

Customer: JIU ZHOU
Project: R6883D
ME: Xiao Xiang-13316888409
RF: RiXin Huang - 13682667404
Date: 2026/1/20
Report Type:
Version No.: V1.0
Status: T0
Frequency band:
GSM:B2/B3/B5/B8
WCDMA:B1/B2/B4/B5/B8
FDD-LTE: B1/B2/B3/B4/B5/B7/B8/B12/B17/B18/B19/B20/B26/B28A/B28B/B66
TDD-LTE: B38/40/41
GPS
2.4G/5G WIFI/BT

Antenna matching circuit:

RF1	C7411	OR	GSM:900TX WCDMA:B1/2/4/8 LTE:B1/2/3/4/7/8/38/40/41/66
RF2	C7412	6. 2nH	GSM:850 WCDMA:B5 LTE:B5/18/19/20/26
RF3	C7414	18nH	LTE:B12/17/28A/28B
RF4	C7413	6. 8pF	GSM:900RX
Antenna Configuration	Default Master Set		Default Episode
ANT1 (Lower the antenna)	GSM:850/900 WCDMA:B5/8 LTE:B5/8/12/17/18/19/20/26/ 28A/28B		WCDMA:B1/2/4 LTE:B1/2/3/4/7/38/40/41/66
ANT2 (Up the antenna)	GSM:1800/1900 WCDMA:B1/2/4 LTE:B1/2/3/4/7/38/40/41/66		WCDMA:B5/8 LTE:B5/8/12/17/18/19/20/26/ 28A/28B

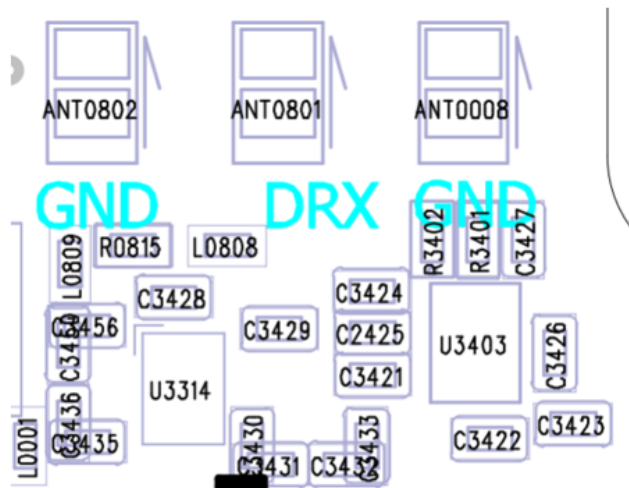
PCBSmall board (Main Antenna Main Path Matching) :

0201Specification					
Element	Value	PCB NO.	Element	Value	PCB NO.
E1	OR	R2409	E6	NC	R7413
E2	OR	R7411	E7	0Ω	R7412
E3	12nH	L7402	E8	OR	C7411
E4	NC	L7401	E9	6. 2nH	C7412
E5	0Ω	R7400	E10	18nH	C7414
			E11	6. 8pF	C7413



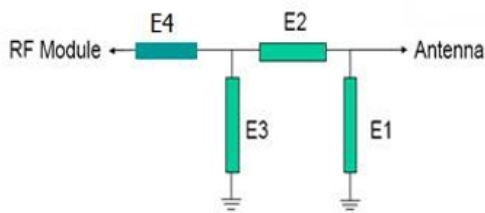
Diversity Antenna (Motherboard):

0201 Specification		
Element	Value	NO.
E1	NC	L0809
E2	6. 2nH	R0815
E3	0. 5pF	L0808
E4	NC	R3401
E5	OR	R3402
E6	NC	C3424
E7	NC	C2425
E8	NC	C3426
E9	NC	C3427
E10		
E11		



W&B&G (mainboard):

0201 Specification		
Element	Value	NO.
E1	Match without changes	
E2		
E3		
E4		



Passive main antenna :



Passive GPS/Wifi/BT antenna :



Passive Diversity antenna :



Antenna gain:

Frequency (MHZ)	Gain(dBi)	Frequency (MHZ)	Gain(dBi)
GSM850	-3.7	LTE B12	-4.3
GSM900	-3.0	LTE B17	-4.4
DCS1800	1.4	LTE B18	-3.8
PCS1900	1.7	LTE B19	-3.7
WCDMA B1	1.8	LTE B20	-3.6
WCDMA B2	1.7	LTE B26	-3.7
WCDMA B4	1.3	LTE B28	-4.2
WCDMA B5	-3.7	LTE B66	1.9

WCDMA B8	-3.4	LTE B38	1.3
LTE B1	2.2	LTE B40	1.5
LTE B2	2.1	LTE B41	1.4
LTE B3	1.6	GPS	1.3
LTE B4	1.7	WIFI 2.4G/BT	1.1
LTE B5	-3.9	WIFI 5.8G	1.7
LTE B7	1.4		
LTE B8	-3.2		

Main antenna OTA:

Band	Channel	TRP	TIS
GSM 850	128	26.1	
	190	26.6	
	251	26.8	-101.5

EGSM900	1	27.5	
	62	27.7	
	124	28.0	-101.6
DCS1800	512	24.5	
	698	24.4	
	885	25.1	-102.5
PCS1900	512	26.2	
	661	26.2	
	810	25.7	-102.0
WCDMA Band 1	10562	18.2	
	10700	17.7	
	10838	17.1	-103.7
WCDMA Band 2	9662	18.0	
	9800	17.7	
	9938	17.2	-103.2
WCDMA Band 4	1538	17.0	
	1675	17.4	

	1736	18.4	-101.8
WCDMA Band 5	4357	15.9	
	4400	16.2	
	4458	16.6	-104.2
WCDMA Band 8	2937	15.4	
	3013	16.5	
	3088	16.5	-100.3

Band		Channel	TRP	TIS
FDD-LTE (10M)	B1	50	18.5	
		300	17.6	
		550	18.0	-93.3
	B2	650	18.7	
		900	18.5	
		1150	18.3	-92.7
	B3	1250	17.5	

		1575	17.7	
		1900	18.6	-92.8
	B4	2000	17.3	
		2175	17.7	
		2350	17.7	-93.3
	B5	2450	16.9	
		2525	17.1	
		2600	17.4	-92.1
	B7	2800	18.9	
		3100	18.0	
		3400	18.5	-92.2
	B8	3500	16.6	
		3625	17.9	
		3750	18.2	-90.5
	B12	5060	15.3	
		5095	15.7	
		5130	15.9	-90.8

	B17	5780	15.8	
		5790	16.5	
		5800	16.9	-89.1
FDD-LTE (10M)	B18	5900	16.7	
		5925	17.0	
		5950	17.4	-91.9
	B19	6050	17.3	
		6075	17.5	
		6100	17.8	-91.9
	B20	6200	17.7	
		6300	17.6	
		6400	17.9	-90.4
	B26	8740	17.3	
		8865	17.8	
		8990	18.6	-91.0
	B28A	9310	15.7	
		9360	16.2	

		9460	16.1	-90.9
	B28B	9410	16.5	
		9510	16.7	
		9560	17.8	-90.2
	B66	66486	18.0	
		66886	17.4	
		67286	17.1	-91.4
TDD-LET (20M)	B38	9410	18.5	
		9510	18.2	
		9560	18.5	-91.1
	B40	38750	17.9	
		39150	18.2	
		39550	18.3	-91.8
	B41	40620	17.3	-90.9

WIFI OTA:

Shenzhen Xinbinuo Communication Technology Co., Ltd

WIFI OTA				
2.4G	Band	Channel	TRP	TIS
	b (11M)	1	12.5	
		6	13.3	
		13	14.0	-82.3
	g (54M)	1	10.7	
		6	10.9	
		13	11.6	-71.2
	n (MCS7)	1	10.5	
		6	11.0	
		13	11.8	-65.1
	a (54M)	36	9.9	
		56	13.0	
		165	12.8	-73.2

5G	n (MCS7)	36	9.5	
		56	12.8	
		165	12.0	-66.8
	AC (MCS7)	36	9.6	
		56	12.6	
		165	11.5	-64.5

GPS Test:

Measured site:Ping'an Rd

Weather:Sunny

Max S/N :40.7

Stars:31

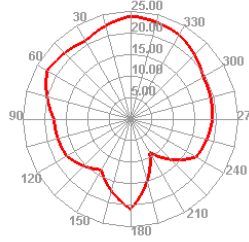
Positioning time:45s



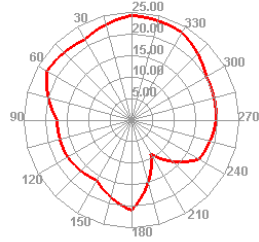
Shenzhen Xinbinuo Communication Technology Co., Ltd

3D Pattern

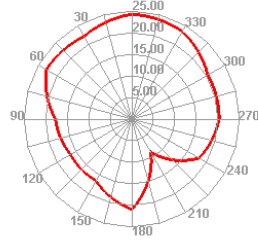
LTE1 18050 TRP Phi=45



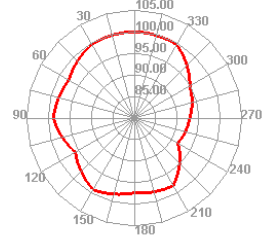
LTE1 18300 TRP Phi=45



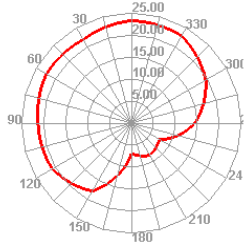
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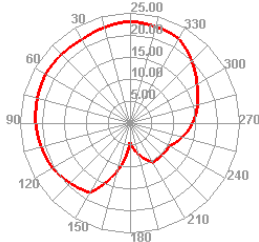
LTE1 550 TIS Phi=45



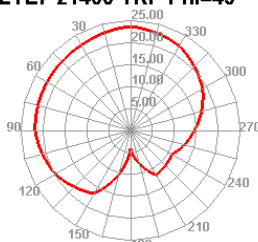
LTE7 20800 TRP Phi=45



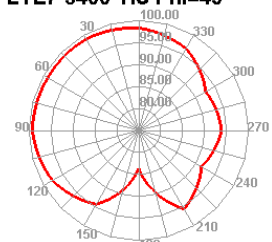
LTE7 21100 TRP Phi=45



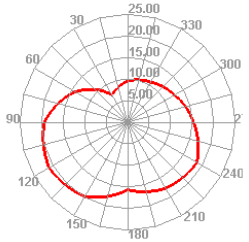
LTE7 21400 TRP Phi=45



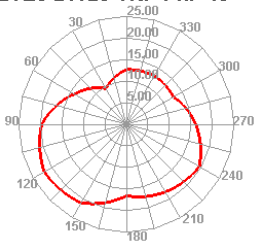
LTE7 3400 TIS Phi=45



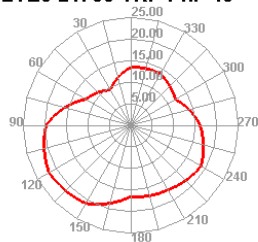
LTE8 21500 TRP Phi=45



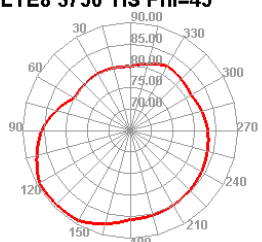
LTE8 21625 TRP Phi=45



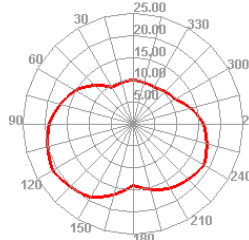
LTE8 21750 TRP Phi=45



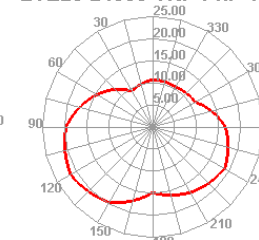
LTE8 3750 TIS Phi=45



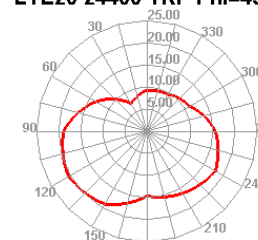
LTE20 24200 TRP Phi=45



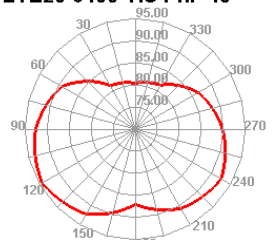
LTE20 24300 TRP Phi=45



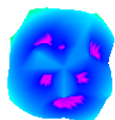
LTE20 24400 TRP Phi=45



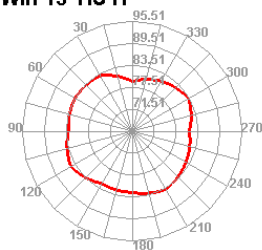
LTE20 6400 TIS Phi=45



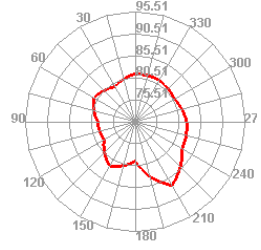
Wifi 13 TIS



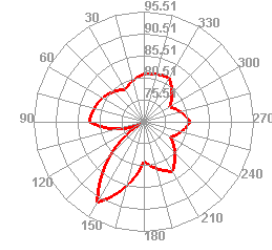
Wifi 13 TIS H

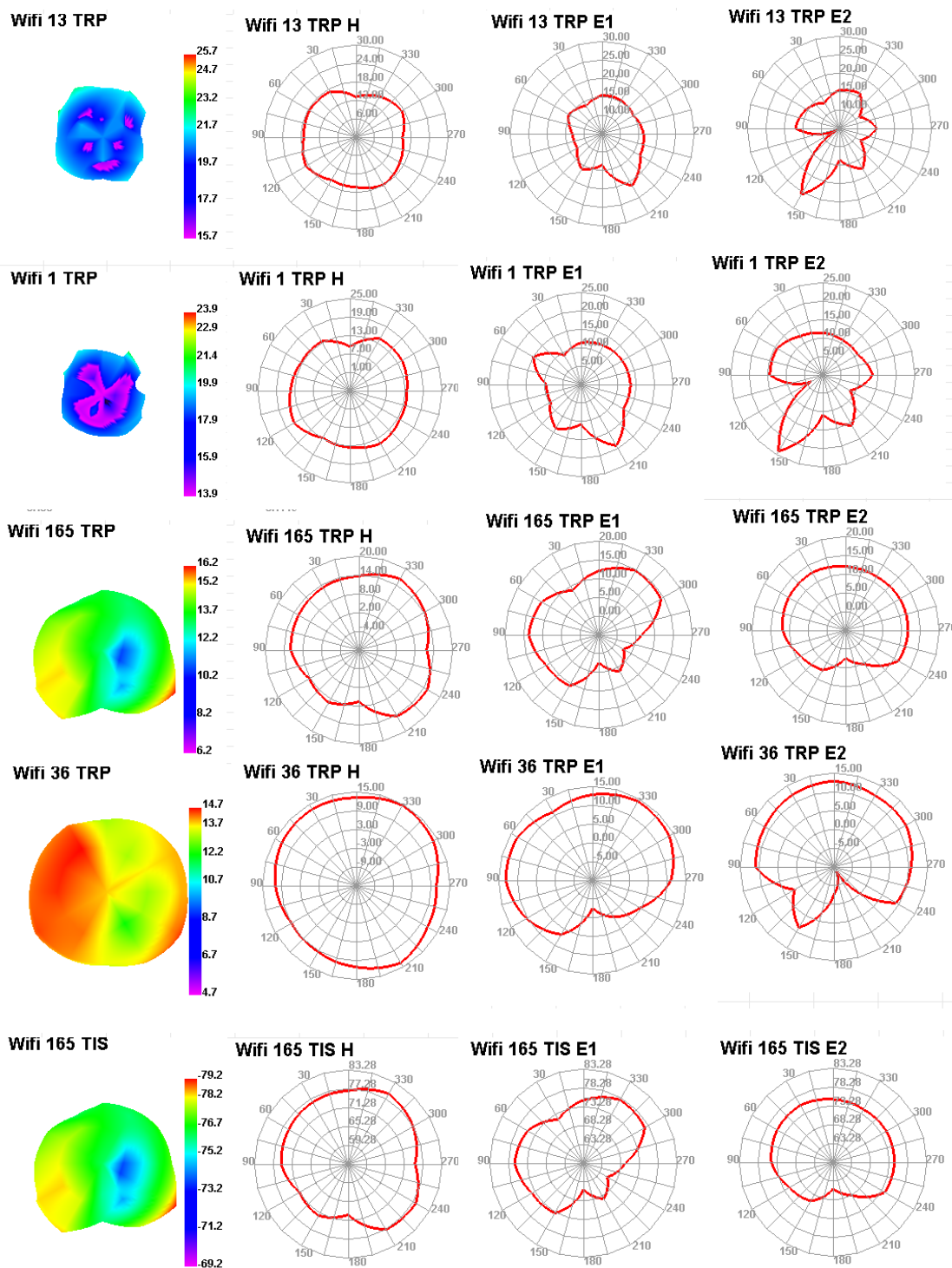


Wifi 13 TIS E1



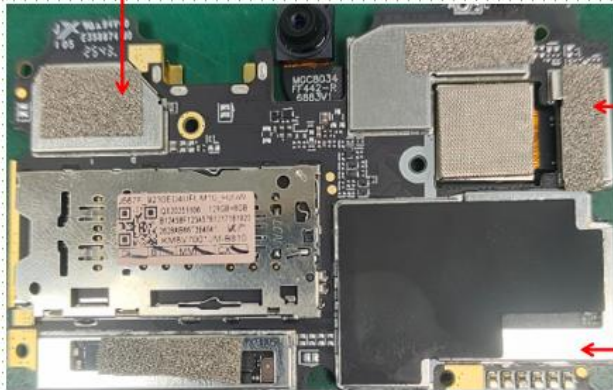
Wifi 13 TIS E2





Environmental treatment

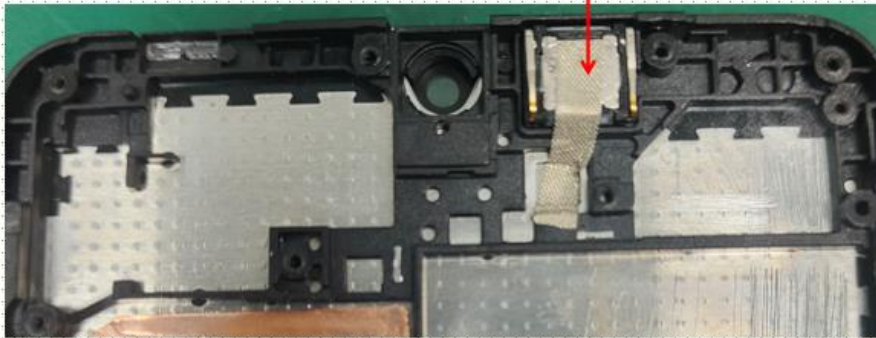
A piece of conductive sponge is added here, replacing the original graphene. This improves the power sensitivity of the antenna for mid-frequency bands such as B1/B3.



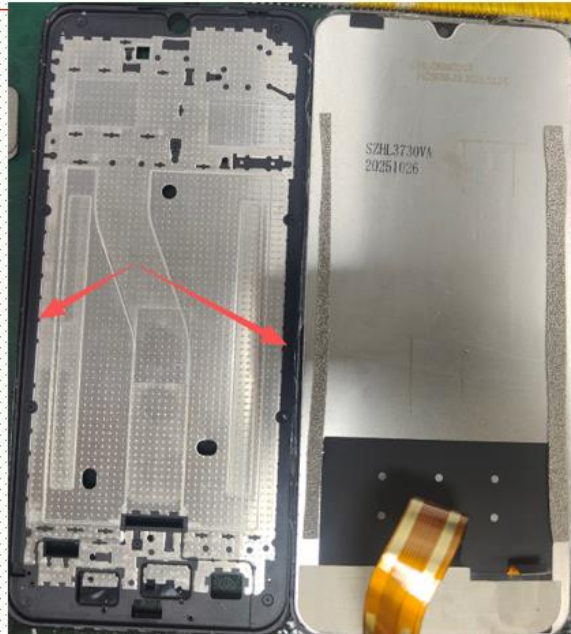
Add a piece of conductive sponge here to improve the 2.4G WiFi TIS.

Remove the conductive sponge here.

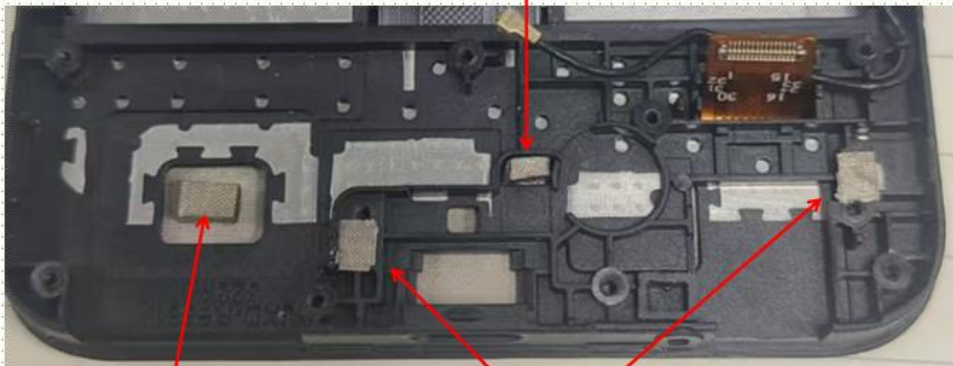
As shown in the figure below: grounding the receiver improves the antenna's power and sensitivity.



Because the middle frame has large black plastic edges, the conductive sponge of the screen should be attached as inward as possible, ensuring that the impedance between the screen and the middle frame metal measures within 1 ohm using a multimeter.



Add a piece of conductive foam and a small board here to ensure proper grounding.



Here, highly durable conductive foam and small boards are used to ensure full grounding.

Attach the conductive foam and the speaker here to ensure proper grounding.