

Antenna Test Report V1

2025/1/16

Main purpose of this report: Antenna Debugging Verification

Main findings of this report: The efficiency of the antenna is more than 50, which can meet the normal use, TIS has -88dBm or so, TRP has more than 4dBm.

Antenna name	frequency band	quality of material	Performance Requirements
MB-5520A	2400-2480MHz	FR4 PCB Antenna	As per customer's request

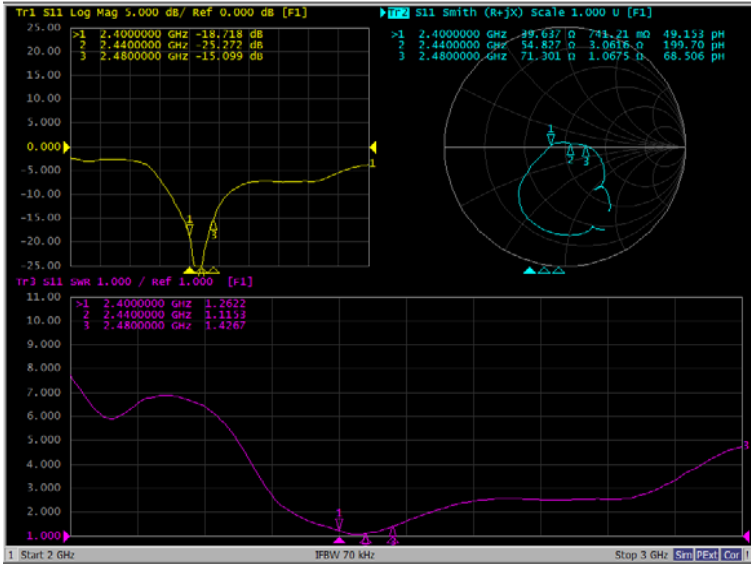
Antenna end matching circuit:



BT	
E1(0402)	ESD
E2(0402)	1.8NH
E3(0402)	0.5PF

Antenna passive S11 parameter test:

BT



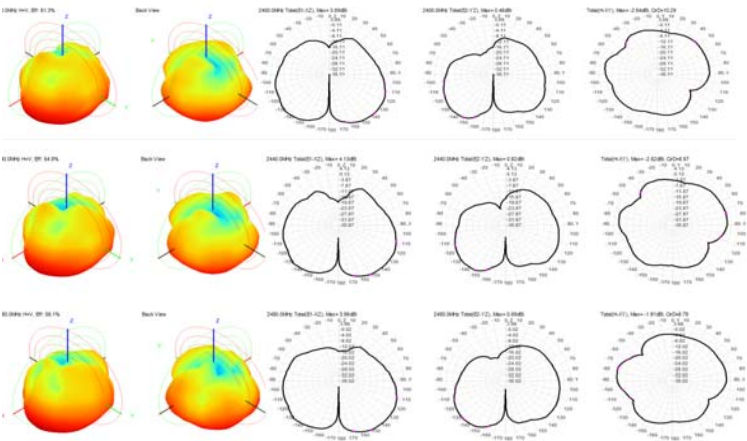
Freq (MHz)	2400	2440	2480
SWR	1.26	1.11	1.42
Log Mag	-18.71	-25.27	-15.09

Antenna passive efficiency and gain testing:

BT		
Frequency (MHz)	Gain (dBi)	Efficiency
2400	4.72	51.40%
2410	4.99	54.10%
2420	5.06	54.20%
2430	5.15	55.30%
2440	5.11	55.00%
2450	5.08	55.20%
2460	5.05	55.90%
2470	4.82	55.20%
2480	4.71	55.20%
2490	4.68	55.00%
2500	4.50	54.00%

Antenna passive radiation direction map:

BT

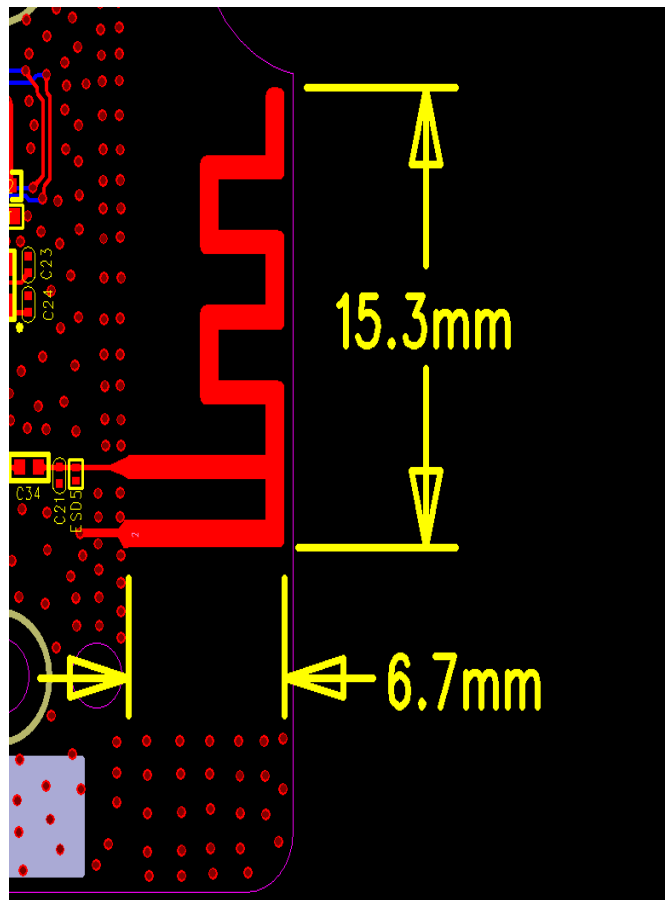


Antenna OTA test:

BT OTA		
Channels	TRP (dBm)	TIS (dBm)
0	4.19	-89.04
39	4.63	-88.06
78	4.50	-88.10

The structure of the antenna is shown below:

Antenna size : 15.3 * 6.7 mm.



Name of the manufacturer: Shenzhen World Elite Electronic Co.,Ltd
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