

SHENZHEN QIXINTONGDA TECHNOLOGY CO. LIMITED

Antenna test data report

**Room 503, Building 211, Tairan Industrial Zone, Tairan 9th
Road, Chegongmiao, Futian District, Shenzhen**

GSM: B2/B3/B5/B8

WCDMA: B1/B2/B5/B8

FDD: B1/B2/B3/B4/B5/B7/B8/B28A



1. Test Project

	Test Project	Equipment
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

2. Test Equipment



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



Agilent 8960 (2G/3GTest Equipment)

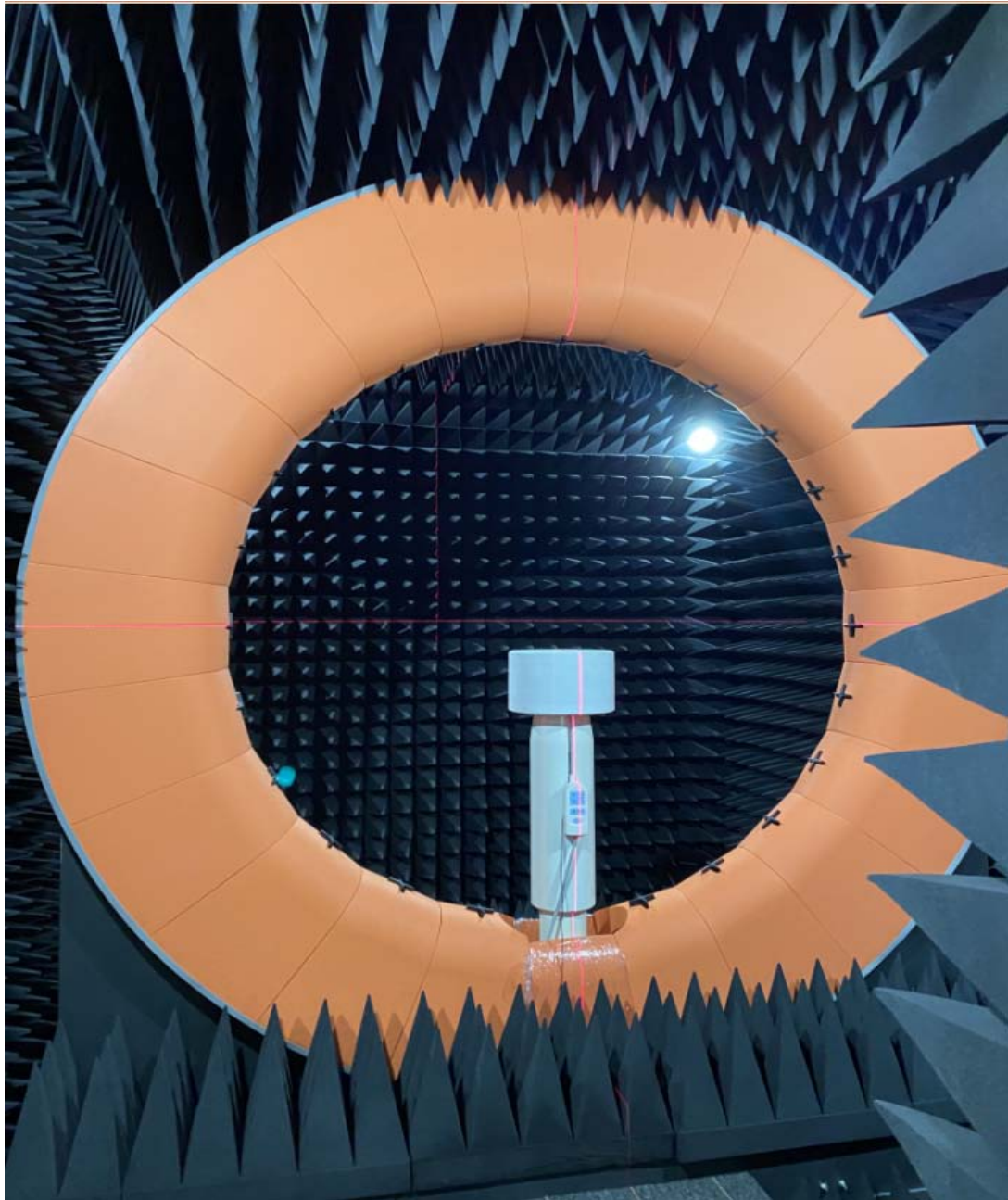


CMW 500 (2G/3G/4GTest Equipment)



SP9500 (5GTest Equipment)

3. Test Environment



Microwave Anechoic Chamber

4.Test Steps

Passive VSWR/RL Test Steps:

→ → →

→

Active TRP/TIS Test Steps:

→ → →

→ → →

→

5.Antenna Gain

Band	Max Gain	Band	Max Gain
GSM850	0.21	LTE-B1	0.67
GSM900	0.33	LTE-B2	0.71
DCS1800	0.61	LTE-B3	0.61
PCS1900	0.66	LTE-B4	0.54
WCDMA1	0.67	LTE-B5	0.21
WCDMA2	0.71	LTE-B7	0.39
WCDMA5	0.21	LTE-B8	0.33
WCDMA8	0.33	LTE-B28A	0.19
Bluetooth	0.11		

2G	Channel	TRP (dBm)	TIS (dBm)
GSM900	1	28.9	
	62	28.9	
	124	28.5	-102.6
DCS1800	512	25.3	
	698	25.1	
	885	24.7	-103.4
GSM850	128	27.2	
	190	27.6	
	251	27.6	-103.2
PCS1900	513	25.5	
	661	25.7	
	810	25.4	-101.1

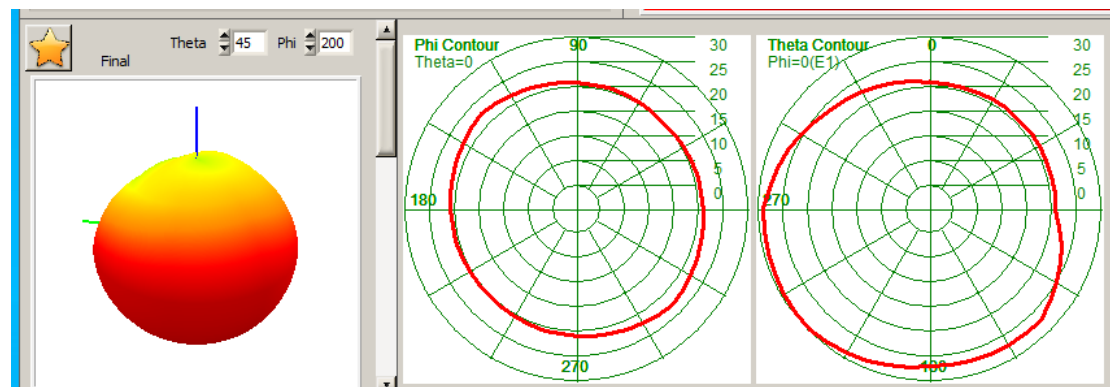
3G	Channel	TRP (dBm)	TIS (dBm)
WCDMA 900	2937	18.9	
	3012	18.8	
	3088	18.2	-104.7
WCDMA 850	4357	18.6	
	4408	18.9	
	4458	19.1	-103.1
WCDMA 1900	9662	19.5	
	9800	20.2	
	9938	19.2	-102.3
WCDMA 2100	10562	18.8	
	10700	17.7	
	10838	16.2	-102.1

LTE-FDD	Channel	TRP (dBm)	TIS (dBm)
Band 1	L	19.6	
	M	18.9	
	H	18.2	-88.2
Band 2	L	18.8	
	M	18.4	
	H	18.2	-89.1
Band 3	L	18.5	
	M	18.6	
	H	19.6	-90.2
Band 4	L	17.2	
	M	17.8	
	H	18.5	-87.7

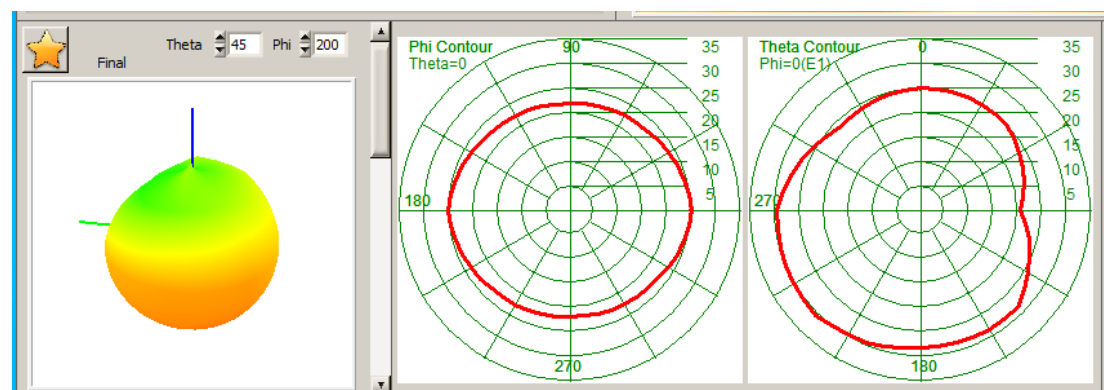
LTE-FDD	Channel	TRP (dBm)	TIS (dBm)
Band 5	L	18.6	
	M	18.9	
	H	19.4	-92.1
Band 7	L	18.5	
	M	18.4	
	H	16.7	-90.5
Band 8	L	19.5	
	M	19.5	
	H	18.9	-94.2
Band 28A	L	15.1	
	M	15.5	
	H	16.1	-92.3

6.3D Lobe Diagram

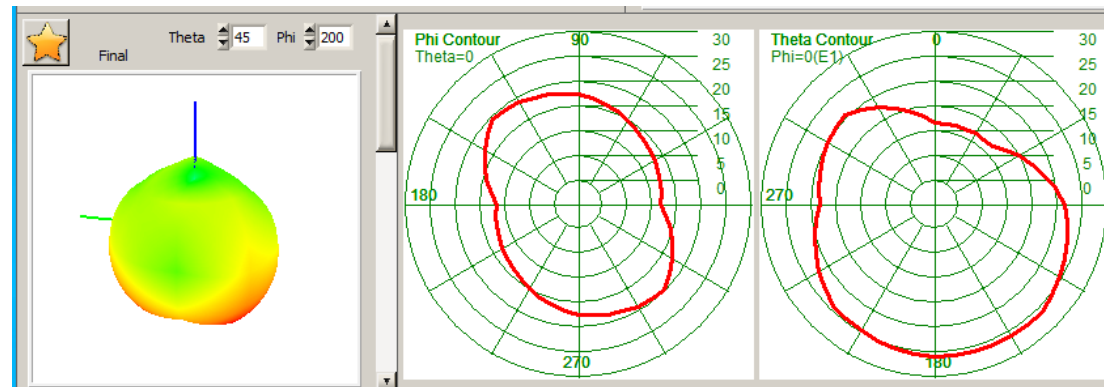
GSM850



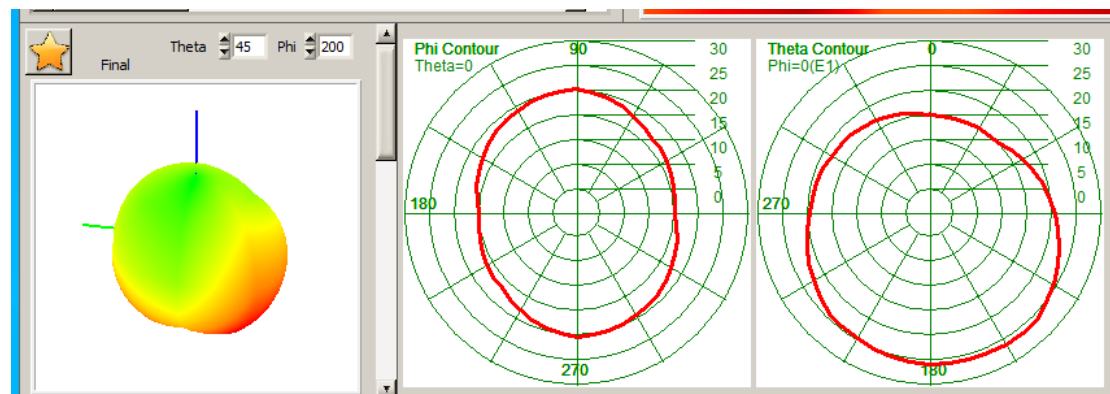
GSM900



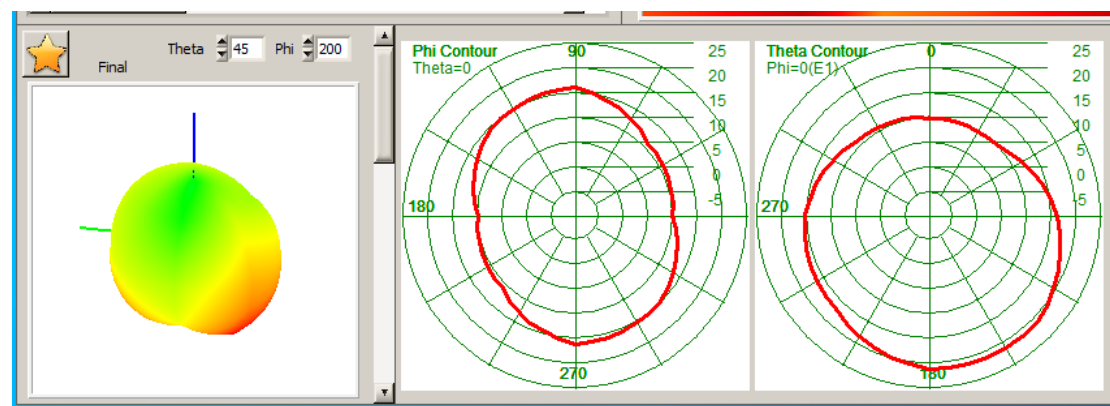
DSC1800



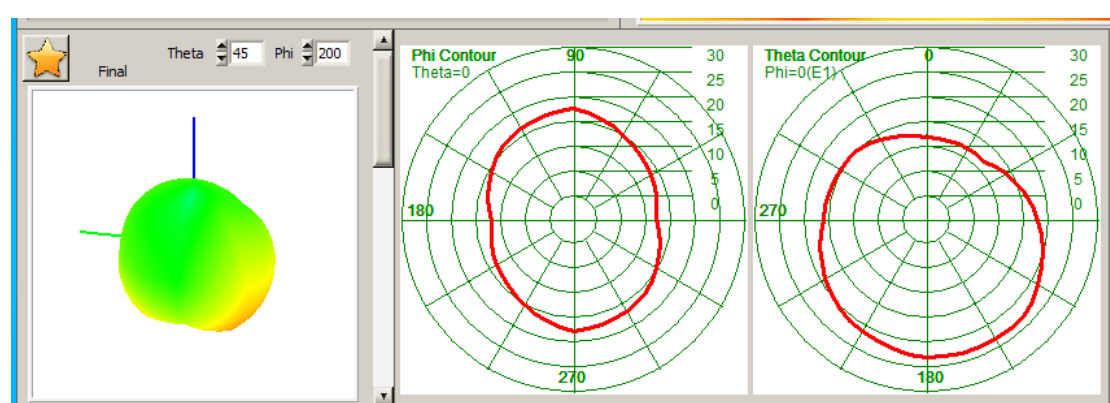
PCS1900



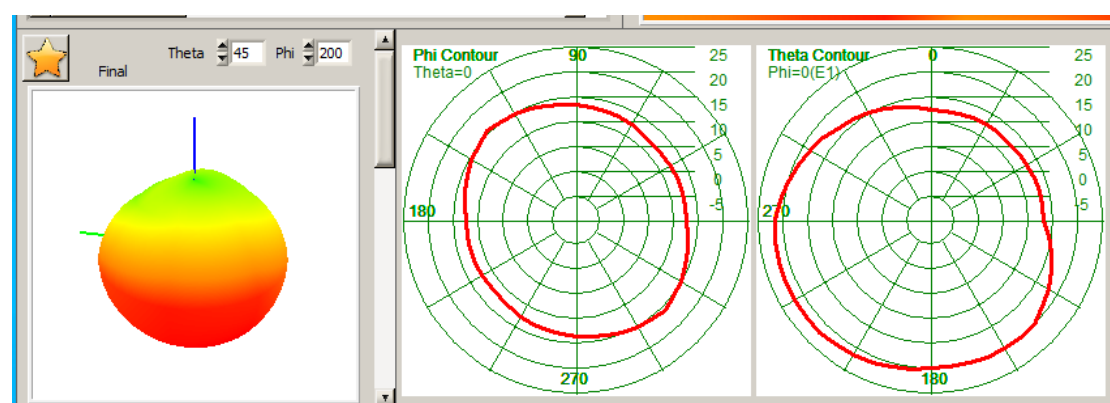
W1



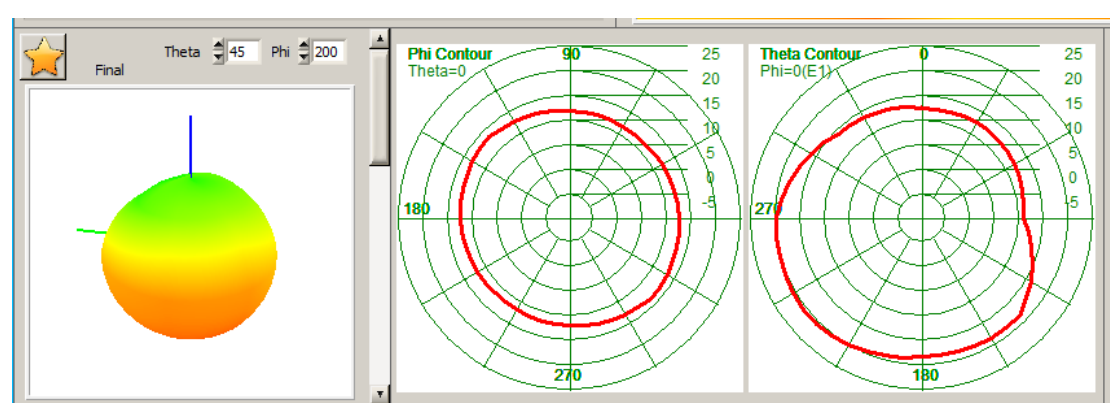
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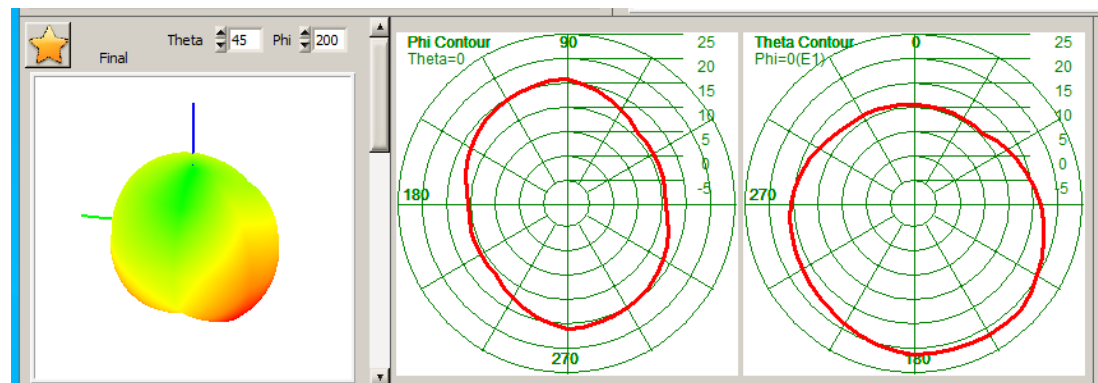
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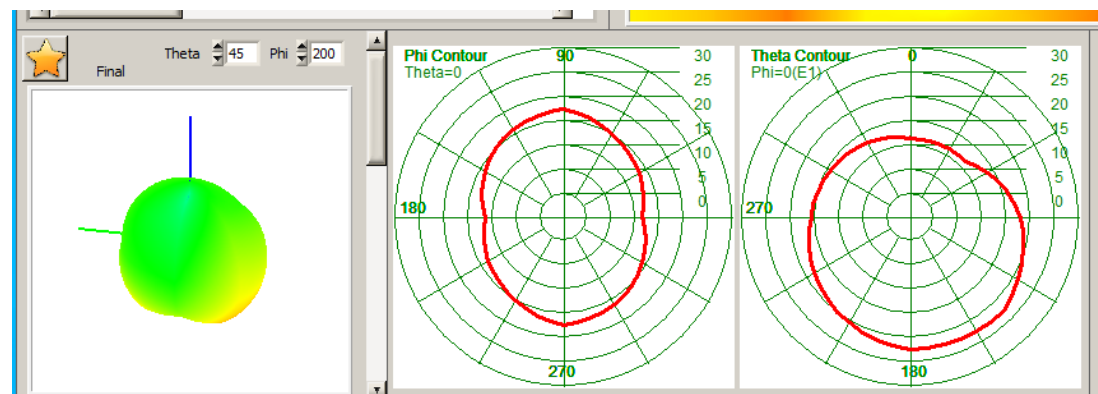
W8



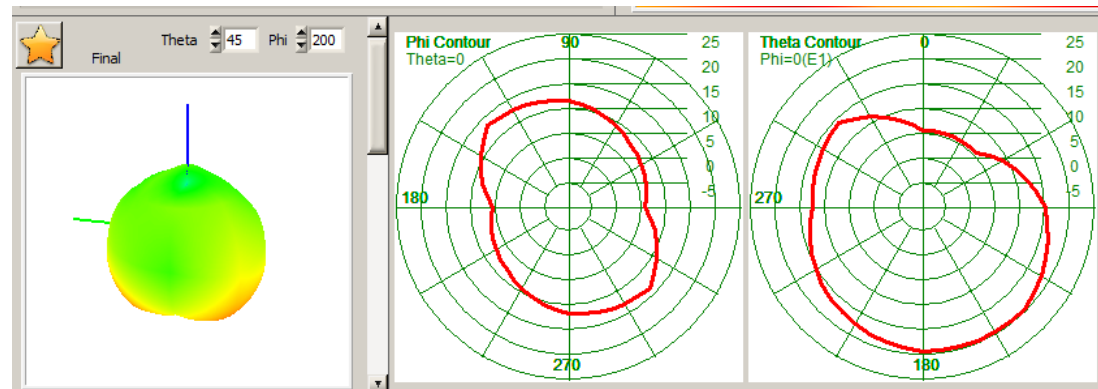
FDD-B1



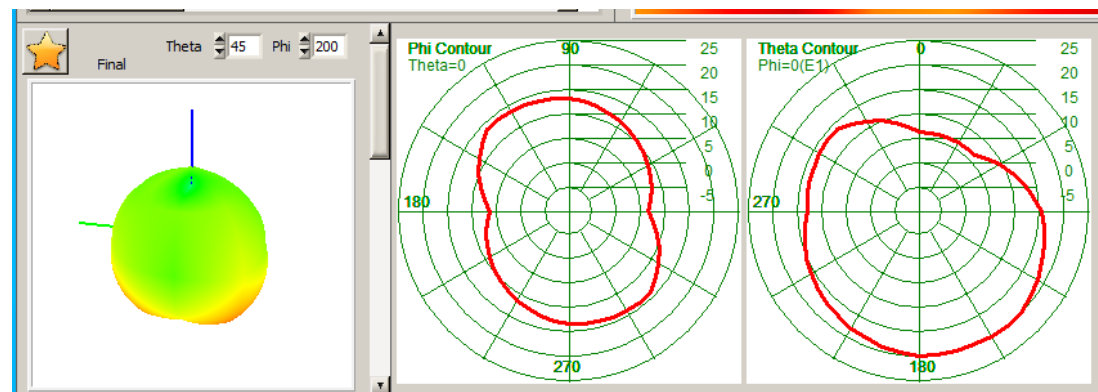
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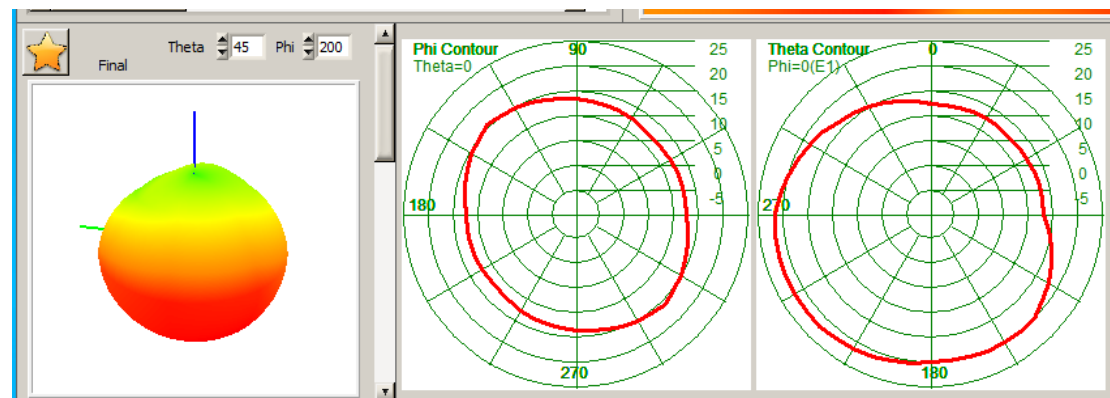
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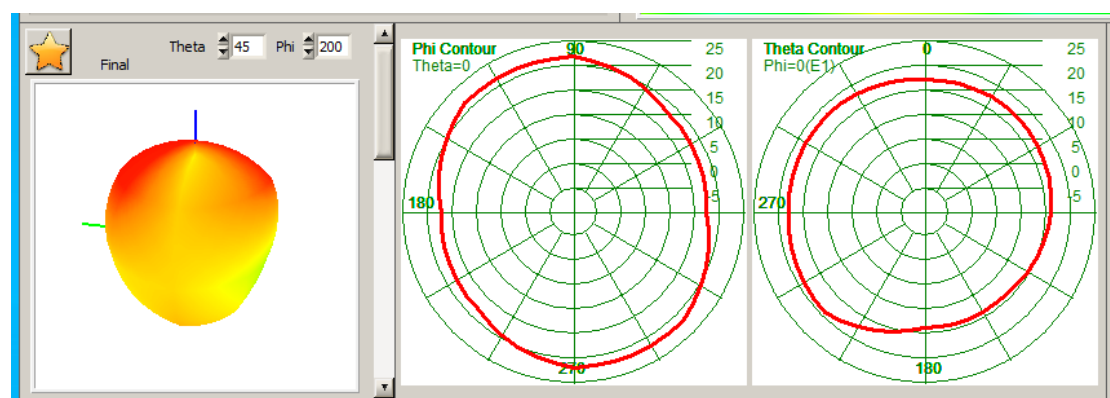
FDD-B4



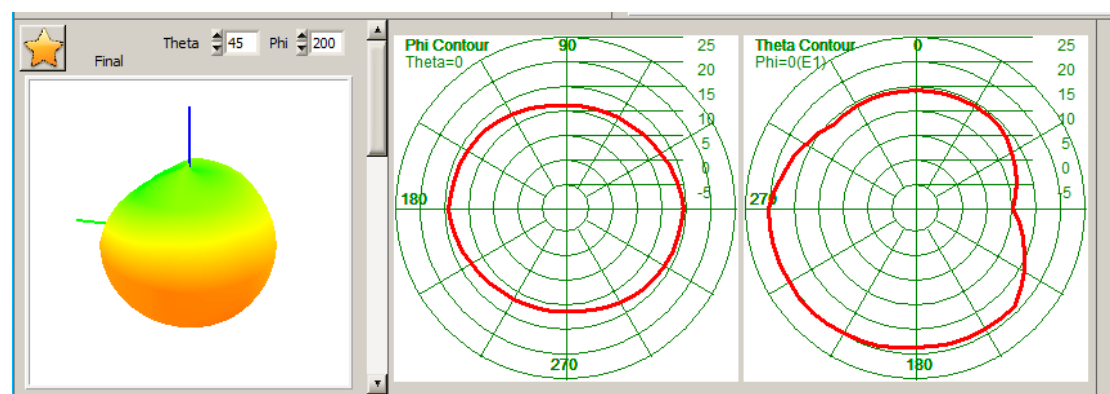
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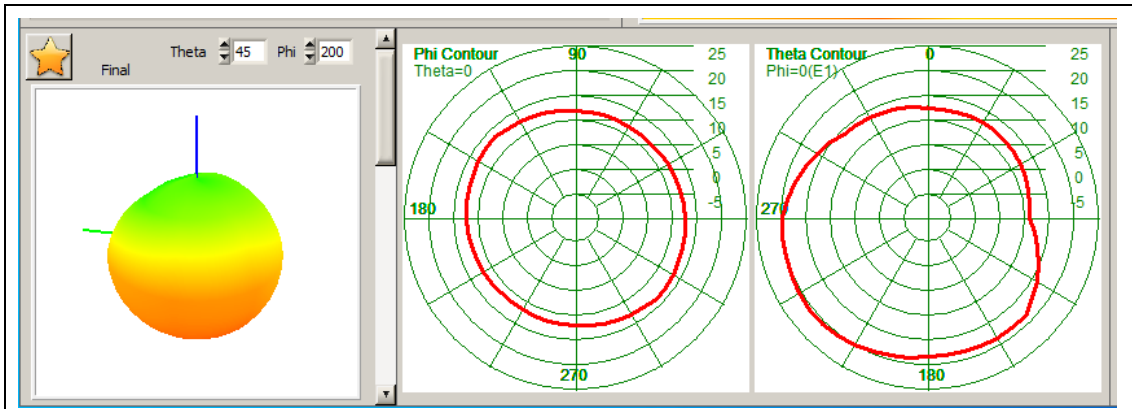
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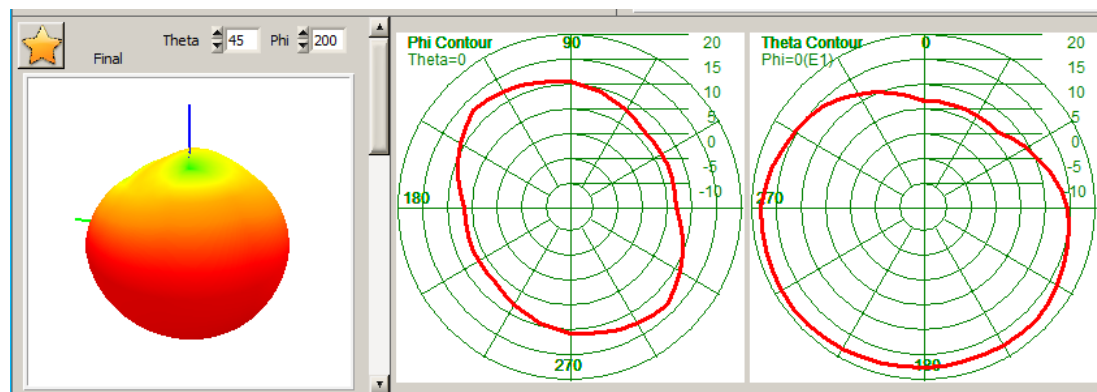
FDD-B8



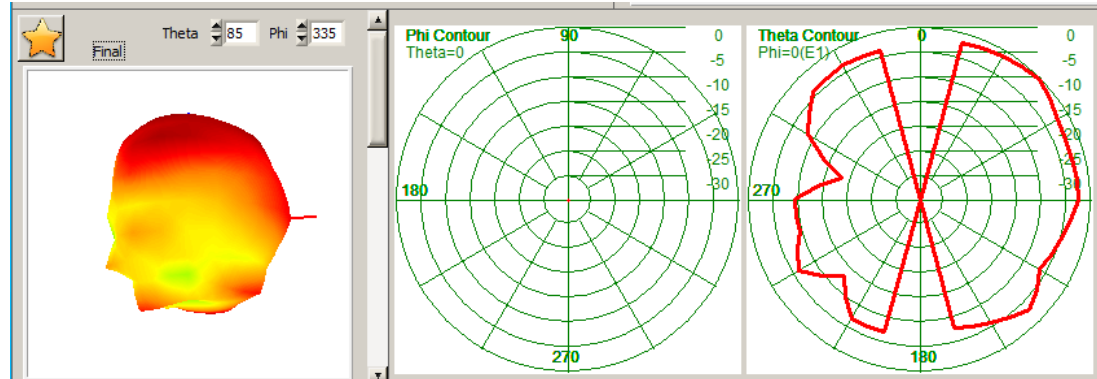
FDD-B20



FDD-B28A



BT/2.4G



8.Introduction to Antenna Information

Antenna type and frequency band	MAIN ANTENNA(<u>PIFA</u>):2G/3G/4G DIV ANTENNA(<u>PIFA</u>):2G/3G/4G BT ANTENNA(<u>PIFA</u>): 2.4G/BT
Antenna material	FPC