

SB2305 Antenna test report_V2

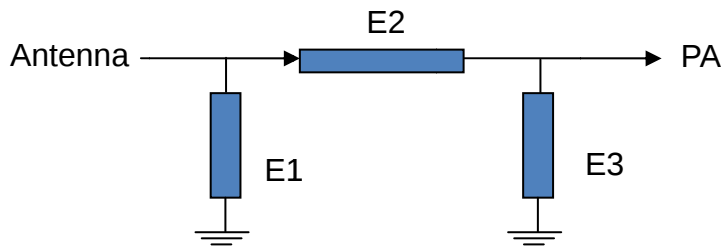
Date: 2024/9/30

Purpose of this report: Test and verify antenna performance

Conclusions of this report: Antenna performance test OK, VSWR less than 2

Type	Band	Material	Performance requirement
BT	2400-2483.5MHz	FPC	According to the customer's requirements.
WIFI	2400-2483.5MHz	FPC	
	5150-5850MHz	FPC	

1. Antenna circuit matching



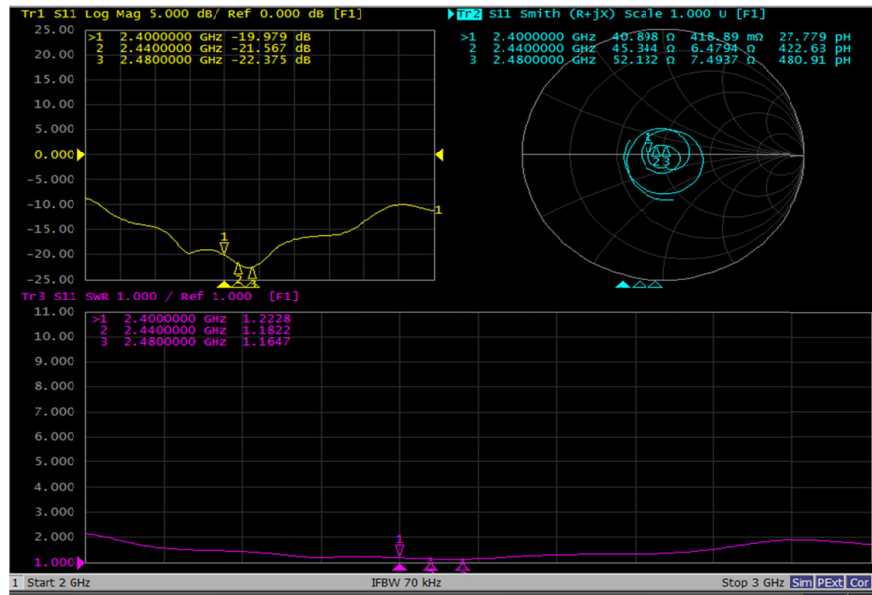
BT	
Element	
E1(0402)	NG
E2(0402)	0R
E3(0402)	NG

WIFI2.4	
Element	
E1(0403)	NG
E2(0403)	0R
E3(0403)	NG

WIFI5.8	
Element	
E1(0403)	NG
E2(0403)	0R
E3(0403)	NG

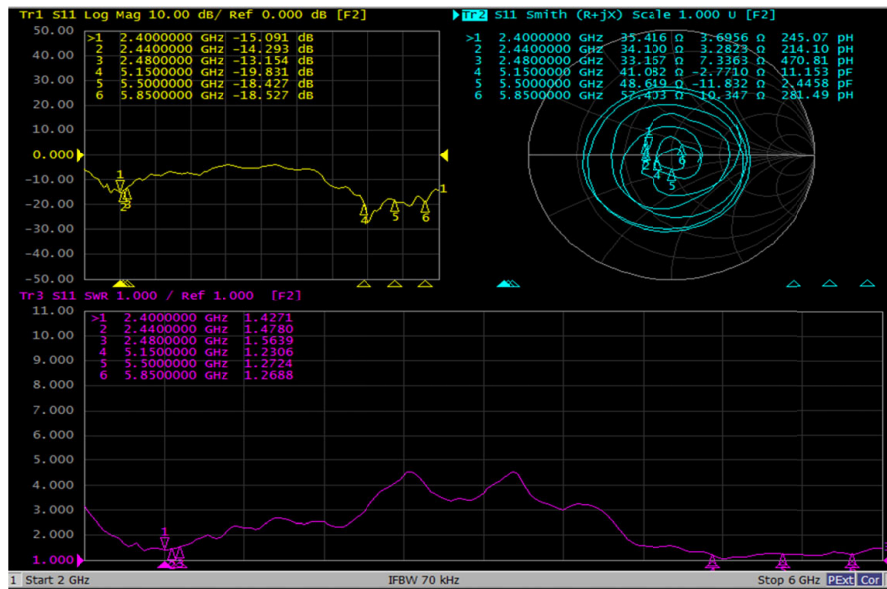
2. Antenna passive S11 parameter

BT



Freq (MHz)	2400	2440	2480
SWR	1.22	1.18	1.16
Log Mag	-19.97	-21.56	-22.37

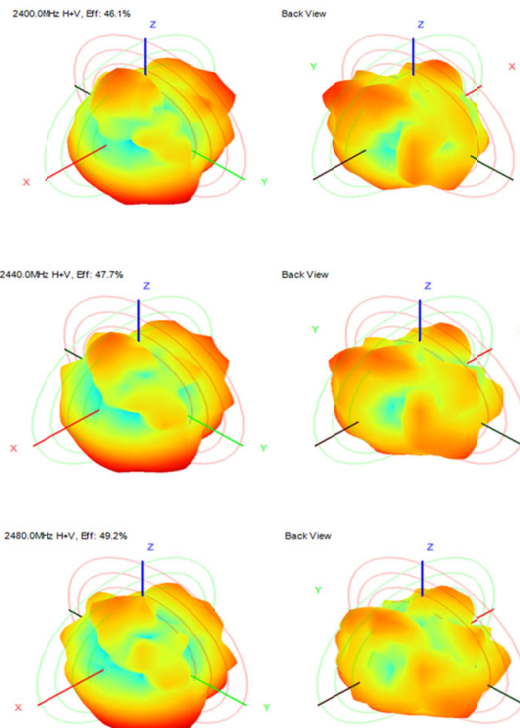
WIFI



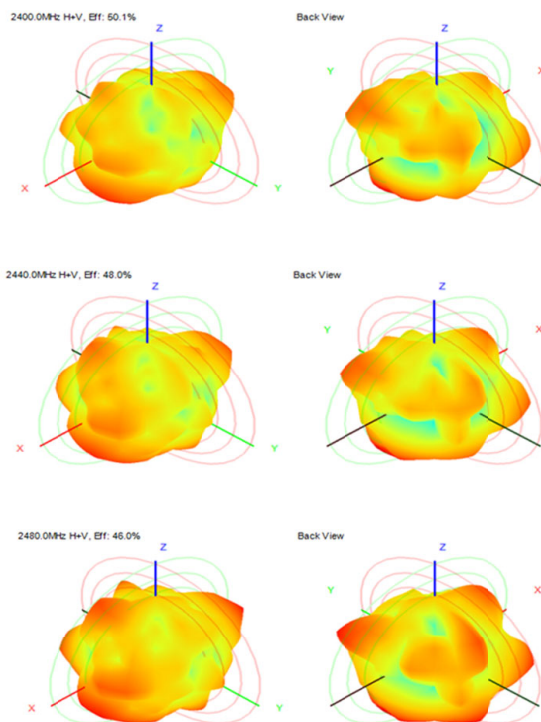
Freq (MHz)	2400	2440	2480	5150	5550	5850
SWR	1.42	1.47	1.56	1.23	1.27	1.26
Log Mag	-15.09	-14.29	-13.15	-19.83	-18.42	-18.52

3. Antenna passive efficiency

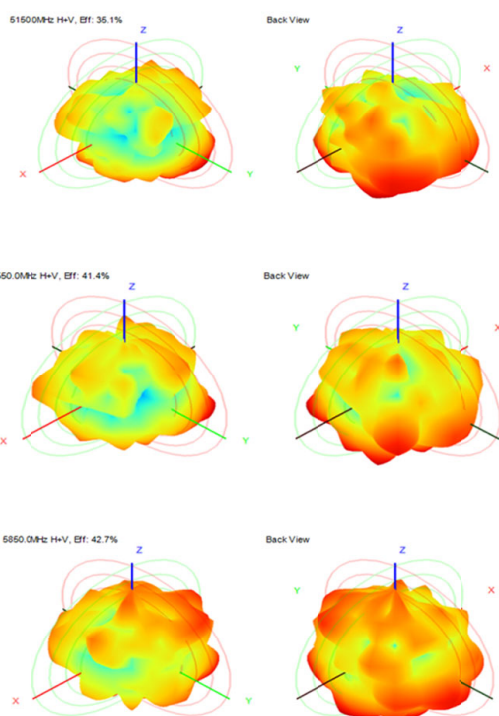
BT		
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400	2.79	46.10%
2410	2.88	47.00%
2420	2.93	47.40%
2430	3.05	48.10%
2440	2.88	47.70%
2450	2.91	48.10%
2460	3.19	49.50%
2470	3.27	50.00%
2480	3.25	49.20%
2490	3.50	50.20%
2500	3.66	50.50%



WIFI 2.4GHz		
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400	4.58	50.10%
2410	4.49	50.10%
2420	4.46	50.30%
2430	4.41	50.20%
2440	4.20	48.00%
2450	4.05	48.10%
2460	3.90	48.50%
2470	3.59	47.50%
2480	3.23	46.00%
2490	2.94	45.60%
2500	2.72	45.30%



WIFI 5.8GHz		
Frequency (MHz)	Gain (dBi)	Efficiency (%)
5150	5.17	35.10%
5200	5.54	36.70%
5250	5.10	37.80%
5300	5.15	37.20%
5350	5.91	40.50%
5400	6.18	40.70%
5450	5.94	40.50%
5500	6.31	41.90%
5550	6.52	41.40%
5600	6.04	40.60%
5650	5.95	41.50%
5700	5.70	42.70%
5750	5.40	43.00%
5800	4.60	42.50%
5850	5.60	42.70%



4. Reference pictures

Isolation to antenna name number

