

HT21 project antenna RF R&D reportV1

The main purpose of this report: to preliminarily debug the antenna performance

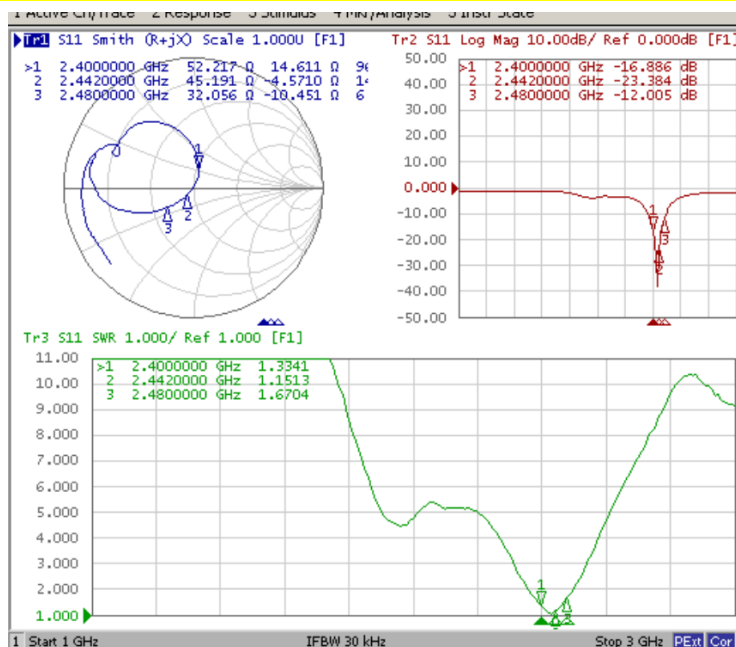
The main conclusion of this report: the antenna performance is OK

Key points to note in this report: 1. The left and right ears are shared and matched, but the antenna is not shared.

2. The left and right ear feed shrapnel and touch shrapnel contact close to the edge of the FPC antenna's golden finger, there is a risk of poor contact, be sure to adjust the position of the shrapnel internally.

Antenna impedance parameter test situation

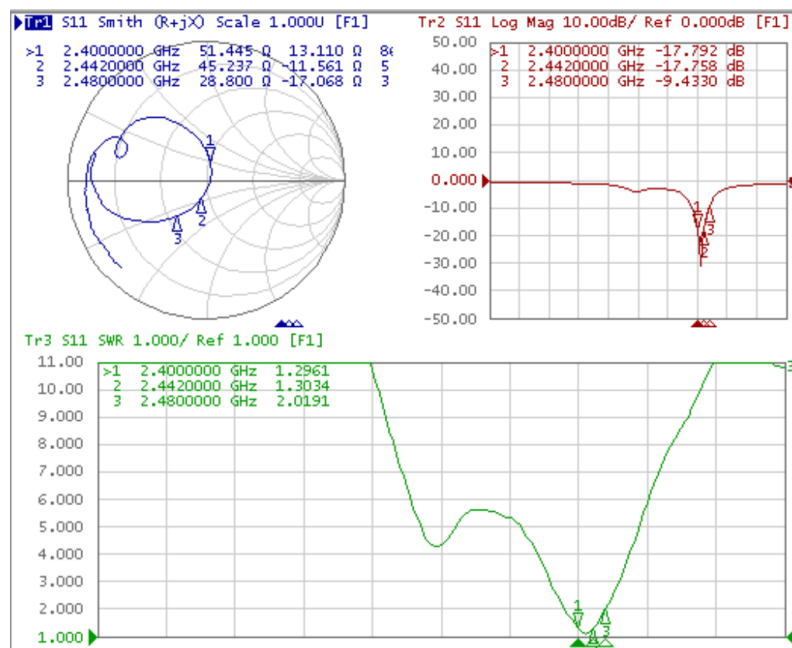
L



L

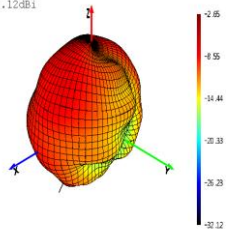
MHz	gain(dBi)	efficiency(dB)	efficiency (%)
2400	-2.65	-7.4	18.19
2410	-2.16	-7.33	18.47
2420	-1.81	-7.26	18.8
2430	-0.0	-7.18	19.16
2440	-1.86	-7.13	19.36
2450	-0.76	-7.18	19.16
2460	-1.94	-7.18	19.15
2470	-2.21	-7.18	19.13
2480	-2.38	-7.2	19.06

R

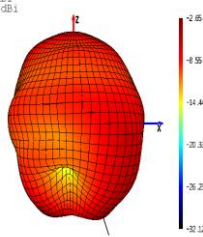


R			
MHz	gain(dBi)	efficiency(dB)	efficiency (%)
2400	-1.09	-6.92	20.31
2410	-2.21	-6.9	20.44
2420	-0.0	-6.87	20.54
2430	-0.24	-6.89	20.48
2440	-1.45	-6.92	20.31
2450	-2.47	-7.12	19.41
2460	-2.71	-7.28	18.7
2470	-2.12	-7.44	18.03
2480	-3.29	-7.65	17.18

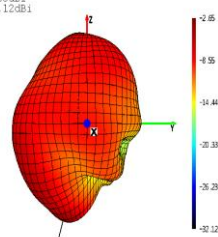
MAX:-2.65dB1
MIN:-32.12dB1



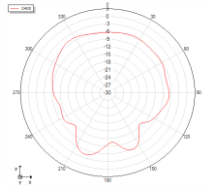
MAX:-2.65dB1
MIN:-32.12dB1



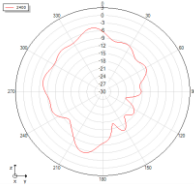
MAX:-2.65dB1
MIN:-32.12dB1



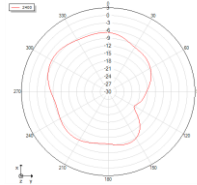
Phi=0 freq=2400MHz



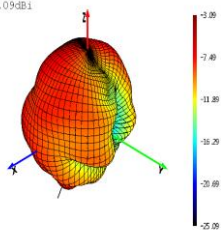
Phi=90 freq=2400MHz



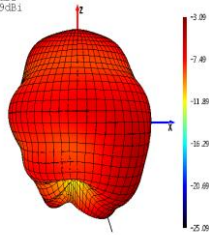
Theta=90 freq=2400MHz



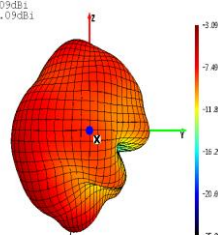
MAX:-3.09dB1
MIN:-25.09dB1



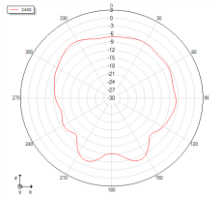
MAX:-3.09dB1
MIN:-25.09dB1



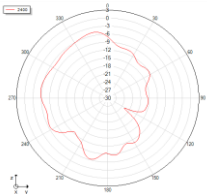
MAX:-3.09dB1
MIN:-25.09dB1



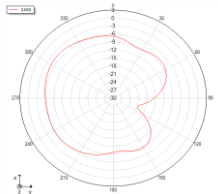
Phi=0 freq=2400MHz



Phi=90 freq=2400MHz



Theta=90 freq=2400MHz



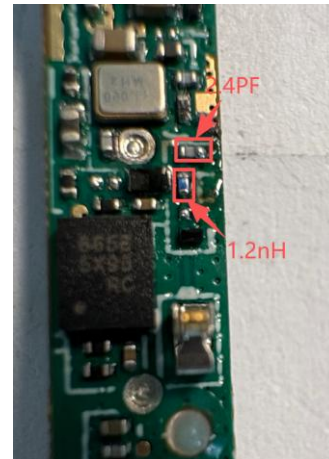
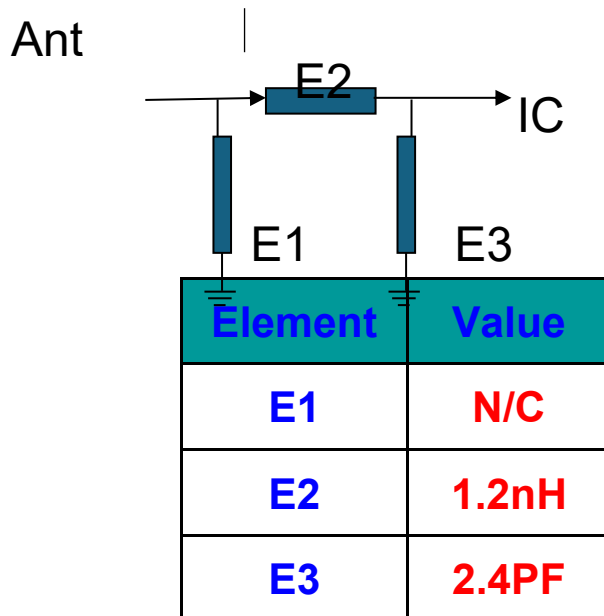
Active test data of the whole machine

	Channel	TRP (dBm)	TIS (dBm)
L	CH 0	0.93	-85.31
	CH 39	1.13	-86.44
	CH 78	1.28	-86.97
Head mold	Channel	TRP (dBm)	TIS (dBm)
L	CH 0	-2.62	-81.63
	CH 39	-2.57	-82.76
	CH 78	-2.24	-82.93

	Channel	TRP (dBm)	TIS (dBm)
R	CH 0	1.04	-86.26
	CH 39	1.59	-86.72
	CH 78	1.71	-86.69
Head mold	Channel	TRP (dBm)	TIS (dBm)
R	CH 0	-2.41	-82.51
	CH 39	-2.53	-83.78
	CH 78	-2.66	-82.86

Antenna matching circuit

L



R

