

Shenzhen Xiangboyi Technology Co. Ltd

Antenna Specification

Customer	
Project	MF67

Shenzhen Xiangboyi Technology Co. Ltd

Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

R & D Center: 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

Production Base: 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

Date: 2022/11/23



Customer confirmation			
Engineer	PM	Quality	Approval

Supplier confirmation			
ME	RF	Examine	Approval

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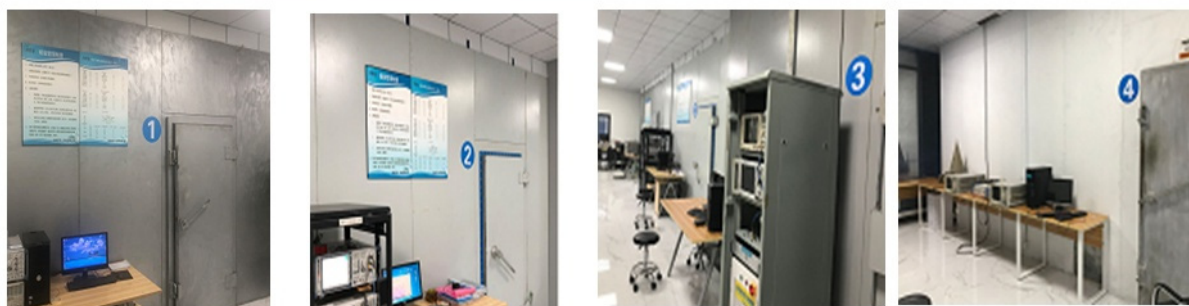
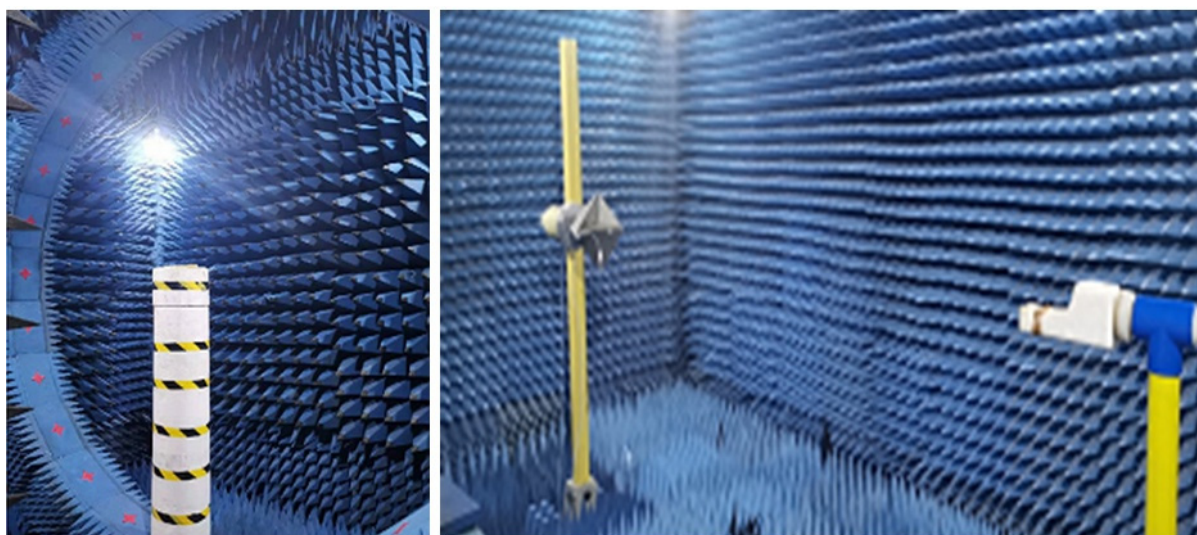
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1 Test System and Equipment

	Test items	equipment
1: S parameter	1. Return loss 2. VSWR	Network analyzer: A338/A333/HP8753D
2: Active test	1. Transmitting power 2. Receiving sensitivity	Comprehensive test instrument: Agilent 8960/ CMW500
3: Radiation mode and gain	1. Radiation mode 2. Gain	1. Shielding room: 7x4x3 m (ETS-3D) 2. Network analyzer: HP 8753D



2 Product Description

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Technical requirements	Technical index	Remarks
Band	LTE: B2/B4/B12/B17/B28 WCDMA: B1/B2/B5/B8 WIFI: 2.4G	
Range Of Frequency	LTE: 698-960Mhz; 1710-2690Mhz; WIFI: 2400-2500Mhz;	
VSWR	824-960Mhz<2.0 1710-2690Mhz<2.0 2400-2500Mhz<2.0	Center Frequency
Impedance	50Ω	
Polarization	Linear polarization	
operating temperature	-32℃ / +55℃	
storage temperature	-55℃ / +85℃	
Salt Fog	24h(24h alternating wet & dry)	
RoHS Compliant	yes	

3 Device Description

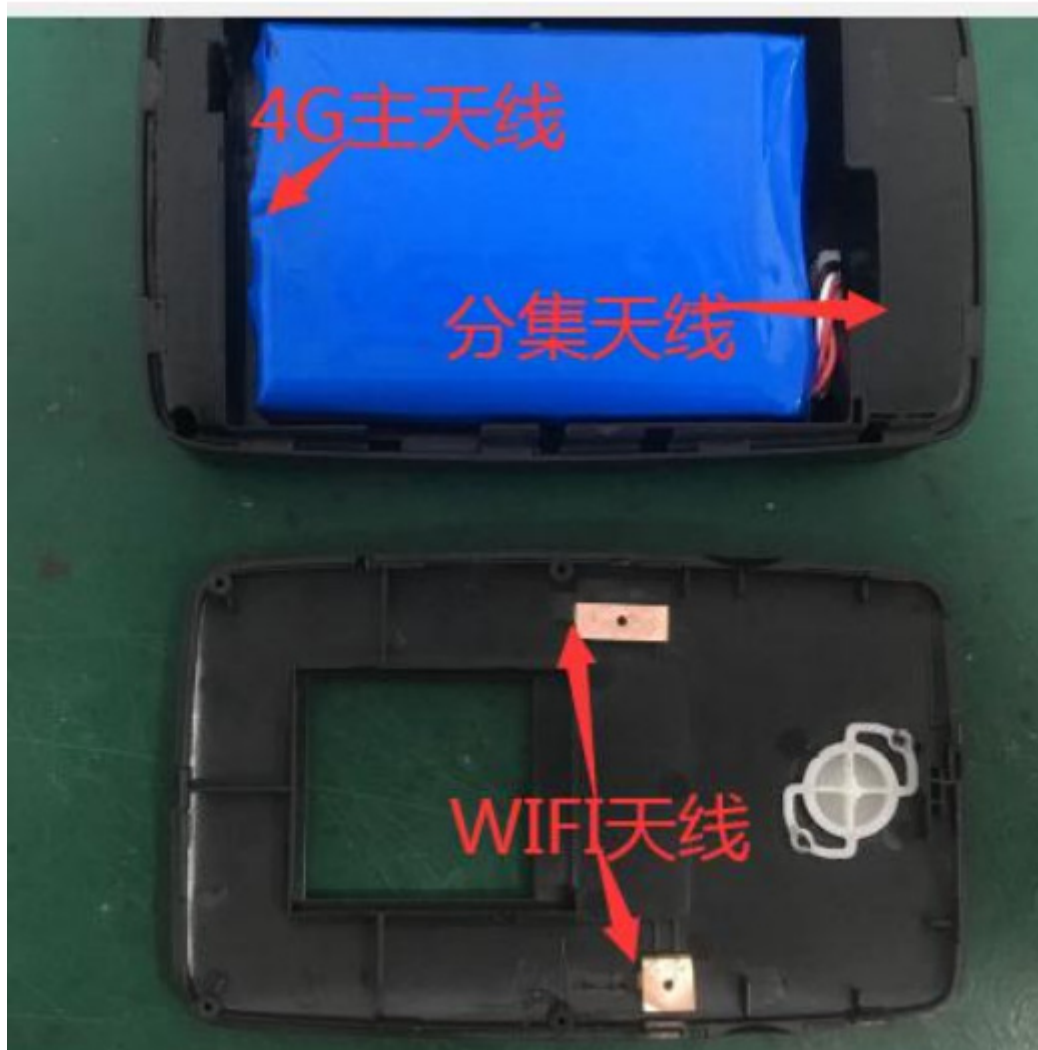
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Antenna photo



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DIV ANT



MAIN ANT



WIFI ANT 1



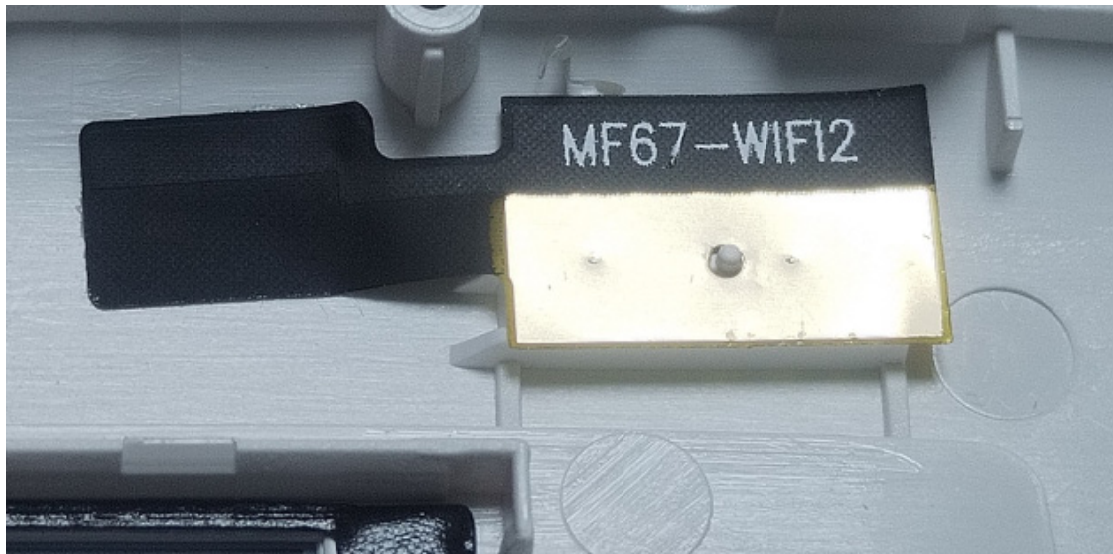
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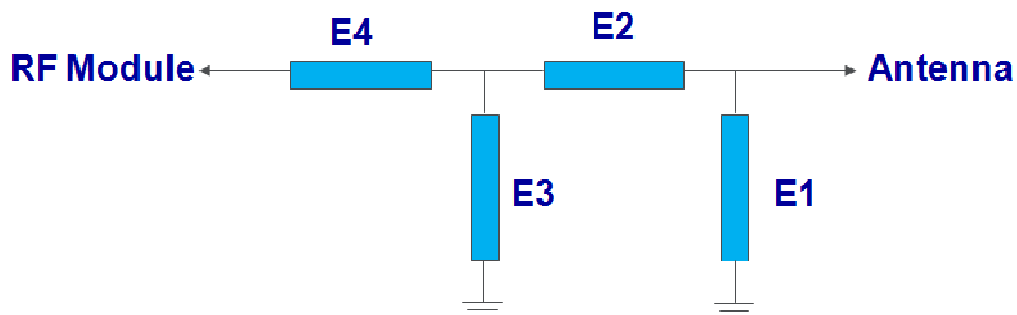
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WIFI ANT 2



4 Matching Circuits



Element	Value	Vender
E1(0402)	NA	
E2(0402)	0Ω	
E3(0402)	NA	
E4(0402)	0Ω	

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Original match unchanged.

5 Test Data

LTE BAND	LTE-B2			LTE-B4		
Channel	L	M	H	L	M	H
TRP	19.73	19.35	18.43	18.17	18.51	19.09
TIS			-94.41			-95.45

LTE BAND	LTE-B12			LTE-B17		
Channel	L	M	H	L	M	H
TRP	18.56	18.24	19.33	19.23	18.35	19.03
TIS			-92.76			-94.59

LTE BAND	LTE-B28					
Channel	L	M	H			
TRP	18.63	18.56	19.12			
TIS			-92.37			

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LTE		
Freq (MHz)	Effi (%)	Gain (dBi)
698	38.42	-1.56
750	40.79	-1.29
800	36.75	-2.31
850	38.81	-1.27
900	39.72	-1.09
960	37.17	-1.23
1700	48.41	1.62
1800	46.69	1.43
1900	53.21	2.56
2000	50.32	2.41
2100	48.79	2.09
2200	45.18	1.43
2300	47.63	1.54
2400	46.84	0.72
2500	48.74	2.14
2600	46.62	1.87
2700	46.19	1.53

WIFI 2		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	46.47	1.87
2410	38.43	1.02
2420	42.16	1.38
2430	32.75	0.35
2440	42.92	1.64
2450	35.54	0.71
2460	41.5	1.35
2470	36.88	0.74
2480	38.14	0.86
2490	38.4	0.8
2500	40.55	0.94

WIFI 1		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	44.23	1.84
2410	43.51	1.69
2420	44.69	1.94
2430	50.52	2.63
2440	44.69	2.23
2450	45.29	2.84
2460	46.12	2.03
2470	48.29	2.78
2480	44.39	2.34
2490	44.23	2.08
2500	42.17	1.85

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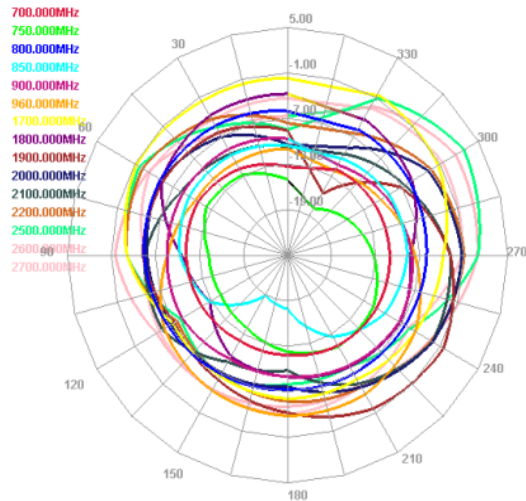
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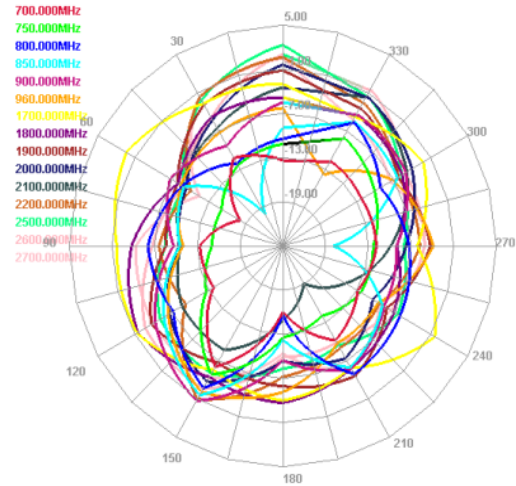
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LTE directional diagram; directivity diagram

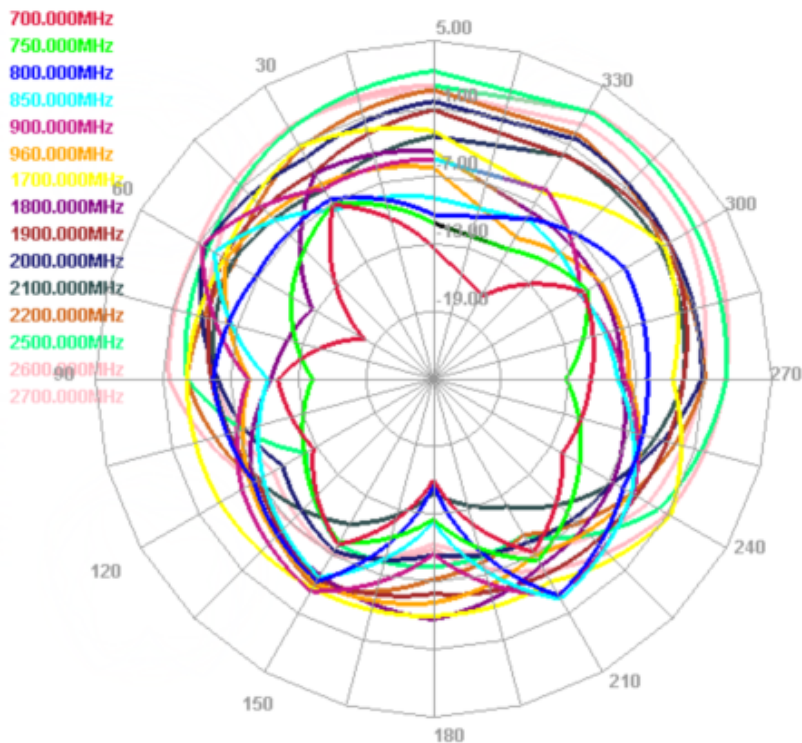
Horizontal



E1 Face



E2 Face



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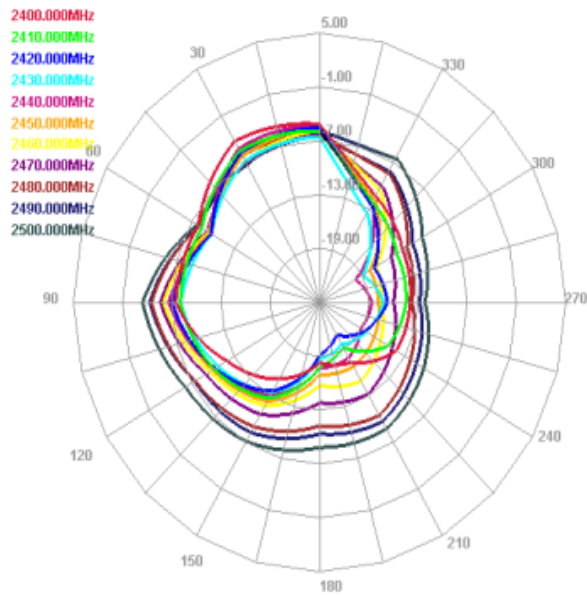
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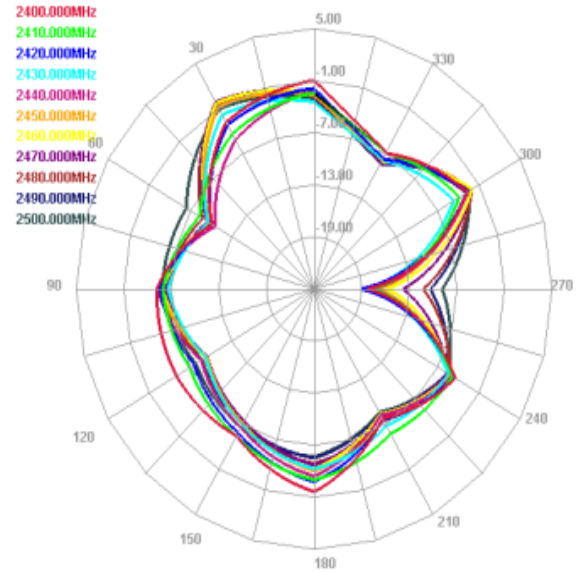
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WiFi 1 idirectional diagram; directivity diagram

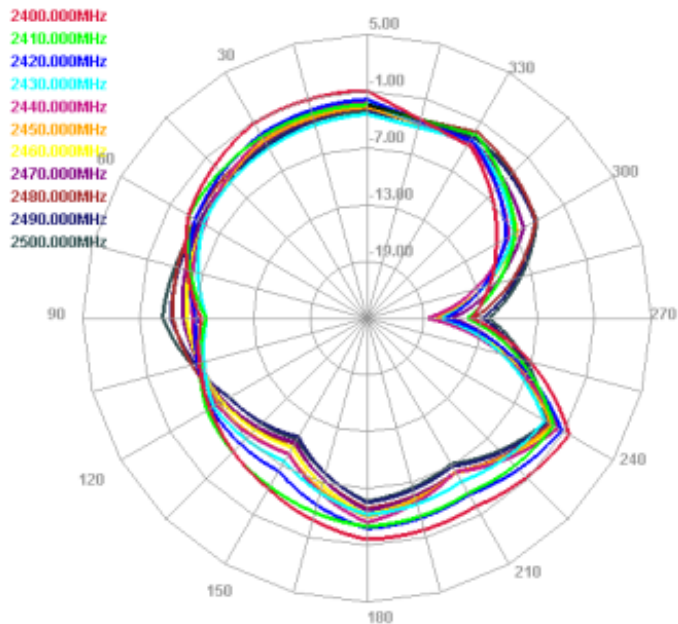
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E1 Face



E2 Face



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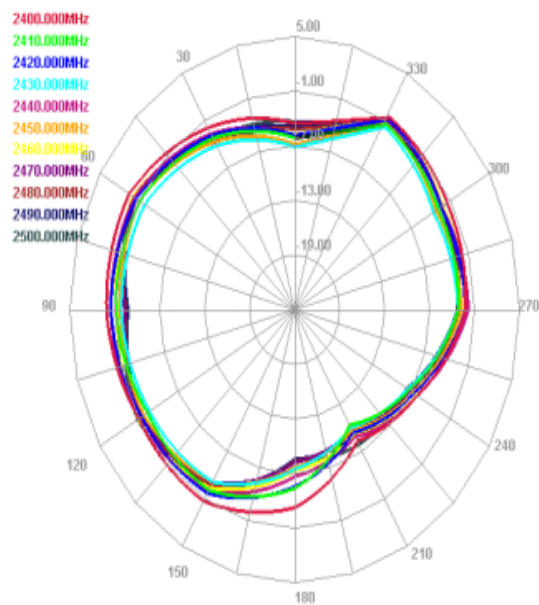
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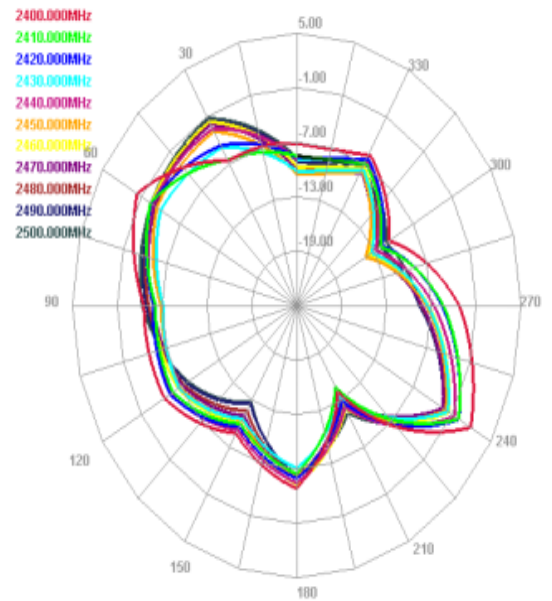
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WiFi 2 idirectional diagram; directivity diagram

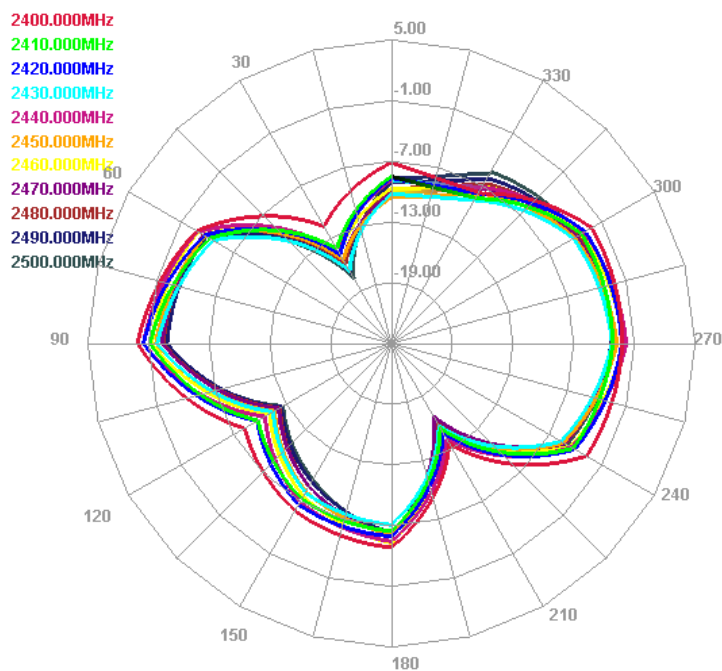
Horizontal



E1 Face



E2 Face

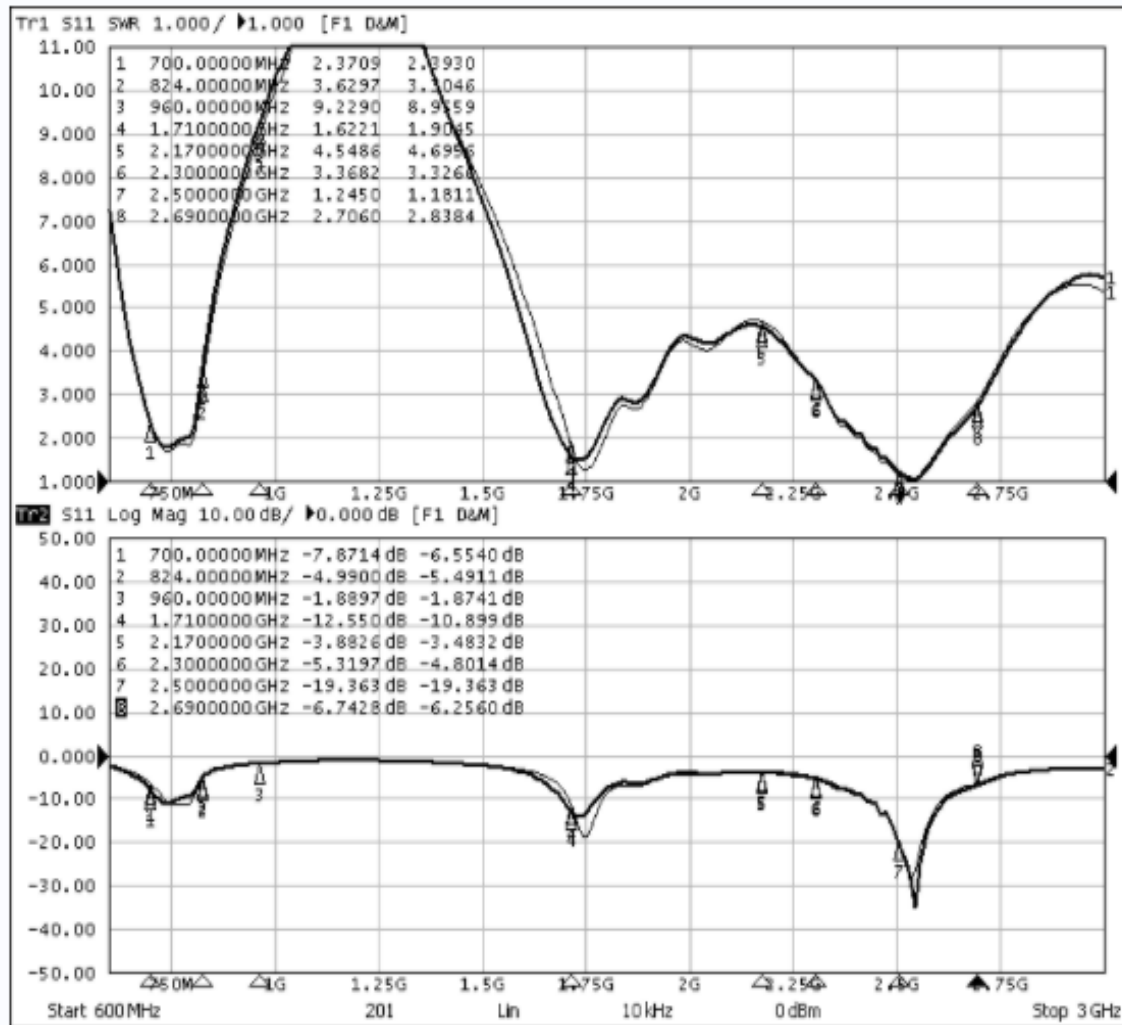


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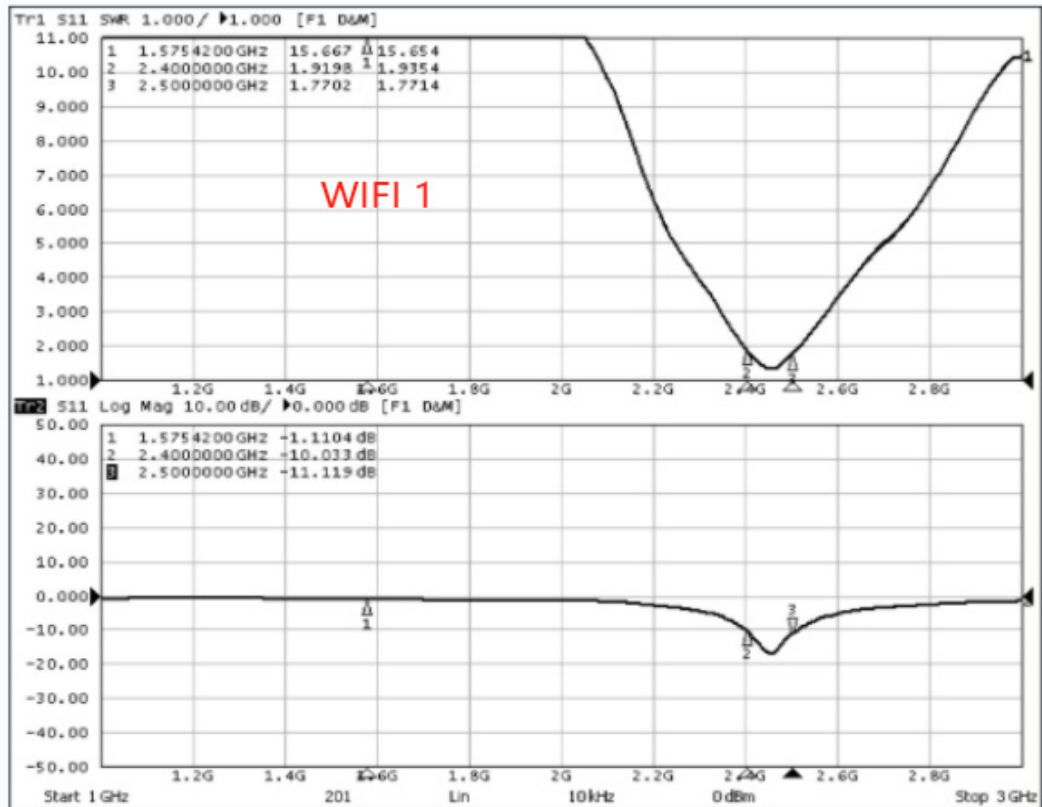


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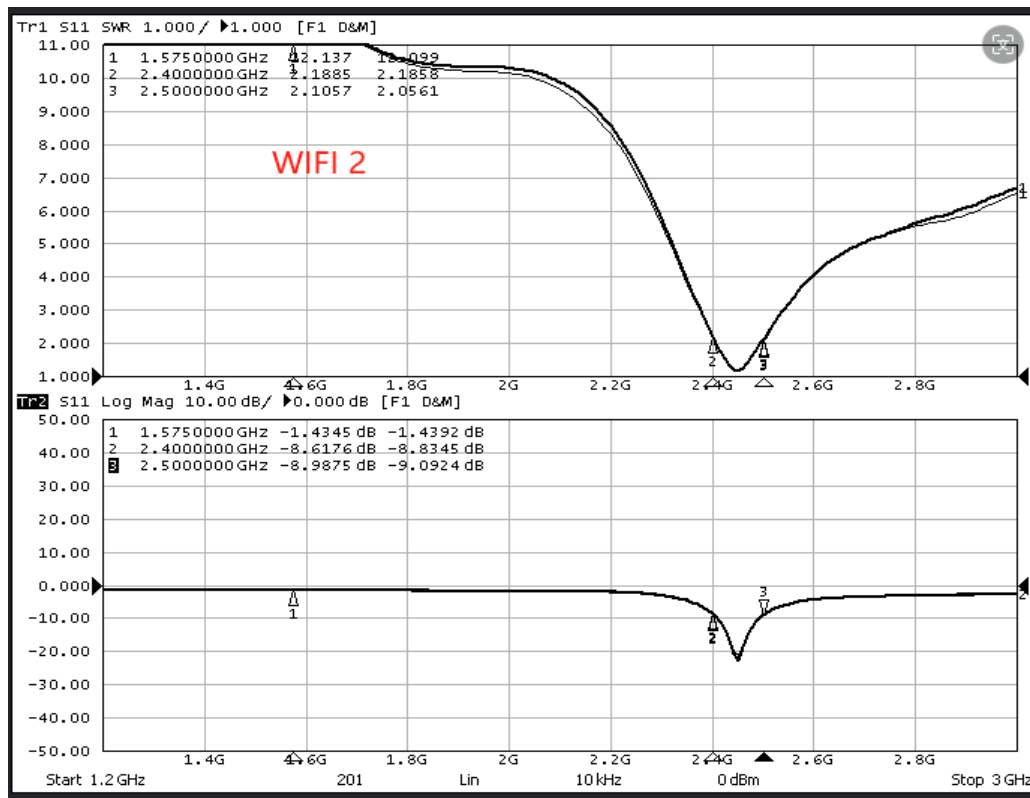


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