

HSB5181 Antenna Test Report V2-BT

2025/3/11

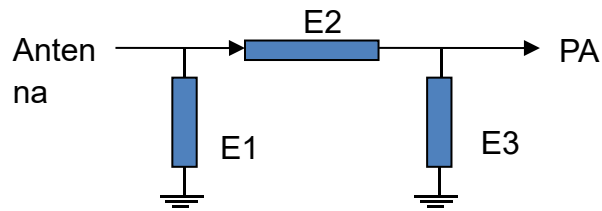
manufacturer Shenzhen World Elite Electronic CO.,LTD

ADD 5th Floor, Xiangyu 'er Comprehensive Building, No. 8, Longsheng Road, Longgang Sub-district, Longgang District, Shenzhen City

antenna	frequency	type	performance requirement
BT	2400-2480MHz	PCB antenna	

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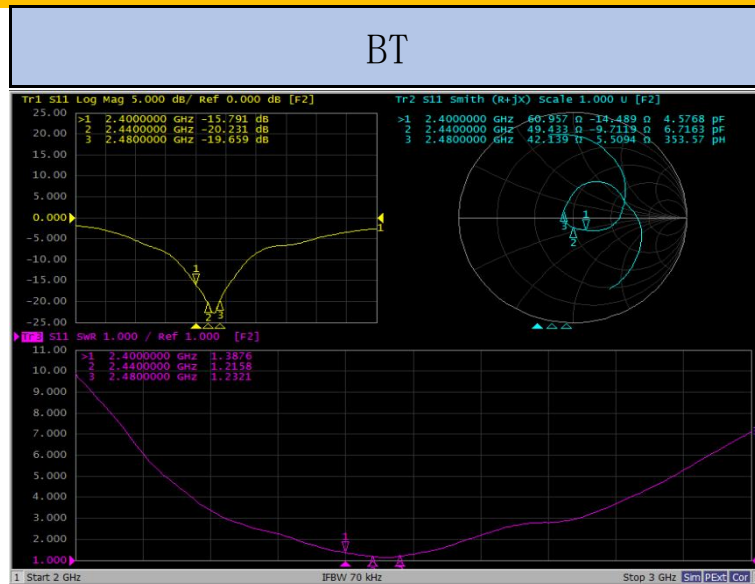
Antenna end matching circuit



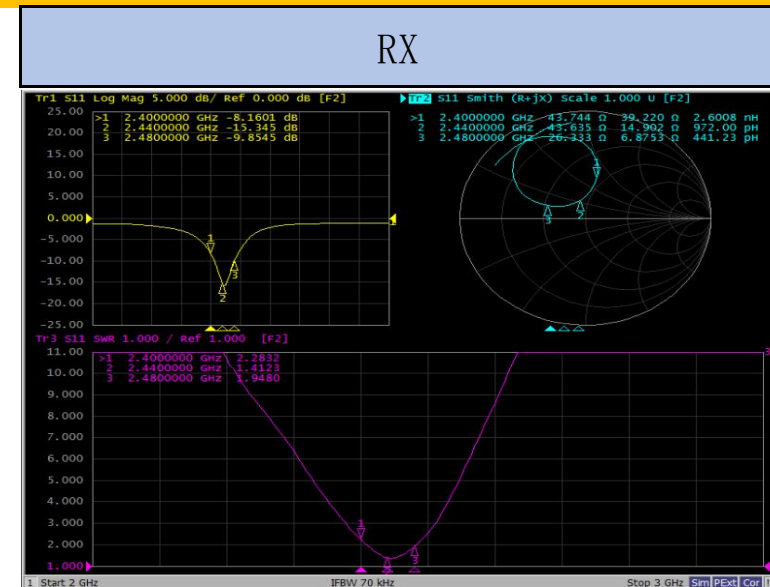
BT	
Element	
E1(0201)	
E2(0201)	1.8nH
E3(0201)	1.0pF

RX	
Element	
E1(0201)	原匹配
E2(0201)	原匹配
E3(0201)	原匹配

Passive S11 parameter test of antenna



Freq (MHz)	2400	2440	2480
SWR	1.39	1.22	1.23
Log Mag	-15.79	-20.23	-19.66



Freq (MHz)	2400	2440	2480
SWR	2.28	1.41	1.95
Log Mag	-8.16	-15.35	-9.85

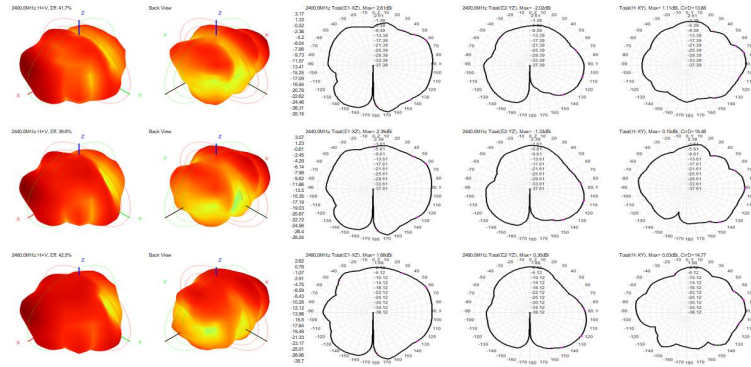
Passive efficiency and gain testing of antennas

BT			
Frequency (MHz)	Gain (dBi)	Efficiency (%)	Efficiency (dB)
2400	3.17	41.68	-3.80
2410	3.26	41.74	-3.79
2420	3.27	41.39	-3.83
2430	3.28	41.23	-3.85
2440	3.07	39.64	-4.02
2450	2.99	39.78	-4.00
2460	2.87	40.85	-3.89
2470	2.70	41.80	-3.79
2480	2.62	42.48	-3.72
2490	2.37	42.97	-3.67
2500	2.00	43.22	-3.64

RX			
Frequency (MHz)	Gain (dBi)	Efficiency (%)	Efficiency (dB)
2400	1.63	38.66	-4.13
2410	1.80	40.59	-3.92
2420	1.91	42.05	-3.76
2430	1.89	43.17	-3.65
2440	1.91	43.81	-3.58
2450	2.21	44.69	-3.50
2460	2.23	44.19	-3.55
2470	2.29	43.66	-3.60
2480	2.63	43.37	-3.63
2490	2.78	42.99	-3.67
2500	2.48	40.95	-3.88

Passive radiation pattern of the antenna

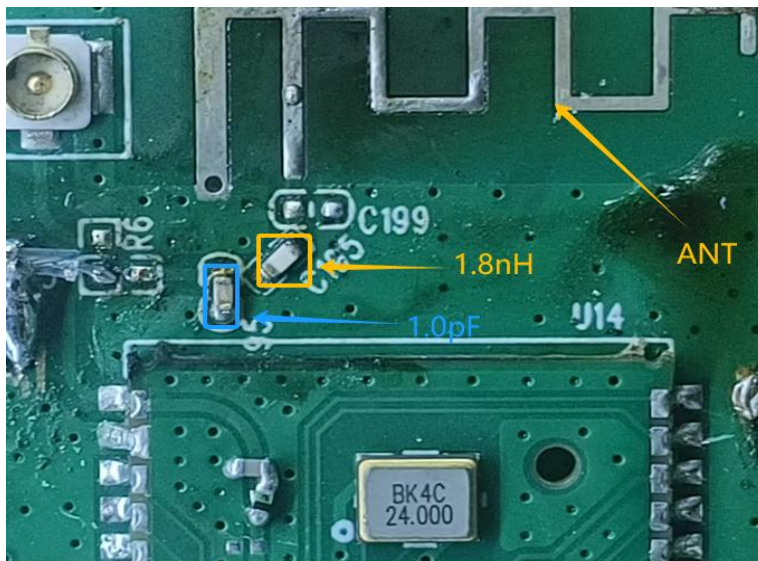
BT



RX

Antenna position and matching picture:

BT



RX

Antenna size picture (mm) :

