

Antenna 1

1、Specifications

The specification mainly provides the test status of electrical and structural performance parameters of antenna 1 in SH0111 project。 The picture below shows the antenna 1 designed by Tianda.

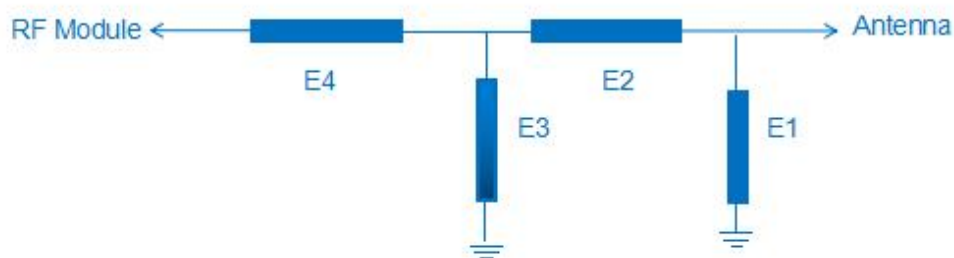
1.1、Electrical specifications

1.1.1、Electrical performance index

The operating frequency band of the antenna 2400MHz—2500MHz, The following is the electrical performance index of the antenna designed and produced by Tianda.

Ant 1		
Frequency band	Frequency (MHz)	VSWR
2.4G	2400~2500	≤ 2.0

1.1.2、Matching circuit diagram

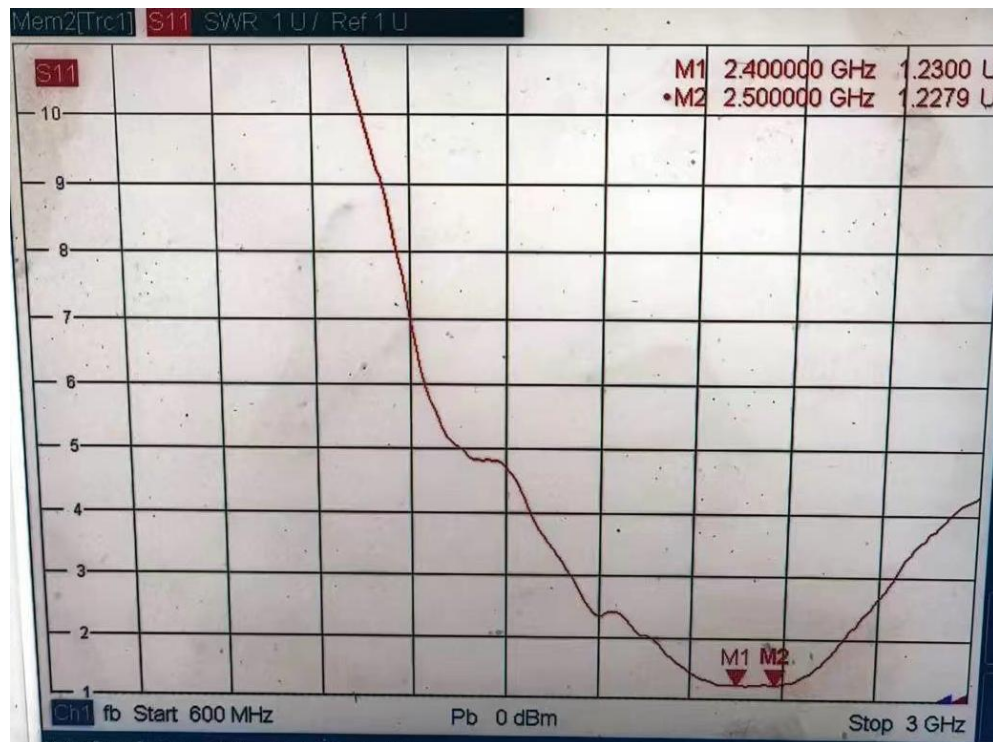


The matching circuit of the Antenna is the original matching circuit of the motherboard.

1.2、Testing

1.2.1、Passive test

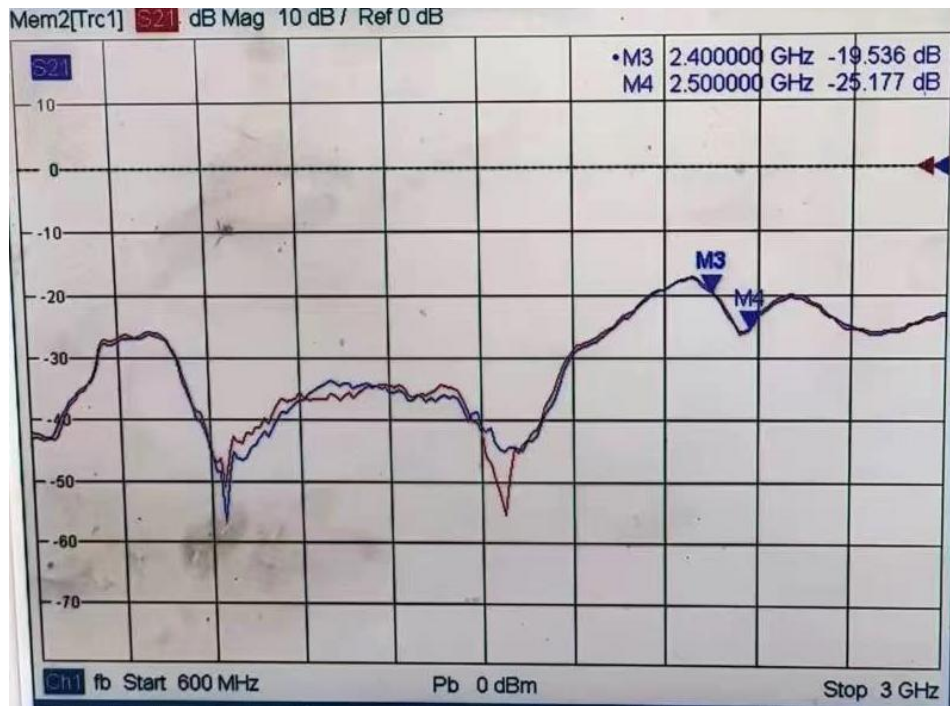
1.2.1.1、VSWR



1.2.1.2、Antenna Gain and Efficiency

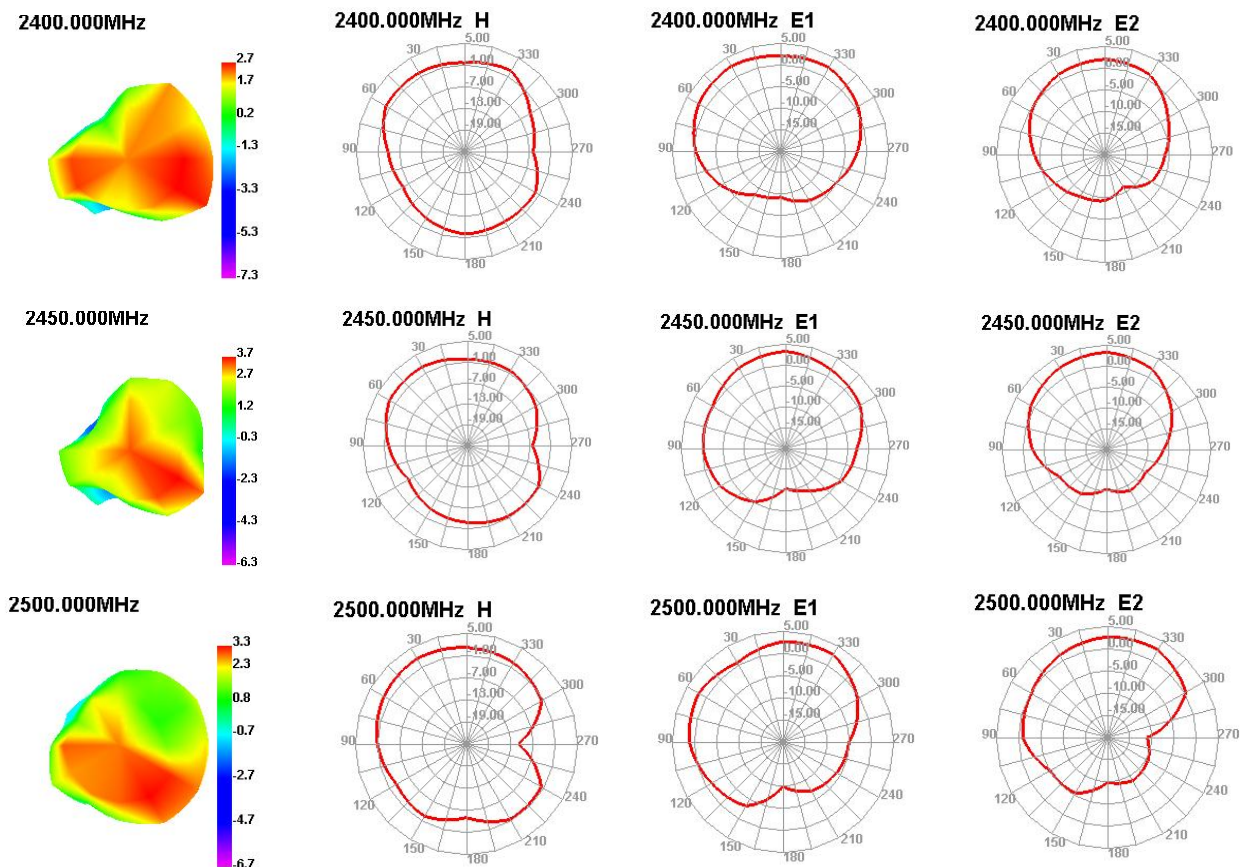
Passive Test For 2.4G-2.5G									
Freq (MHz)	Effi (%)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	AttH (dB)	AttV (dB)
2400	65.71	2.7	0.55	48.668	17.045	2.7	-11.41	46.87	46.81
2410	69.24	2.98	0.83	50.858	18.378	2.98	-10.83	47.08	47.17
2420	67.7	3.03	0.88	49.365	18.337	3.03	-10.16	47.06	47.12
2430	68.03	3.25	1.1	49.239	18.79	3.25	-10.34	47	47.09
2440	73.28	3.68	1.53	52.606	20.67	3.68	-10.9	47.5	47.69
2450	72.39	3.7	1.55	51.796	20.59	3.7	-11.72	47.48	47.63
2460	74.72	3.76	1.61	53.243	21.478	3.76	-11.85	47.73	47.89
2470	73.93	3.7	1.55	53.237	20.691	3.7	-11.47	47.81	48.06
2480	72.25	3.27	1.12	51.07	21.182	3.27	-11.18	47.79	47.96
2490	75.97	3.52	1.37	53.86	22.111	3.52	-11	48.2	48.46
2500	71.78	3.26	1.11	50.617	21.162	3.26	-11.23	47.83	48.01

1.2.1.3、Antenna Isolation



The isolation between antennas is - 19.5dB~ -25.1dB.

1.2.1.4、Antenna pattern Unit: dBi



2、Structural specifications

2.1、Antenna composition

The type of antenna is PCB antenna, mainly composed of PCB+Cable lines.

2.2、Drawings

