

➤ **Customer:** Duoke

➤ **Project:** DK094B

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➤ **Date:** March 10, 2025

Catalogue

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1.Basic information

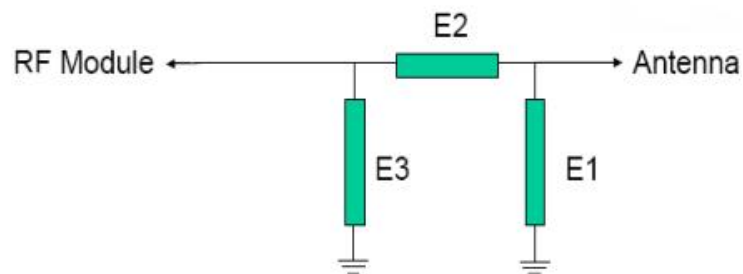
Frequency band:

Others:

80211.a/b/g/n/ax 2.4G/5G,Bluetooth.

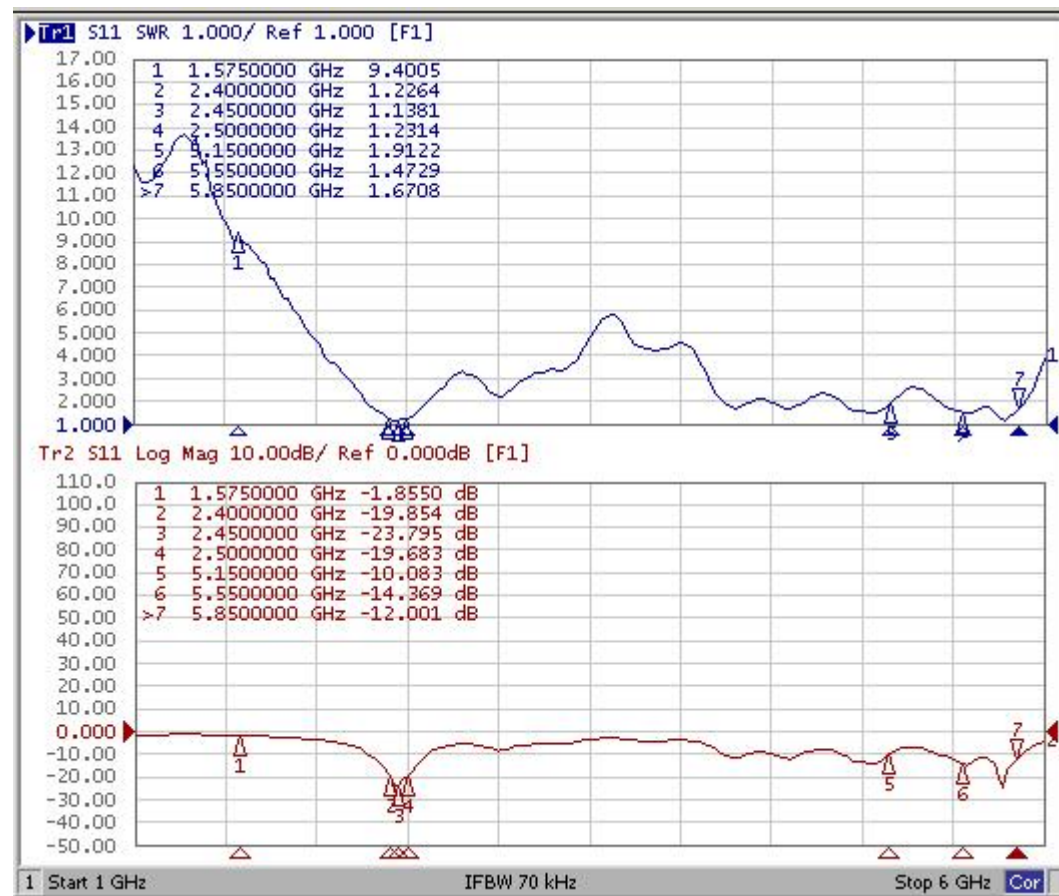
2.Matching circuit

antenna



Element	Value
E1 (0201)	NA
E2 (0201)	0 Ω
E3 (0201)	NA

3. Antenna return loss



4. Gain

Band	Avg Gain/dBi	Peak Gain/dBi
2400-2500MHz	-4.25	1.38
5150-5845MHz	-5.11	2.46

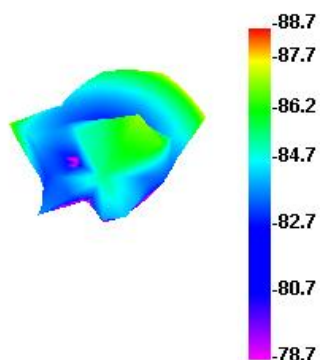
5.OTA

5.1 Antenna OTA

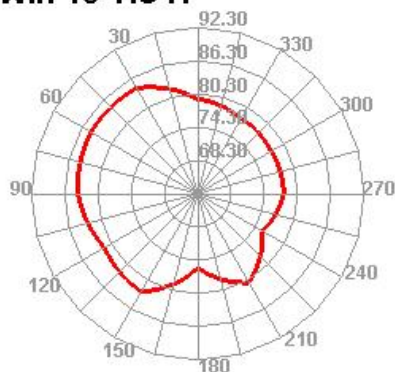
Band	Channel	TRP/dBm	TIS/dBm
2.4-b (11M)	1	11.4	
	6	11.9	
	13	12.2	-82.3
2.4-g (54M)	1	11.5	
	6	12.0	
	13	12.2	-70.7
2.4-n (MCS7)	1	11.3	
	6	12.1	
	13	12.4	-65.6
5-a (54M)	36	11.9	
	149	13.3	
	165	12.1	-71.3
5-n (MCS7)	36	11.1	
	149	13.4	
	165	12.3	-67.7
5-ax (MCS8)	36	11.0	
	149	13.1	
	165	12.2	-64.4

5.2 Passive

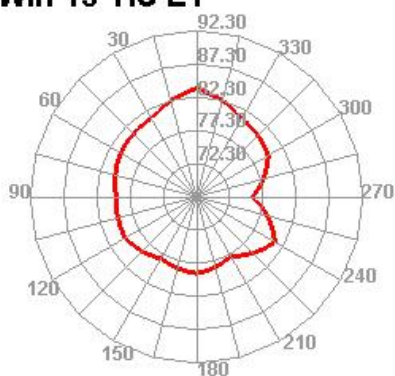
Wifi 13 TIS



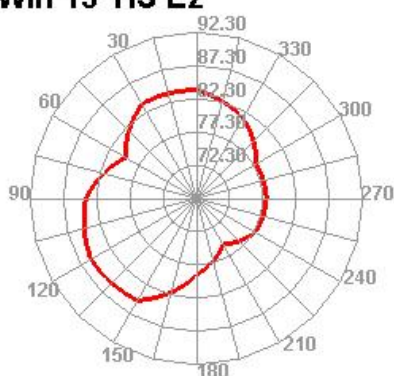
Wifi 13 TIS H



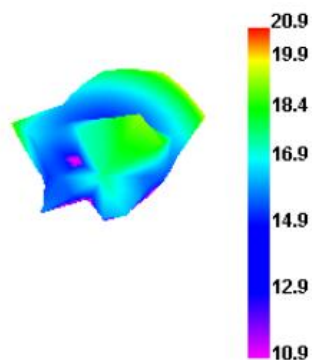
Wifi 13 TIS E1



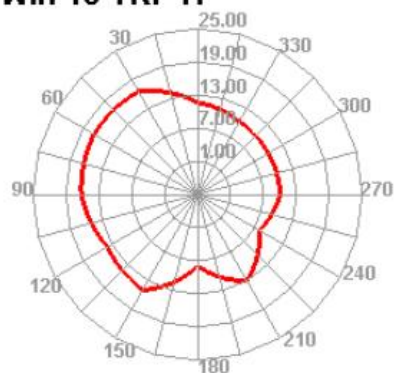
Wifi 13 TIS E2



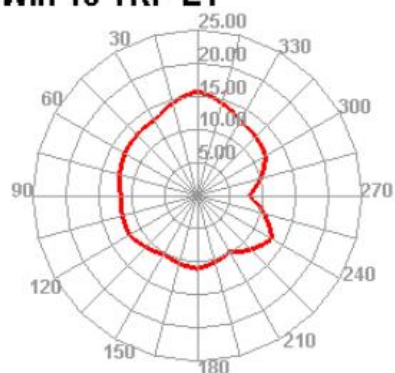
Wifi 13 TRP



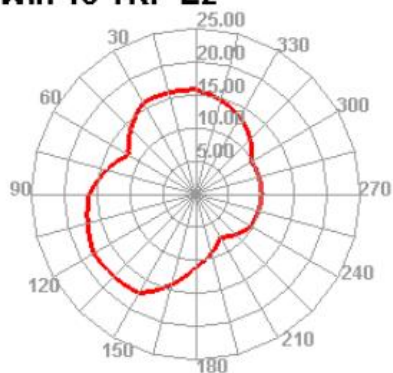
Wifi 13 TRP H



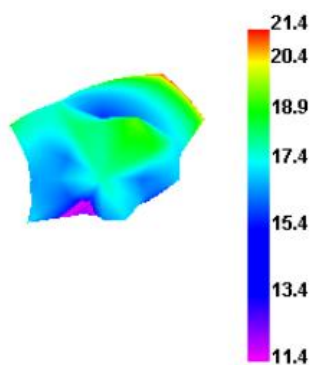
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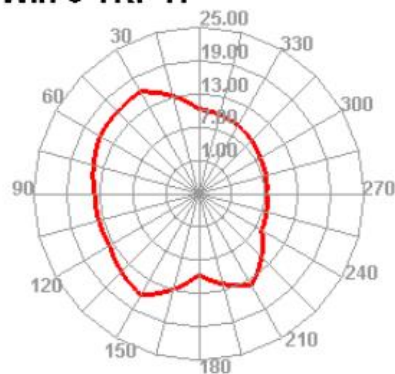
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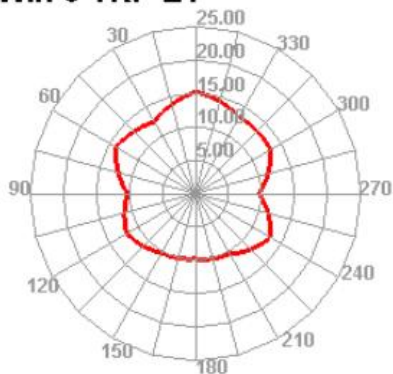
Wifi 6 TRP



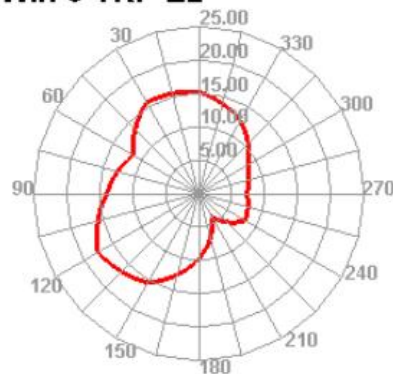
Wifi 6 TRP H



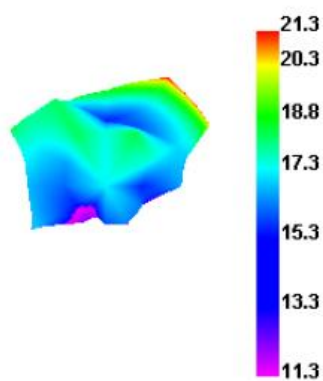
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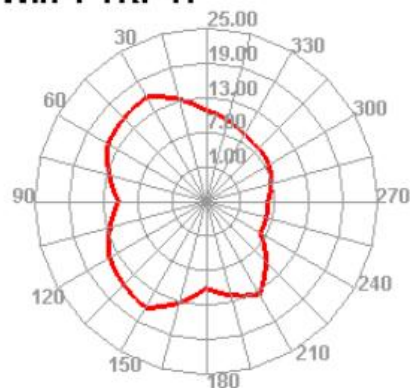
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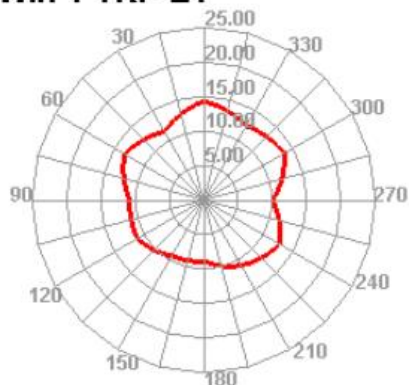
Wifi 1 TRP



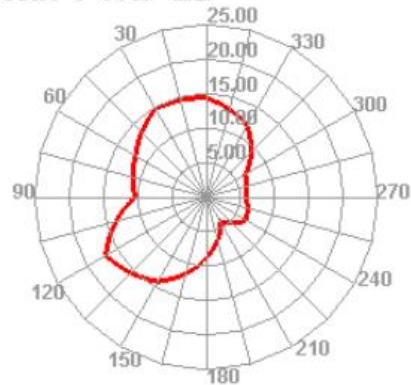
Wifi 1 TRP H



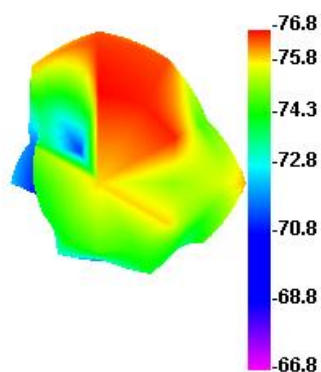
Wifi 1 TRP E1



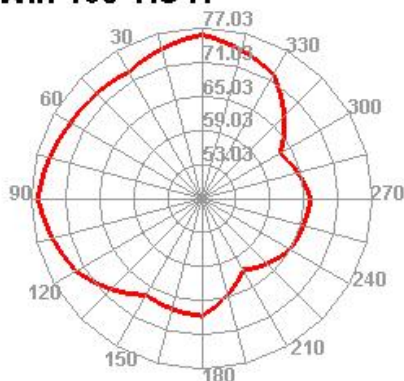
Wifi 1 TRP E2



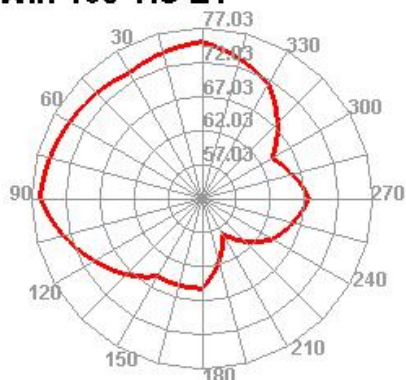
Wifi 165 TIS



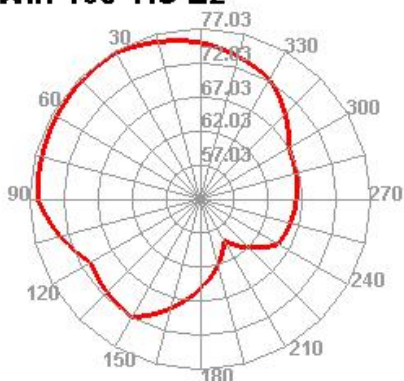
Wifi 165 TIS H



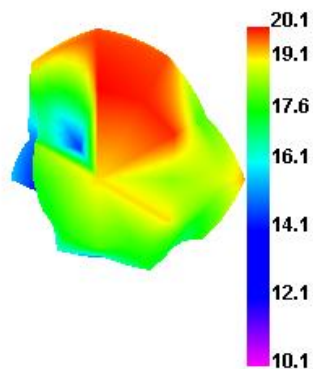
Wifi 165 TIS E1



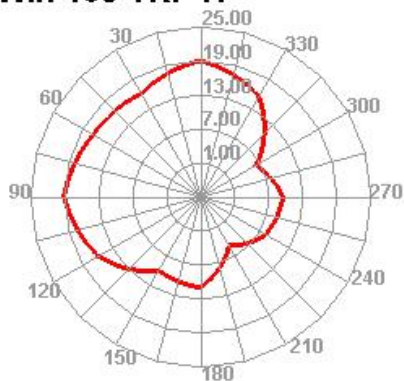
Wifi 165 TIS E2



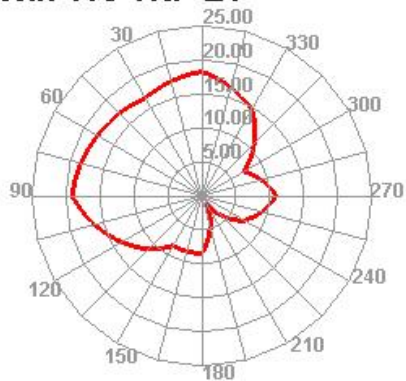
Wifi 165 TRP



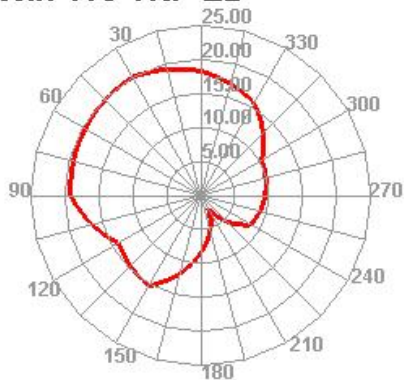
Wifi 165 TRP H



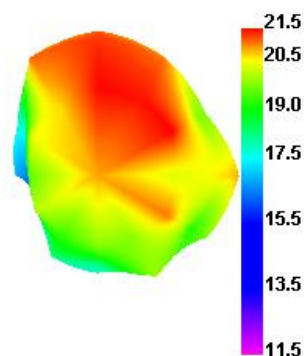
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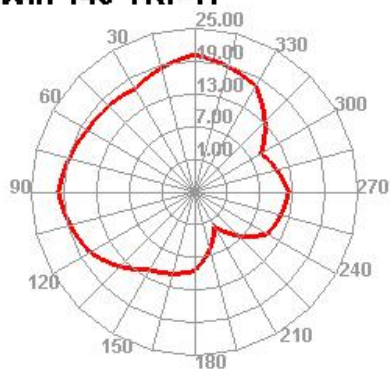
Wifi 165 TRP E2



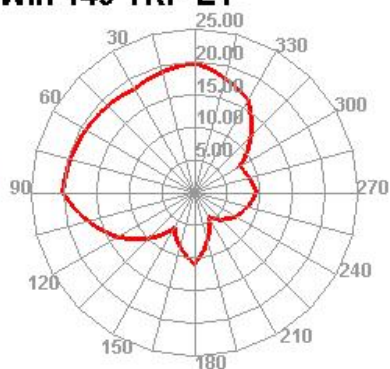
Wifi 149 TRP



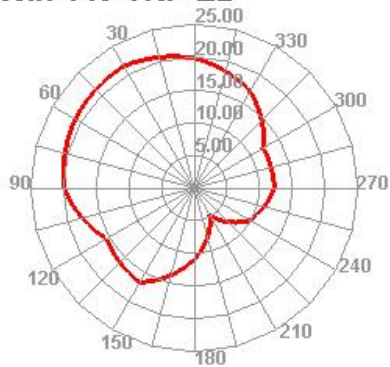
Wifi 149 TRP H



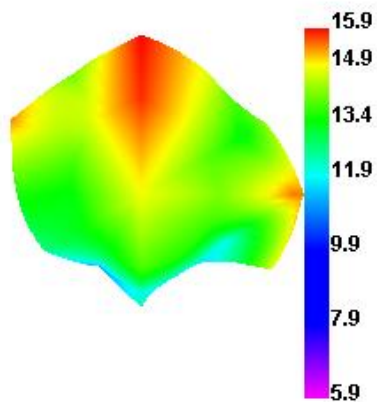
Wifi 149 TRP E1



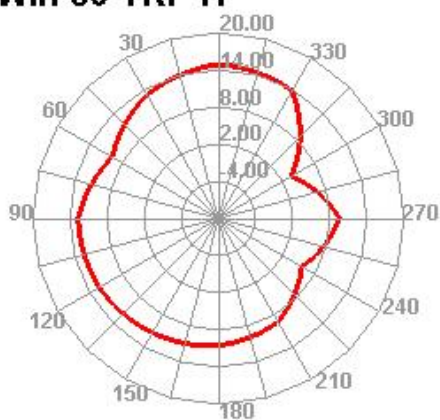
Wifi 149 TRP E2



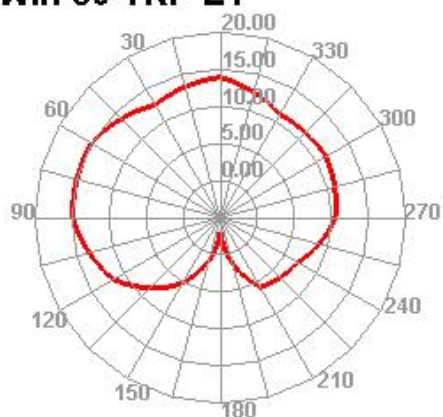
Wifi 36 TRP



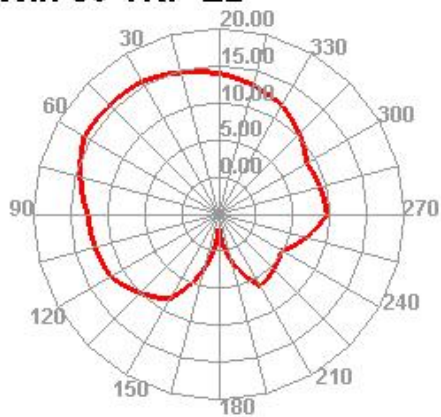
Wifi 36 TRP H



Wifi 36 TRP E1

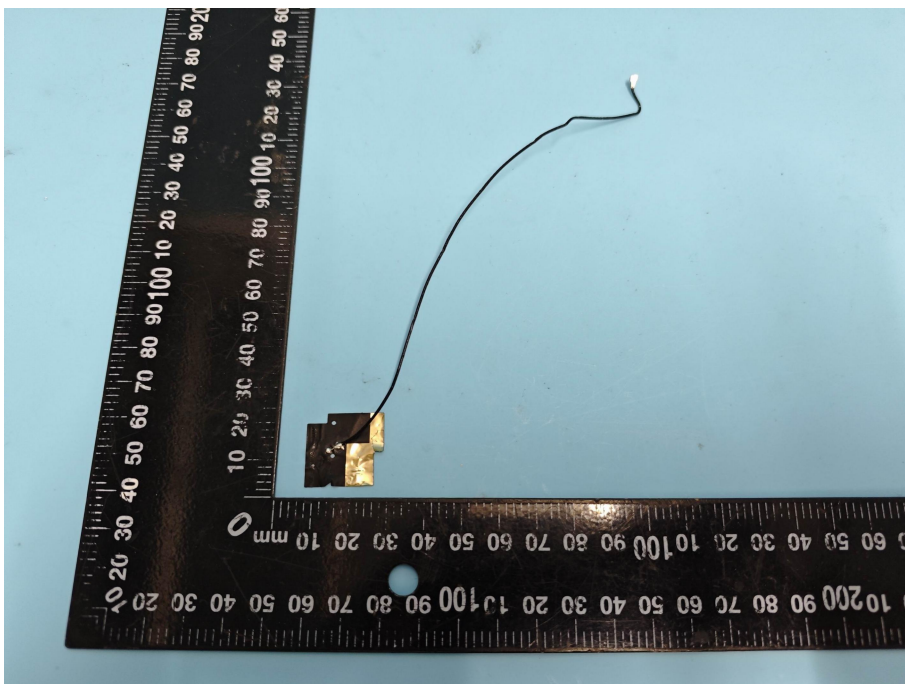
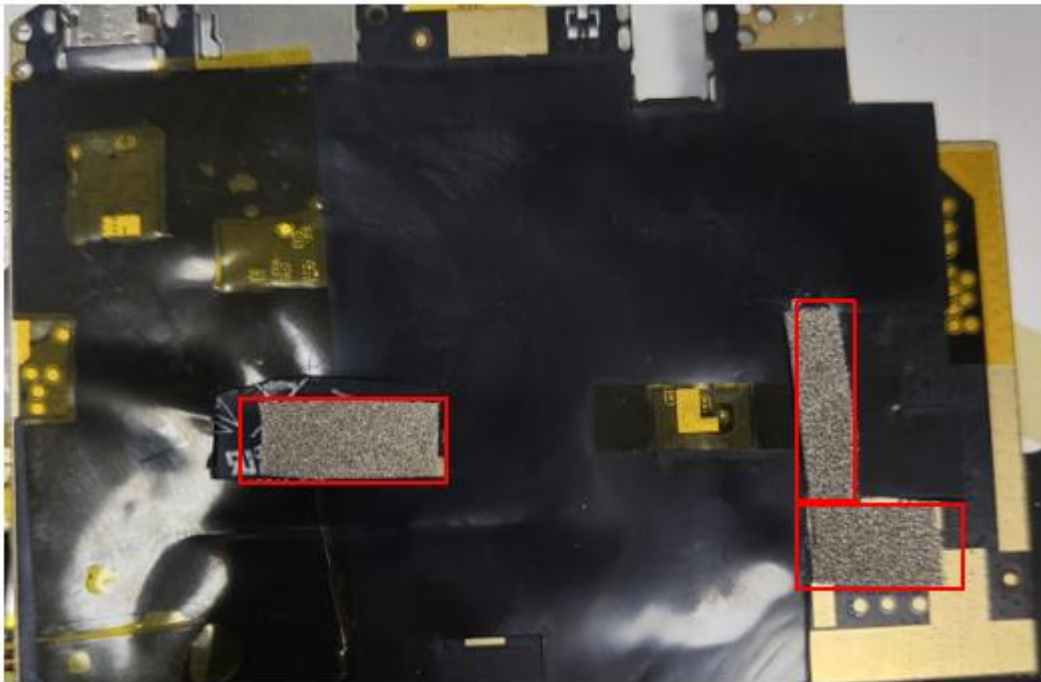


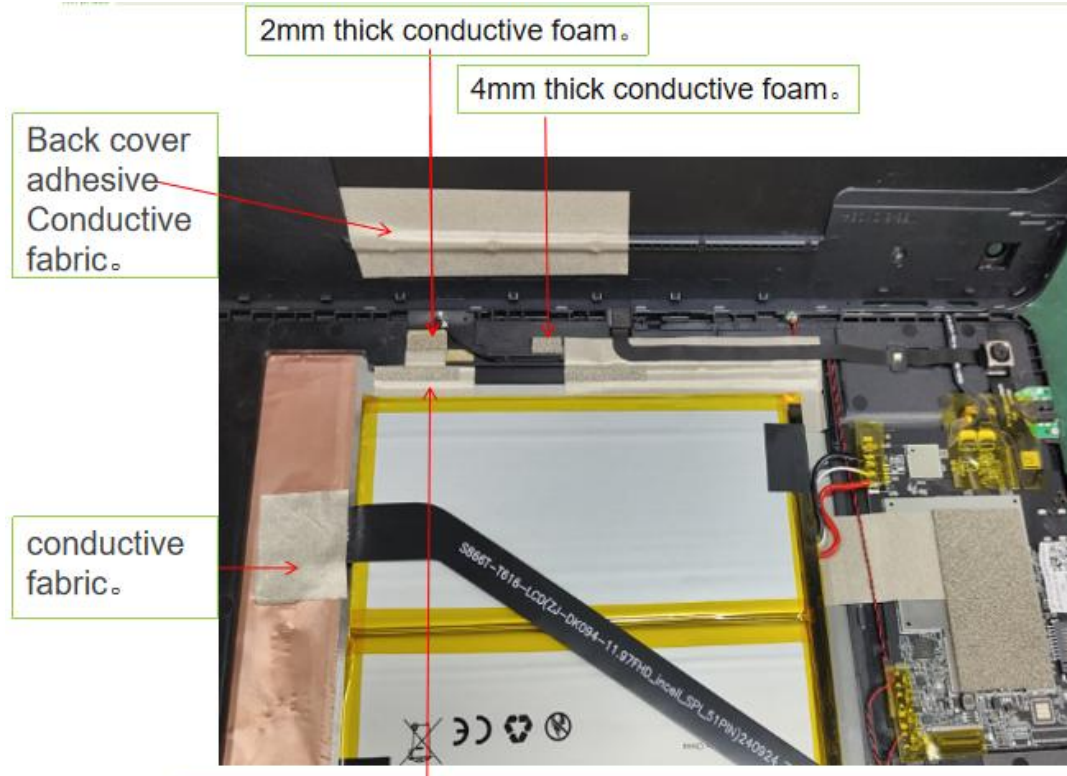
Wifi 36 TRP E2



6. EMC optimization

Stick 1.5MM conductive cloth in the exposed copper area, be careful not to short circuit.

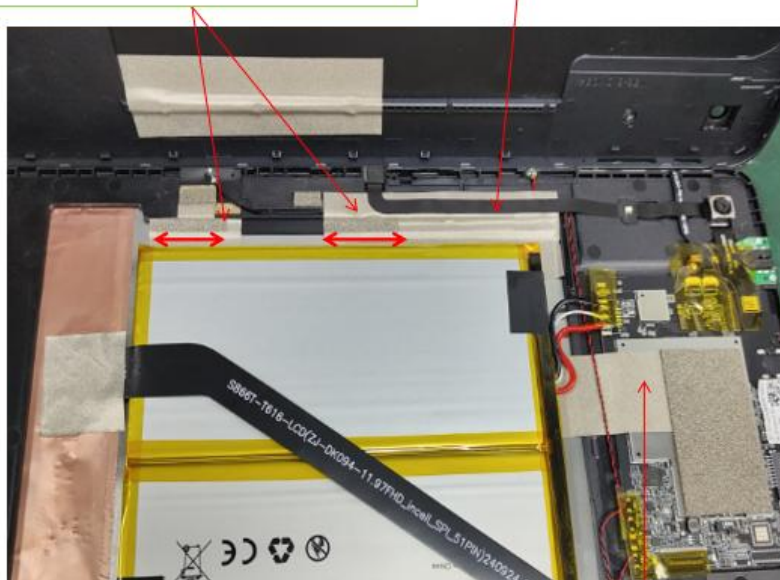




The exposed copper area of the antenna is first covered with conductive fabric and then with 1mm conductive foam.

The length of the two 1mm conductive sponges is the same. Approximately 23mm.

A conductive cloth is attached to the camera line.



The motherboard shielding cover is attached with conductive cloth to ground it with the screen's steel plate, and then conductive sponge is attached to ground it with the metal back cover.