SPECIFICATION

HUI ZHOU DXDRAGON ING

Orbic TAB8 4G Antenna

Product approval sheet

Customer	Orbic	Band	3G: W2/4/5 4G: B2/4/5/12/13/14/17/25/ 26/30/41(Hpue)/66/71
Project	Orbic TAB8 4G	Colour	Black
FCC ID	2ABGHRC8L1T		

Customer check:

Reach requirement of customer: ☑OK ☐NG

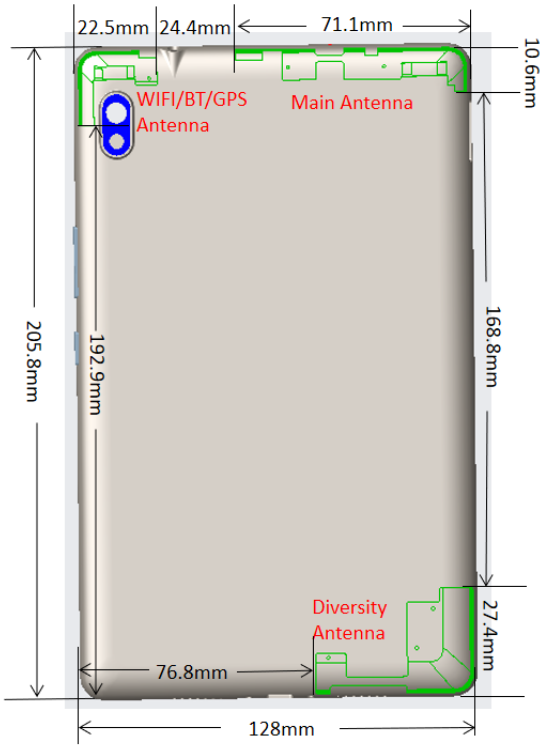
Contents

1 General description

1.1 information of DUT

Set Type	Tablet
Dimension	205.8 * 128 * 9.25mm
Band	3G: W2/4/5/8 4G: B2/4/5/12/13/14/17/25/26/30/41(Hpue)/66/71WIFI 2.4G&5G BT GPS
Antenna Material	FPC

1.2 Photo of DUT



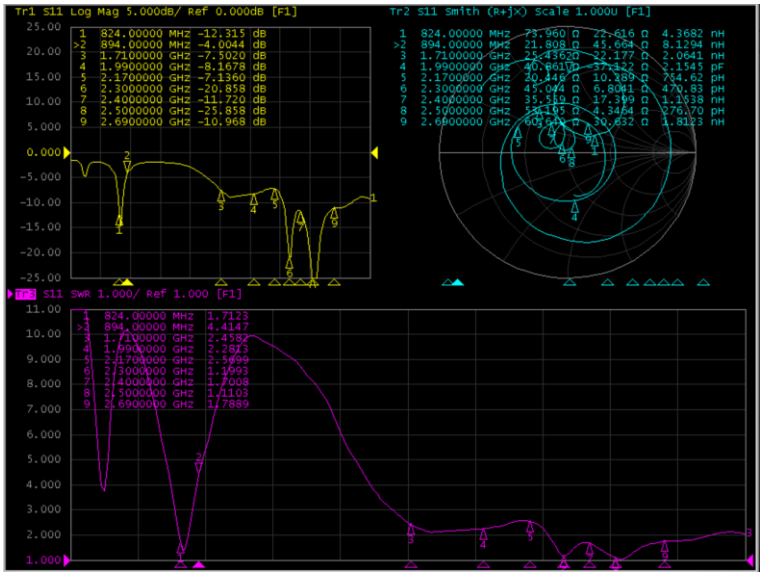
Antenna location

2 Electrical performance

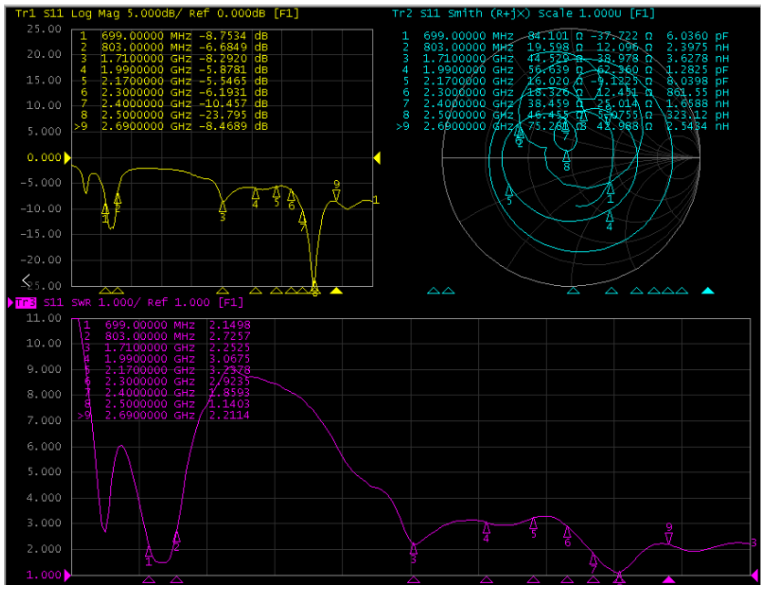
2.1 Passive result

2.11 VSWR &Return Loss-Main antenna

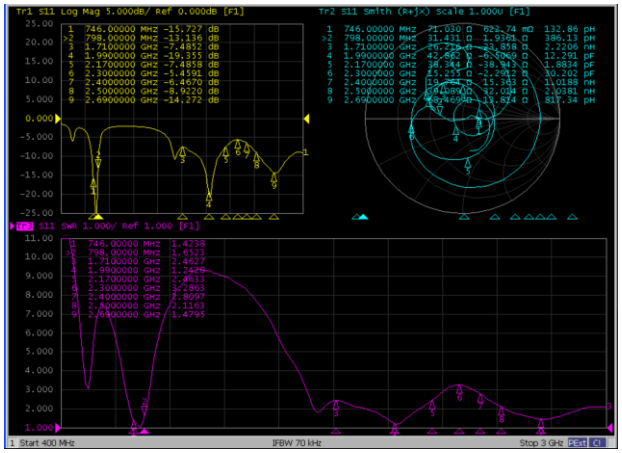
VSWR &Return Loss test connector：R&S ZVL network analyzer → Cable → JIG



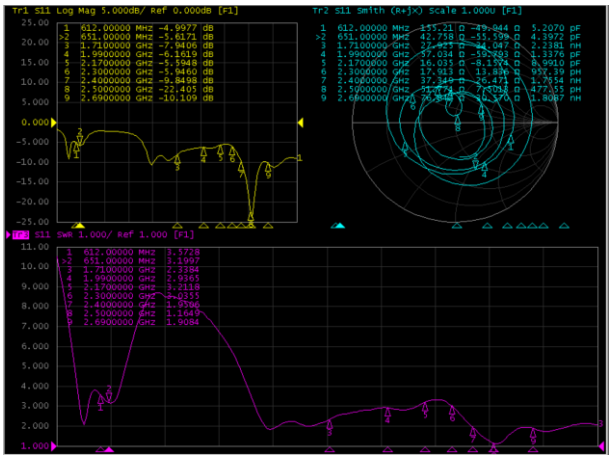
VSWR &Return Loss(LTE B5)



VSWR &Return Loss (B12/B17/B28)



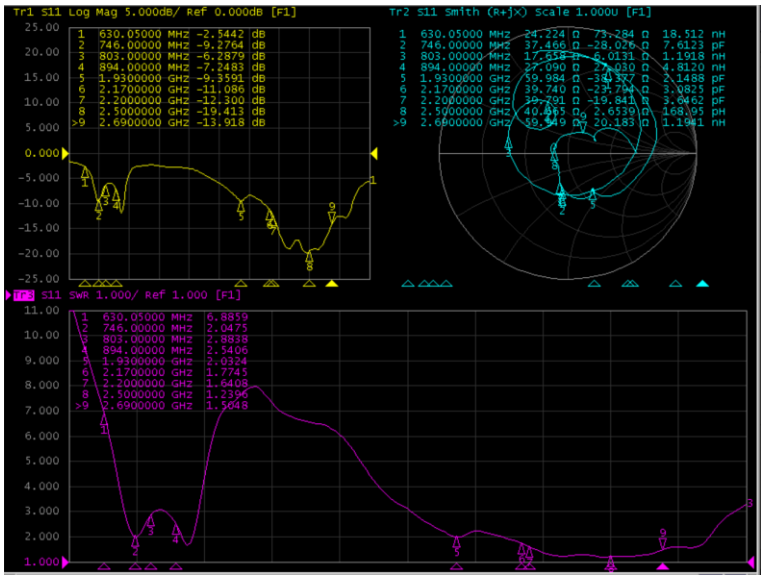
VSWR &Return Loss(B13/B14)



VSWR &Return Loss(B71)

Freq.(MHz)	612	650	700	803	746	798	824	894	1710	1990	2200	2500	2700
VSWR	3.57	3.19	2.14	2.72	1.42	1.65	1.71	4.41	2.45	2.28	1.19	1.11	1.78
R.L.	-4.99	-5.61	-8.78	-6.68	-7.48	-13.13	-12.31	-4.00	-7.50	-8.16	-20.82	-25.85	-10.96

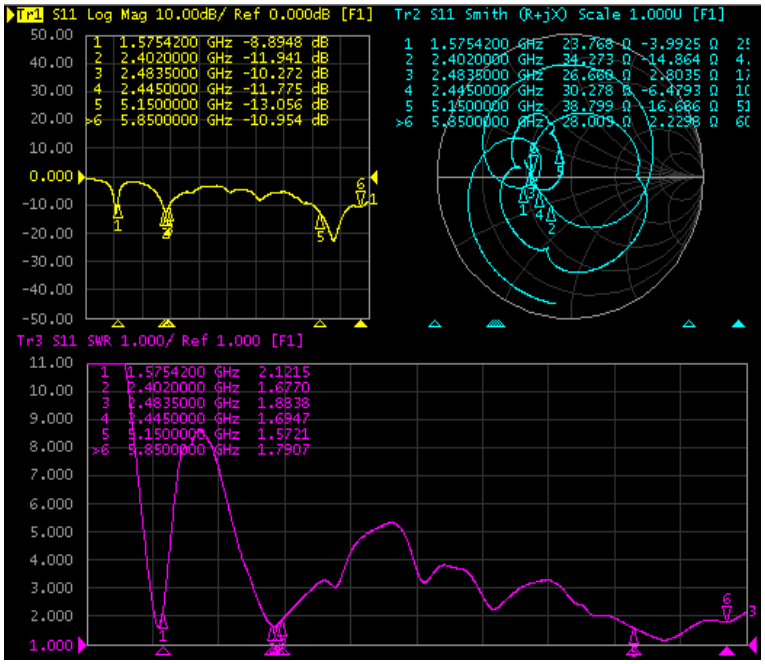
2.12 VSWR &Return Loss -Diversity antenna



Freq.(MHz)	630	750	803	849	1930	2170	2200	2500	2700
VSWR	6.88	2.04	2.88	2.54	2.03	1.77	1.64	1.23	1.50

R.L.	-2.54	-9.27	-6.28	-7.24	-9.35	-11.08	-12.30	-19.41	-13.91

2.13 VSWR &Return Loss -3 in 1（WIFI&BT&GPS）antenna



Freq.(MHz)	1575	2400	2450	2500	5100	5800
VSWR	2.12	1.67	1.69	1.72	1.57	1.79
R.L.	-8.89	-11.94	-11.77	-11.89	-13.05	-10.95

2.14 Gain test

	Band	Gain	TYPE
UMTS Band(s)	FDD4 (1710-1755MHz)	0.17dBi	Fixed Internal/IFA
	GSM850 / FDD V (824-849 MHz)	-0.11dBi	Fixed Internal/IFA
	GSM1900 / FDD II (1850-1910 MHz)	-0.13 dBi	Fixed Internal/IFA
LTE	FDD 1: Japan, Korea, Europe(1920-1980MHz)	0.23 dBi	Fixed Internal/IFA
	FDD 2: Europe, Asia(1850-1910MHz)	-0.13 dBi	Fixed Internal/IFA
	FDD 4: US(1710-1755)	0.17 dBi	Fixed Internal/IFA
	FDD 5: Europe(824-849MHz)	0.11 dBi	Fixed Internal/IFA
	FDD 12: Europe(699-716MHz)	-3.51 dBi	Fixed Internal/IFA
	FDD 13: Japan(777-787MHz)	-2.22 dBi	Fixed Internal/IFA
	FDD 14: Japan(788-798MHz)	-1.72 dBi	Fixed Internal/IFA
	FDD 17: Europe(704-716MHz)	0.79 dBi	Fixed Internal/IFA
	FDD 25: US(1850-1915MHz)	-0.16 dBi	Fixed Internal/IFA
	FDD 26: Japan, NCC (814-849)	-0.42 dBi	Fixed Internal/IFA

	FDD 28: China(703-748MHz)	-3.97 dBi	Fixed Internal/IFA
	FDD 30: US, Japan(2305-2315MHz)	-0.56 dBi	Fixed Internal/IFA
	TDD 41: US, Japan(2496-2690MHz)	2.81 dBi	Fixed Internal/IFA
	FDD 66: US, Japan(1710-1780MHz)	0.08 dBi	Fixed Internal/IFA
	FDD 71: US, Japan(630-651MHz)	-3.86 dBi	Fixed Internal/IFA
2.4G BT	2.4~2.4835GHz	2.09 dBi	Fixed Internal/IFA
2.4G WLAN	2.4~2.4835GHz	2.09 dBi	Fixed Internal/IFA
5G WLAN	5.15~5.25GHz	0.08 dBi	Fixed Internal/IFA
	5.25~5.35GHz	0.41 dBi	Fixed Internal/IFA
	5.47~5.725GHz	-1.35 dBi	Fixed Internal/IFA
	5.725~5.825GHz	-0.33 dBi	Fixed Internal/IFA
	5.725~5.850GHz	-0.45 dBi	Fixed Internal/IFA

2.2 Active result

2.21 Test equipment

Equipment information:

GTS 2800 3D Chamber test system

Base Station Emulator CMW-500

Quad-Ridge Horn Antenna

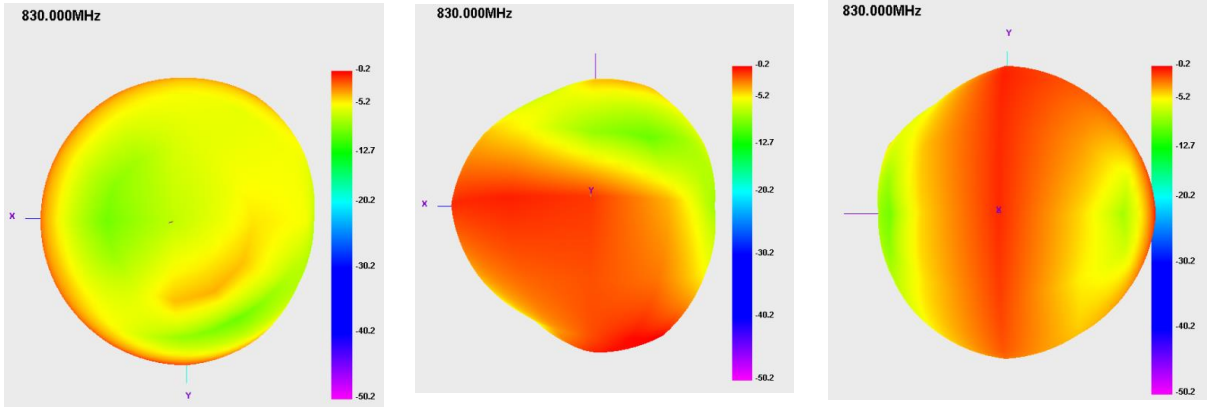
Agilent8960 E5515C

2.22 OTA test data

Band	Channel	TRP(dBm)	TIS(dBm)	Band	Channel	TRP(dBm)	TIS(dBm)
WCDMA B2	9262	20.05	-107.19	WCDMA B5	4132	19.13	-107.83
	9400	20.11	-107.31		4183	19.59	-107.26
	9538	20.41	-107.13		4233	19.61	-107.06
WCDMA B4	1312	19.37	-107.52				
	1413	19.69	-107.22				
	1513	19.68	-107.38				
Band	Channel	TRP(dBm)	TIS(dBm)	Band	Channel	TRP(dBm)	TIS(dBm)
LTE B1	18050	20.06	-96.21	LTE B14	23305	18.66	-93.14
	18300	20.35	-96.49		23330	18.42	-93.26
	18550	20.15	-96.43		23355	18.21	-93.11
LTE B2	18600	20.29	-96.32	LTE B17	23780	17.54	-92.18
	18900	20.18	-96.18		23790	17.26	-92.28
	19200	20.13	-96.57		23800	17.32	-92.13
LTE B4	19950	19.25	-97.02	LTE B25	26065	19.66	-96.35
	20175	19.36	-97.15		26365	19.82	-96.47
	20399	19.84	-97.17		26665	20.01	-96.52
LTE B5	20450	19.3	-94.57	LTE B26	26715	19.18	-95.67
	20525	20.54	-94.32		26865	19.37	-95.46
	20600	20.94	-94.24		27015	19.52	-95.16
LTE B12	23010	17.71	-95.09	LTE B28	27235	17.47	-92.63
	23095	17.16	-95.23		27435	17.22	-92.45
	23179	17.26	-94.81		27635	17.15	-92.29
LTE B13	23205	18.37	-92.95	LTE B30	27685	19.14	-96.18
	23230	18.61	-92.31		27710	19.36	-96.25
	23255	18.06	-92.25		27735	19.56	-96.43
				LTE 66	132022	19.41	-97.12
					132322	19.62	-97.05
					132622	19.25	-96.87
				LTE 71	133172	17.14	-91.73
					133297	17.33	-91.65
					133422	17.62	-91.59
				LTE 41	39750	22.71	-92.76
					40620	22.99	-92.57
					41490	22.85	-92.38

2.3 Passive field pattern diagram

B5



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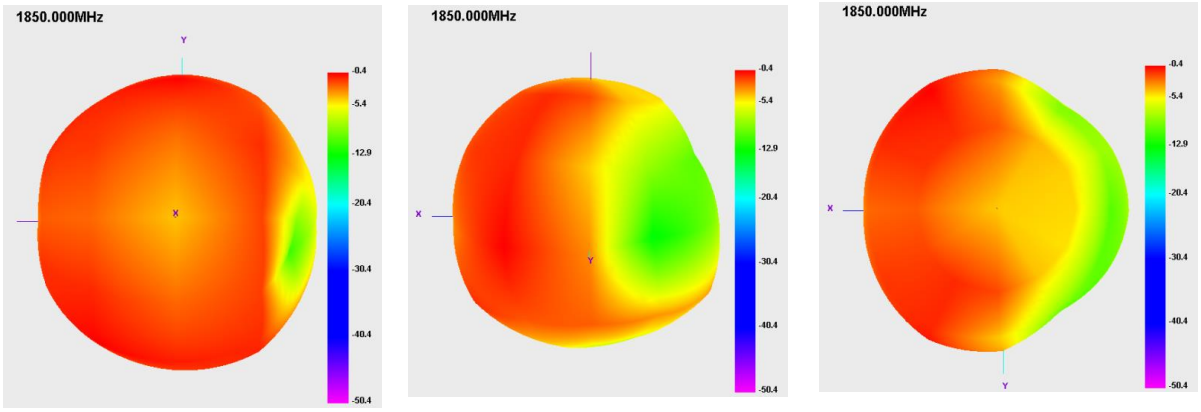

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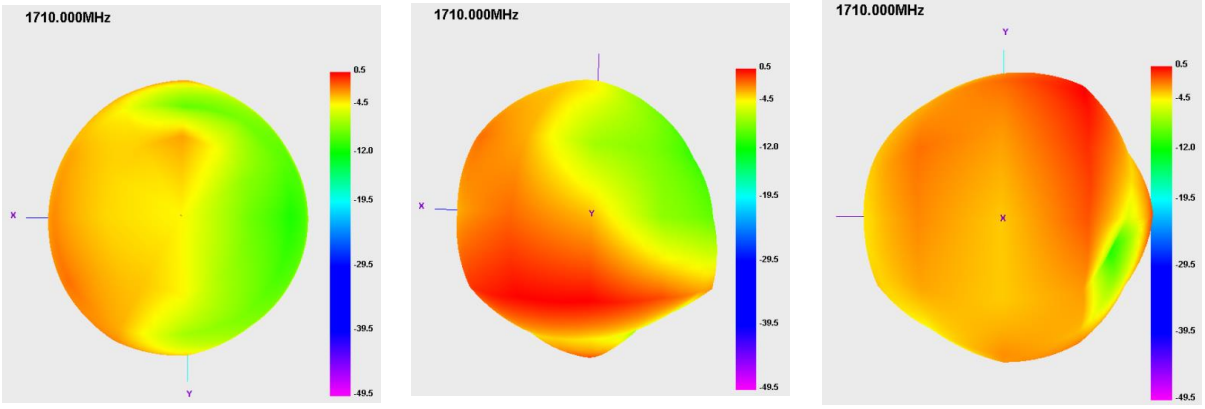

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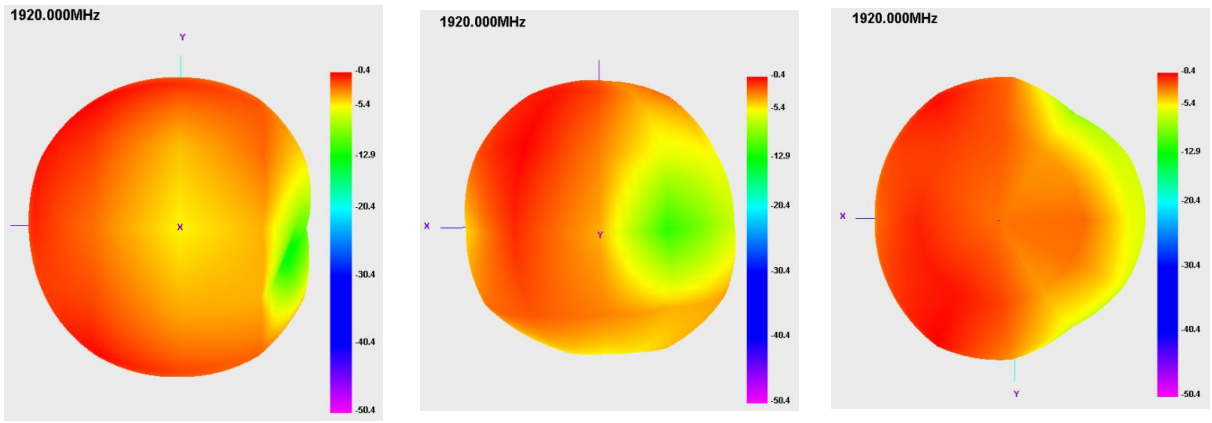
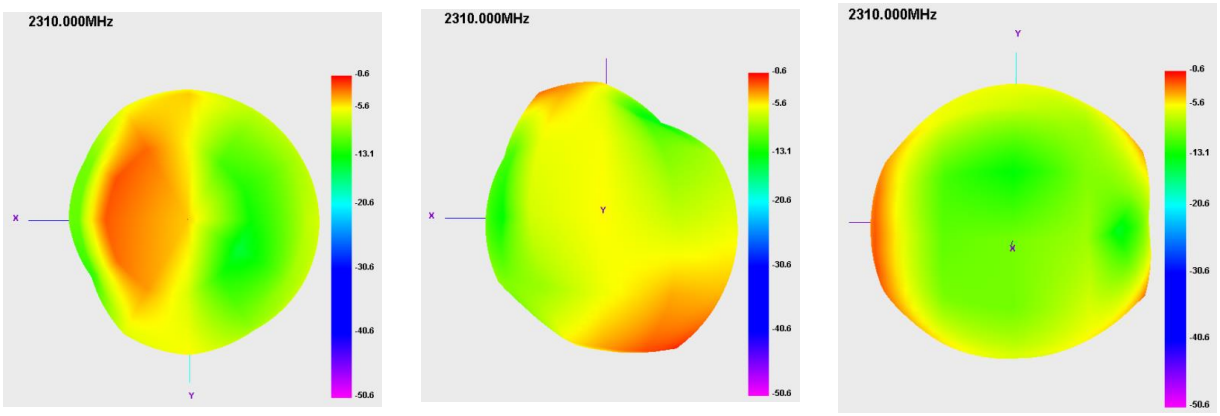
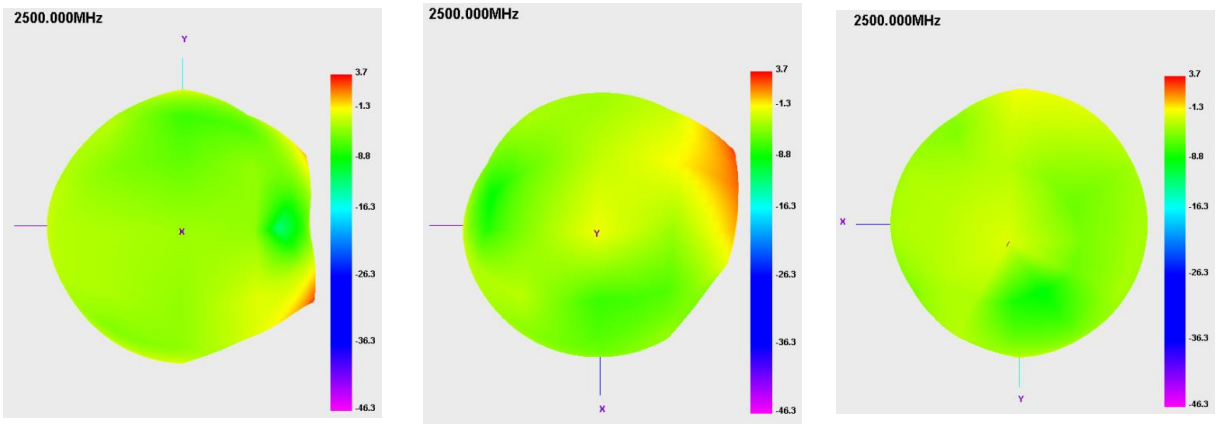

1920.000MHz
-0.4
-5.4
-12.9
-20.4
-30.4
-40.4
-50.4
1920.000MHz
-0.4
-5.4
-12.9
-20.4
-30.4
-40.4
-50.4
1920.000MHz
-0.4
-5.4
-12.9
-20.4
-30.4
-40.4
-50.4

B30


2310.000MHz
-0.6
-5.6
-13.1
-20.6
-30.6
-40.6
-50.6
2310.000MHz
-0.6
-5.6
-13.1
-20.6
-30.6
-40.6
-50.6
2310.000MHz
-0.6
-5.6
-13.1
-20.6
-30.6
-40.6
-50.6

B41


2500.000MHz
3.7
-1.3
-8.8
-16.3
-26.3
-36.3
-46.3
2500.000MHz
3.7
-1.3
-8.8
-16.3
-26.3
-36.3
-46.3
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3.7
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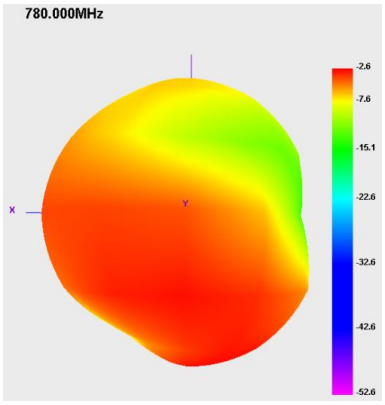
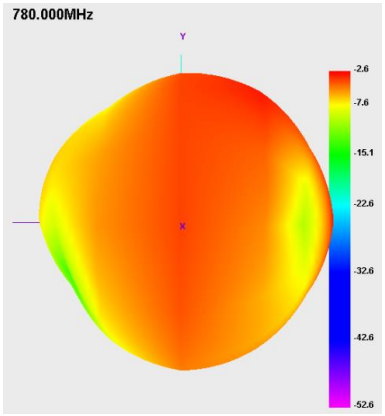
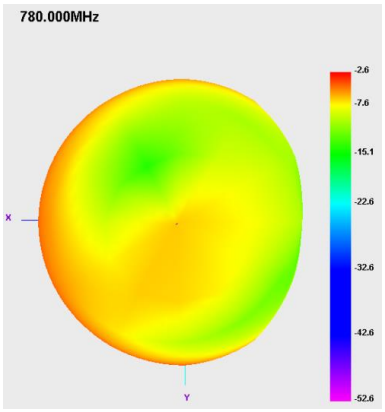
-16.3
-26.3
-36.3
-46.3

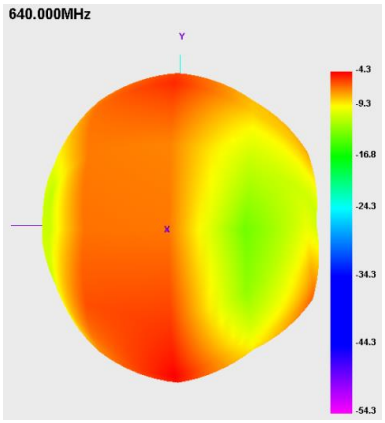
B13/B14

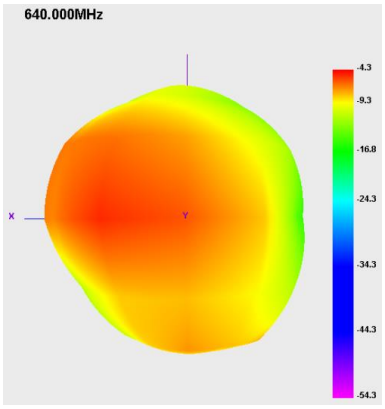


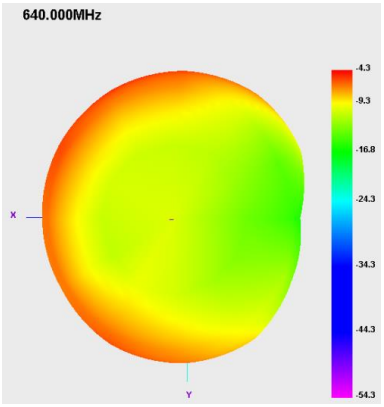




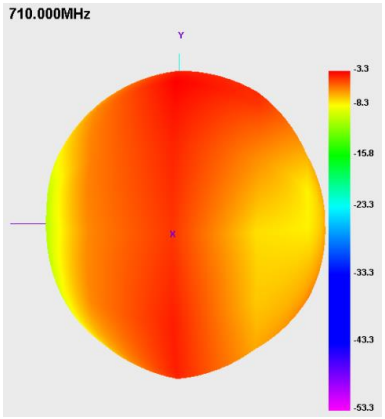
B71

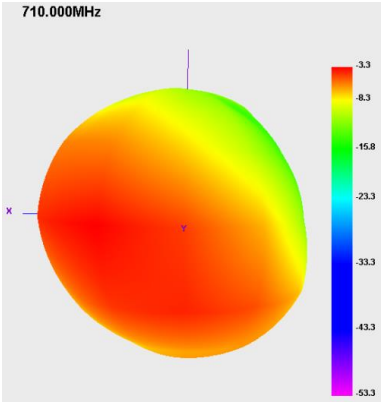


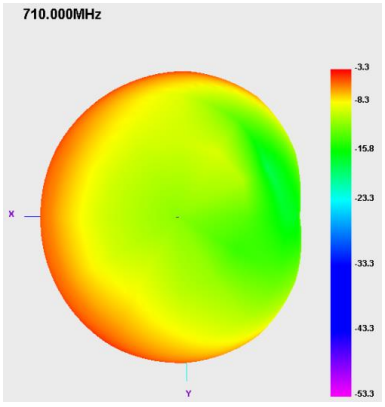




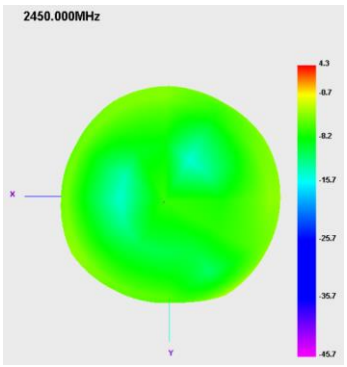
B12/17/28

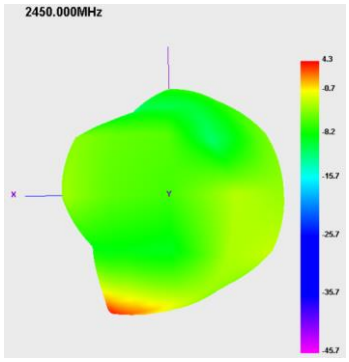


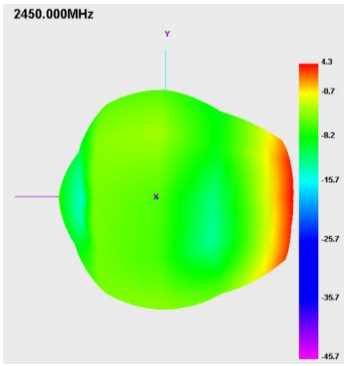




WiFi2.4G







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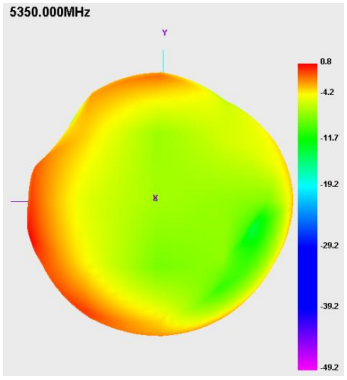

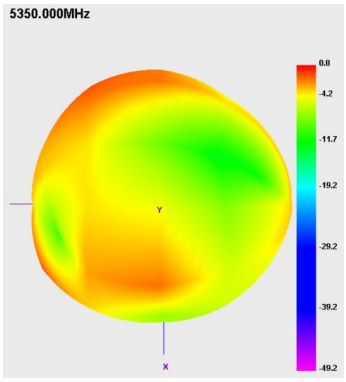

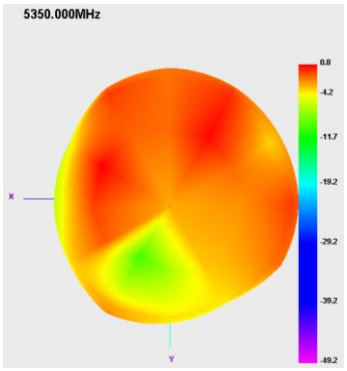

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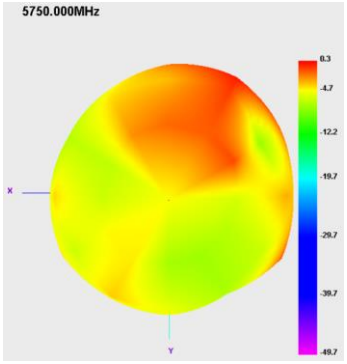

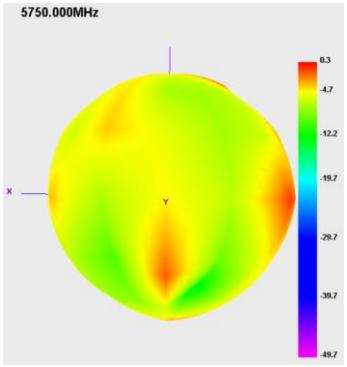

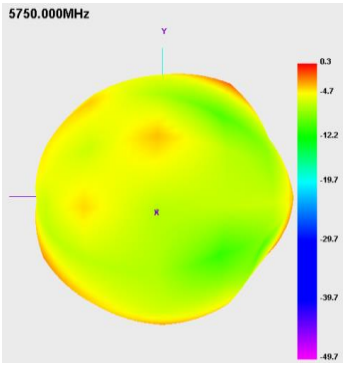

GPS