (广州)有限公司	Demo	GY-SUC5F1-1
Band	2.4G&5G	Color	Black
PRS PN		Version	V1.0
Issued by	Jason	Checked by	Mem
Confirmed by	Zhang	Date	2025.06.18

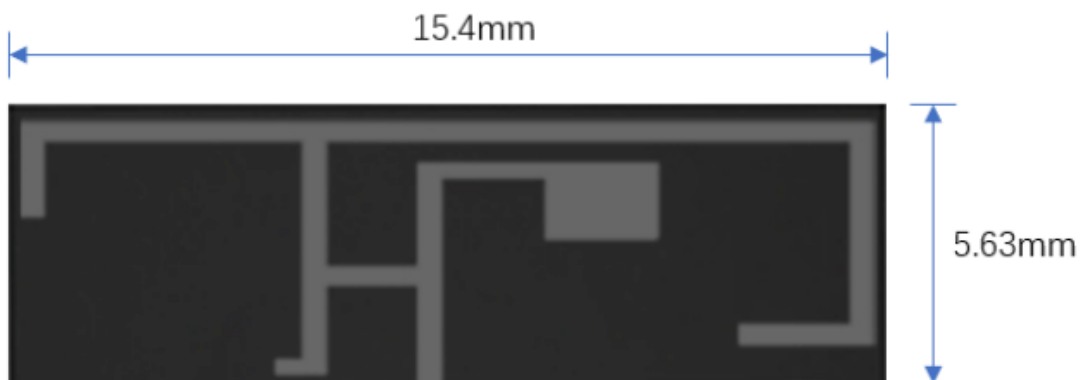
Address: 412, Building B1, AI Intelligent Valley, Chuangxinggang, No. 3 Spectral Middle Road, Huangpu District, Guangzhou City

TEST INSTRUMENTATION

CHAMBER	SATIMO Chamber
Wireless Networking Test Set	Agilent E5071C
NETWORK ANALYZER	Agilent 8753D
TEMPERATURE	20±3°C
HUMIDITY	50±20%rh
GROUND RESISTANCE	<0.5R



GY-SUC5F1-1 WiFi Module

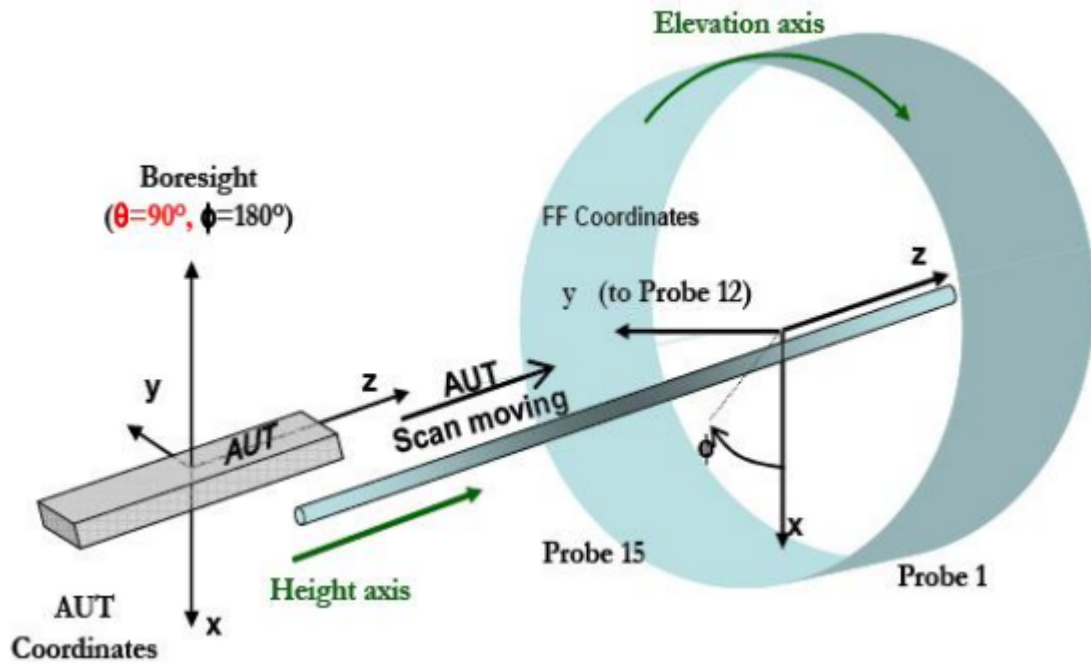


Antenna Size

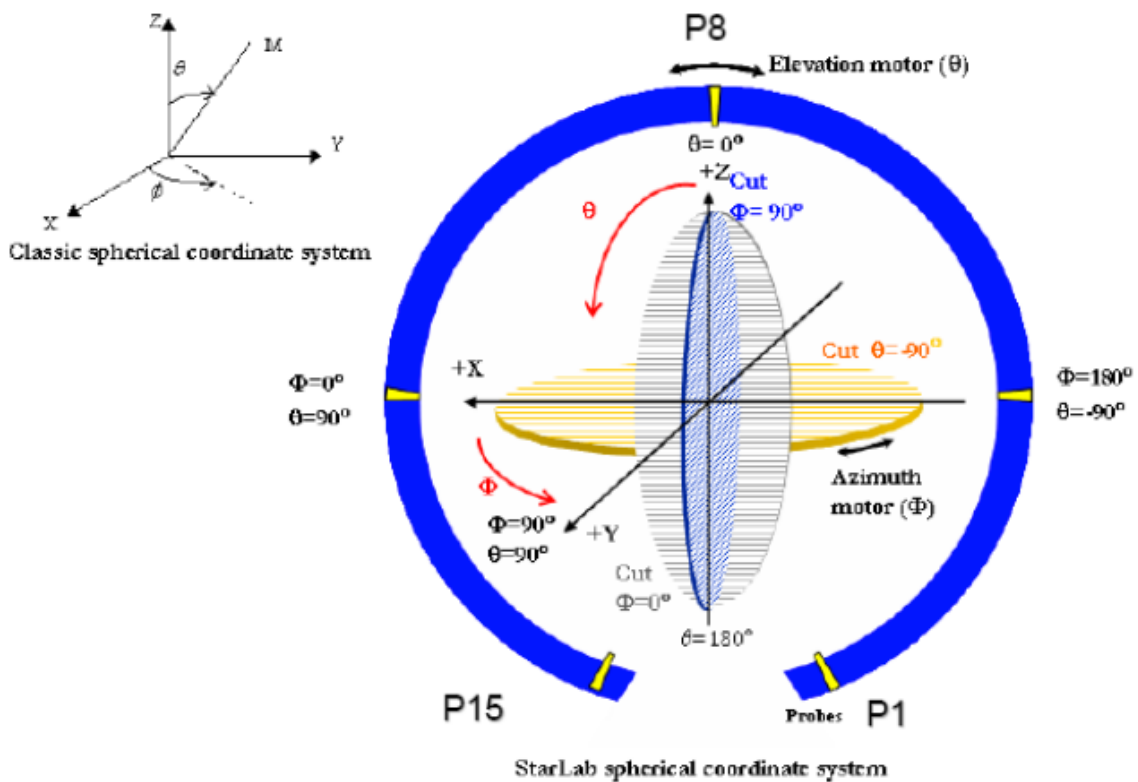
1. Test devices is shown as below



2. Coordinate system-Cylindrical geometry



3. Coordinate system-Spherical geometry



4. Test Results

4.1. Gain and Efficiency

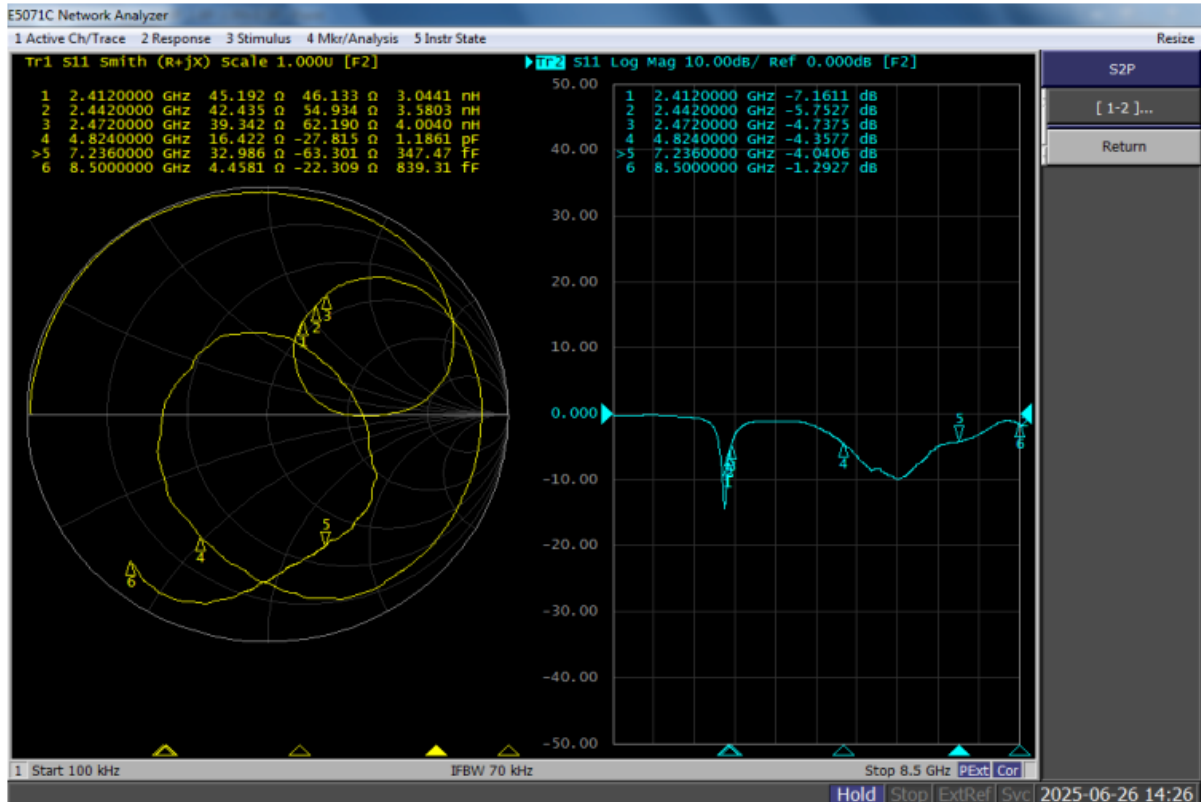
Test Item	Freq (MHz)	Efficiency (%)	Gain (dBi)
Gain	2370	28.01	3.06
Gain	2380	28.07	3.17
Gain	2390	30.22	2.55
Gain	2400	38.55	2.89
Gain	2410	35.34	2.89
Gain	2420	41.24	2.80
Gain	2430	41.70	2.76
Gain	2440	42.10	2.87
Gain	2450	42.20	2.88
Gain	2460	41.70	3.12
Gain	2470	43.20	3.22
Gain	2480	42.80	3.24
Gain	2490	41.95	3.24
Gain	2500	43.33	3.43

Test Item	Freq (MHz)	Efficiency (%)	Gain (dBi)
Gain	5150	32.38	1.02
Gain	5180	32.75	1.07
Gain	5210	34.64	1.07
Gain	5240	32.45	1.45
Gain	5270	31.16	1.84
Gain	5300	32.52	1.83
Gain	5330	31.17	1.92

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Gain	5360	36.91	2.33
Gain	5400	36.04	2.53
Gain	5450	39.68	2.64
Gain	5500	43.43	3.01
Gain	5550	47.06	3.29
Gain	5600	51.94	3.42
Gain	5650	56.67	3.34
Gain	5700	45.63	3.33
Gain	5750	45.31	2.82
Gain	5800	49.17	2.90
Gain	5850	41.45	2.91

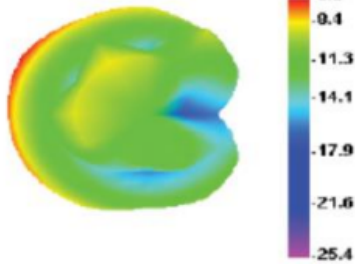
4.2. Antenna S11



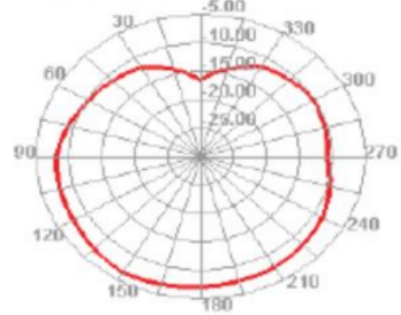
Frequency (MHz)	2412	2442	4824	7236
S11 (dB)	-7.16	-5.75	-4.33	-4.04

4.3. 3D Pattern Plots

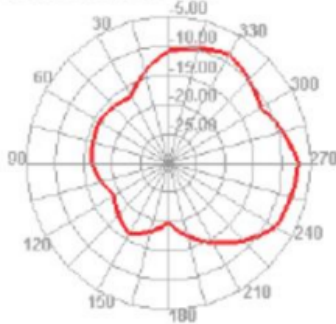
2300.000MHz



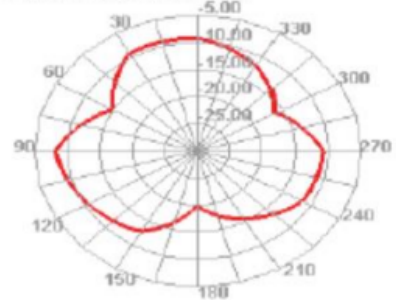
2300.000MHz H



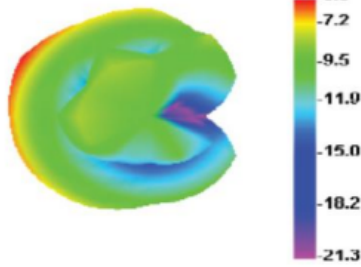
2300.000MHz E1



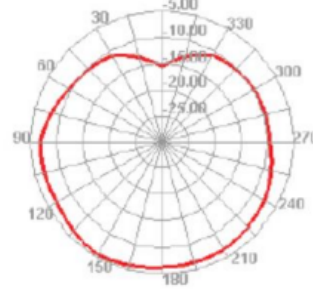
2300.000MHz E2



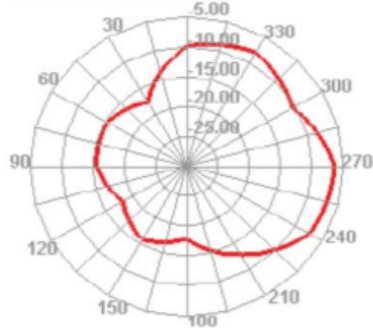
2310.000MHz



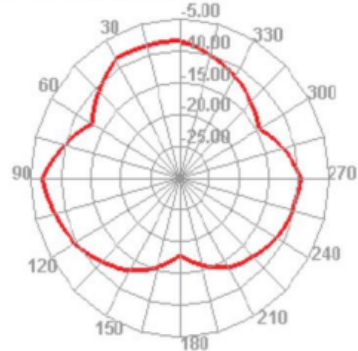
2310.000MHz H



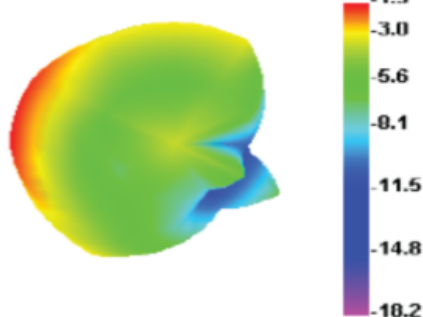
2310.000MHz E1



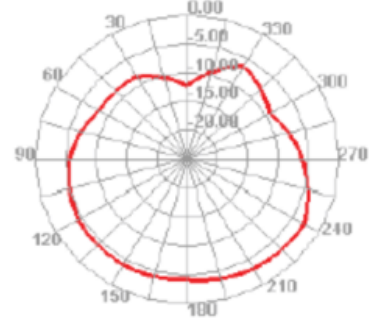
2310.000MHz E2



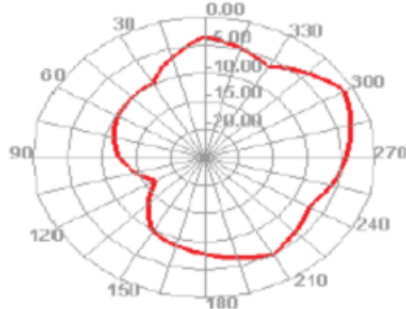
5150.000MHz



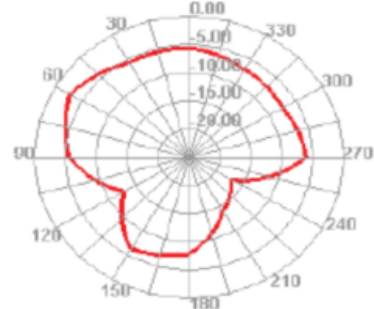
5150.000MHz H



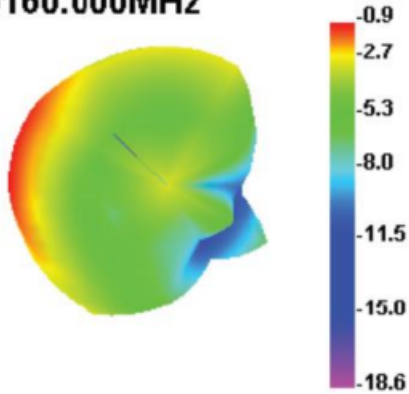
5150.000MHz E1



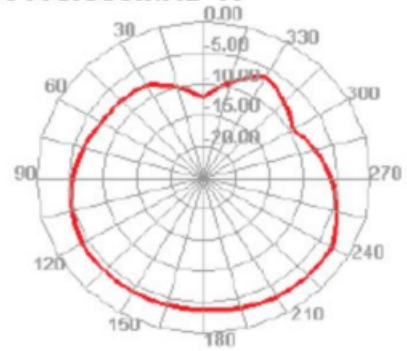
5150.000MHz E2



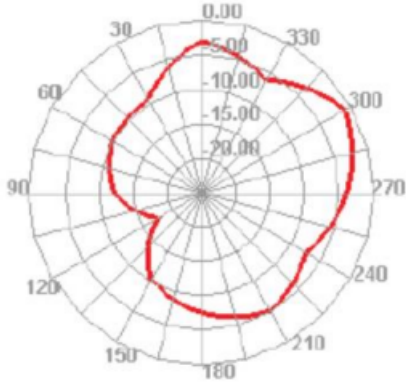
5160.000MHz



5160.000MHz H



5160.000MHz E1



5160.000MHz E2

