

Antenna specification sheet

Customer Name: LIGHTCOMM

Project name: Tab A7 (MID7025-AC)

Date: 2024. 05. 22

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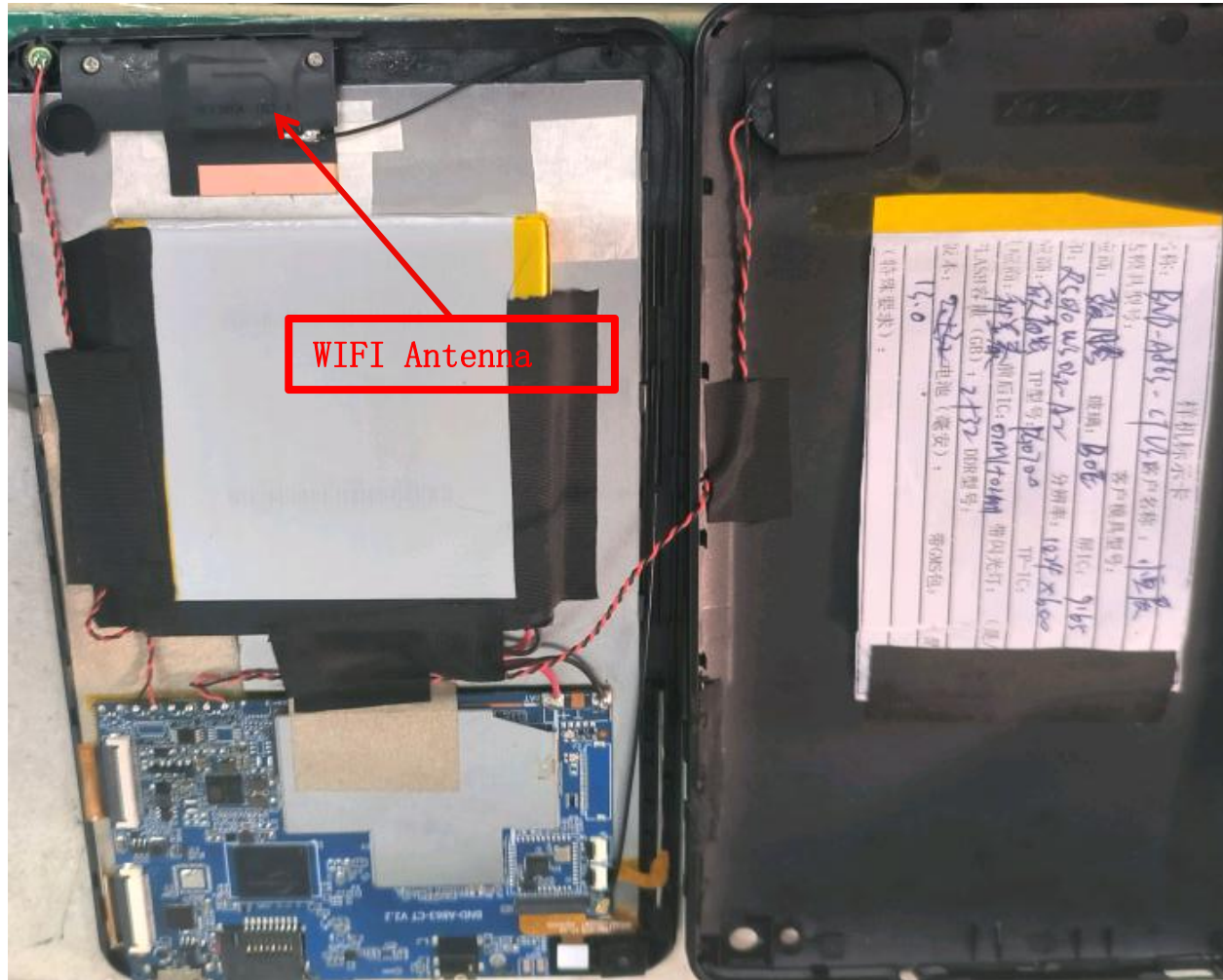
1. Project Description

Number of antennas	Machine type
1	wifi Tablet

2. Antenna Overview

Antenna NO.	NAME	Working frequency/MHZ	Material/Structure
1	WIFI	2400MHZ/2500MHZ	FPC

Antenna layout



WIFI antenna S11



WIFI Antenna active data

50% on screen+Bluetooth not turned on in the status bar

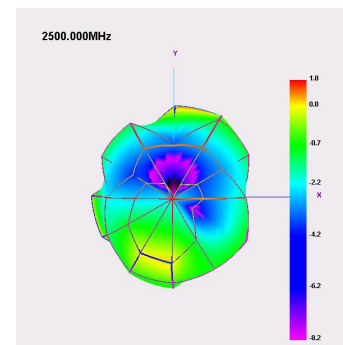
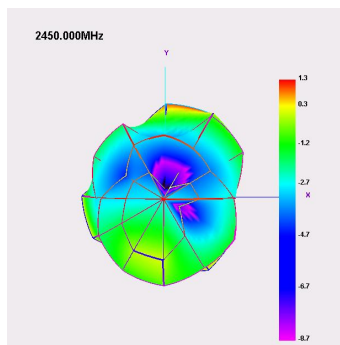
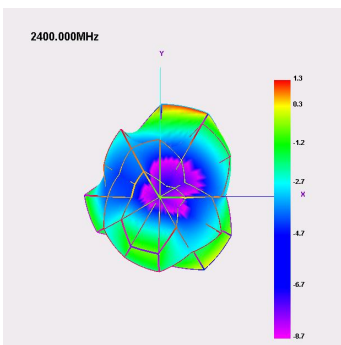
Machine NO.	channel	b mode (11MHz)		g mode (54MHz)		n mode (MCS7)		a mode (54MHz)	
		TRP	TIS	TRP	TIS	TRP	TIS	TRP	TIS
1	1	11.9	-80.2	11.41	-67.03	12.33	-64.5	NA	NA
	7	11.93	-78.35	11.09	-62.85	11.04	-64.35	NA	NA
	13	11.38	-79.52	9.46	-66.51	10.42	-64.56	NA	NA
b mode (11MHz)	Within the location	no wifi no BT		open wifi no BT		no wifi open BT		no wifi no BT	
	1	11.9	-80.2	11.69	-78.26	11.7	-43.88	11.68	-43.32
	7	11.93	-78.35	11.81	-78.65	11.92	-46.06	11.84	-45.25
	13	11.38	-79.52	11.3	-79.26	11.5	-46.11	11.34	-45.34

WiFi throughput

Iperf throughput test						
model	MID7025-AC (BND-A863-CT MAINBOARD)	module	with mainboard	Software version	Magic_Iperf	
Machine NO.	Frequency band	distance	Testing angle	test data (TX) 1min mean value	test data (RX) 1min mean value	remark (Swap times)
1	2. 4G	2. 4G WIFI (R&D environment 15m)	0°	50.2 Mbps	62.3 Mbps	0
			90°	51.6 Mbps	76.0 Mbps	0
			180°	50.8 Mbps	61.2 Mbps	0
			270°	49.0 Mbps	69.0 Mbps	0
	5G	-	0°	-	-	0
			90°	-	-	0
			180°	-	-	0
			270°	-	-	0

WIFI Antenna efficiency

Passive Test For 2.4Gwifi								
Freq	Effi	Effi	Gain	Gain	UHS	DHIS	Max	Min
(MHz)	(%)	(dB)	(dBi)	(dBd)	(%)	(%)	(dB)	(dB)
2400	33.07	-4.81	1.31	-0.84	8.456	24.613	1.31	-18.35
2410	30.58	-5.15	0.8	-1.35	7.983	22.593	0.8	-18.69
2420	35.95	-4.44	1.36	-0.79	9.568	26.377	1.36	-18.69
2430	39.93	-3.99	1.77	-0.38	10.898	29.037	1.77	-20.01
2440	44.33	-3.53	2.16	0.01	12.484	31.845	2.16	-19.78
2450	36.79	-4.34	1.33	-0.82	10.557	26.229	1.33	-21.16
2460	36.42	-4.39	1.3	-0.85	10.646	25.775	1.3	-21.14
2470	32.61	-4.87	1.58	-0.57	7.928	24.678	1.58	-18.77
2480	30.97	-5.09	1.43	-0.72	7.454	23.521	1.43	-20.14
2490	31.73	-4.98	0.83	-1.32	9.824	21.911	0.83	-25.9
2500	39.73	-4.01	1.83	-0.32	12.484	27.245	1.83	-20.67

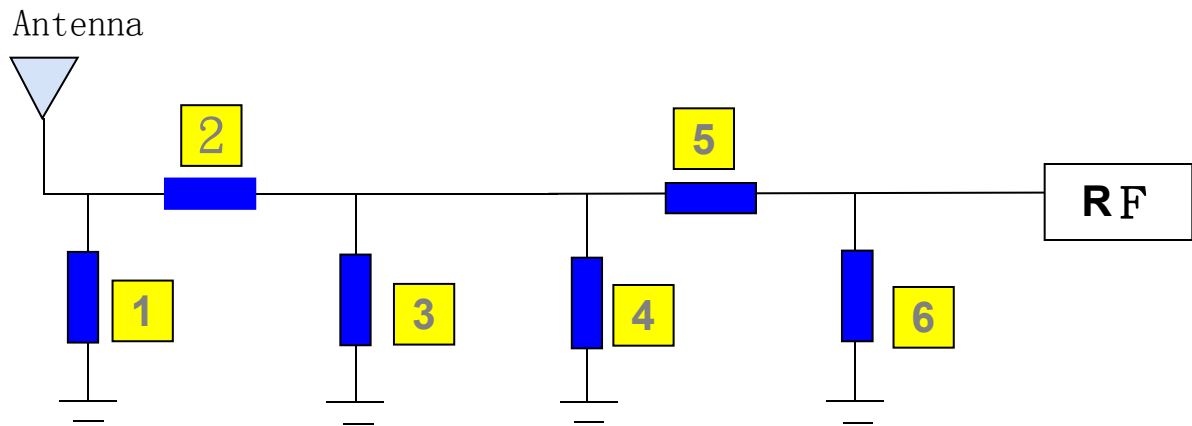


WIFI antenna signal strength measurement image(data)



Testing location: R&D Office
Test time: 14:00-14:30
Test distance: 10m-15m
signal intensity : -40dBm~-36dBm

Antenna matching



Antenna matching not changed

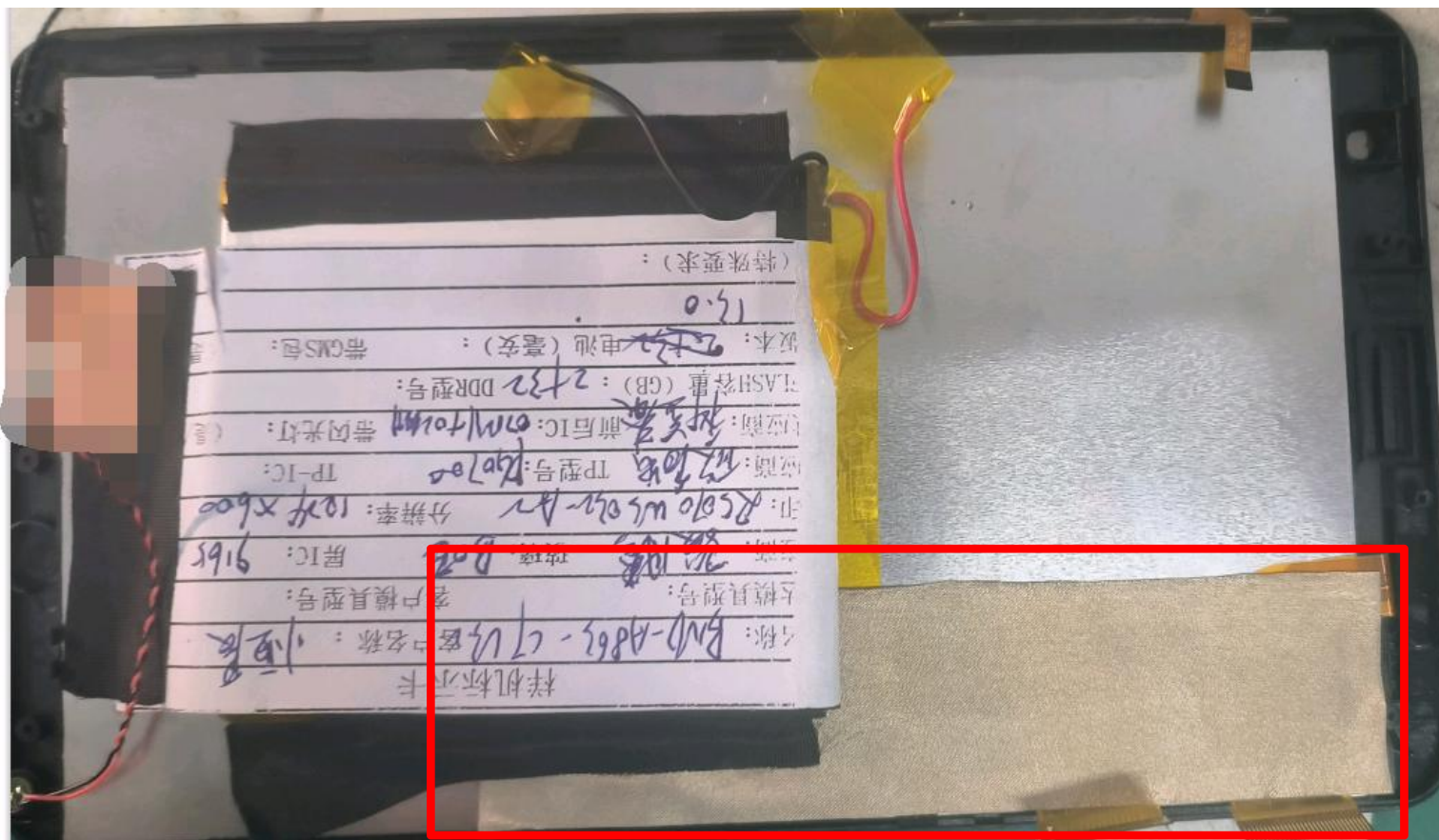
Main antenna	1	2	3	4	5	6	remark
Original matching							
Change Matching							

Environmental treatment and assembly instructions



- 1、On the back of the motherboard, as shown by the red box, a 1mm thick conductive sponge is pasted for grounding;

Environmental treatment and assembly instructions



- 2、As shown in the red box, use a conductive cloth with a length of about 12cm and a width of about 6cm to shield and ground the cable.