

# Antena Test Report



Customer Name: Rieger

Project name: D1MAX

Wif 2.4g/5.8g/ information technology

Version: a

Date of production: March 17, 2025

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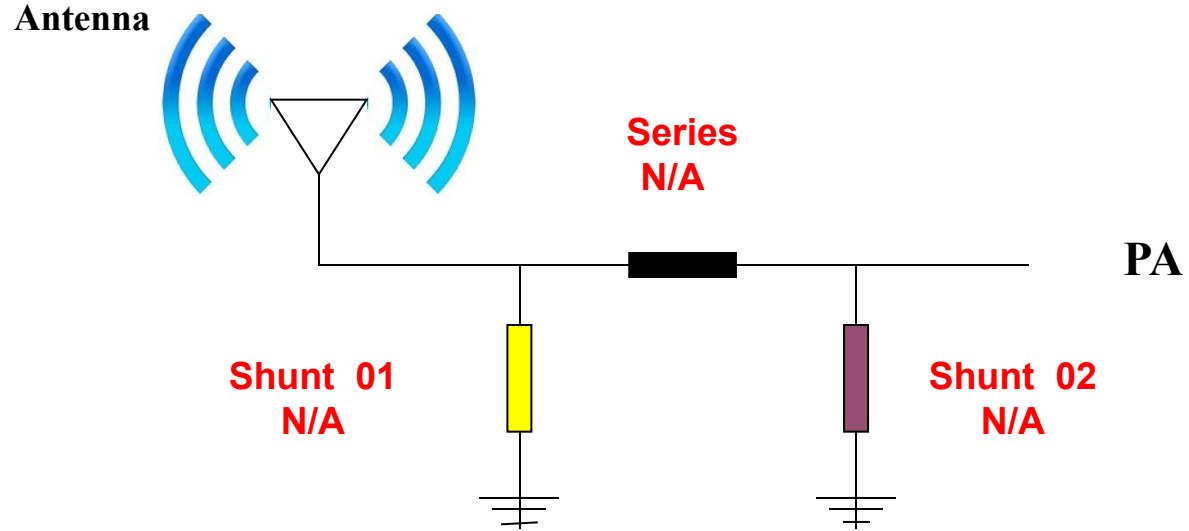
# Test system

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



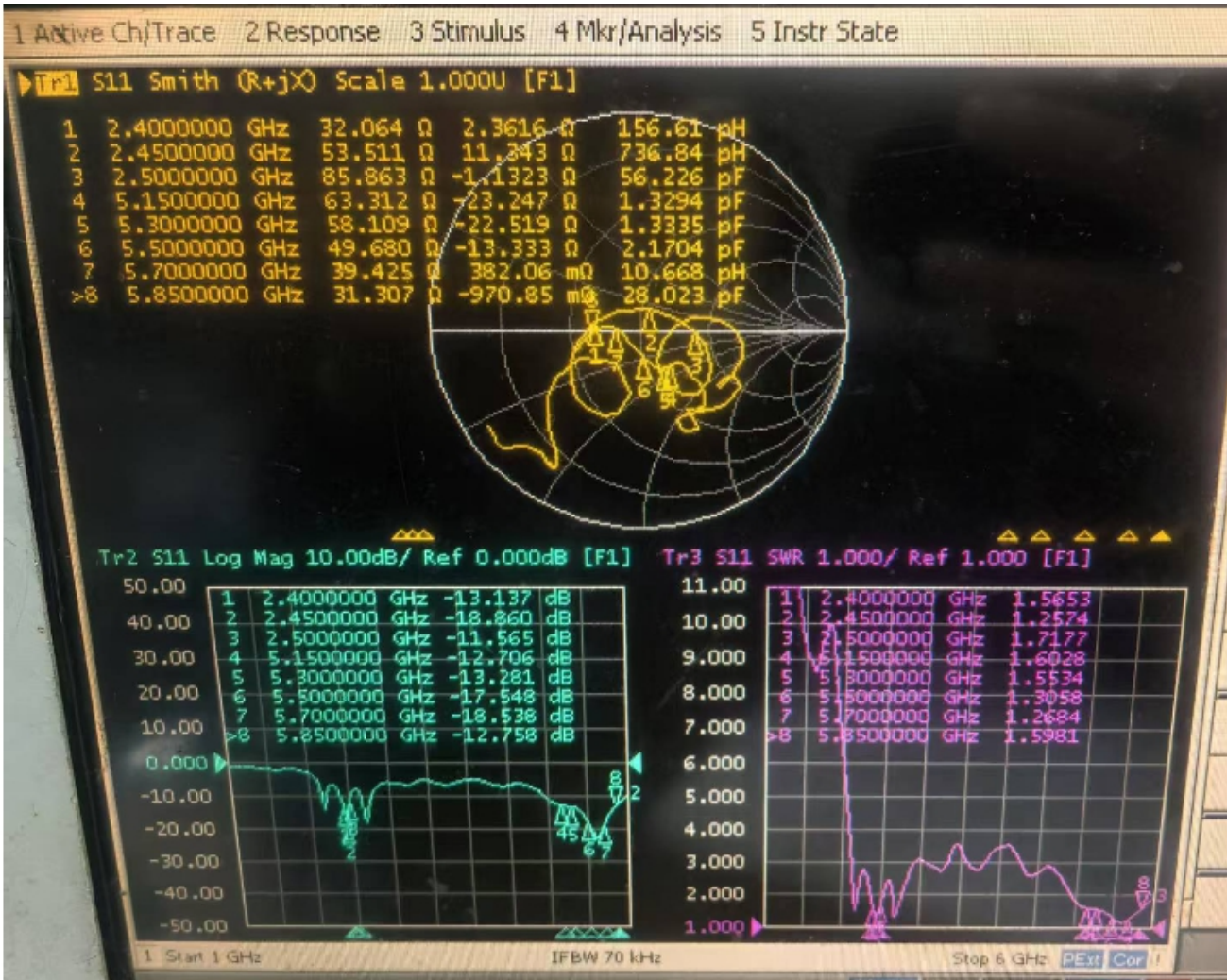
# The motherboard circuit is not modified.

## 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



# S11 SWR /Smith/ Log Mag--WF0



# S11 SWR /Smith/ Log Mag--WF1

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

▶ Tr1 S11 Smith (R+jX) Scale 1.000U [F1]

1	2.4000000	GHz	35.896	Ω	-22.772	Ω	2.9121	pF
2	2.4500000	GHz	32.467	Ω	-7.9778	Ω	8.1428	pF
3	2.5000000	GHz	37.628	Ω	7.9449	Ω	505.79	pH
4	5.1500000	GHz	65.916	Ω	-7.3863	Ω	4.1839	pF
5	5.3000000	GHz	41.390	Ω	-11.770	Ω	2.5514	pF
6	5.5000000	GHz	40.164	Ω	9.2039	Ω	266.33	pH
7	5.7000000	GHz	67.360	Ω	1.0476	Ω	29.251	pH
>8	5.8500000	GHz	54.424	Ω	-8.9401	Ω	3.2481	pF



Tr2 S11 Log Mag 10.00dB/ Ref 0.000dB [F1]

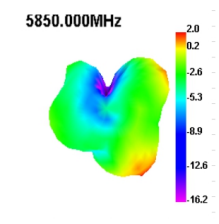
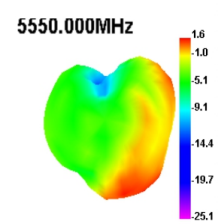
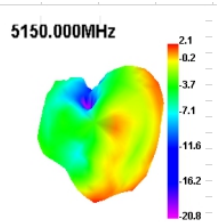
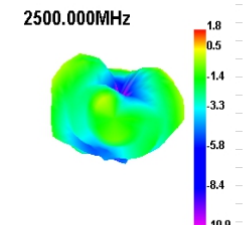
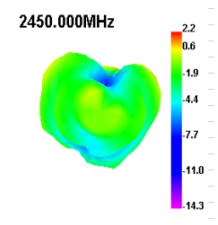
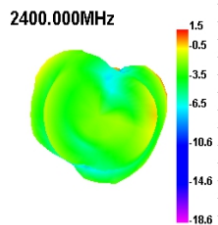


Tr3 S11 SWR 1.000/ Ref 1.000 [F1]



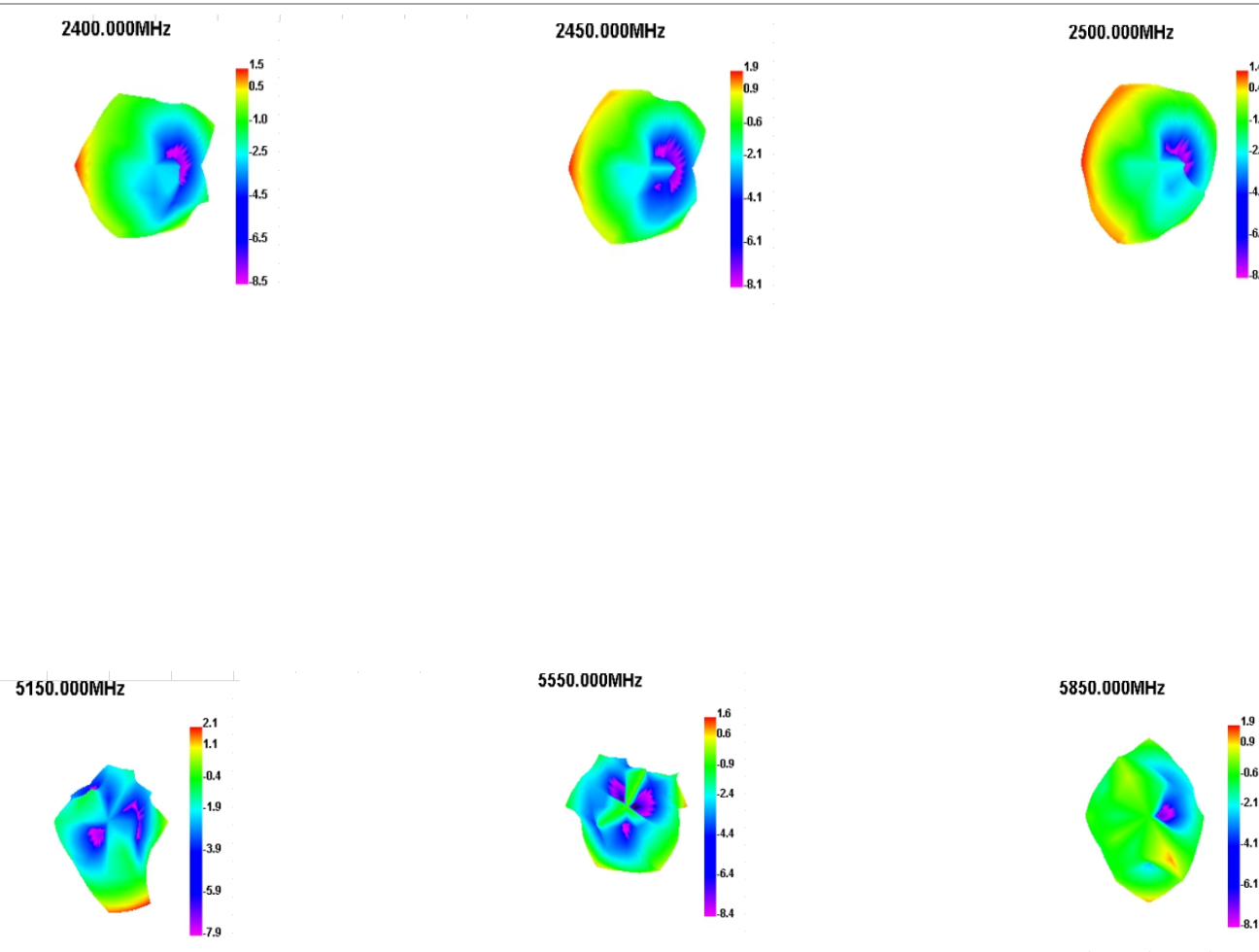
# Return loss-BT

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	46.15	1.53
2450	49.29	2.22
2500	48.4	1.77
5150	45.68	2.05
5350	46.59	1.71
5550	47.21	1.63
5750	47.43	1.62
5850	45.55	1.98



# Return loss-WF0

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	47.46	1.5
2450	48.29	1.86
2500	56.93	1.37
5150	50.71	2.12
5350	49.32	1.6
5550	48.53	1.63
5750	52.62	1.66
5850	50.44	1.87

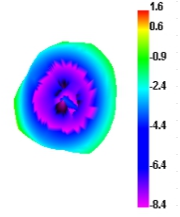




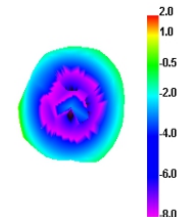
# Return loss-WF 1

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	45.37	1.62
2450	46.41	1.96
2500	45.56	1.89
5150	46.72	1.7
5350	47.06	1.83
5550	47.57	1.86
5750	47.18	1.62
5850	46.32	1.77

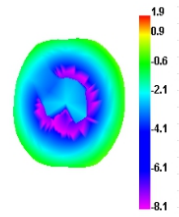
2400.000MHz



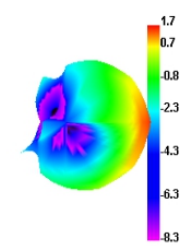
2450.000MHz



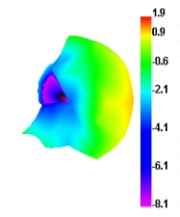
2500.000MHz



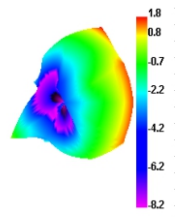
5150.000MHz



5550.000MHz



5850.000MHz

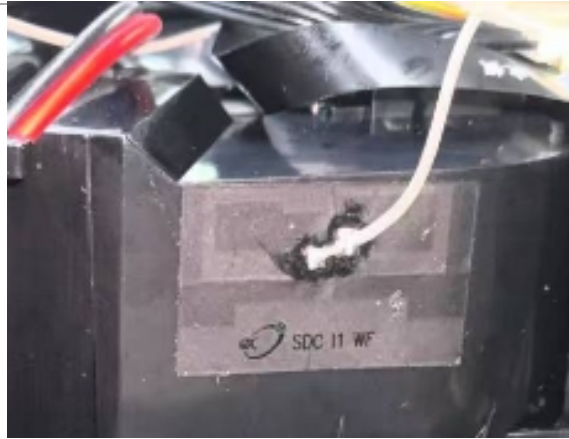


# WIFI OTA Data

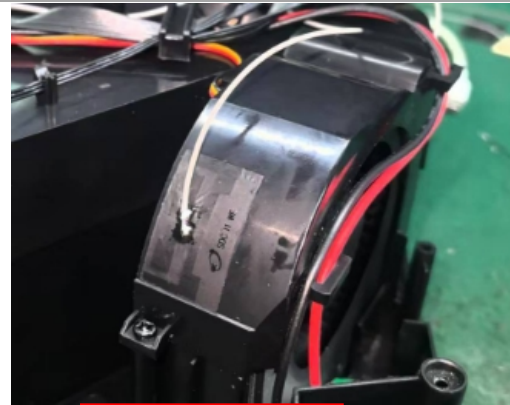
2.4G WIFI	TRP			TIS		
Channel	CH1	CH6	CH12	CH1	CH6	CH12
802.11 <b>b</b> , 11M	8.67	8.86	8.62	-81.04	-80.57	-80.36
802.11 <b>g</b> , 54M	8.16	8.17	8.68	-68.83	-68.68	-68.72
802.11 <b>n</b> , MCS7 (65M)	8.62	8.85	8.63	-66.79	-66.08	-66.91

5.8G WIFI	TRP			TIS		
Channel	CH36	CH60	CH165	CH36	CH161	CH165
802.11 <b>A</b> , 54M	13.19	13.36	13.22	-73.79	-73.67	-73.27
802.11 <b>n</b> , MCS7 (65M)	12.56	12.29	12.17	-71.39	-71.54	-71.62

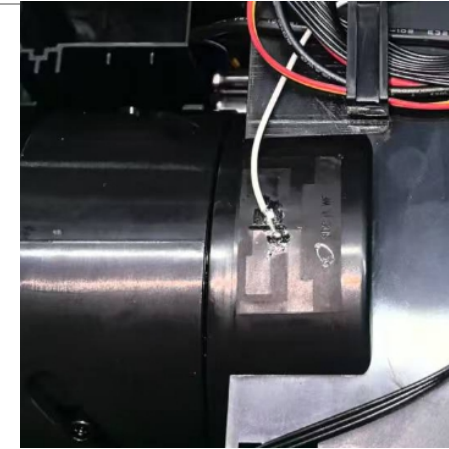
# Antenna position installation diagram



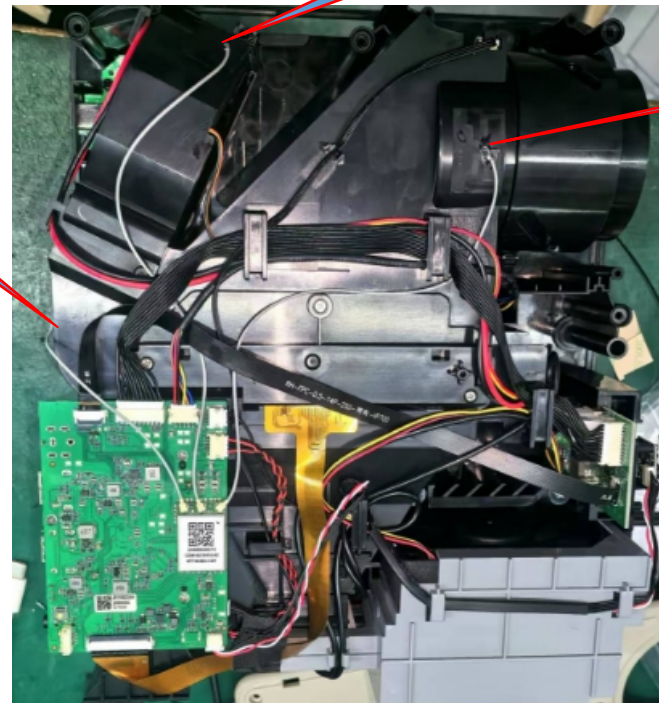
BT Antenn



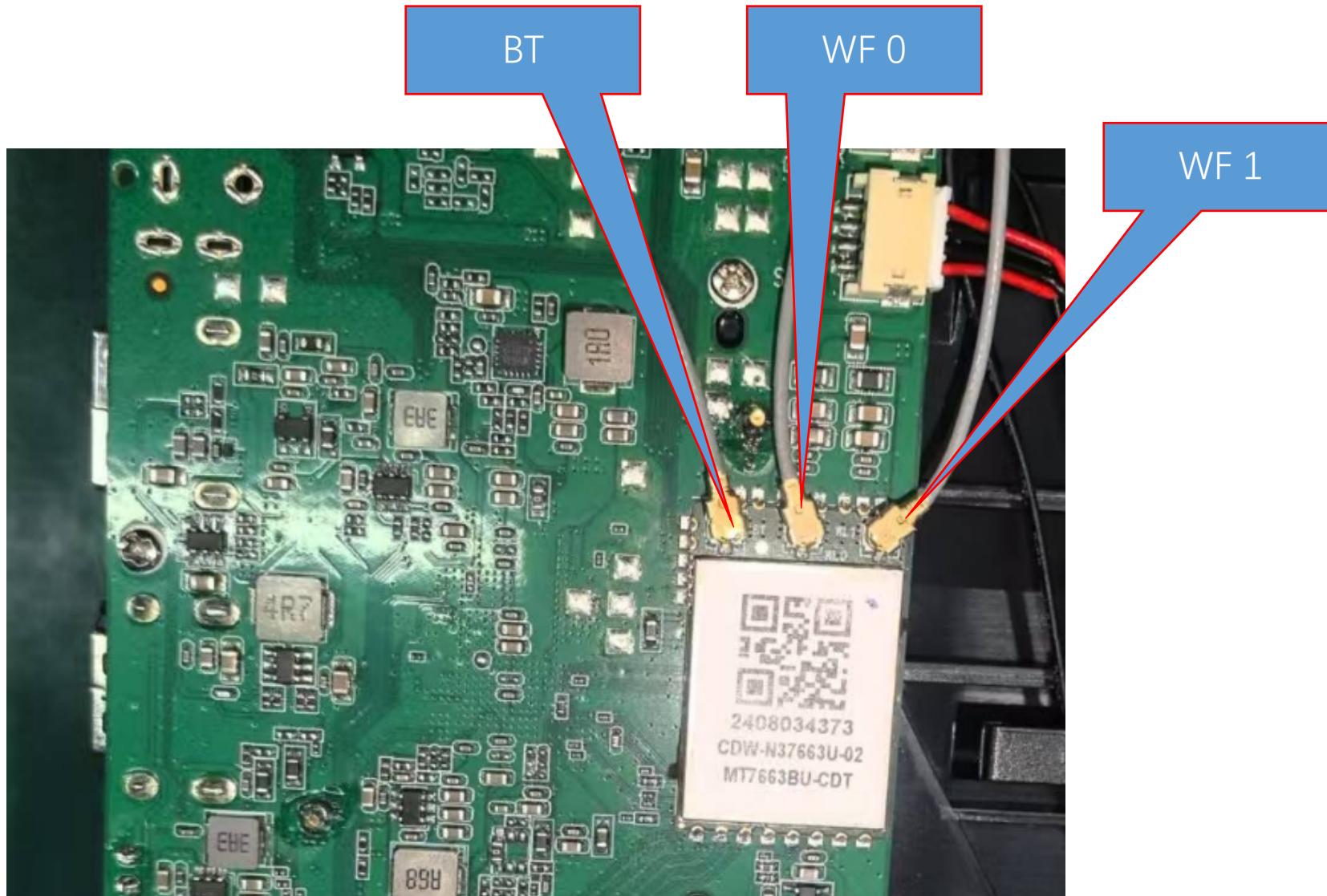
WIFI 0



WIFI 1



# Installation position of plate end seat



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Thanks