

# Shenzhen Yishengbang Technology Co., Ltd

## Antenna Test Report

Project: N156EBC01 WIFI6

Product: WIFI Antenna—FPC

Report date: 2023.03.25

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Checked by : Eason Huang

Approved by :



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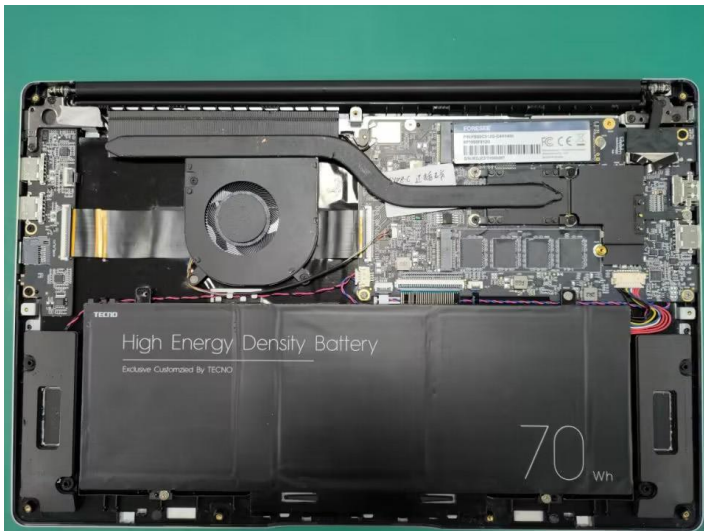
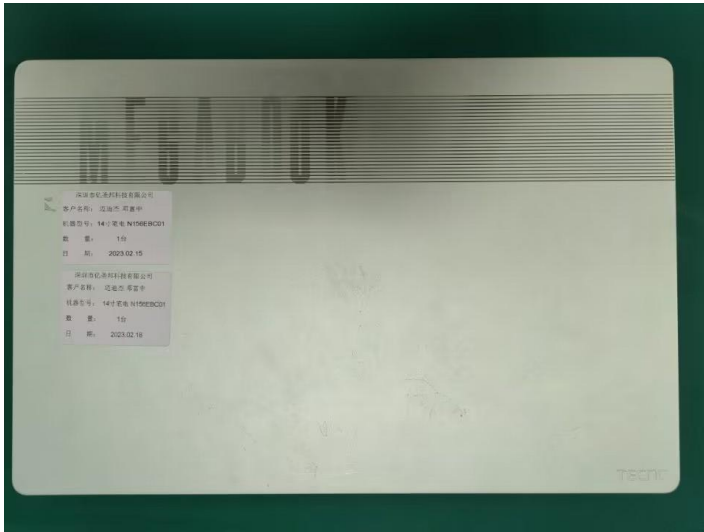
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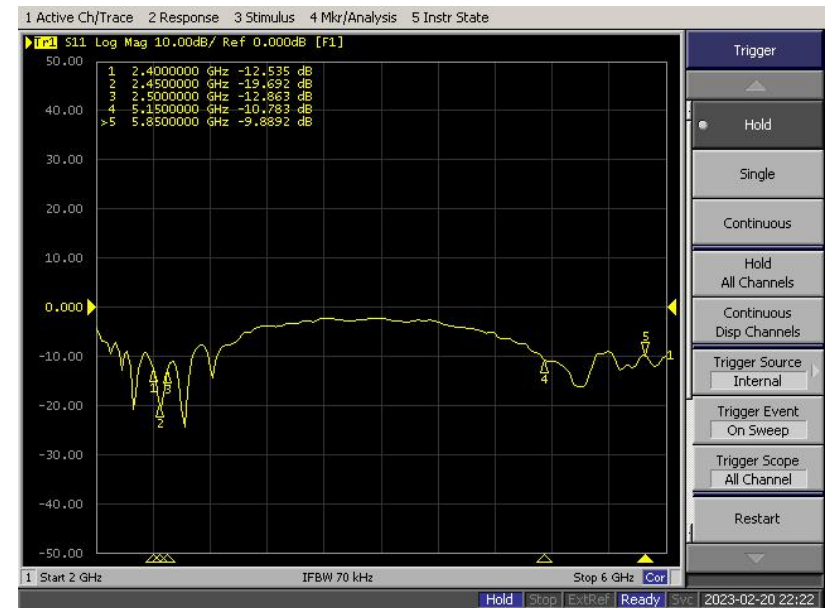
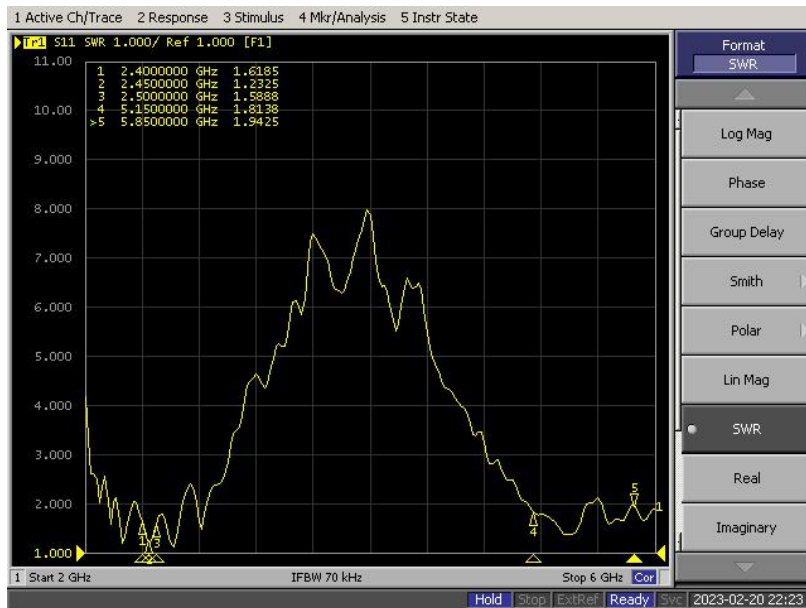
# 1. Product Overview



# 2. Test Result

## 2.1 VSWR/S11

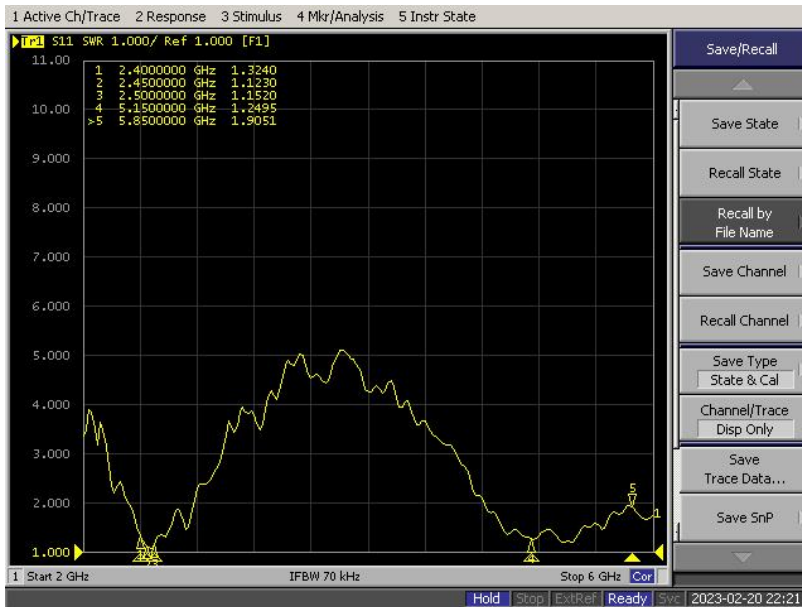
BT/WiFi MAIN



# 2. Test Result

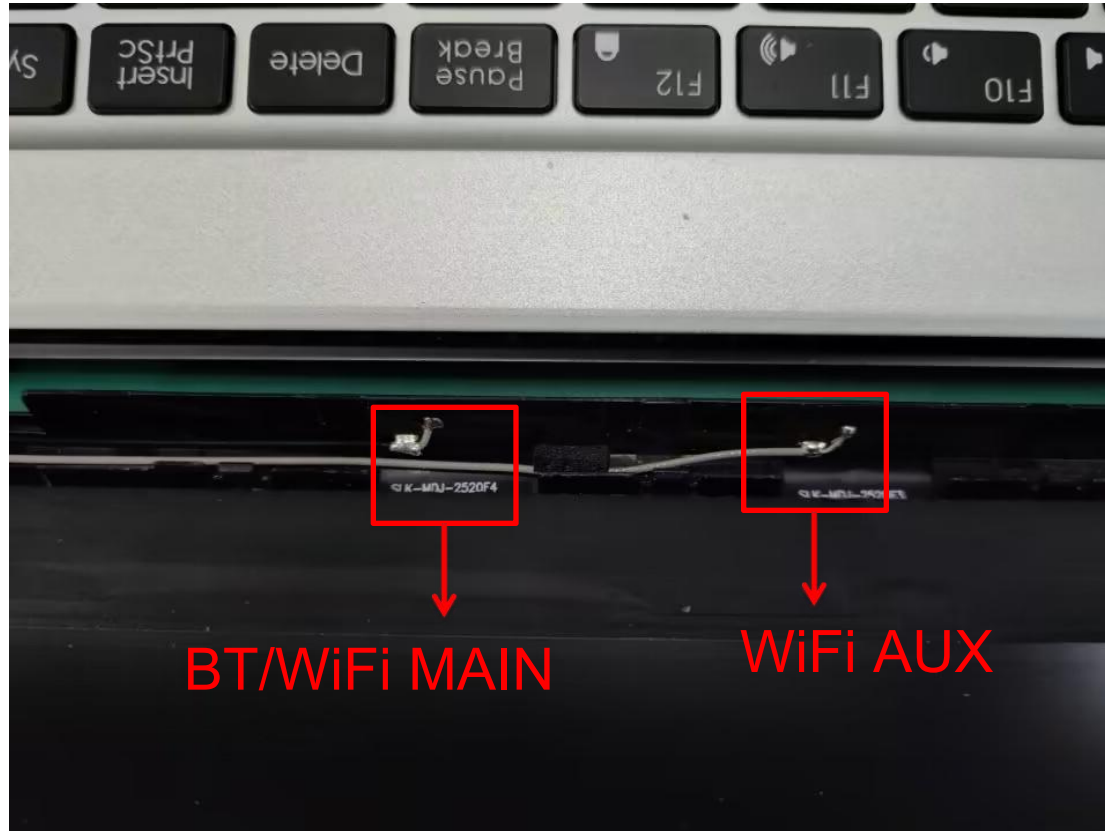
## 2.1 VSWR/S11

WiFi AUX



## 2. Test Result

### 2.2 BT/WIFI Antenna Parameters



## 2. Test Result

### 2.3 WIFI Antenna TRP/TIS

WIFI	CH	power(54M)	sensitivity(54M)	WIFI	CH	power(54M)	sensitivity(54M)
<b>802.11a 54M</b>	36	10.66	-71.02	<b>802.11g 54M</b>	1	12.15	-73.71
	149	16.04	-72.09		6	12.02	-73.09
	165	15.7	-72.36		11	11.64	-72.88
WIFI	CH	power(11M)	sensitivity(11M)	WIFI	CH	power(MCS7)	sensitivity(MCS7)
<b>802.11b 11M</b>	1	10.95	-83.15	<b>802.11n MCX7</b>	1	9.83	-67.97
	6	11.42	-83.42		6	9.35	-68.92
	11	11.83	-84.06		11	9.33	-68.26

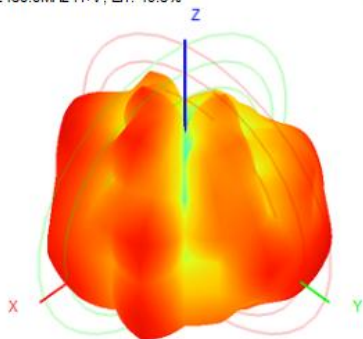
# 2. Test Result

## 2.4 BT/WIFI Antenna Gain/Efficiency/3D DATA

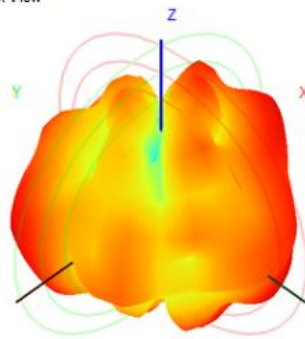
### MAIN

Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0	5150.0	5250.0	5750.0	5850.0
Efficiency (dBi)	-3.55	-3.64	-3.66	-3.44	-3.13	-3.14	-3.19	-3.43	-3.46	-3.53	-3.91	-3.90	-3.63	-3.88	-3.69
Gain (dBi)	3.42	3.36	3.29	3.34	3.86	3.76	3.67	3.70	3.58	3.13	3.02	2.90	3.99	3.14	3.18
Efficiency (%)	44.12	43.29	43.01	45.25	48.62	48.51	47.97	45.35	45.07	44.36	40.63	40.75	43.36	40.93	42.80

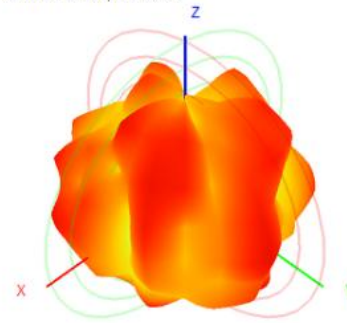
2450.0MHz H+V, Ef: 48.5%



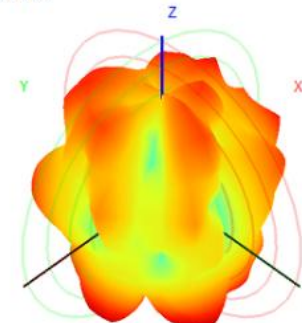
Back View



5850.0MHz H+V, Ef: 42.8%



Back View





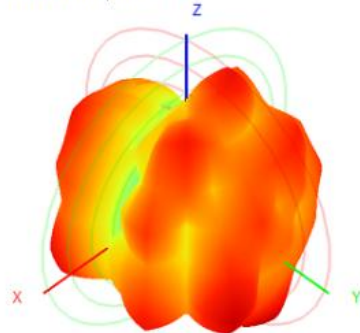
## 2. Test Result

### 2.4 WIFI Antenna Gain/Efficiency/3D DATA

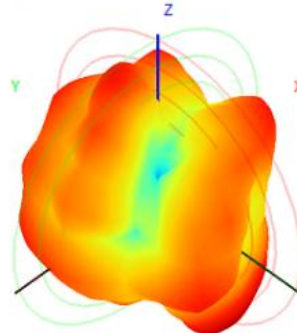
AUX

Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0	5150.0	5250.0	5750.0	5850.0
Efficiency (dBi)	-3.71	-3.78	-3.88	-3.60	-3.58	-3.67	-3.66	-3.85	-3.84	-3.91	-4.23	-4.16	-4.32	-4.34	-3.47
Gain (dBi)	3.91	3.62	3.70	4.05	4.17	3.78	4.00	3.79	3.83	3.52	3.47	2.53	2.28	3.43	3.22
Efficiency (%)	42.52	41.91	40.92	43.64	43.87	42.98	43.03	41.22	41.32	40.69	37.75	38.40	37.00	36.84	44.97

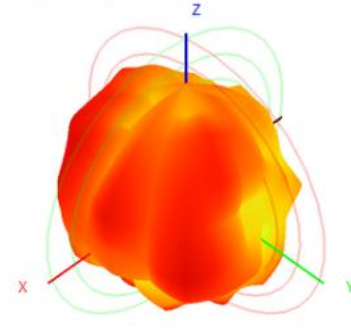
2450.0MHz H+V, Eff: 43.0%



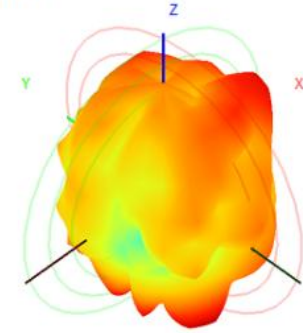
Back View



5850.0MHz H+V, Eff: 45.0%



Back View



## 2. Test Result

### 2.5 WIFI Antenna Throughput

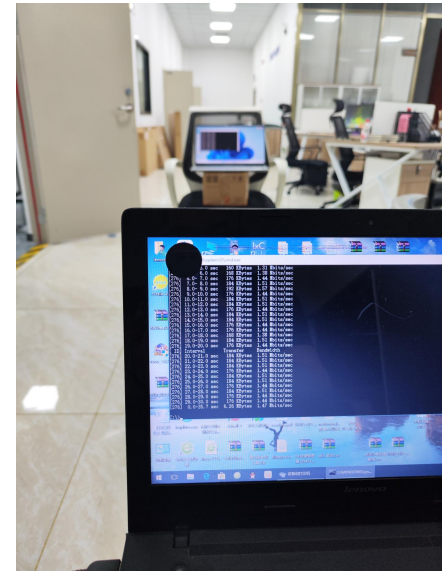
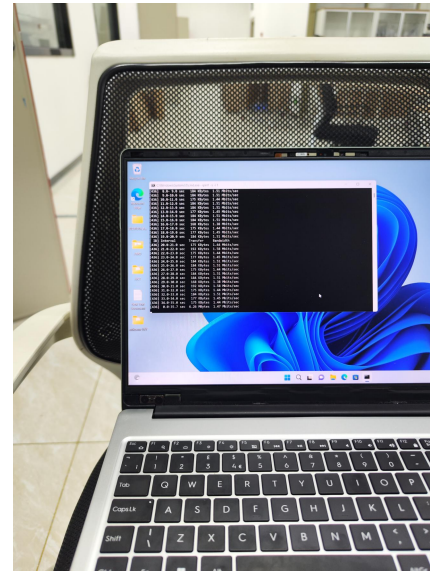
	2.4G upload	2.4G download			5.8G upload	5.8G download
VIEW	TP-Tx	TP-Rx		VIEW	TP-Tx	TP-Rx
0	413	457		0	932	941
90	406	454		90	927	952
180	420	450		180	925	935
270	383	451		270	933	940

## 2. Test Result

### 2.6 BT Throughput



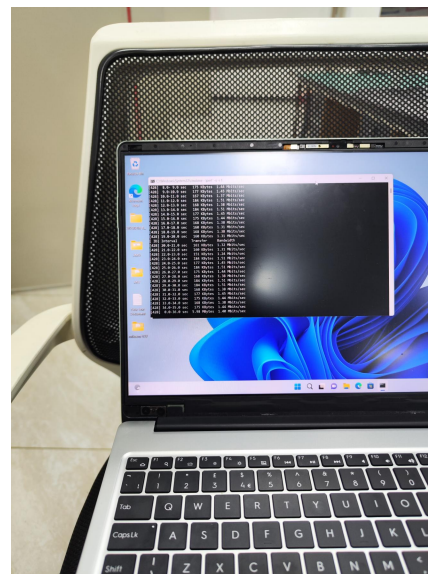
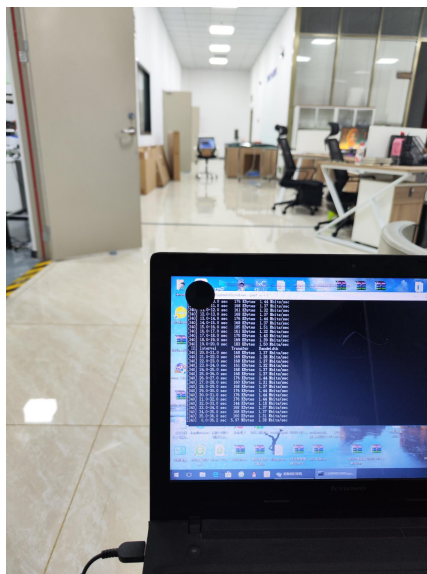
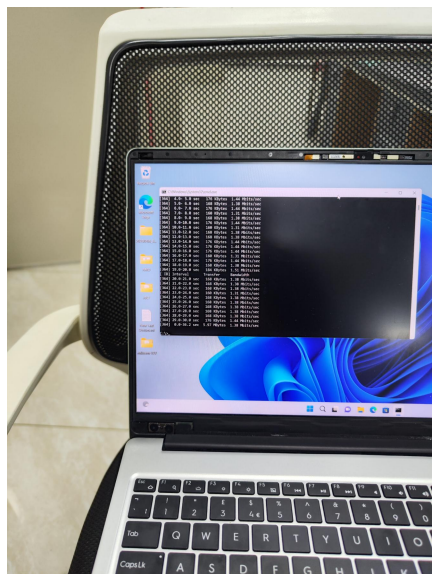
**1M Upload 1.37M**



**1M download 1.47M**

## 2. Test Result

### 2.6 BT Throughput



**10M上传1.38M**

**测试环境：室内10M。**

**10M下载1.40M**



Thank you