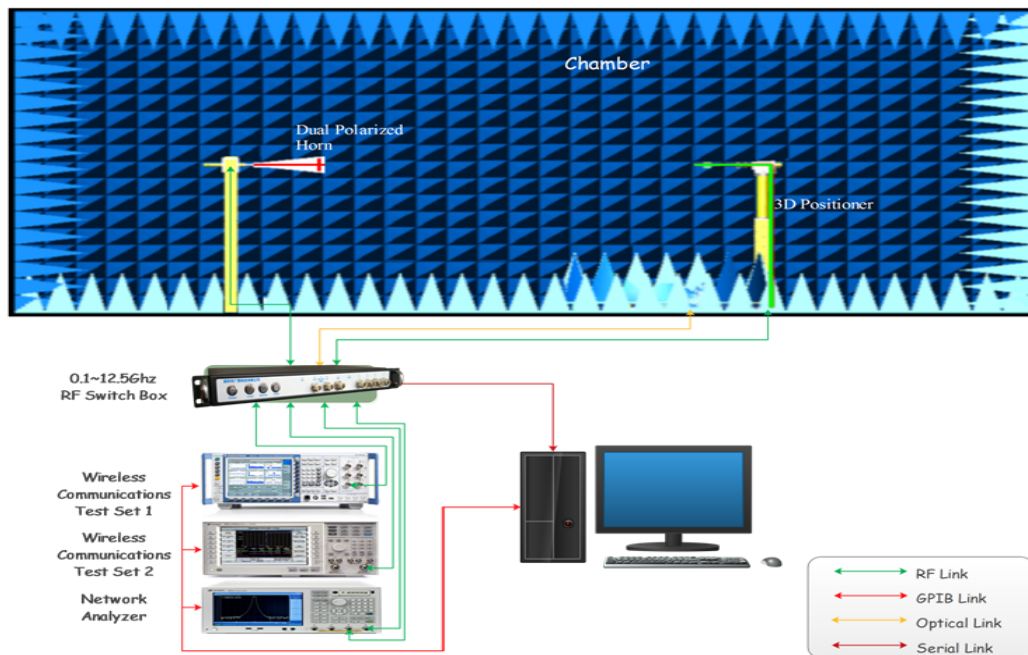




WS659F Antenna SPEC

Test Address	Shenzhen3Good Wireless Communications CO.,LTD Room501,Jinfulai Building,No.49-1,Dabao Road,Baoan District,Shenzhen
Test Date	April 14(th), 2023
Test Instrument	vector network analyzer -Agilent Technologies E5071B

Facility description Measurement procedure

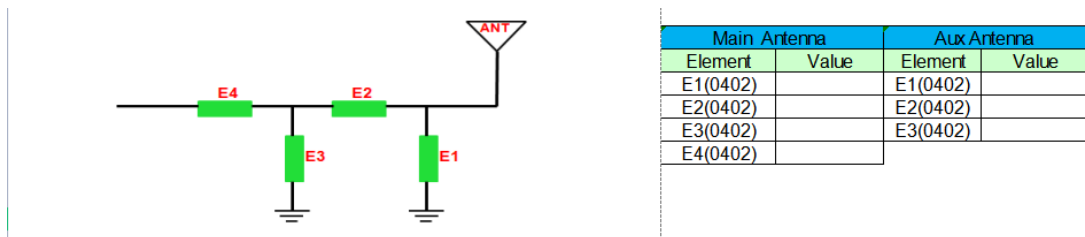




Antenna information

Customer	Boat of wealth
Antenna Model	LTE main antenna: LTE SH 59B-4-5-F11 LTE diversity antenna: LTE-B G/W/B antenna: SH-G/W
Antenna Type	PIFA Antenna

Matching circuits

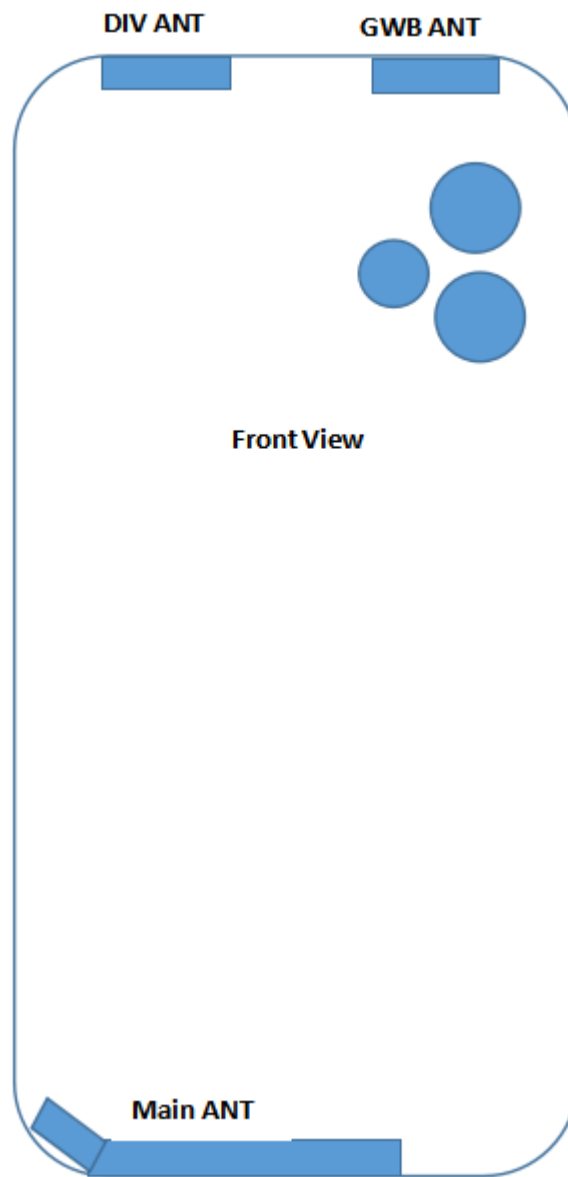


Passive performance figure

Frequency(MHZ)	617~960	1710~2690
VSWR	<3.5	<3.5



Antenna position picture





All of Implementation antenna

Main antenna(Antenna Label:A):

LTE B5/B8/B12/B17/B28AB/B71 RX&TX

B1/B2/B3/B4/B7/B66RX

WCDMA B5/B8 RX&TX

B1/B2/B4 RX

GSM B5/B8 RX&TX

B2/B3 RX

DIV antenna(Antenna Label:B):

LTE B1/B2/B3/B4/B7/B66 RX&TX

WCDMA B2/B4 RX&TX

GSM B2/B3 RX&TX

WiFi-B/BT 2.4~2.5GHZ/WIFI-A5150~5850MHZ& GPS: 1575.42 MHz ;

Antenna Max. Peak Gain:

EGSM900:-1.5dBi

GSM850: -2.3dBi

DCS1800: -0.6dBi

PCS1900: 1.3dBi

WCDMA2100: -0.7dBi

WCDMA1900:1.3dBi

WCDMA1700: -0.6dBi

WCDMA900: -1.5dBi

WCDMA850: -2.3dBi

LTE-B1: -0.7dBi

LTE-B2: 1.3dBi

LTE-B3: -0.6dBi

LTE-B4: -0.6dBi

LTE-B5: -2.3dBi

LTE-B7: -1.5dBi

LTE-B12: -2.7dBi

LTE-B17: -2.7dBi

LTE-B28: -2.7dBi

LTE-B66: -0.6dBi

LTE-B71:- 2.3dBi

WIFI-2.4G/BT:1.3dBi

WIFI-5G:-1.4dBi

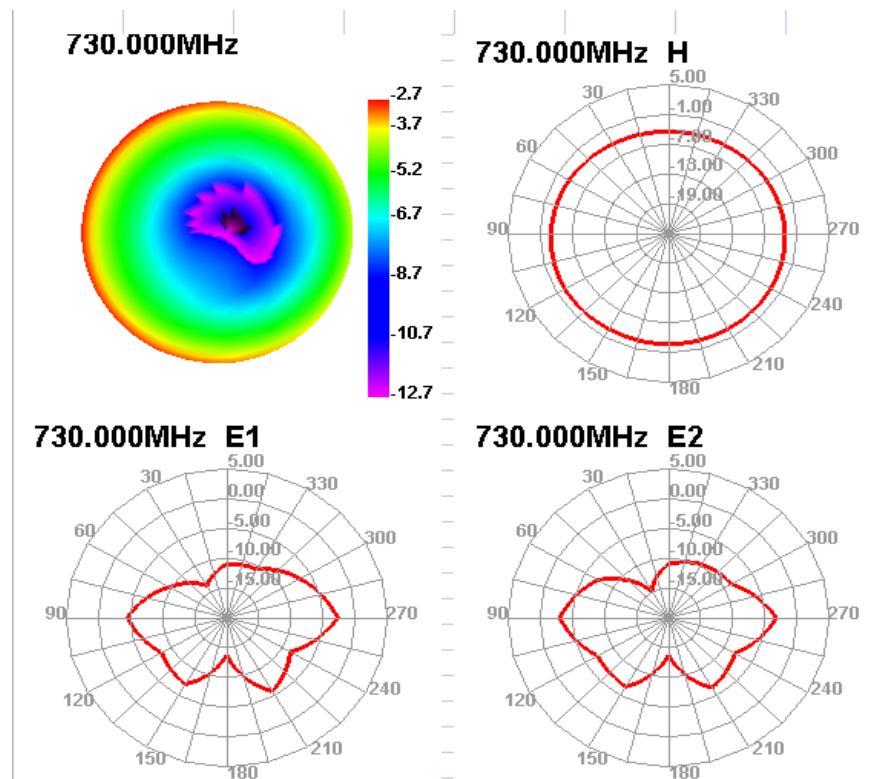
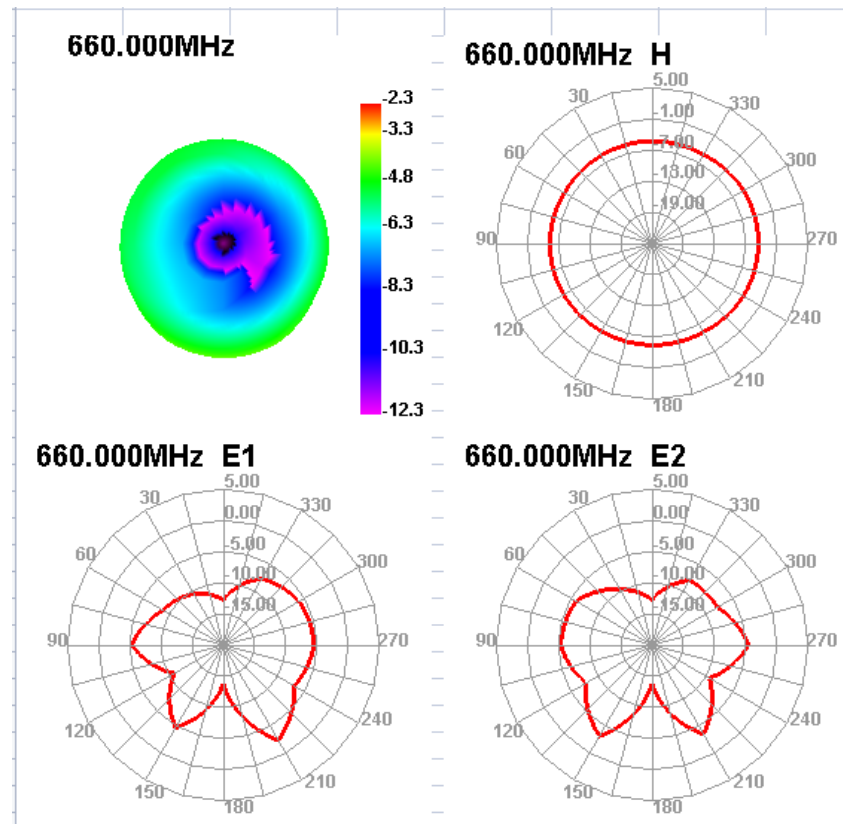
GPS: 0.9dBi

.



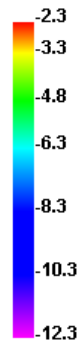
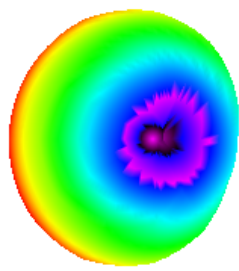
3-D Patten Plots

Main ANT:

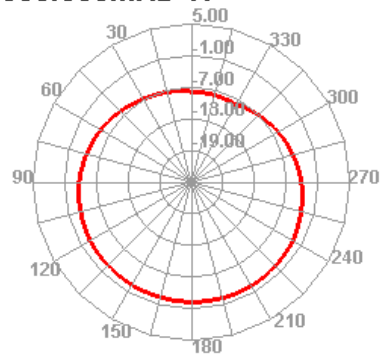




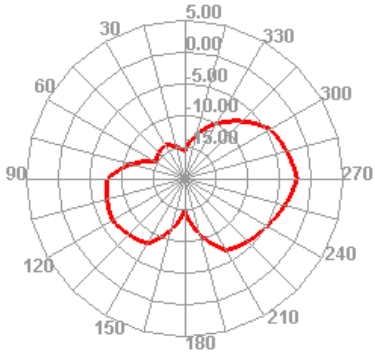
850.000MHz



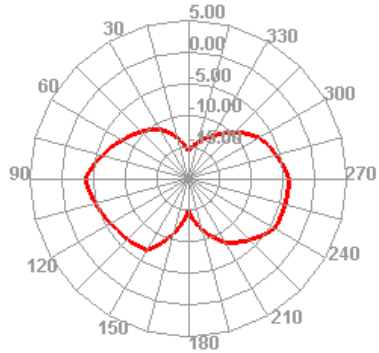
850.000MHz H



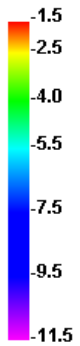
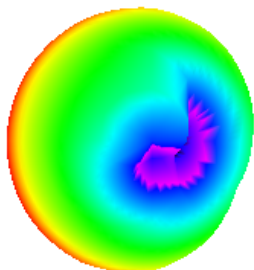
850.000MHz E1



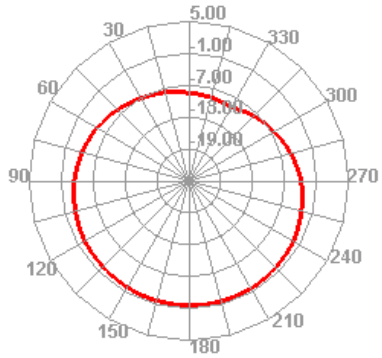
850.000MHz E2



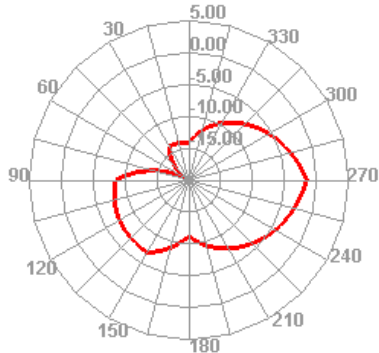
900.000MHz



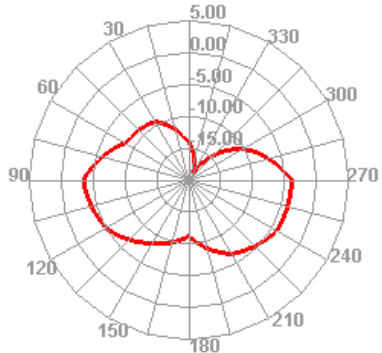
900.000MHz H



900.000MHz E1



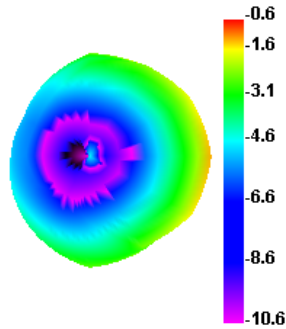
900.000MHz E2



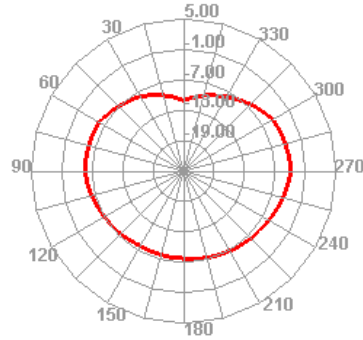


DIV ANT:

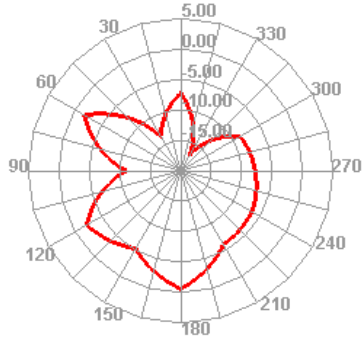
1800.000MHz



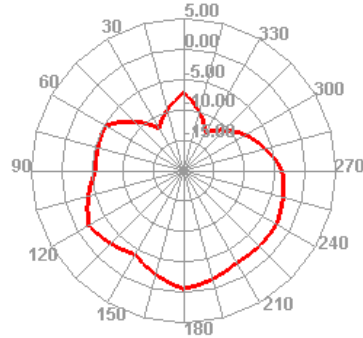
1800.000MHz H



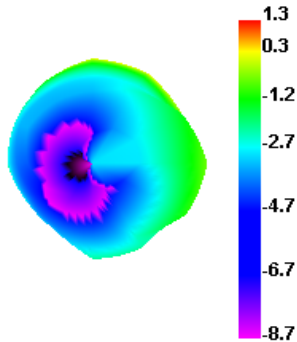
1800.000MHz E1



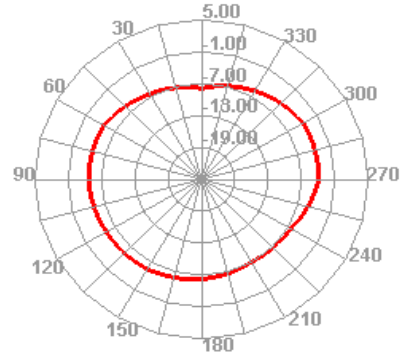
1800.000MHz E2



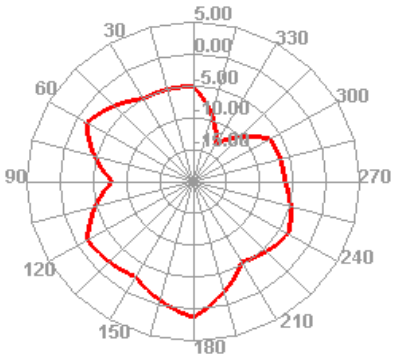
1900.000MHz



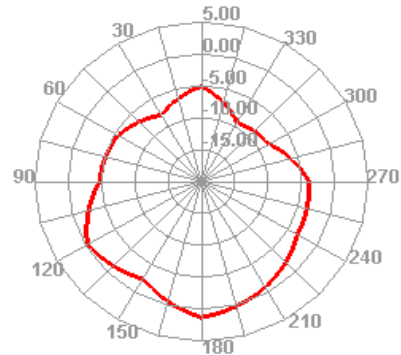
1900.000MHz H

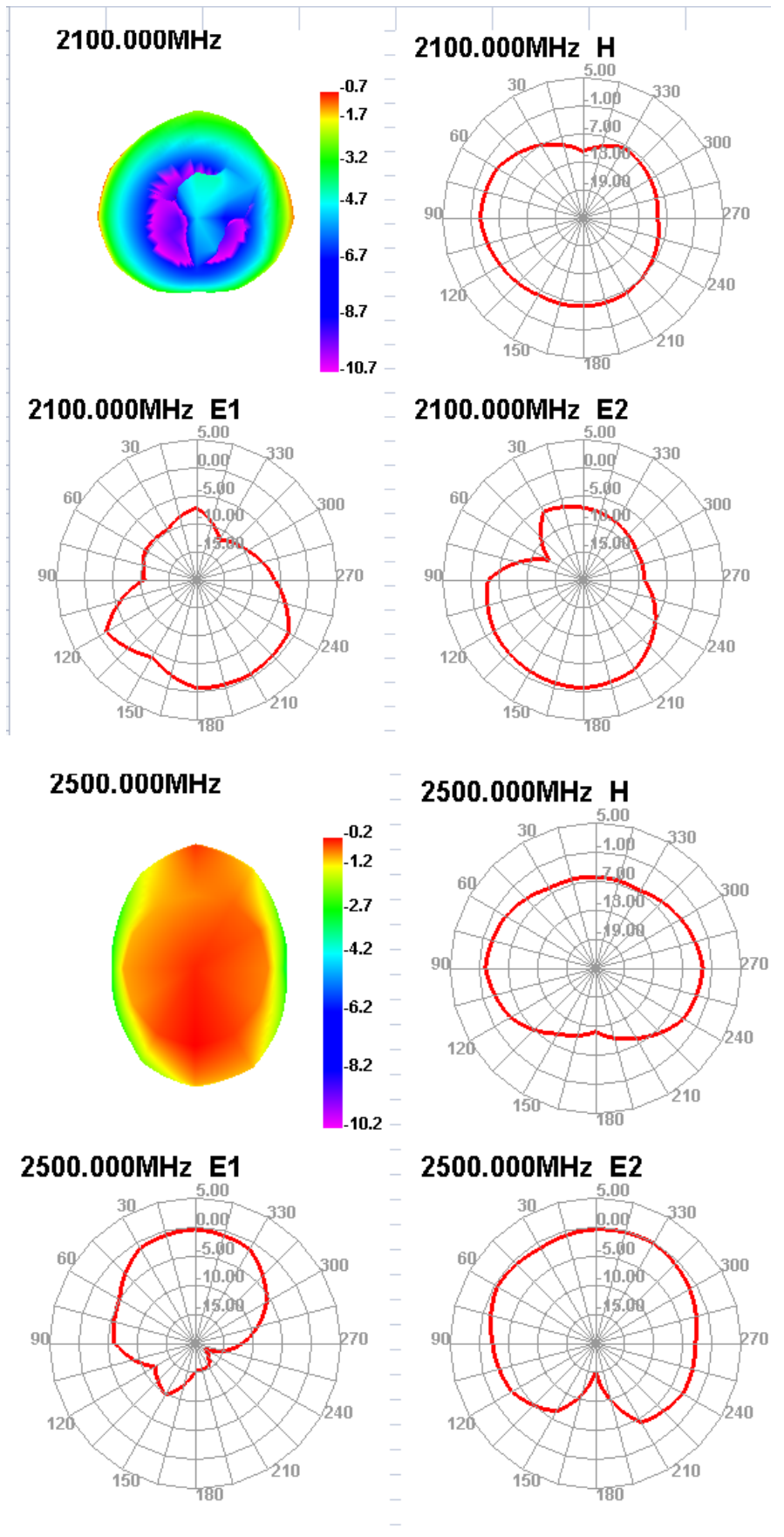


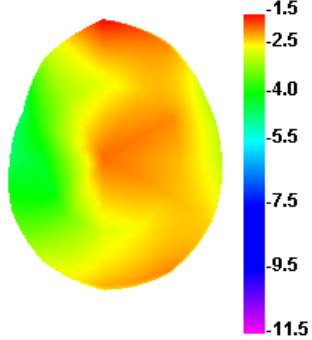
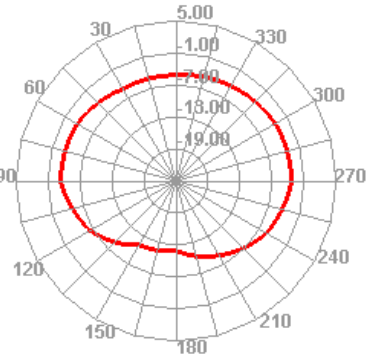
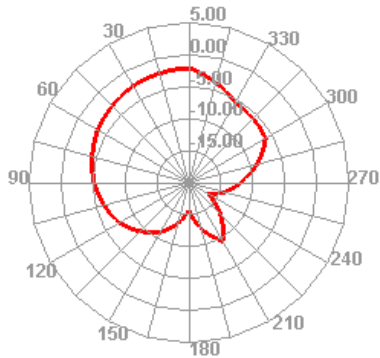
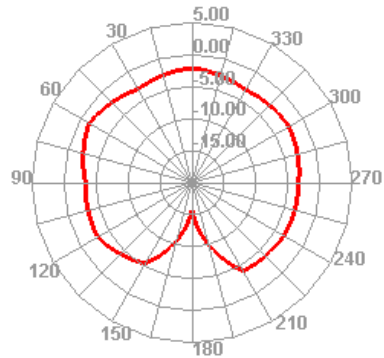
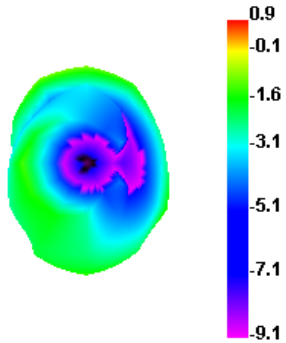
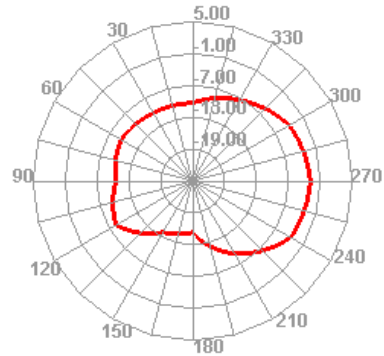
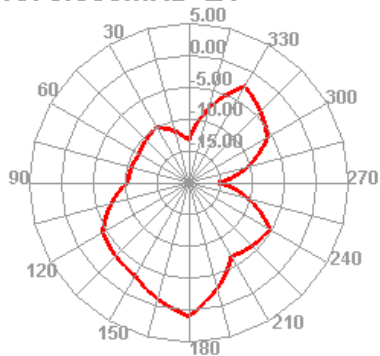
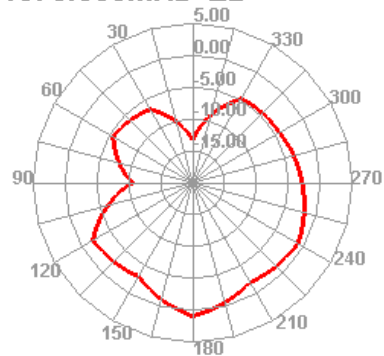
1900.000MHz E1



1900.000MHz E2

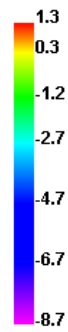
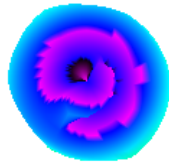




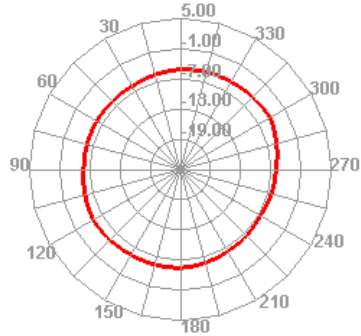
**2690.000MHz****2690.000MHz H****2690.000MHz E1****2690.000MHz E2****GWB ANT:****1575.000MHz****1575.000MHz H****1575.000MHz E1****1575.000MHz E2**



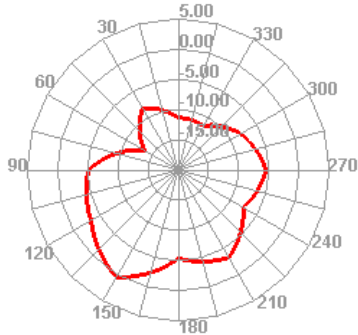
2400.000MHz



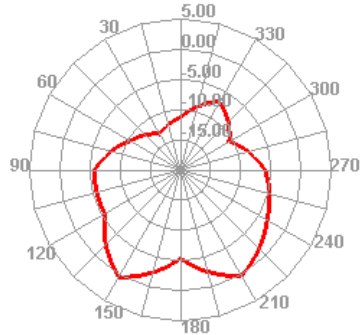
2400.000MHz H



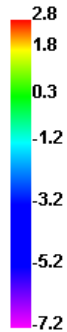
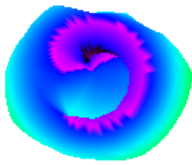
2400.000MHz E1



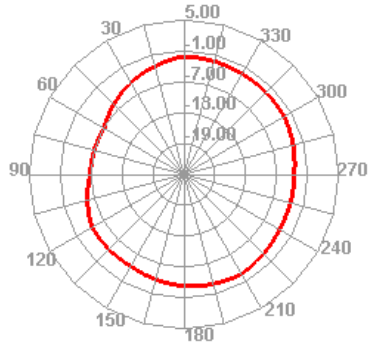
2400.000MHz E2



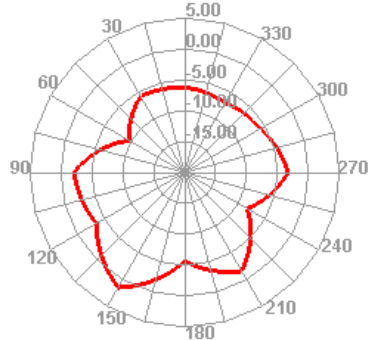
2500.000MHz



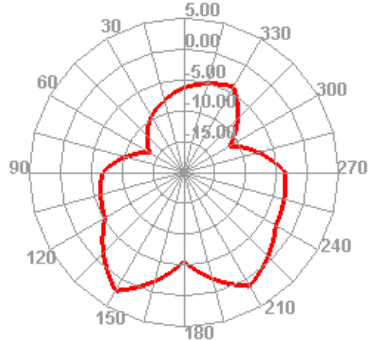
2500.000MHz H



2500.000MHz E1

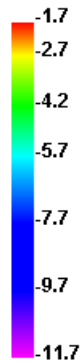
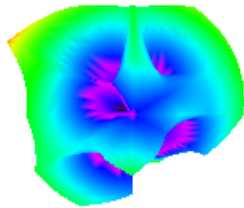


2500.000MHz E2

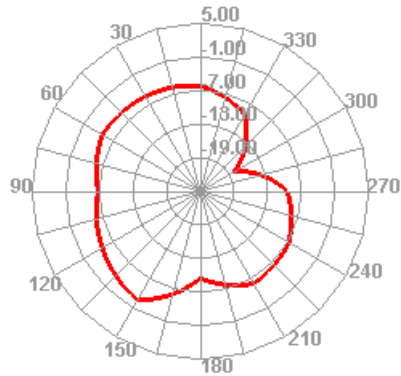




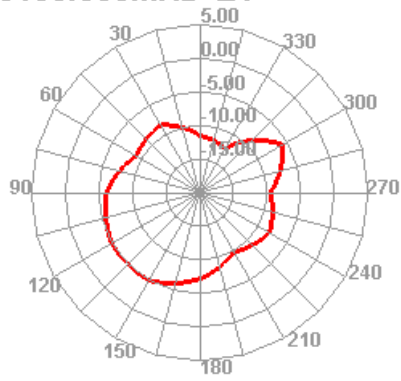
5180.000MHz



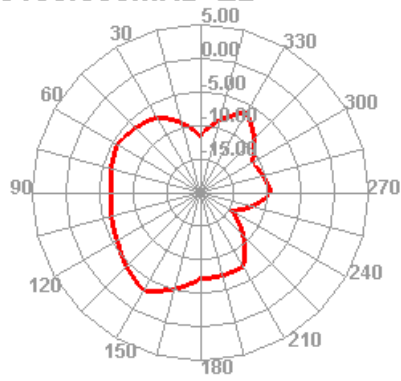
5180.000MHz H



5180.000MHz E1

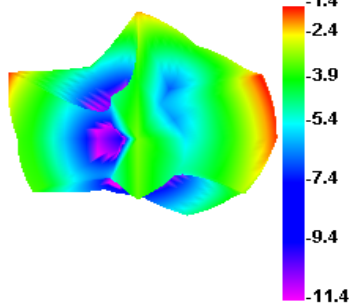


5180.000MHz E2

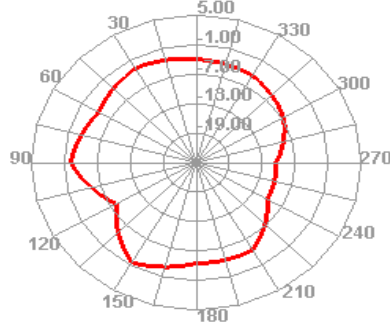




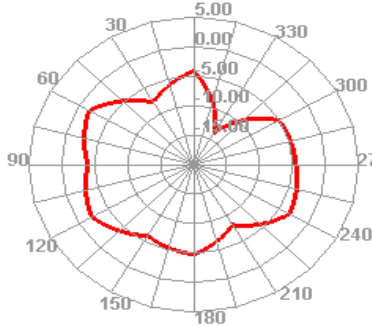
5500.000MHz



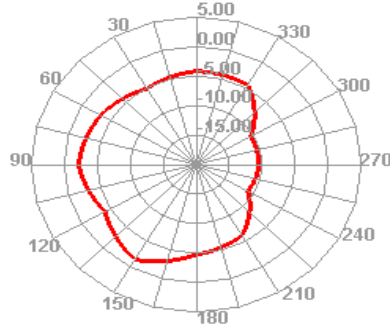
5500.000MHz H



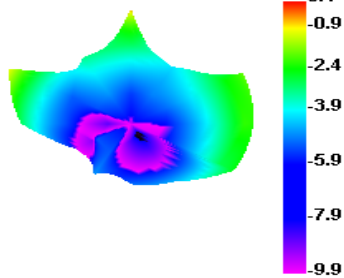
5500.000MHz E1



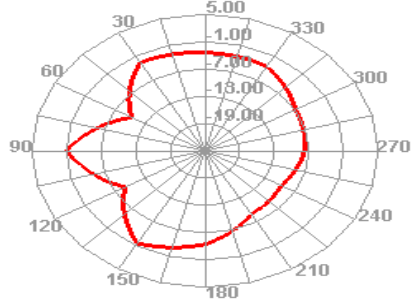
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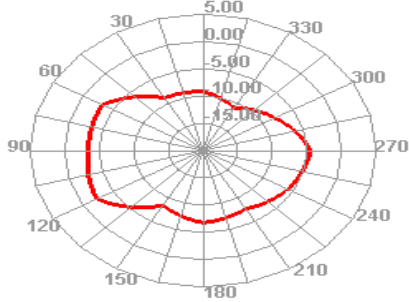
5850.000MHz



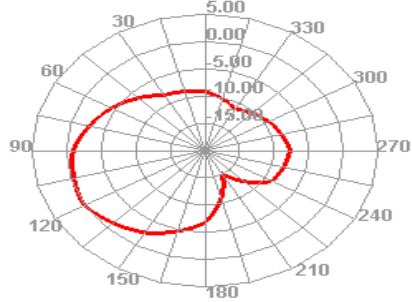
5850.000MHz H



5850.000MHz E1



5850.000MHz E2



Test Engineer:

Xiao hu