

➤ **Customer:** Duoke

➤ **Project:** DK051

➤ **ME:** Xiao Xiang

TEL-13316888409

➤ **RF:** Wu Chao

TEL- 18711802122

➤ **Date:** 10.5.2023

Catalogue

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1.Basic information

Frequency band:

GSM:850/900/1800/1900.

WCDMA:B1/B8.

FDD LTE: B1/B3/B7/B8/B19/B20/B28A/B28B.

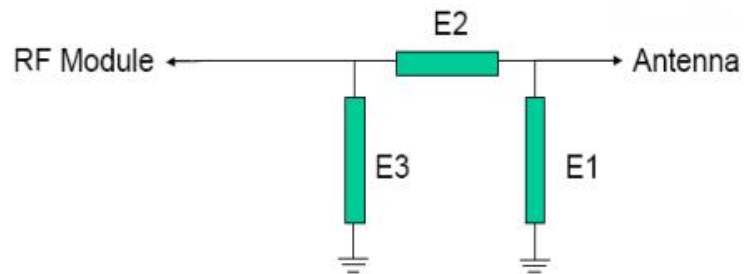
TDD LTE: B40.

Others:

GPS/Beidou/GLONASS/Galileo,80211.a/b/g/n/ac 2.4G/5G,Bluetooth.

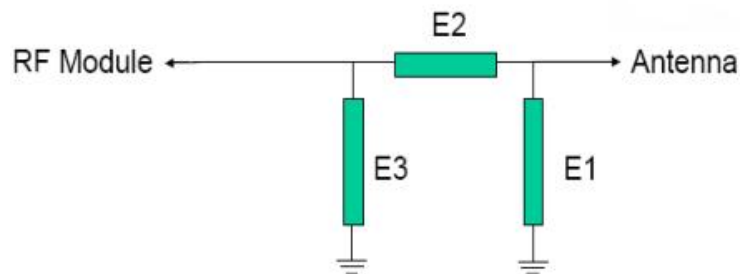
2. Matching circuit

2.1 Divided antenna



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

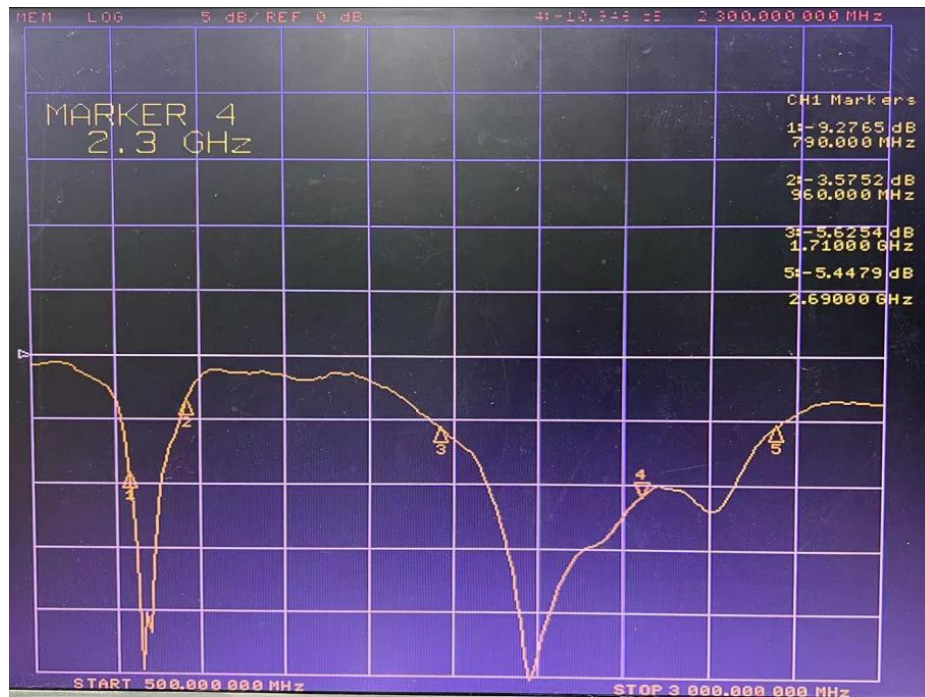
2.2 Main antenna



Element	Value
E1 (0201)	NA
E2 (0201)	4.7pf
E3 (0201)	NA

3. Antenna return loss

3.1 Main antenna return loss



3.2 Divided antenna return loss



3.3 GPS/WIFI/Bluetooth antenna return loss



4. ANT.Gain

Band	Peak Gain/dBi
WCDMA/GSM850	-2.7
GSM900	-1.7
DCS1800	1.3
WCDMA/PCS1900	0.8
WCDMA B1	1.7
WCDMA B8	-1.6
FDD-B1	1.6
FDD-B3	1.4
FDD-B7	1.3
FDD-B8	-1.6
FDD-B20	-2.4
TDD-B34	1.5
TDD-B38	1.2
TDD-B39	0.8
TDD-B40	0.5
TDD-B41	1.2
GPS	1.5
WIFI/2.4G	1.7
Bluetooth	1.7

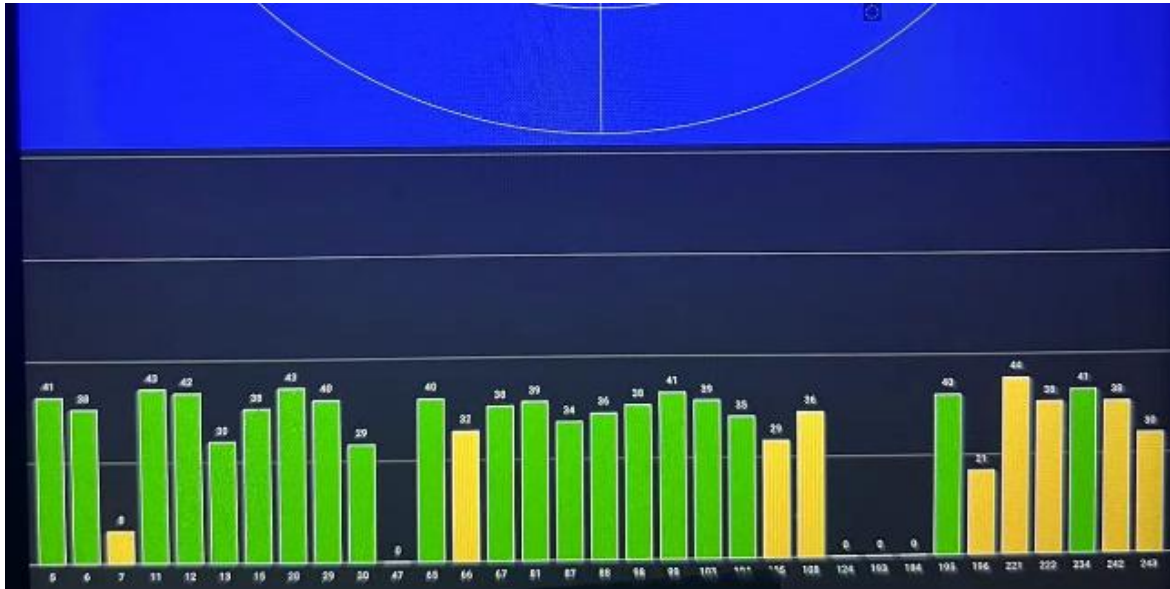
5.OTA

5.1 Antenna OTA

Band	Channel	TRP/dBm	TIS/dBm
GSM850	128	23.2	
	190	23.4	
	251	24.2	-102.8
EGSM	1	26.3	
	62	26.9	
	124	27.2	-102.5
DCS	512	25.5	
	698	25.8	
	885	26.2	-104.7
PCS	512	25.4	
	661	25.6	
	810	25.5	-102.3
WCDMA B1	10562	18.2	
	10700	18.3	
	10835	18.2	-107.3
WCDMA B8	2937	16.6	
	3013	17.2	
	3088	17.0	-105.3
FDD-B1-10M	50	18.4	
	300	18.6	
	550	18.7	-94.7
FDD-B3-10M	1250	18.5	
	1575	19.1	
	1900	19.4	-94.1
FDD-B7-10M	2800	18.3	
	3100	18.2	
	3400	18.5	-93.3
FDD-B8-10M	3500	16.5	
	3625	17.1	
	3750	17.3	-92.4
FDD-B20-10M	6200	16.1	
	6300	16.4	
	6400	16.3	-92.4
TDD-B34-20M	36200	18.5	
	36275	18.7	
	36349	18.7	-91.5
TDD-B38-20M	37850	18.3	

	38000	18.6	
	38150	18.8	-90.9
TDD-B39-20M	38350	18.9	
	38450	19.1	
	38550	19.2	-92.3
TDD-B40-20M	38750	18.3	
	39150	19.2	
	39550	19.1	-91.5
TDD-B41-20M	40620	17.9	
	40140	18.3	
	41240	18.6	-91.2
2.4-b (11M)	1	12.8	
	6	12.9	
	13	12.9	-80.7
2.4-g (54M)	1	10.4	
	6	10.5	
	13	10.5	-70.1
2.4-n (MCS7)	1	10.8	
	6	11.2	
	13	11.2	-64.2
5-a (54M)	36	10.2	
	100	10.8	
	165	10.9	-71.7
5-n (MCS7)	36	9.6	
	100	10.1	
	165	10.2	-67.1

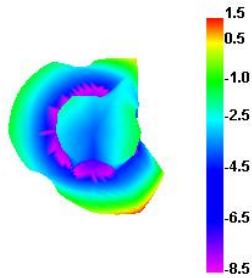
5.2 GPS testing



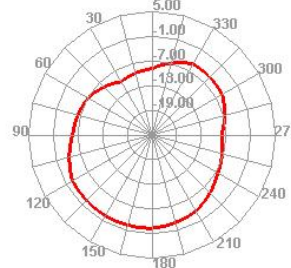
5.3 Antenna radiation pattern

5.3.1GPS/WIFI/BT

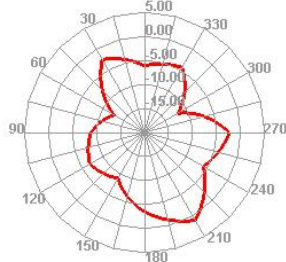
1568.888MHz



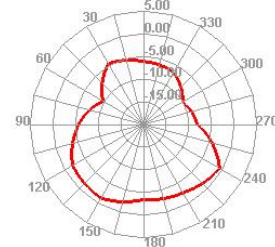
1568.888MHz H



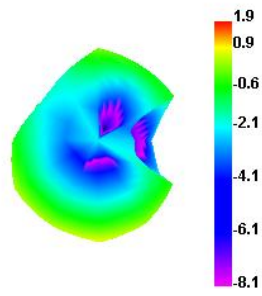
1568.888MHz E1



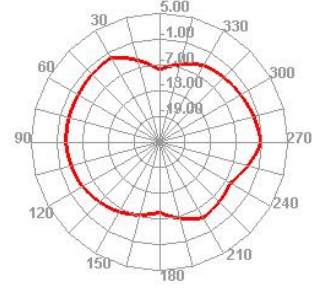
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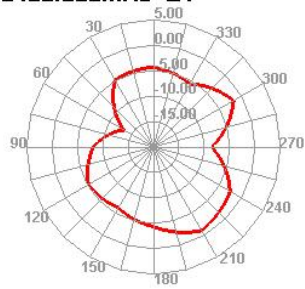
2422.222MHz



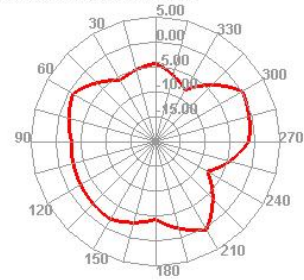
2422.222MHz H



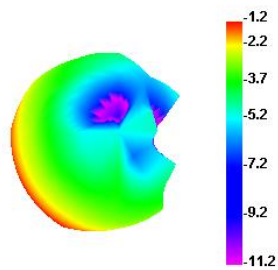
2422.222MHz E1



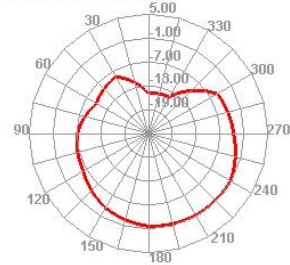
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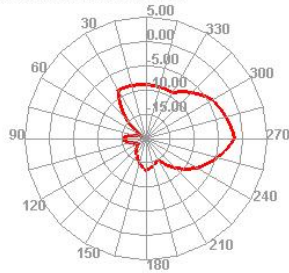
5198.274MHz



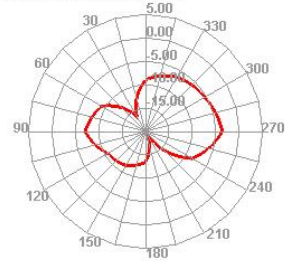
5198.274MHz H



5198.274MHz E1

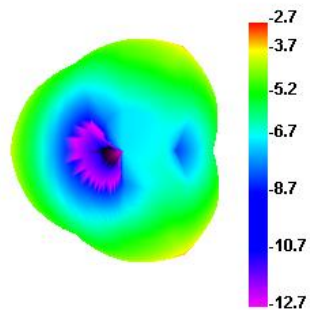


5198.274MHz E2

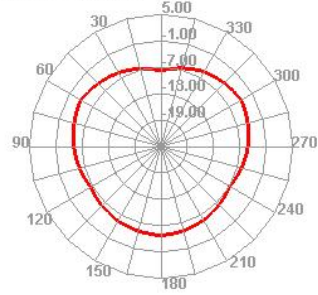


5.3.2 GSM/WCDMA/LTE

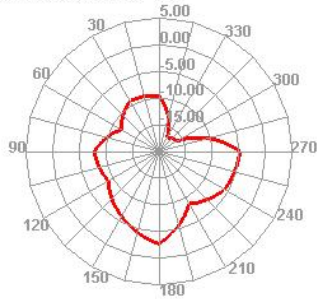
843.662MHz



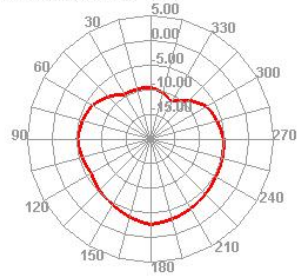
843.662MHz H



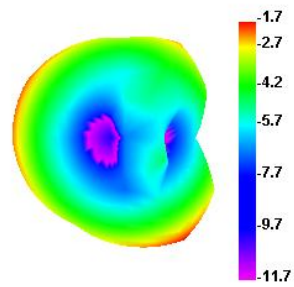
843.662MHz E1



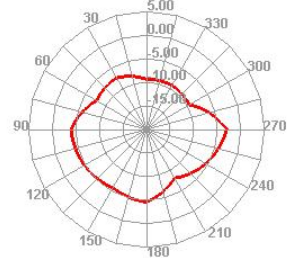
843.662MHz E2



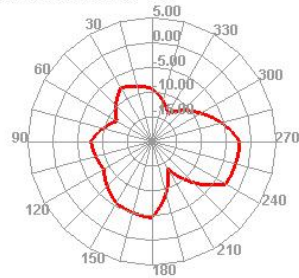
948.568MHz



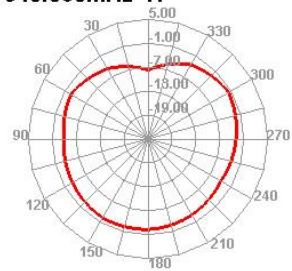
948.568MHz E2



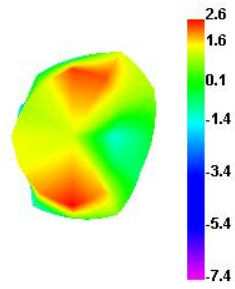
948.568MHz E1



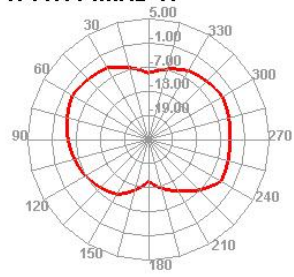
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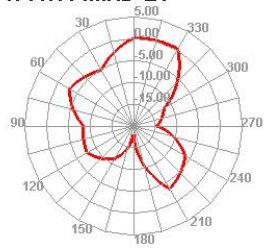
1766.664MHz



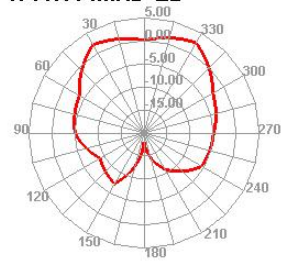
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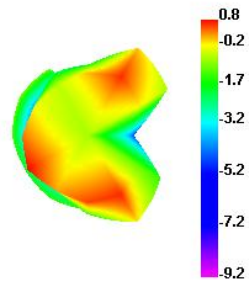
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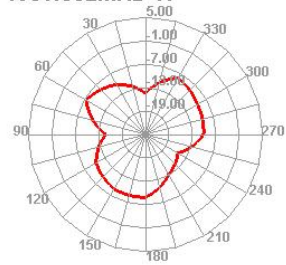
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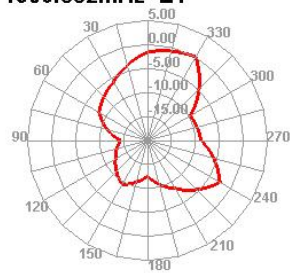
1906.332MHz



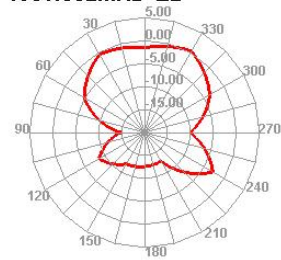
1906.332MHz H



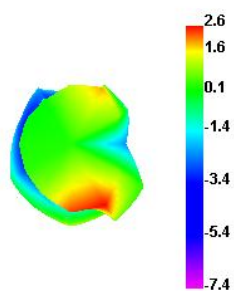
1906.332MHz E1



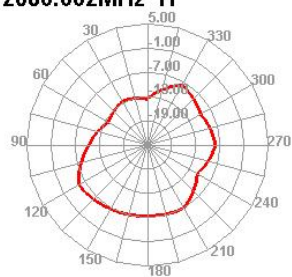
1906.332MHz E2



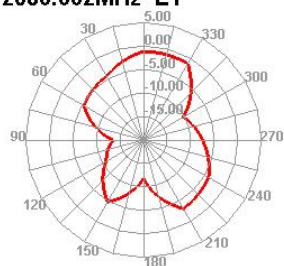
2086.662MHz



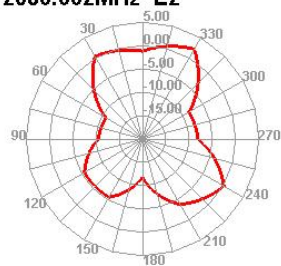
2086.662MHz H



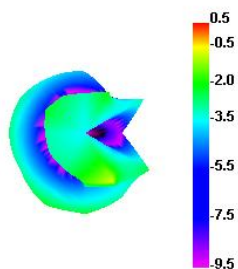
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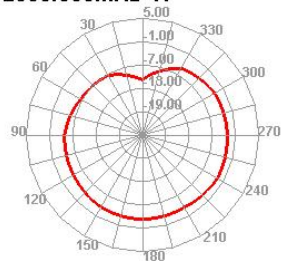
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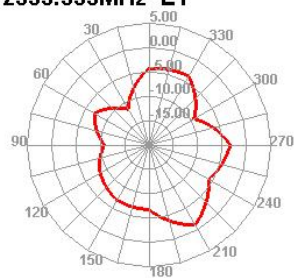
2333.333MHz



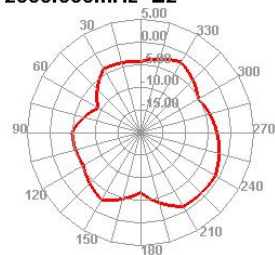
2333.333MHz H



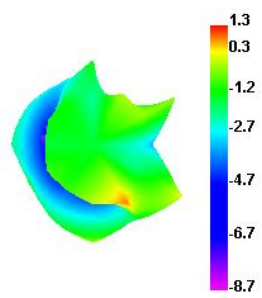
2333.333MHz E1



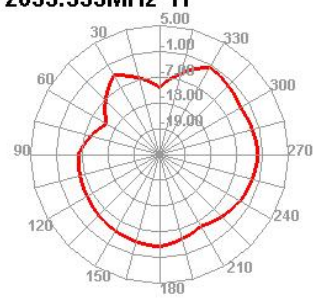
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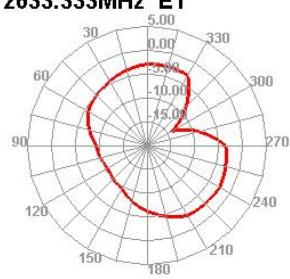
2633.333MHz



2633.333MHz H



2633.333MHz E1



2633.333MHz E2

