

Antena Test Report



**Professional 4G/3G/GPS/WIFI antenna design
and supplier**

Customer Name: Rigal

Frequency band: WIFI2.4G/5.8G/BT

Project Name: E25-1080P

Version: A

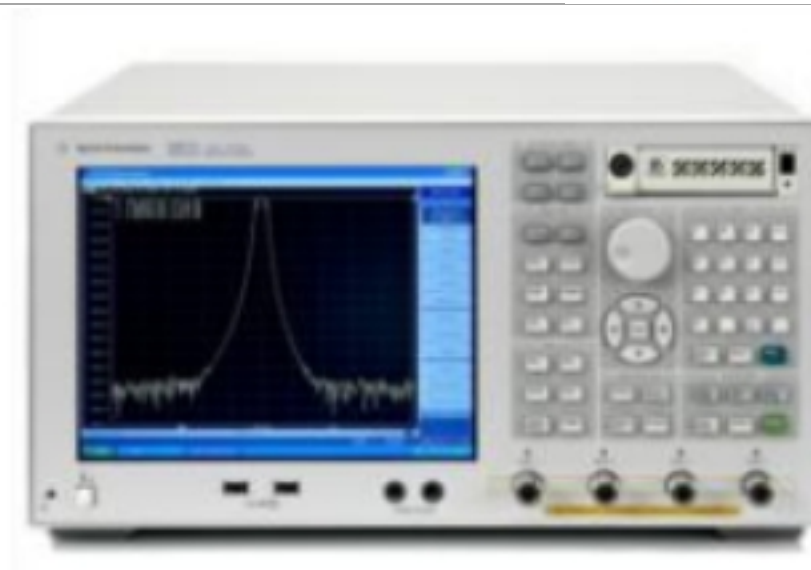
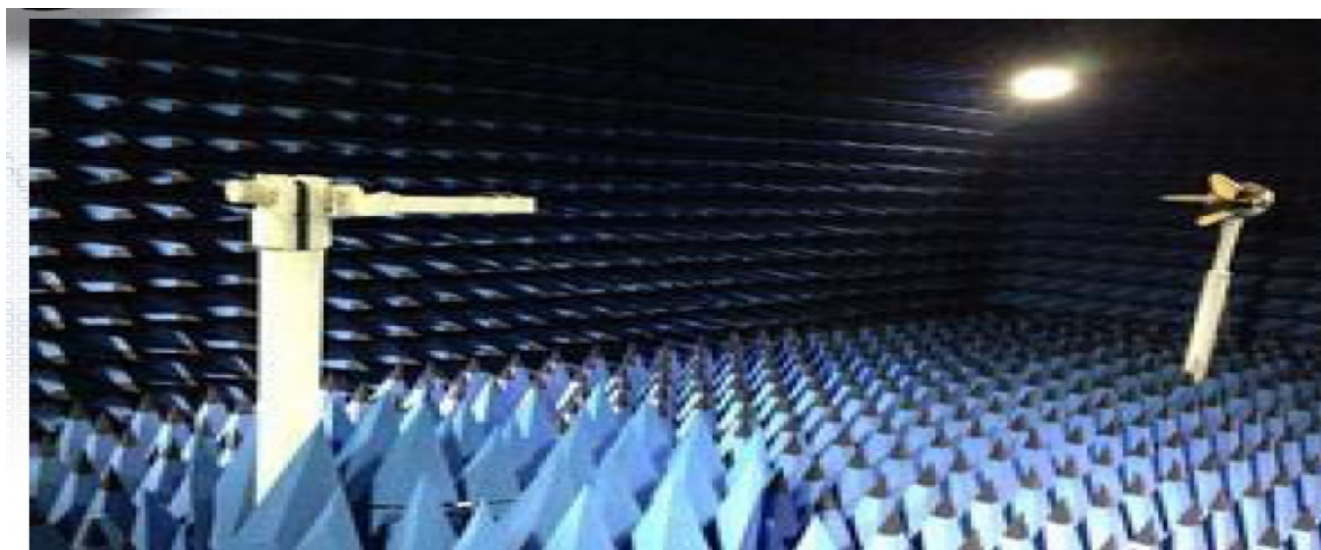
Production date: October 13, 2023

Shenzhen RU I Electronic Technology Co., Ltd

418C, Zone A, Political and Commercial Center, No. 2229 Meilin Avenue, Longhua District, Shenzhen

Test system

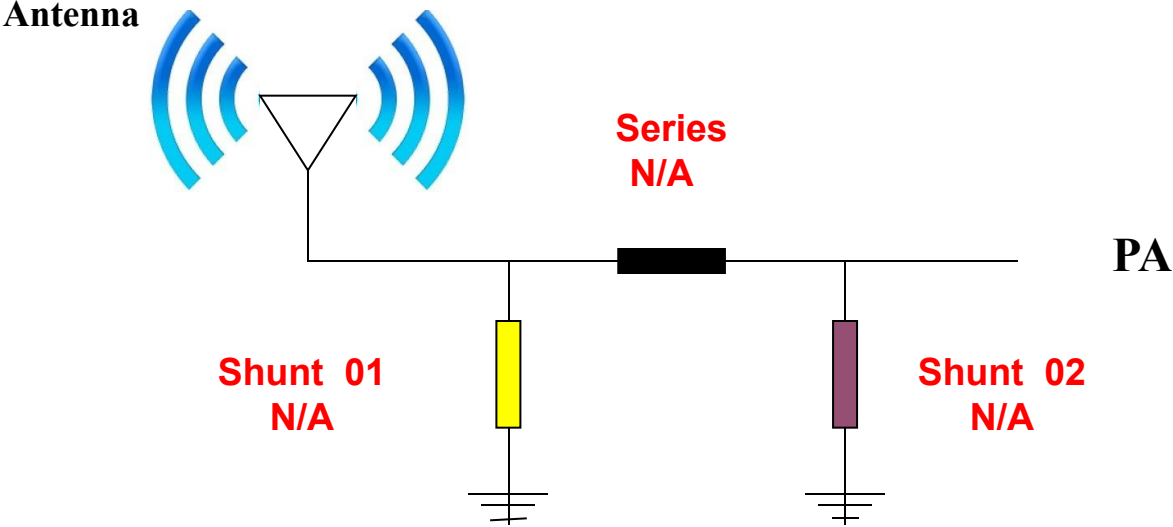
Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	Agilent 8960 E5515C& Agilent 4438C&CMW500 &CMW270 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C



No modifications to the motherboard circuit

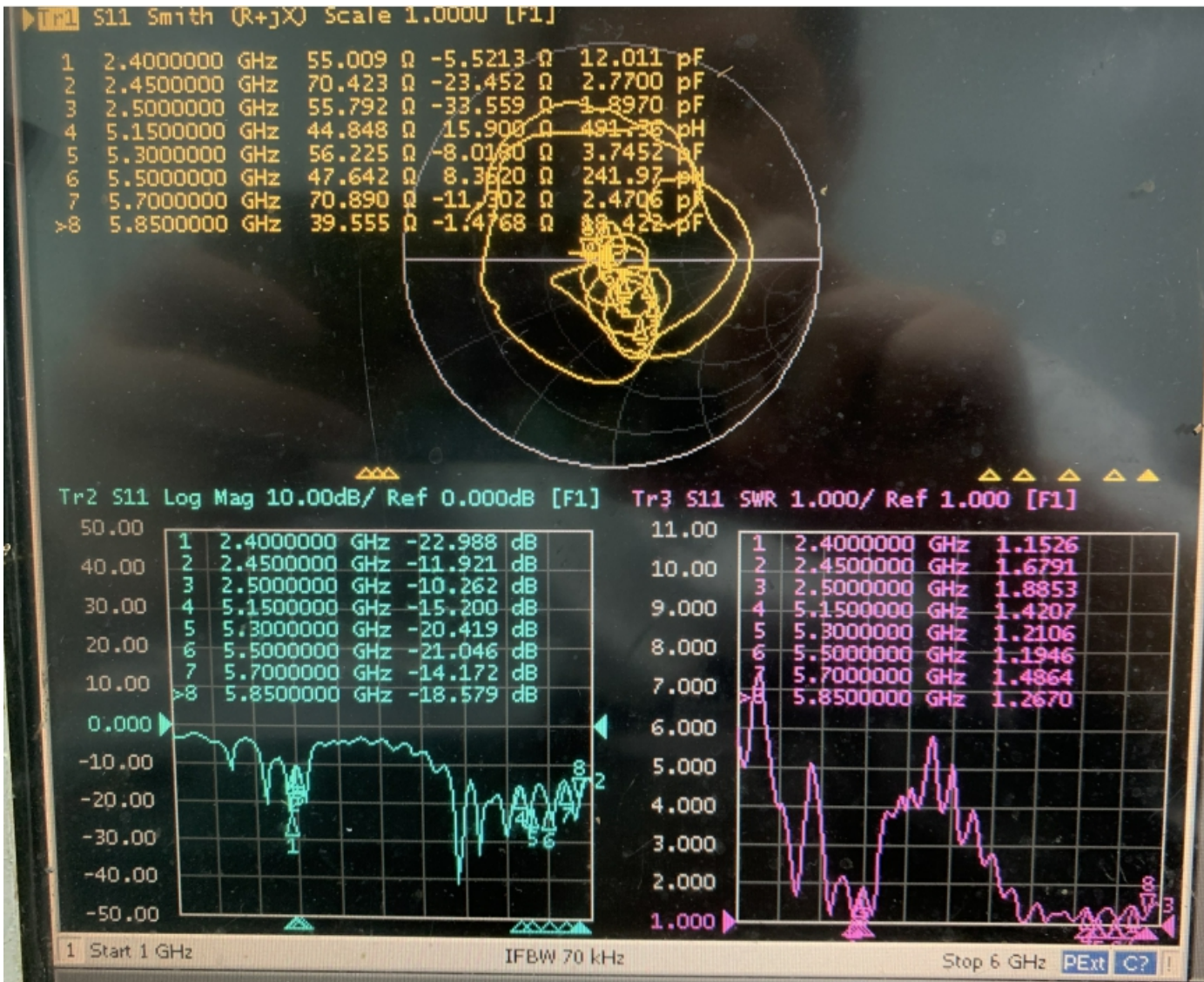


Antenna Matching Network



Location	Description	Vendor
Shunt 01	N/A	N/A
Series	N/A	N/A
Shunt 02	N/A	N/A

S11 SWR /Smith/ Log Mag--BT

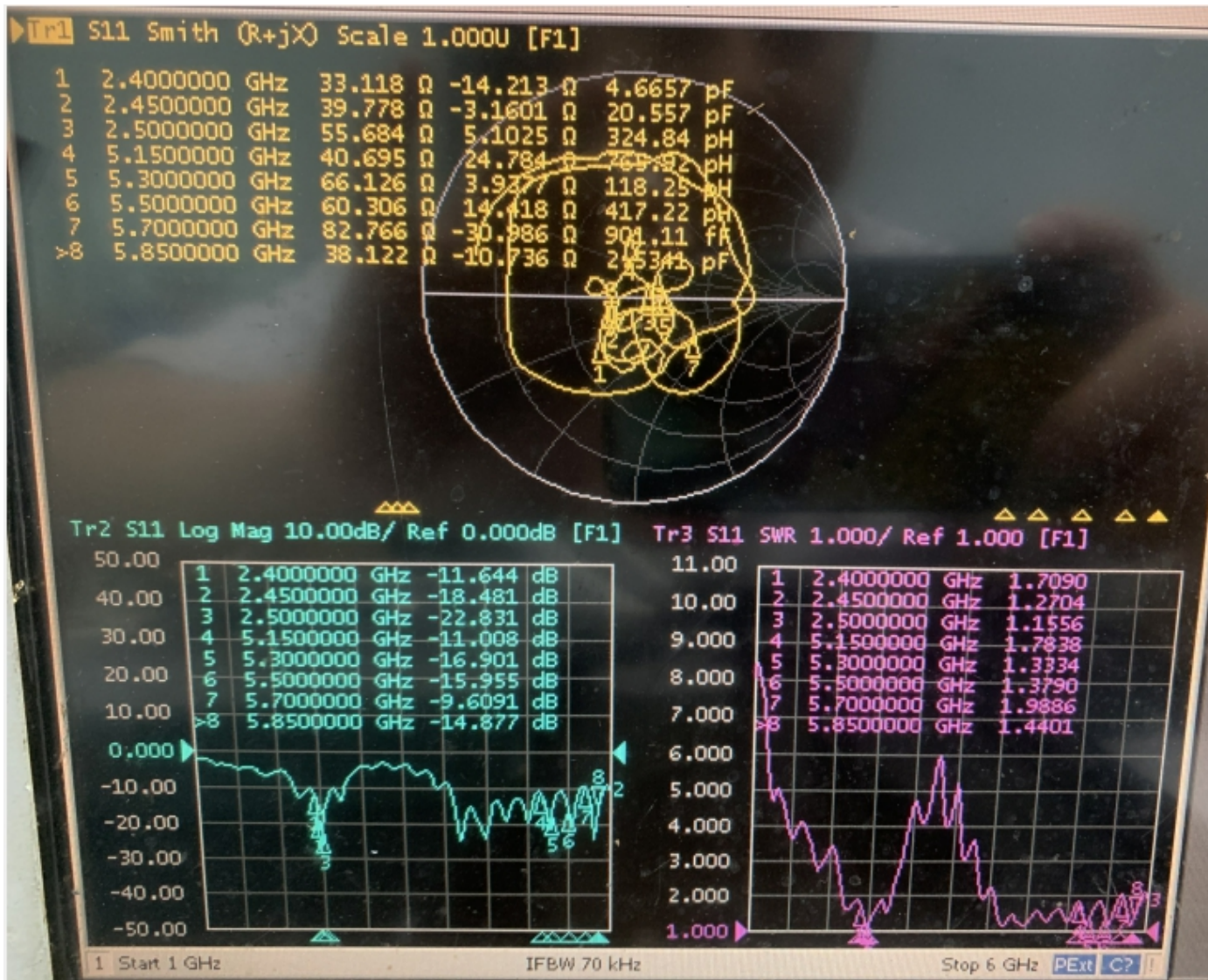


频率 (MHZ)	2400	2450	2500	5150	5300	5500	5700	5850
驻波比	1.15	1.67	1.488	1.42	1.21	1.19	1.48	1.26

频率 (MHZ)	2400	2450	2500	5150	5300	5500	5700	5850
阻抗	55 Ω	70.4 Ω	55.7 Ω	44.8 Ω	56.2 Ω	47.6 Ω	70.8 Ω	39.5 Ω

频率 (MHZ)	2400	2450	2500	5150	5300	5500	5700	5850
回损	-22.9	-11.9	-10.2	-15.2	-20.4	-21	-14.1	-18.5

S11 SWR /Smith/ Log Mag--WIFI



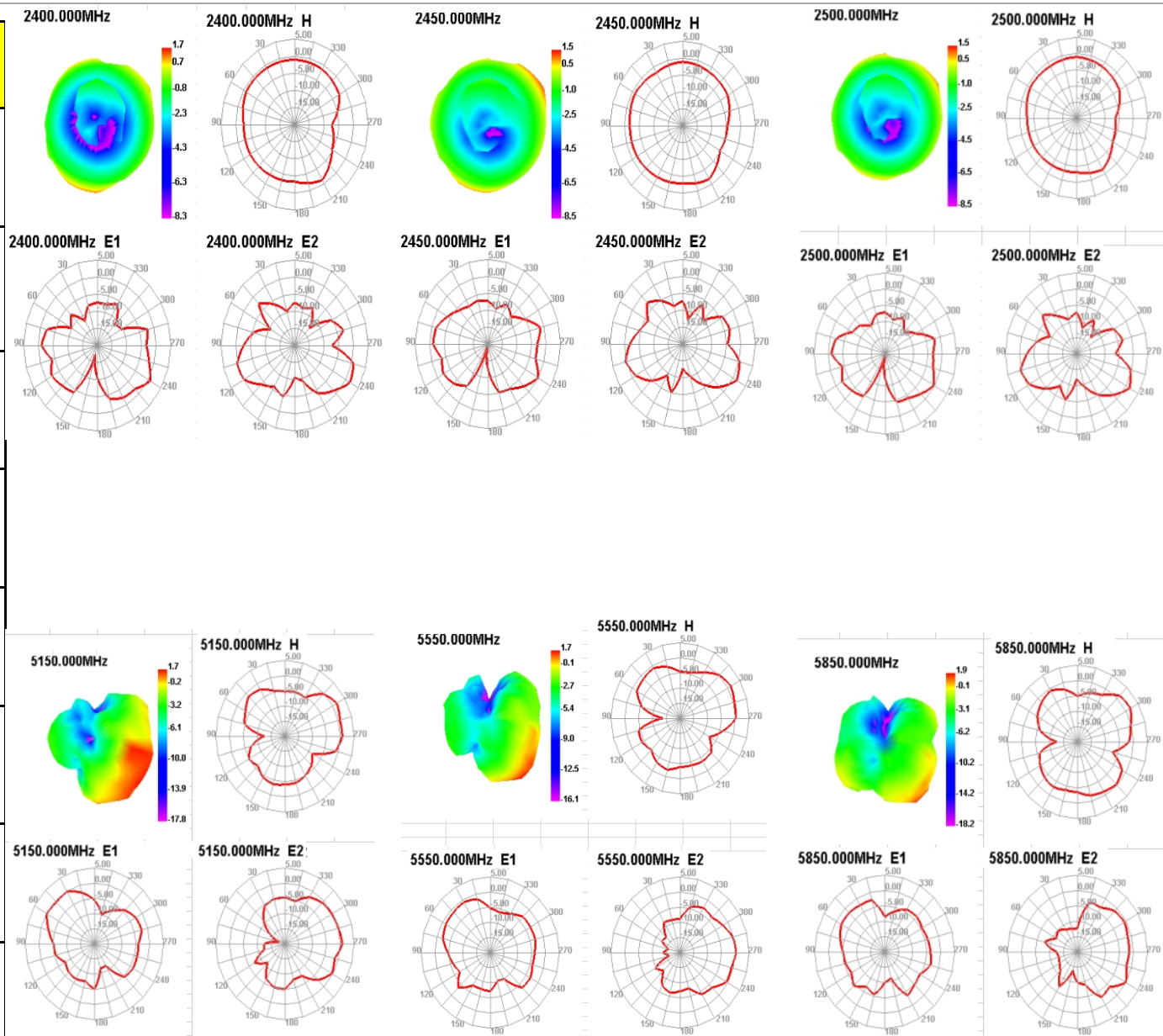
频率 (MHZ)	2400	2450	2500	5150	5300	5500	5700	5850
驻波比	1.7	1.27	1.15	1.78	1.33	1.37	1.98	1.44

频率 (MHZ)	2400	2450	2500	5150	5300	5500	5700	5850
阻抗	33.1 Ω	39.7 Ω	55.6 Ω	40.6 Ω	66.2 Ω	60.3 Ω	82.7 Ω	38.1 Ω

频率 (MHZ)	2400	2450	2500	5150	5300	5500	5700	5850
回损	-11.6	-18.4	-22.8	-11	-16.9	-15.9	-9.6	-14.8

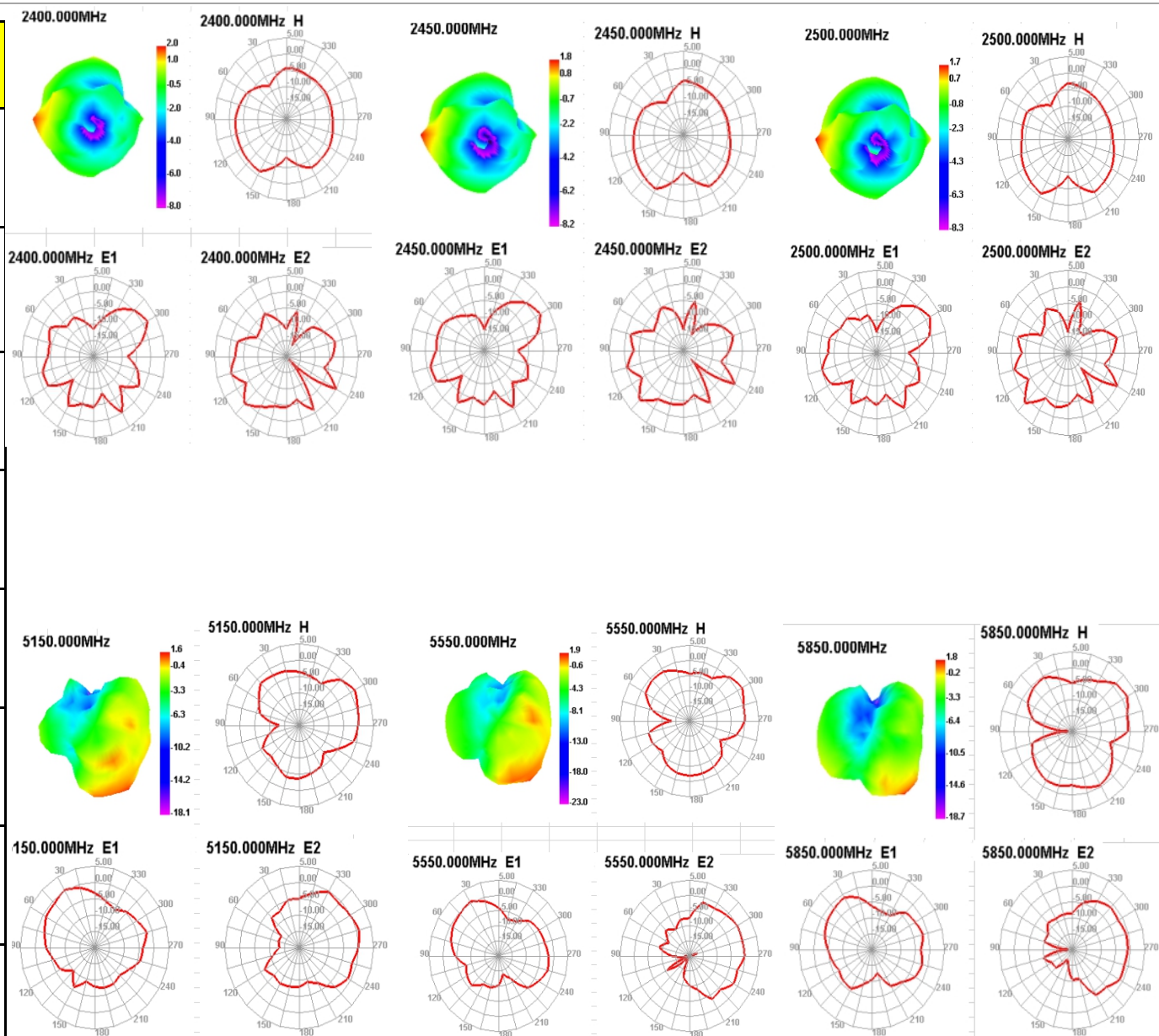
Gain&Efficiency - BT

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	45.69	1.71
2450	44.53	1.52
2500	46.35	1.53
5150	46.24	1.72
5350	44.35	1.65
5550	44.79	1.7
5750	46.83	1.76
5850	46.62	1.87



Gain&Efficiency - WIFI

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	45.63	1.97
2450	45.28	1.86
2500	46.7	1.73
5150	44.02	1.61
5350	45.69	1.73
5550	45.28	1.87
5750	45.17	1.81
5850	46.05	1.75



WIFI OTA Data



2.4G WIFI	TRP			TIS		
Channel	CH1	CH6	CH12	CH1	CH6	CH12
802.11 b , 11M	13.14	13.56	13.07	-80.43	-80.28	-79.63
802.11 g , 54M	12.36	12.37	12.39	-68.51	-67.69	-67.39
802.11 n , MCS7 (65M)	12.34	12.56	12.26	-66.83	-66.12	-65.57

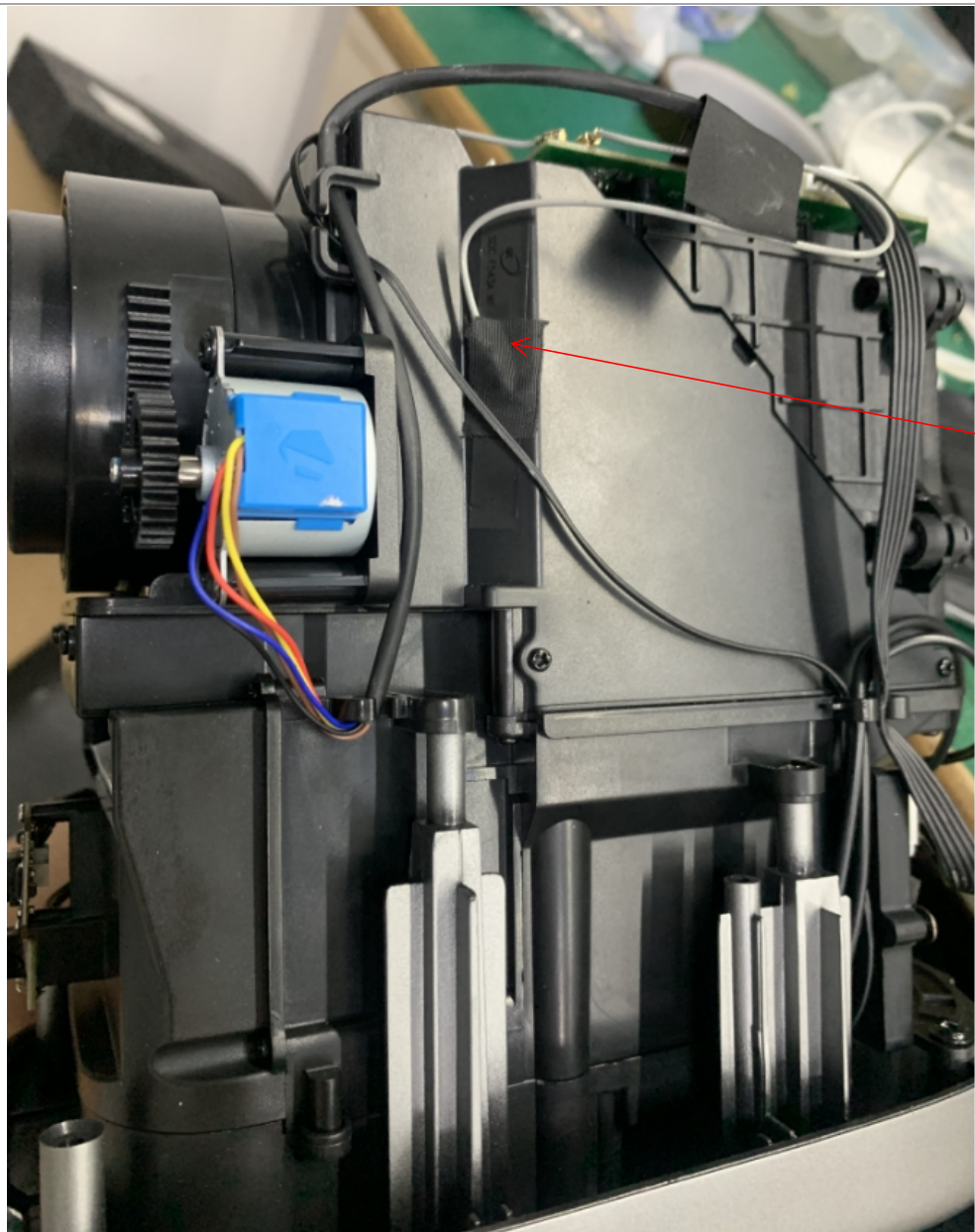
5.8G WIFI	TRP			TIS		
Channel	CH36	CH60	CH165	CH36	CH161	CH165
802.11 A , 54M	12.61	11.77	12.23	-72.41	-71.15	-71.36
802.11 n , MCS7 (65M)	12.39	11.58	12.41	-70.75	-69.62	-69.18

Antenna position installation diagram



BT

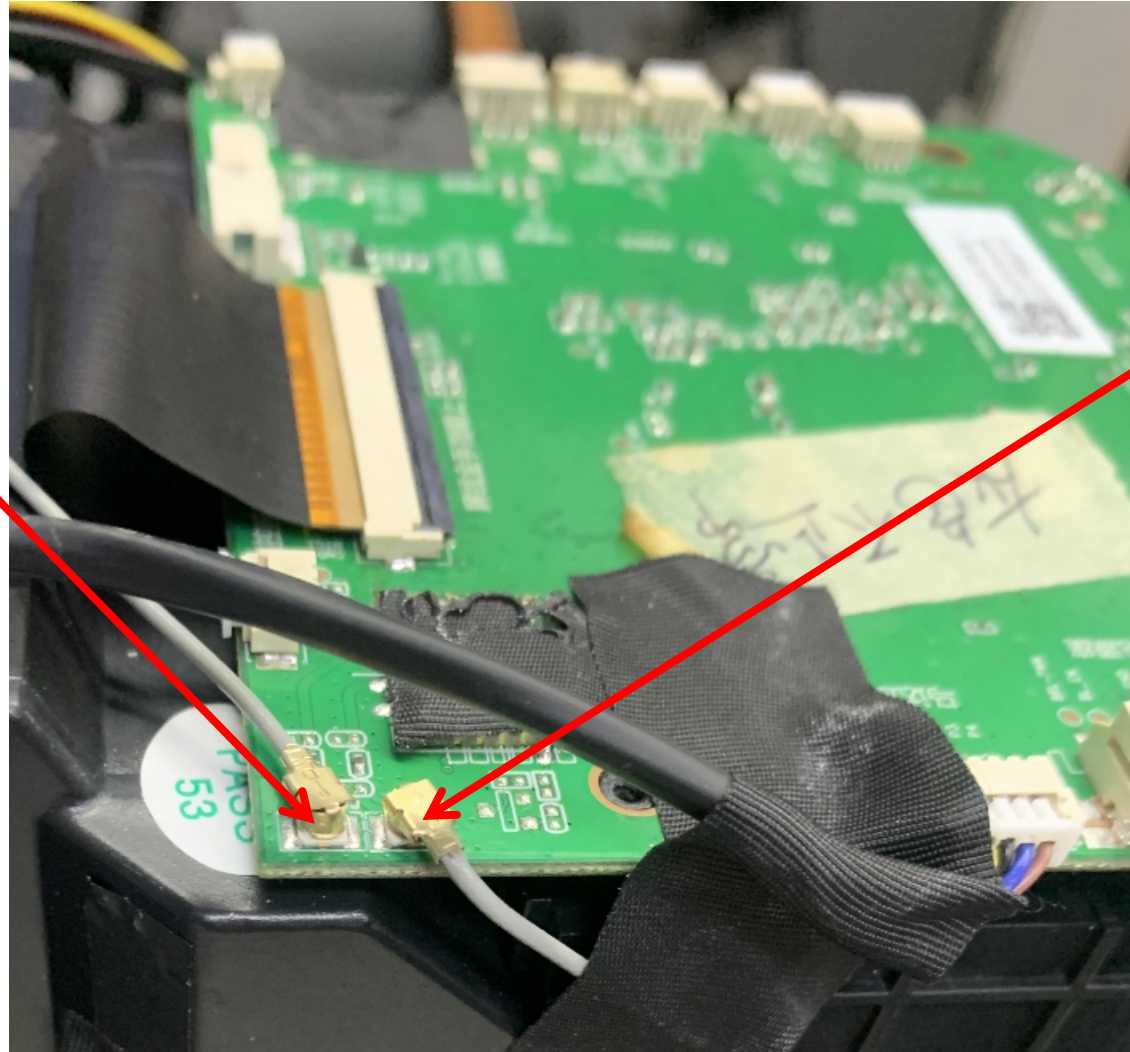
Antenna position installation diagram



WIFI

Installation diagram of plate end seat

BT



WiFi

Thanks