

Shenzhen Qi Xin Tongda Technology Co., LTD
Antenna specification

	Test Project	Equipment
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1. S Parameter	1. Return Loss (RL) 2. VSWR	Network Analyzer: Agilent 5071B
2. RF Test (2/3/4G)	1. power 2. level 3. TRP/TIS	Comprehensive Test: SP9500/CMW500/8960 Test Environment: Anechoic Chamber

1. Test Project

2. Test Equipment



Agilent 5071B (S Parameter (RL/VSWR) Test Equipment)



Agilent 8960 (2G/3G Test Equipment)

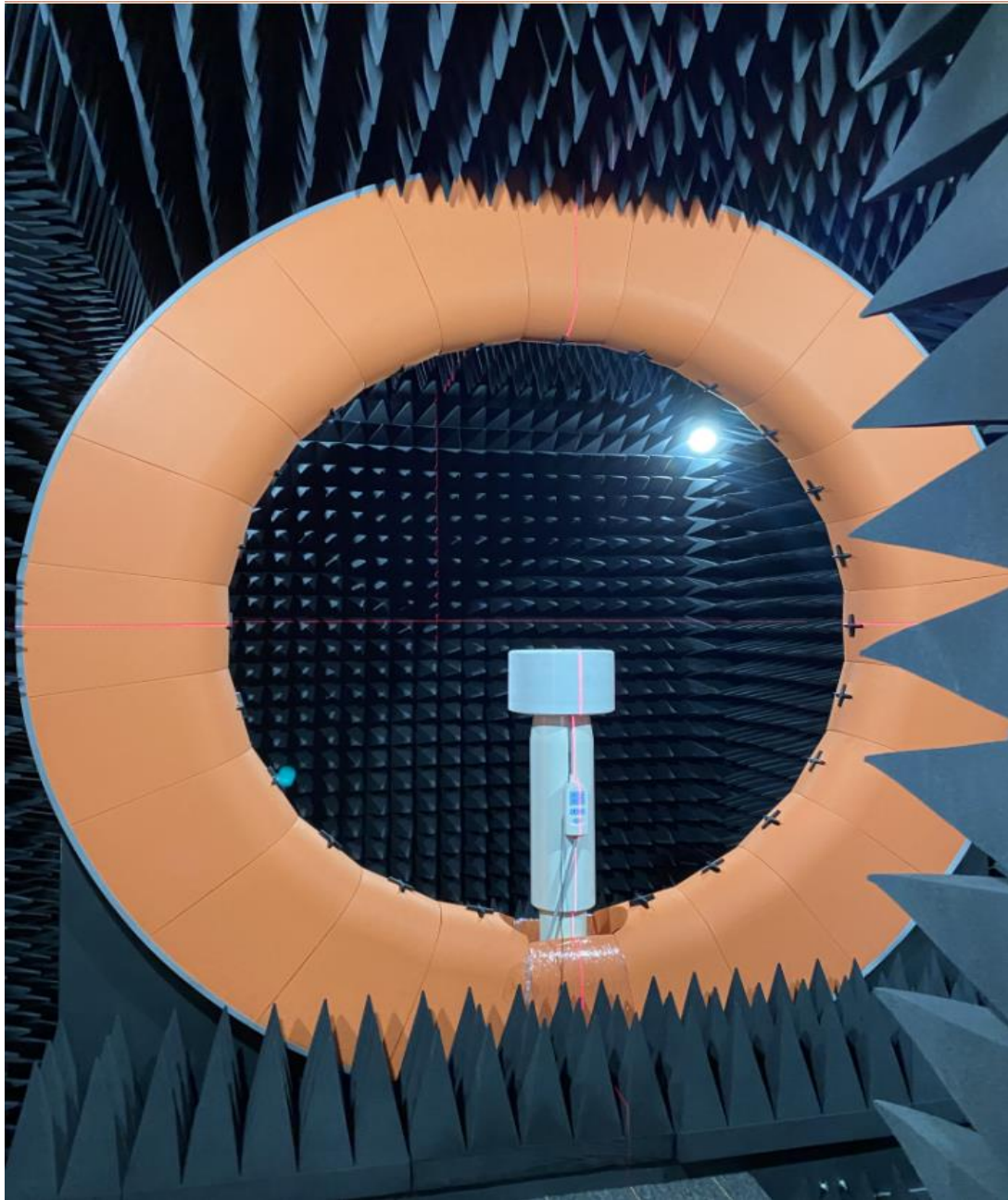


CMW 500 (2G/3G/4G Test Equipment)



SP9500 (5G Test Equipment)

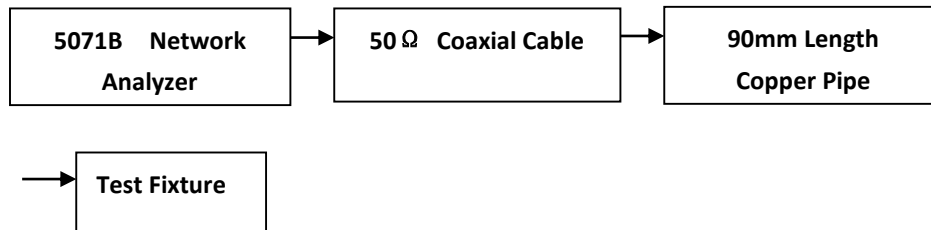
3. TestEnvironment



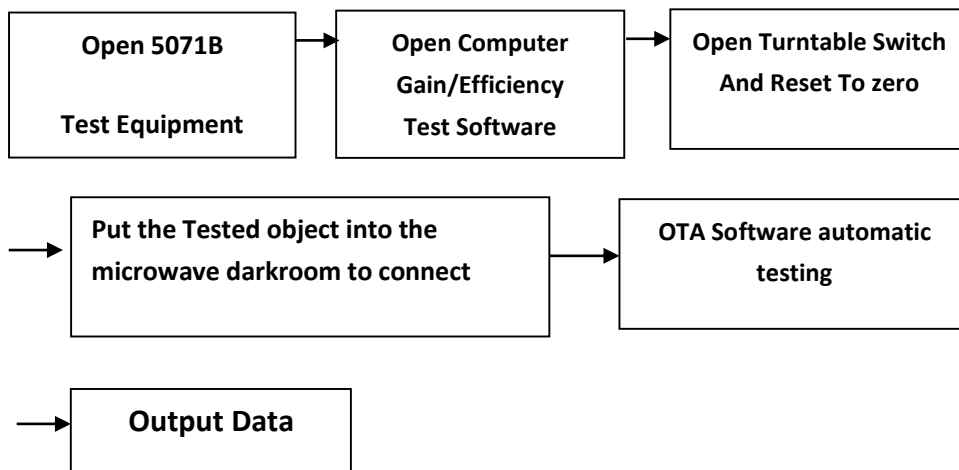
Microwave Anechoic Chamber

4.Test Steps

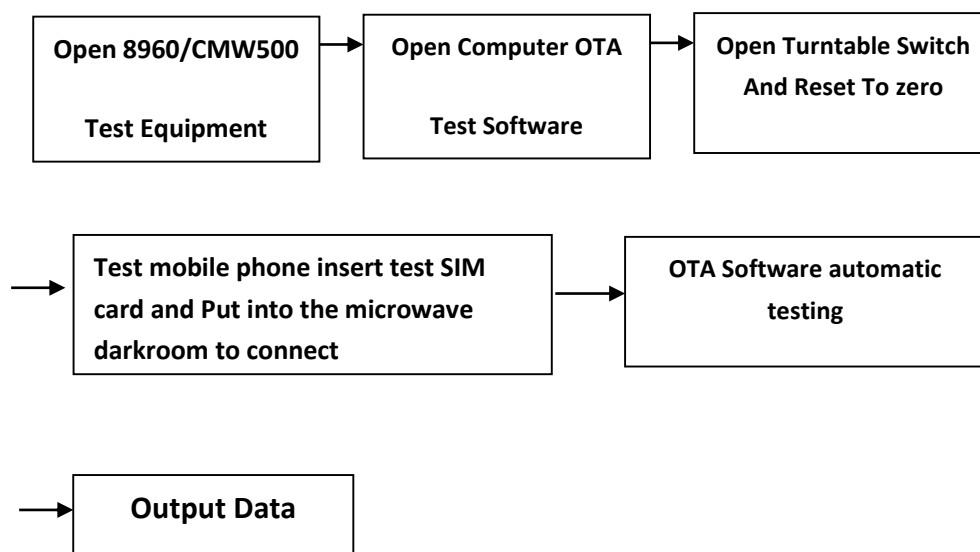
Passive VSWR/RL Test Steps:



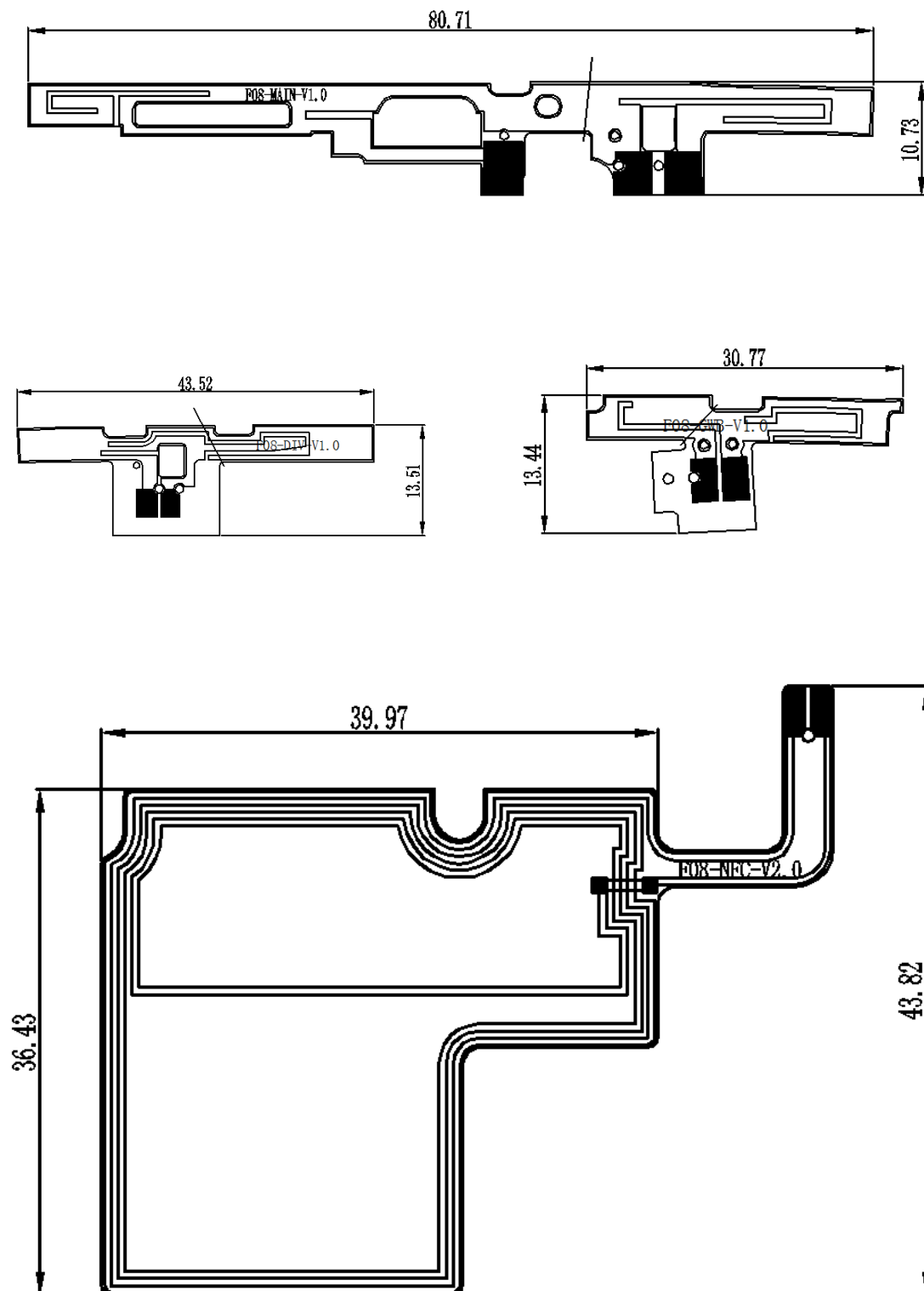
Gain/Efficiency Test Steps:



Active TRP/TIS Test Steps:



5. Antenna size diagram



6. Antenna Position Diagram

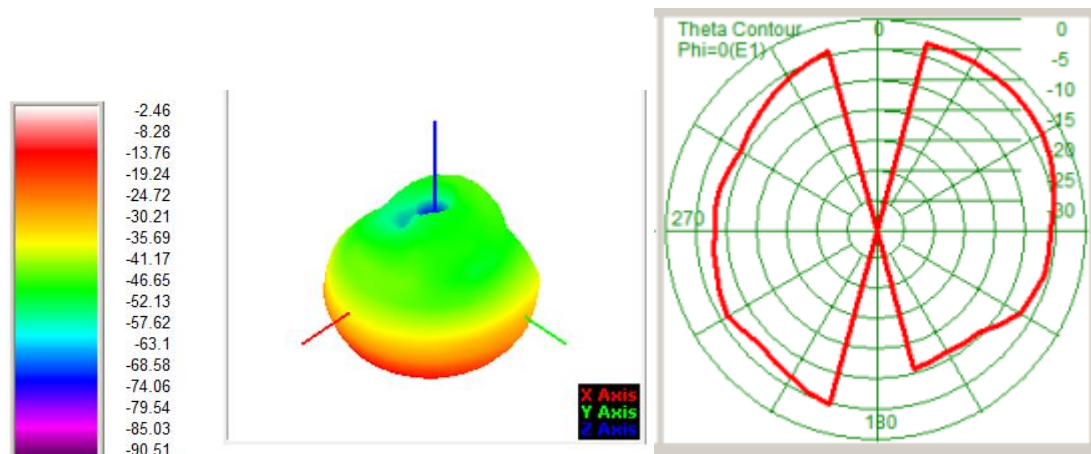


7. Antenna Gain

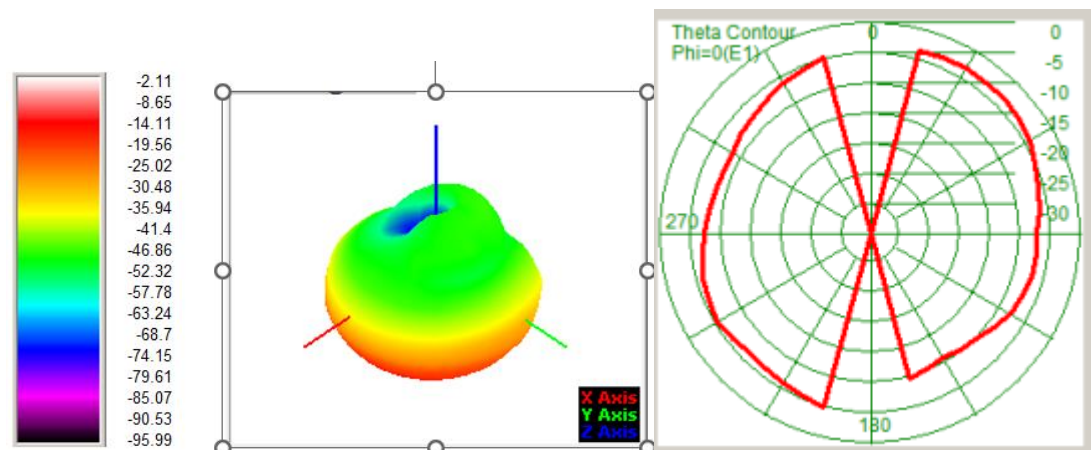
Band	Max Gain
GSM850-824-880MHZ	-2.46
GSM900-890-960MHZ	-2.11
DCS1800-1710-1880MHZ	0.34
PCS1900-1890-1990MHZ	1.07
WCDMA2100-1920-2170MHZ	1.03
WCDMA1900-1850-1990MHZ	1.07
WCDMA1700-1710-2155MHZ	0.34
WCDMA850-824-880MHZ	-2.46
WCDMA900-890-960MHZ	-2.11
BAND 1-1920-2170MHZ	1.03
BAND 2-1820-1990MHZ	1.07
BAND 3-1710-1880MHZ	0.34
BAND 4-1710-2155MHZ	0.34
BAND 5-824-894MHZ	-2.46
BAND 7-2500-2690MHZ	-0.54
BAND 8-880-960MHZ	-2.11
BAND 12-699-746MHZ	-2.67
BAND 17-704-746MHZ	-2.67
BAND 18-815-875MHZ	-2.46
BAND 19-830-890MHZ	-2.46
BAND 20-821-862MHZ-	-2.46
BAND 25-1850-1995MHZ	0.34
BAND 26-814-894MHZ	-2.46
BAND 28-703-803MHZ	-2.67
BAND 66-1710-2200MHZ	0.34
BAND 38-2570-2620MHZ	-0.54
BAND 40-2300-2400MHZ	-0.8
BAND 41-2496-2690MHZ	-0.54
GPS-1575.4MHZ	1.43
2.4G WIFI/BT-2450MHZ	0.18
5G WIFI-5100-5850MHZ	-0.27

8.3D Lobe Diagram

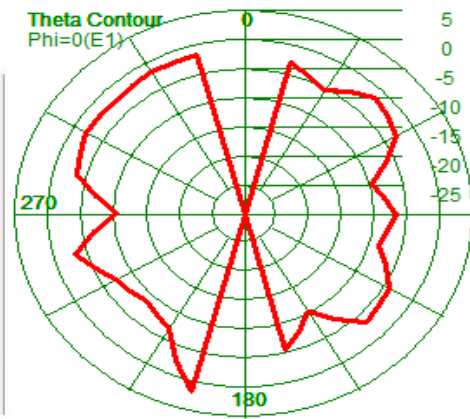
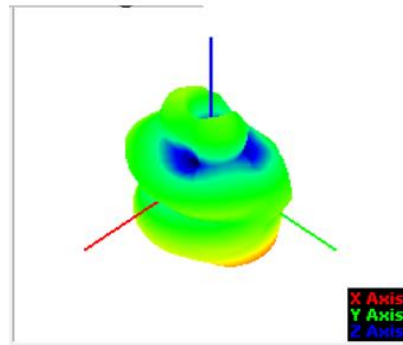
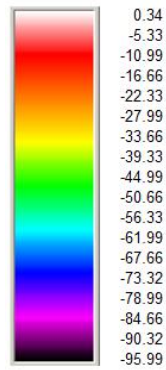
GSM850



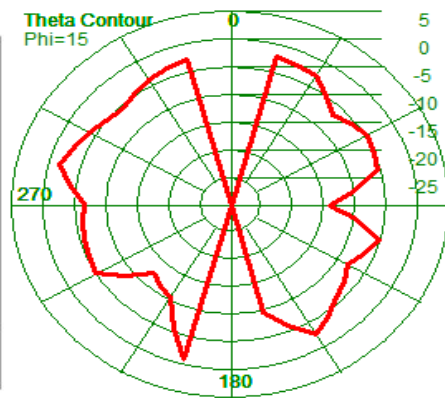
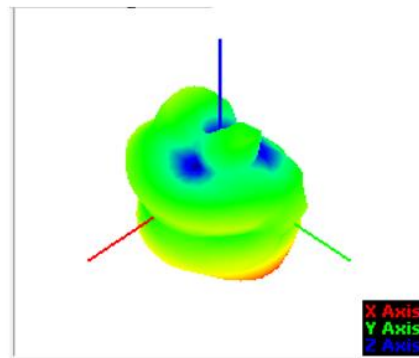
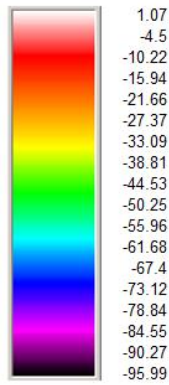
GSM900



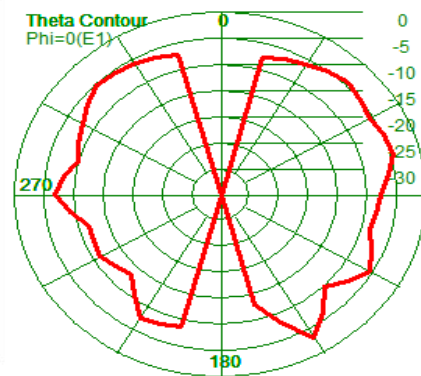
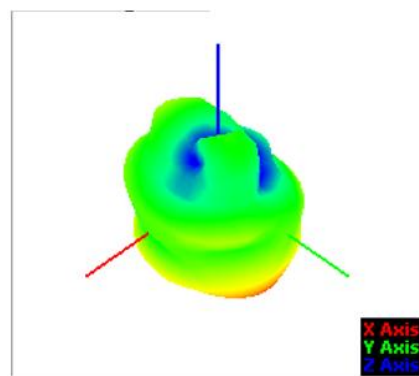
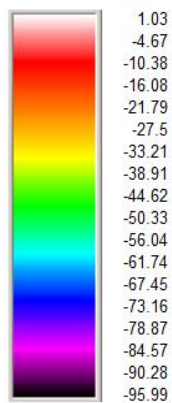
DSC1800



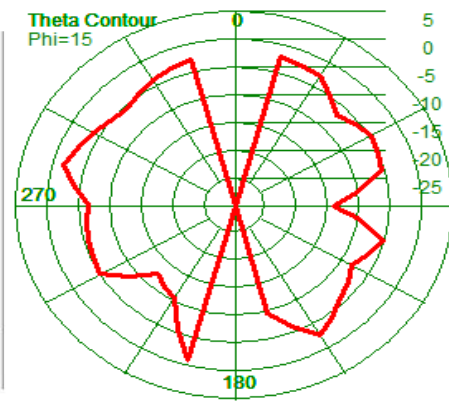
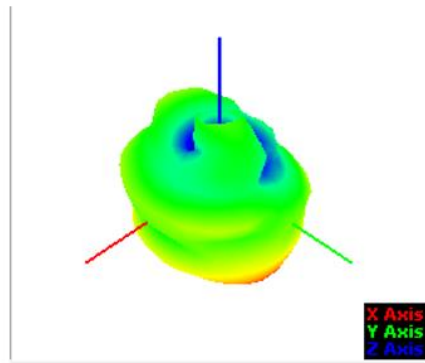
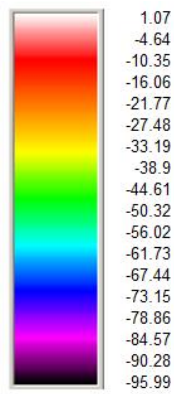
PCS1900



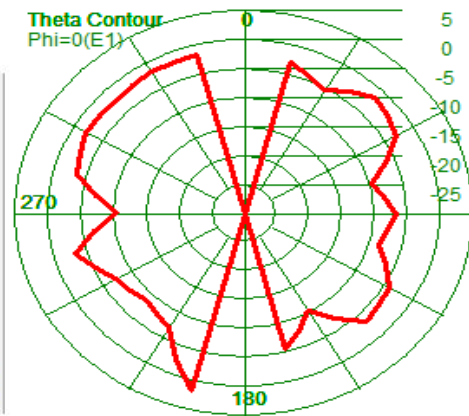
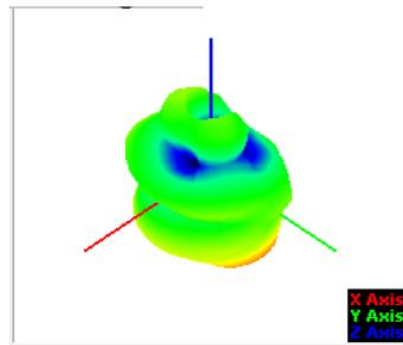
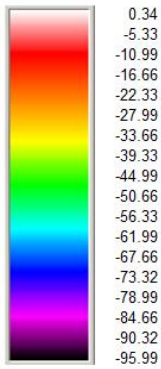
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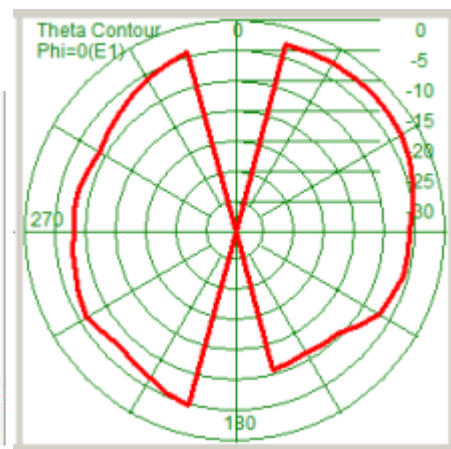
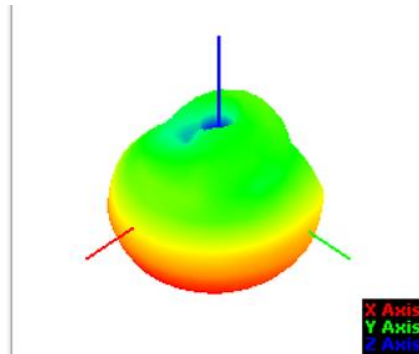
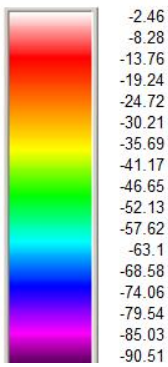
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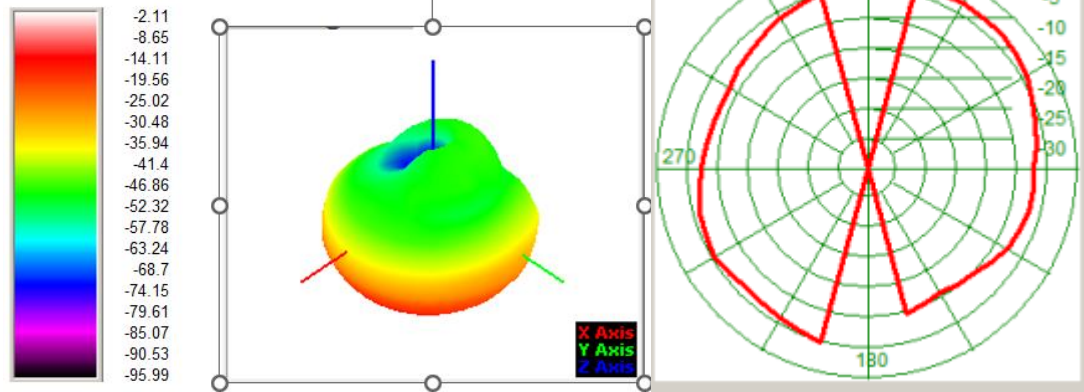
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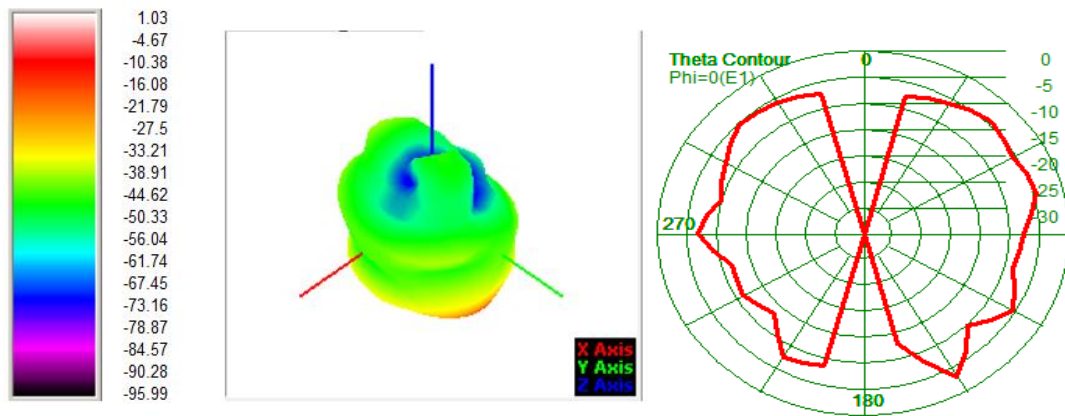
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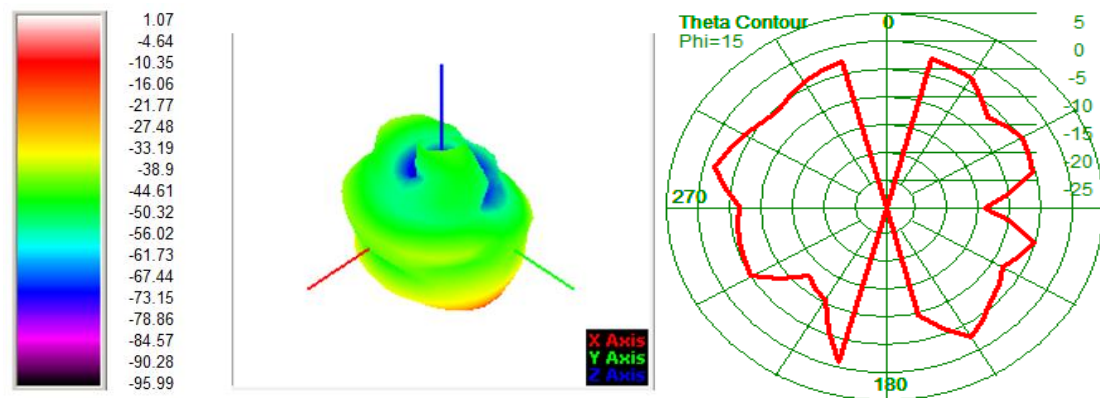
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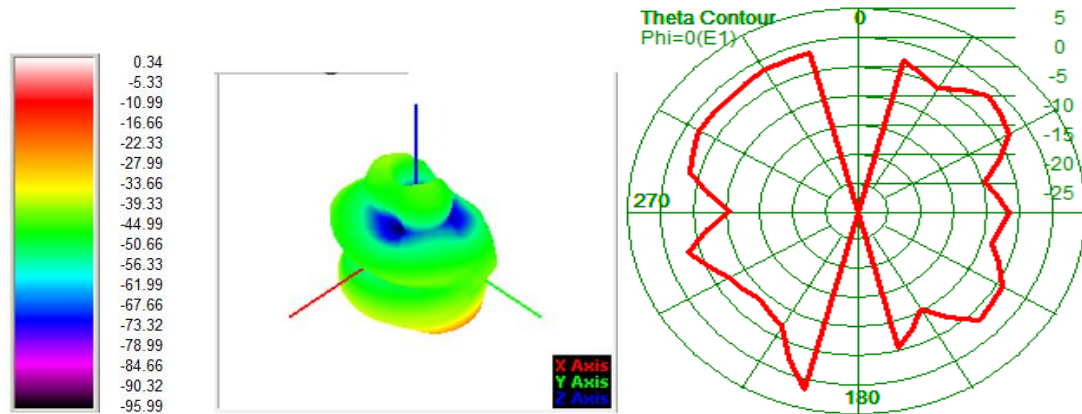
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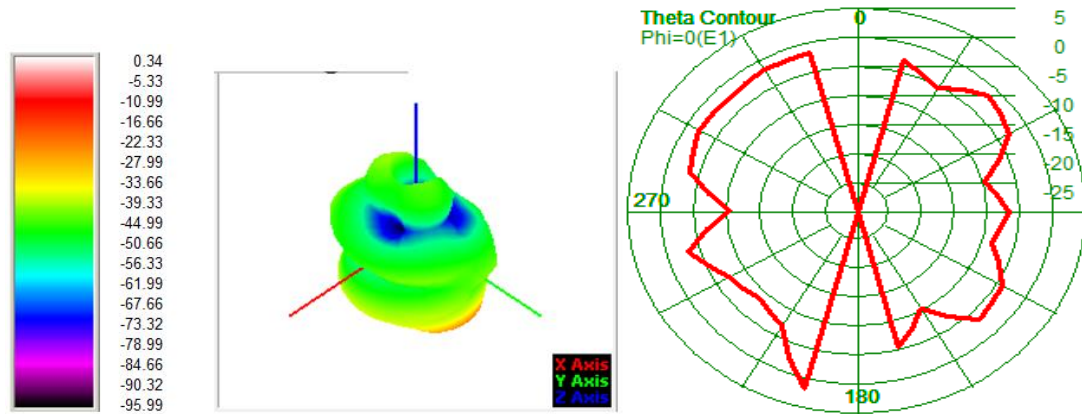
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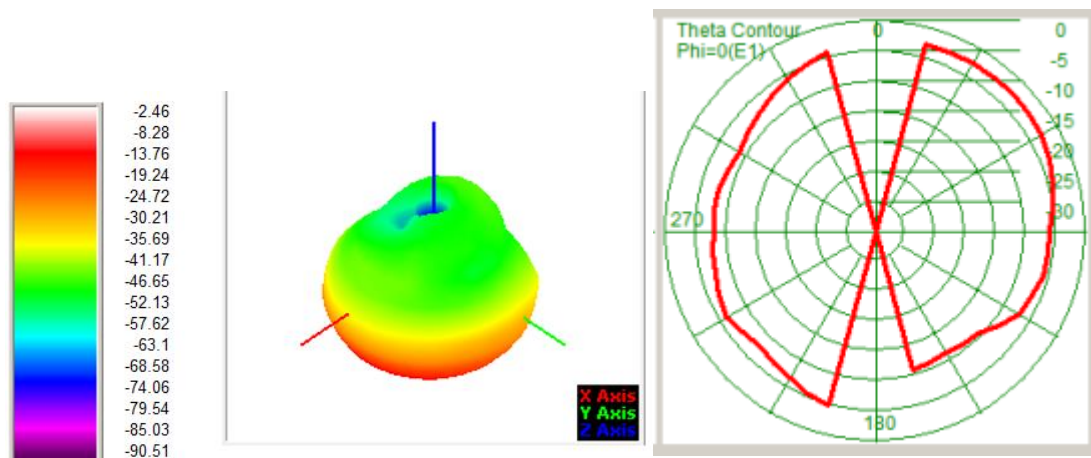
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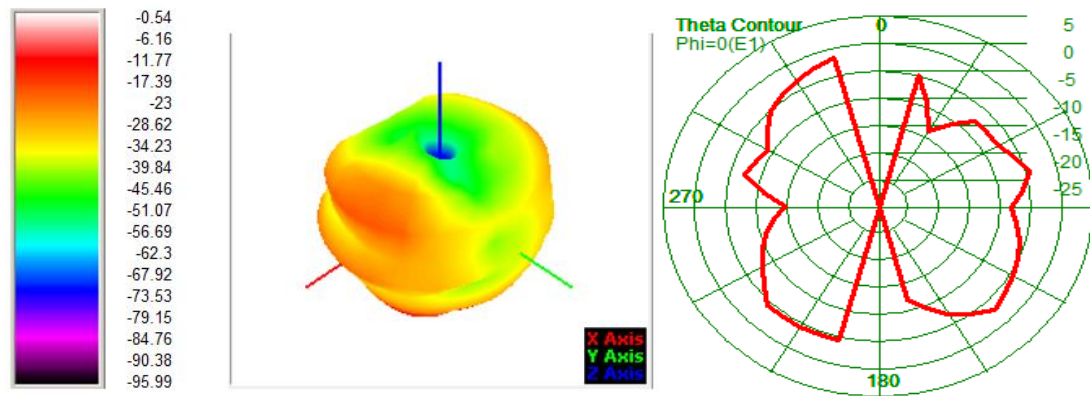
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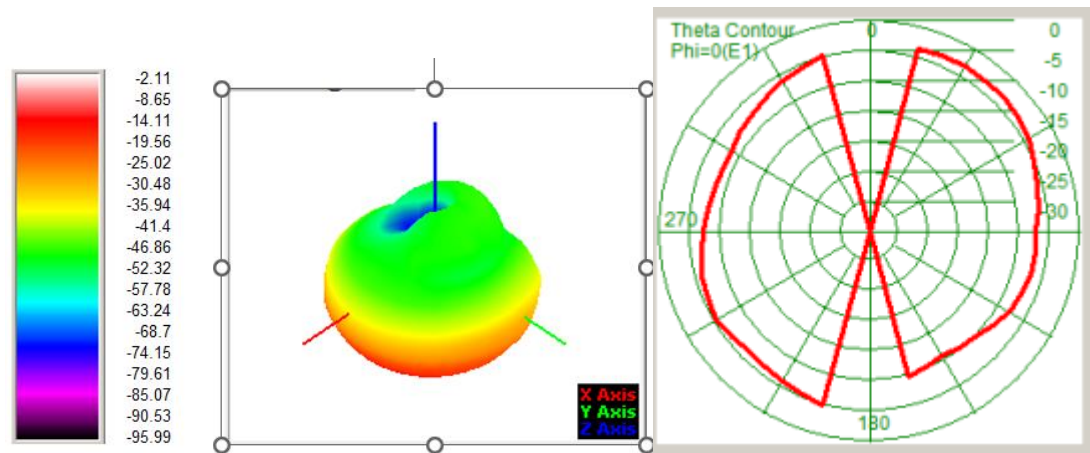
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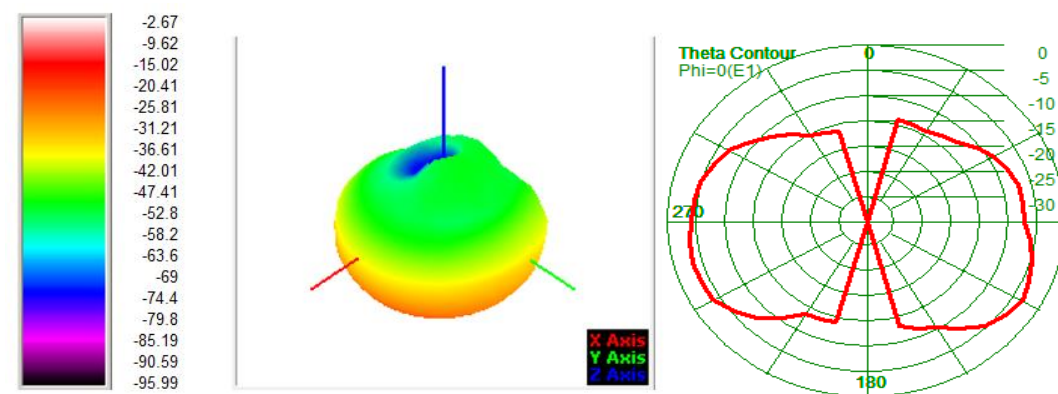
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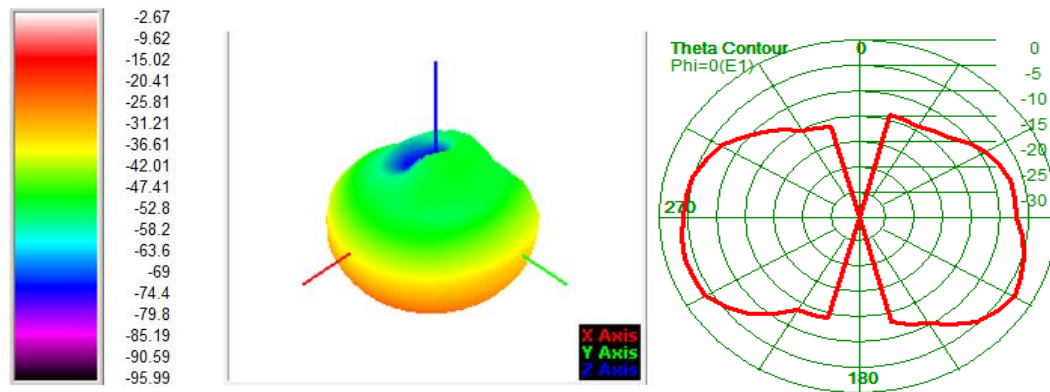
FDD-B8



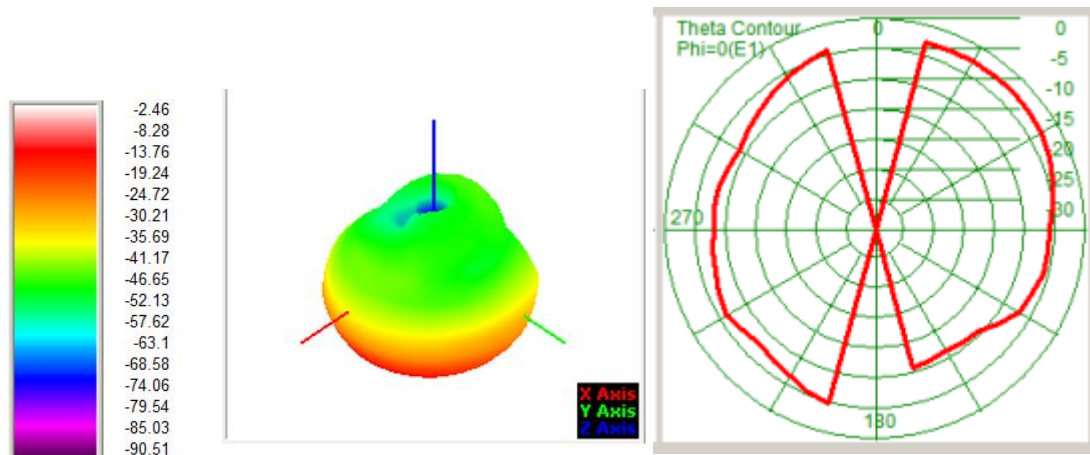
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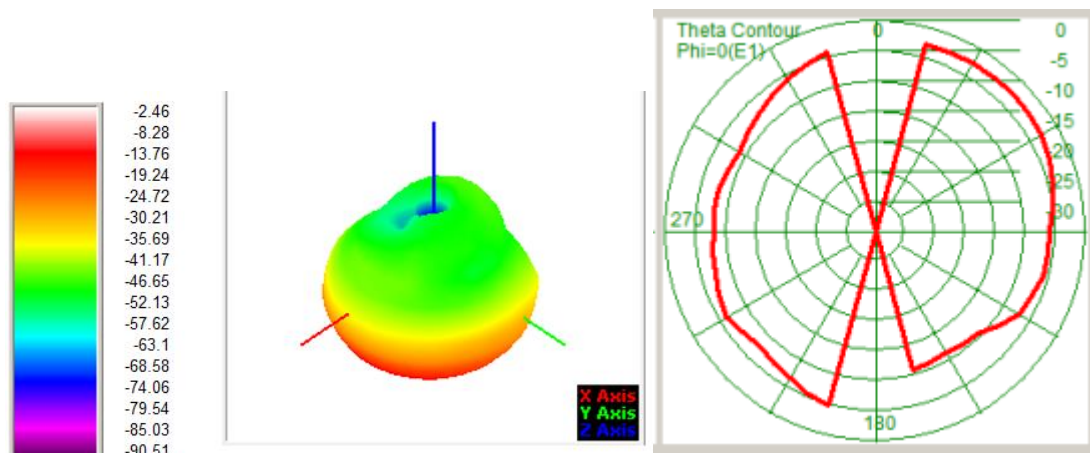
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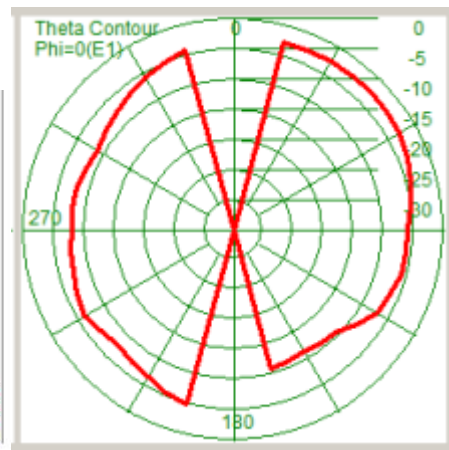
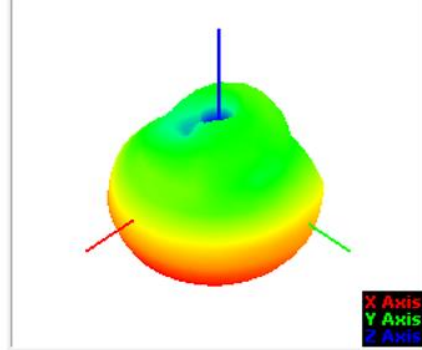
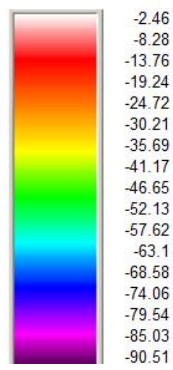
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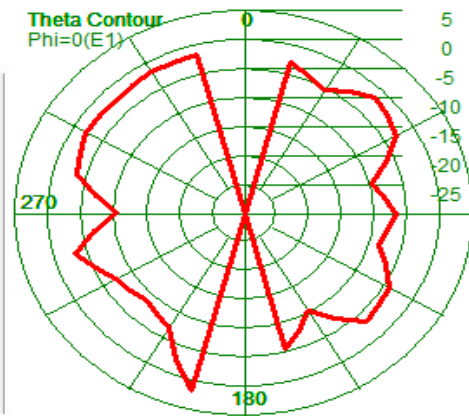
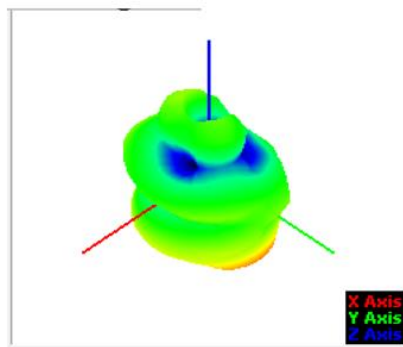
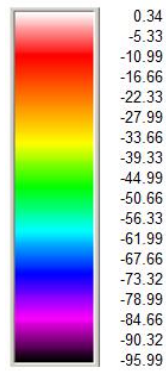
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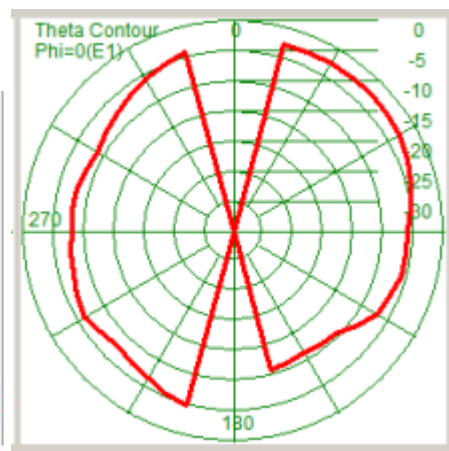
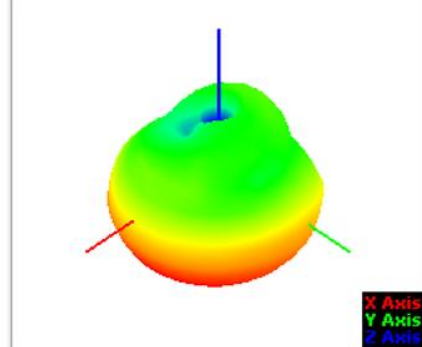
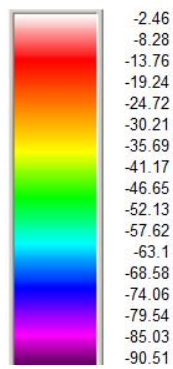
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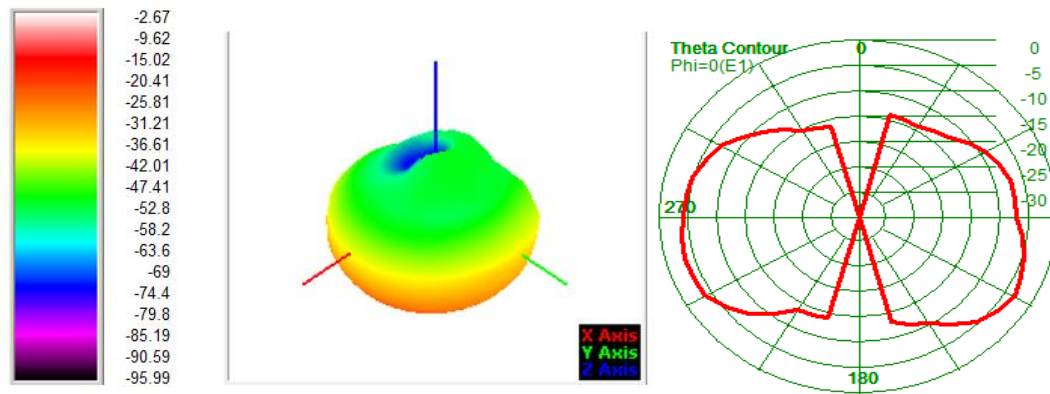
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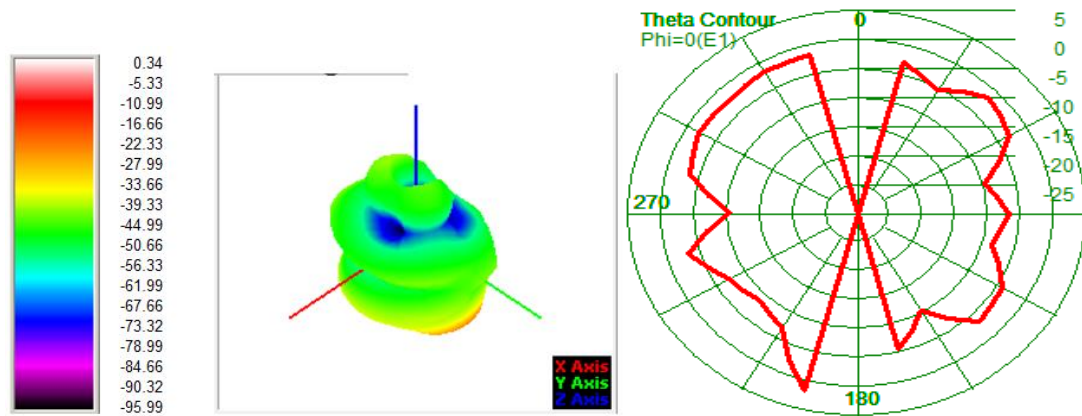
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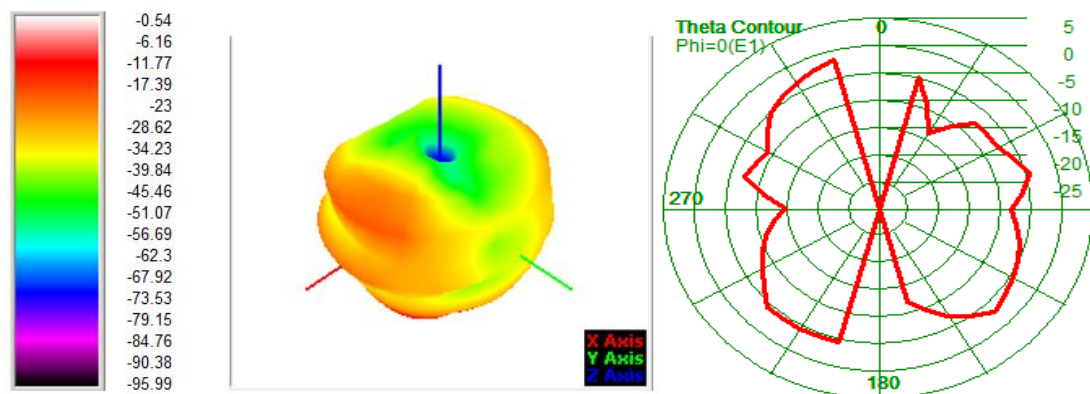
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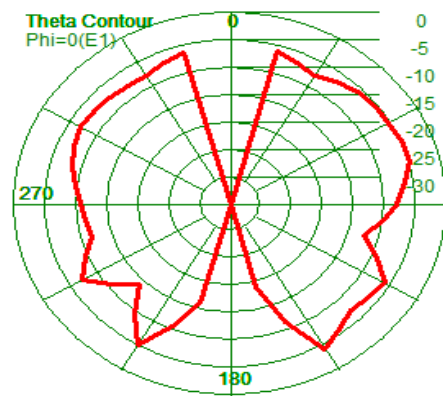
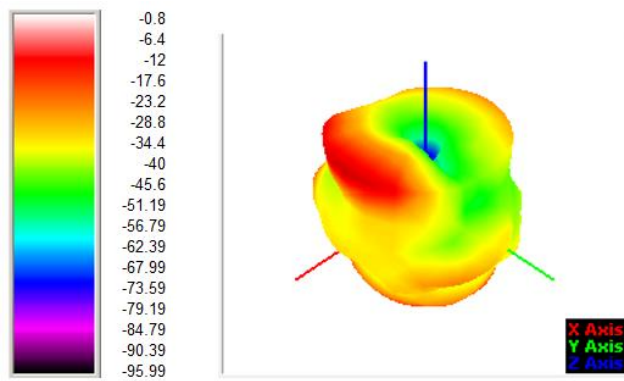
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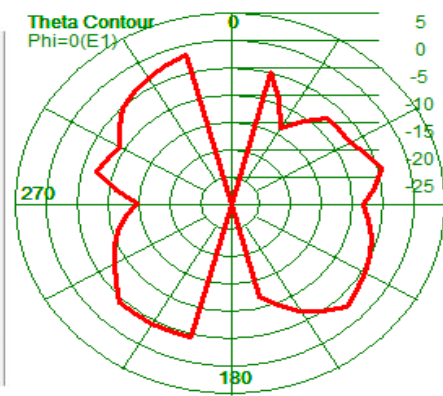
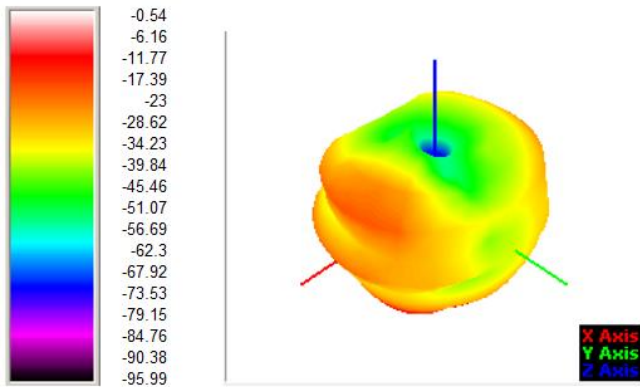
TDD-B38



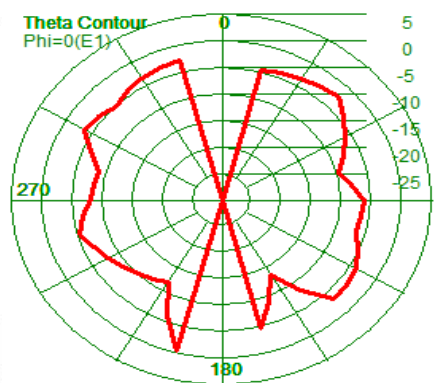
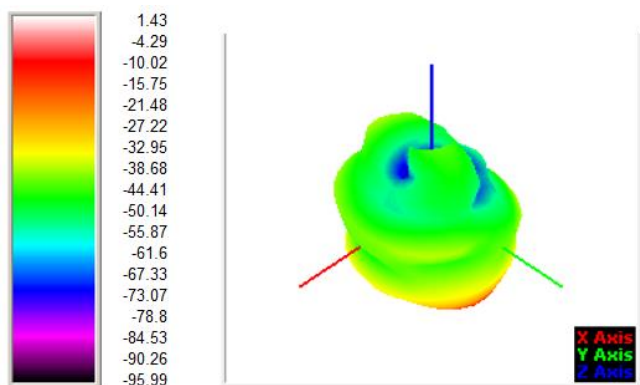
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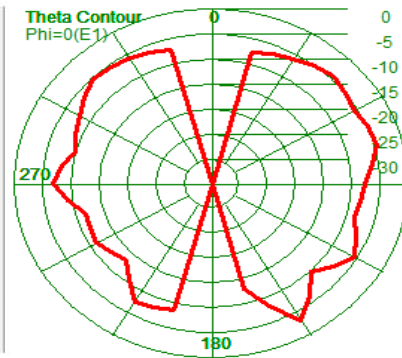
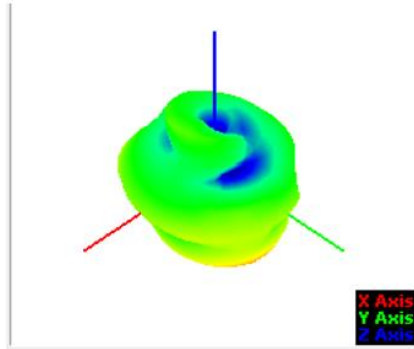
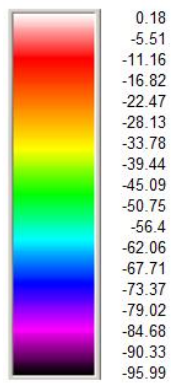
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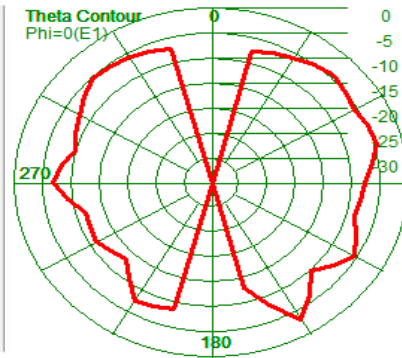
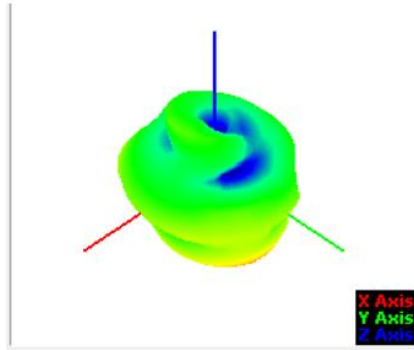
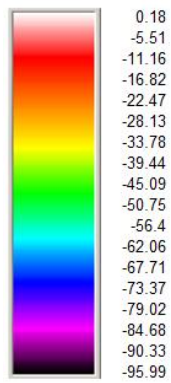
GPS



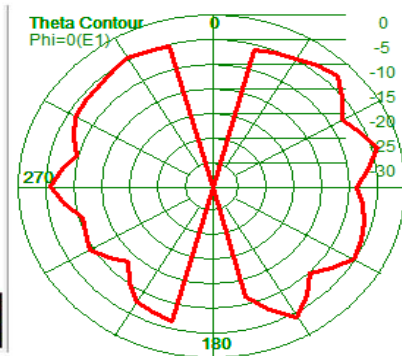
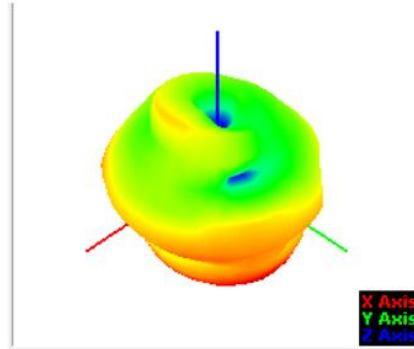
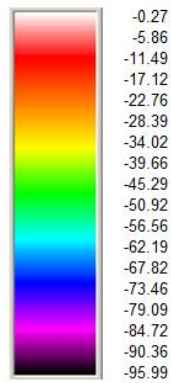
BT



2.4G-WIFI



5G-WIFI



9.Introduction to Antenna Information

F08	
Antenna type and frequency band	MAIN ANTENNA(PIFA):2G/3G/4G DIV ANTENNA(PIFA):2G/3G/4G GPS/WIFI/BT ANTENNA(PIFA):L1/2.4GWIFI/BT
Antenna materia	FPC

10. Main ANT OTA Test Data

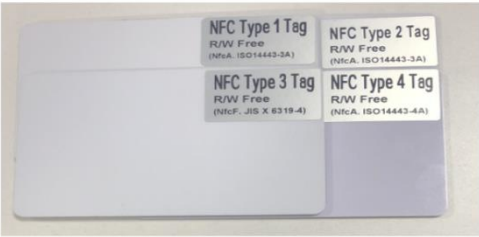
手机型号		备注说明		手机型号		备注说明	
测试项目	GSM900测量数值			测试项目	WCDMA850测量数值		
信道	1	62	120	信道	4357	4400	4458
TRP(dBm)	25.0	25.14	25.2	TRP(dBm)	16.25	16.17	16.04
TIS(dBm)			-100.6	TIS(dBm)			-101.01
测试项目	GSM850测量数值			测试项目	WCDMA1700测量数值		
信道	128	190	251	信道	L	M	H
TRP(dBm)	25.04	25.36	25.88	TRP(dBm)	16.16	16.43	16.85
TIS(dBm)			-100.42	TIS(dBm)			-107.3
测试项目	WCDMA900测量数值			测试项目	LTE-FDD-B2		
信道	2937	3012	3088	信道	650	950	1150
TRP(dBm)	15.66	15.71	15.68	TRP(dBm)	17.42	17.03	17.04
TIS(dBm)			-101.52	TIS(dBm)			-93.89
测试项目	DCS1800测量数值			测试项目	LTE-FDD-B3		
信道	512	698	885	信道	L	M	H
TRP(dBm)	23.21	24.15	24.71	TRP(dBm)	17.79	18.14	18.55
TIS(dBm)			-102.26	TIS(dBm)			-91.36
测试项目	PCS1900测量数值			测试项目	LTE-FDD-B18		
信道	128	190	251	信道	L	M	H
TRP(dBm)	25.04	25.36	25.88	TRP(dBm)	17.06	17.0	17.01
TIS(dBm)			-102.32	TIS(dBm)			-89.47
测试项目	WCDMA2100测量数值			测试项目	LTE-FDD-B20		
信道	2937	3012	3088	信道	L	M	H
TRP(dBm)	15.66	15.71	15.68	TRP(dBm)	16.91	16.42	16.31
TIS(dBm)			-107.36	TIS(dBm)			-90.26
测试项目	LTE-FDD-B4			测试项目	LTE-FDD-B26		
信道	2000	2175	2350	信道	L	M	H
TRP(dBm)	16.79	17.21	17.92	TRP(dBm)	16.58	16.53	16.42
TIS(dBm)			-93.23	TIS(dBm)			-85.07
测试项目	LTE-FDD-B7			测试项目	LTE-FDD-B28-A		
信道	L	M	H	信道	L	M	H
TRP(dBm)	13.43	14.51	15.62	TRP(dBm)	16.4	16.71	17.03
TIS(dBm)			-90.03	TIS(dBm)			-90.02
测试项目	LTE-FDD-B12			测试项目	LTE-FDD-B17		
信道	5060	5095	5130	信道	L	M	H
TRP(dBm)	16.2	16.64	16.31	TRP(dBm)	16.31	16.42	16.52
TIS(dBm)			-88.53	TIS(dBm)			-89.09

手机型号	备注说明					
测试项目	LTE-FDD-B28-B			LTE-FDD-B66		
信 道	L	M	H	L	M	H
TRP (dBm)	16.81	17.1	17.42	17.25	17.88	18.38
TIS (dBm)			-88.25			-92.35
测试项目	LTE-TDD-B38					
信 道	L	M	H			
TRP (dBm)	14.52	15.17	15.43			
TIS (dBm)			-88.31			
测试项目	LTE-TDD-B40			LTE-TDD-B41		
信 道	L	M	H	40320	40640	41140
TRP (dBm)	14.21	15.09	15.17	14.0	14.7	16.53
TIS (dBm)			-88.62			-88.21

11. NFC Test Data



Reader mode	Type1	25mm
	Type2	23mm
	Type3	25mm
	Type4	10mm



12. WIFI/BT/GPS Test Data

型号		备注					
测试项目		2.4GWIFI测量数值 (802.11b) 11Mbps			5.8G-WIFI测量数值(802.11b)		
信 道		1	6	11	36	56	165
TRP(dBm)		10.18	10.42	10.29	8.45	8.67	8.81
TIS(dBm)				-81.06			-70.41
测试项目	BT测试						
信 道		L	M	H			
TRP(dBm)		3.6	3.5	3.4			
TIS(dBm)				-72.16			
测试项目	GPS测试						
信 道		1575.42MHZ					
TIS(dBm)		-141.2					
MAX(dBm)		42					