



HEYUAN XUNWEI MICROWAVE COMMUNICATION CO.,LTD

D9 Mobile antenna test report

RF: Kang Guangqi

Date: 2022.10.29

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- 2、 Passive data
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1、 Test equipment

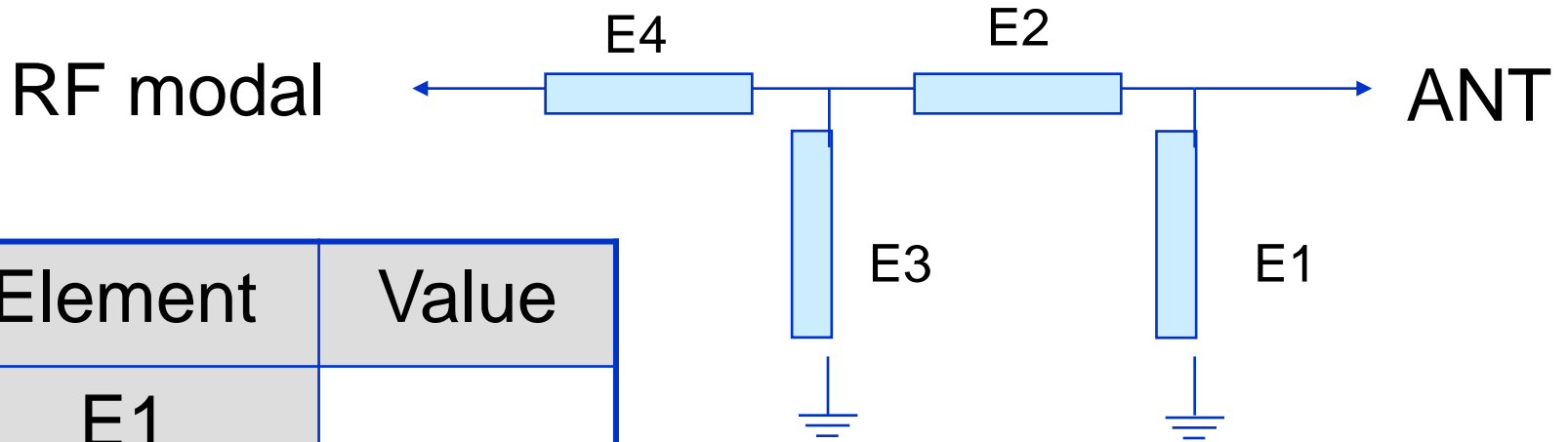
Wireless communications test set: CMW500

Network Analyzer: Agilent 5071B

Anechoic Chamber : SATIMO SG24



Matching circuit (No modification)



Element	Value
E1	
E2	
E3	
E4	

Antenna information

Customer	Boat of wealth
Antenna model	FPC
Antenna type	PIFA

Main antenna

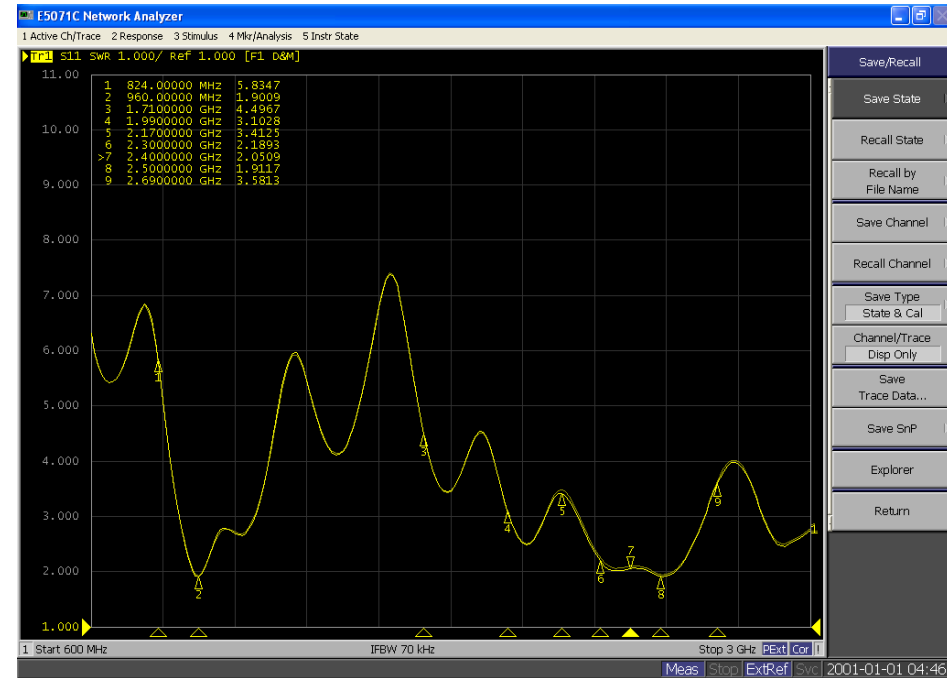
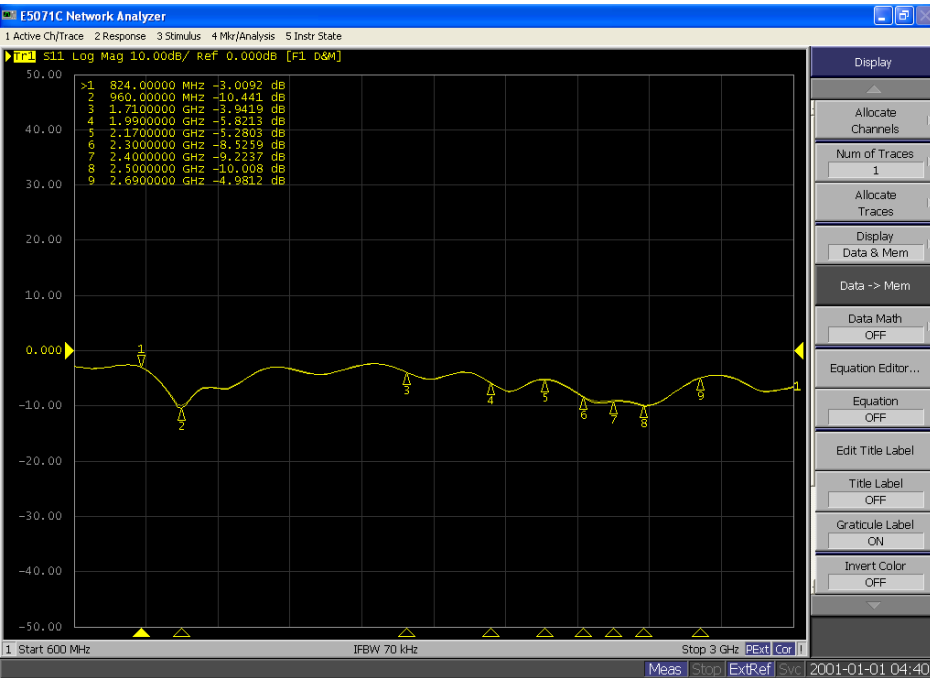
frequency range (MHz)	704–960	1710–2170	2300–2690
VSWR	<2.5	<3.0	<3.0

Three in one antenna

frequency range (MHz)	1575.42	2400–2500
VSWR	<3.5	<3.5

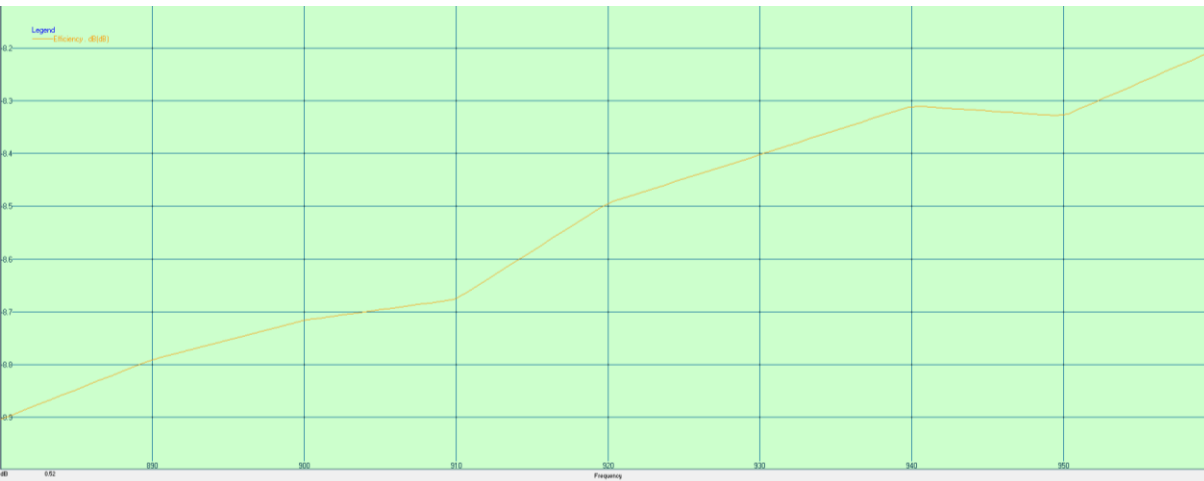
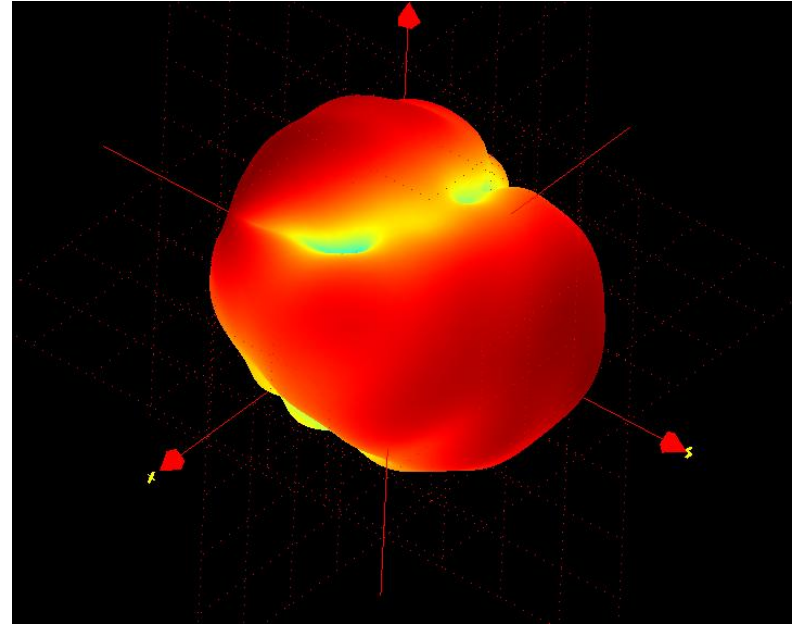
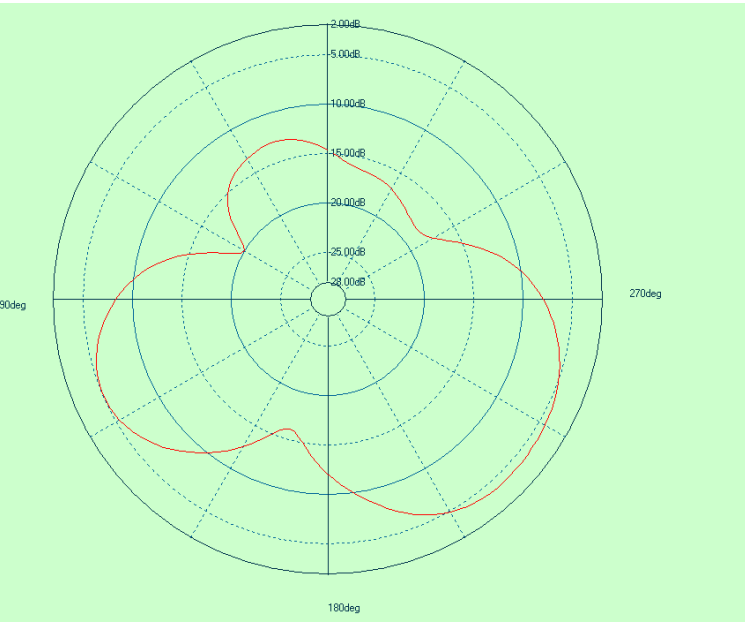
2、 Passive data

2.1 Main antenna Return Loss & VSWR

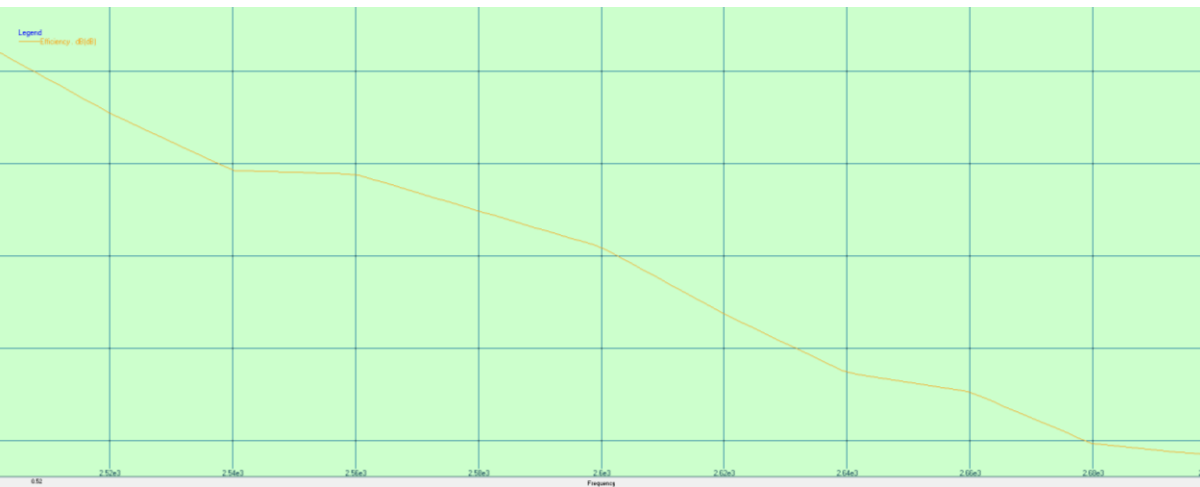
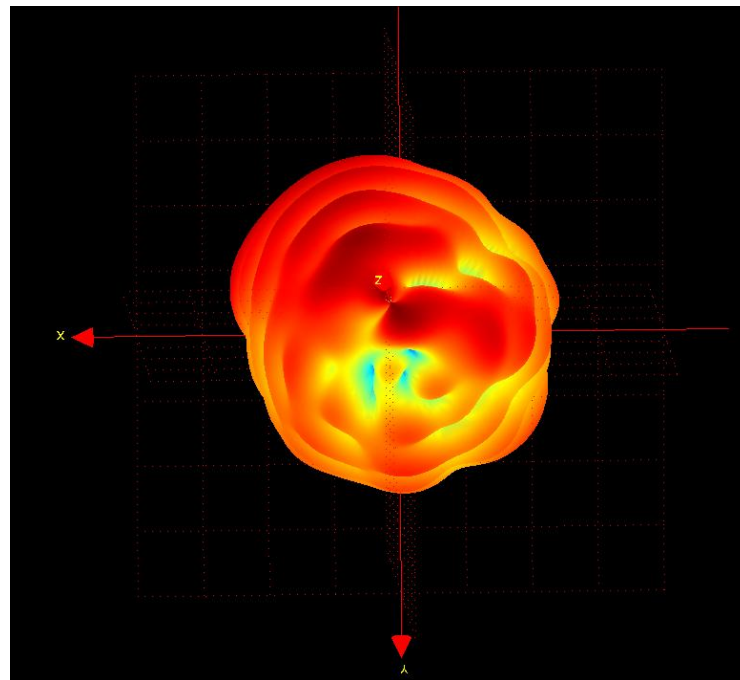
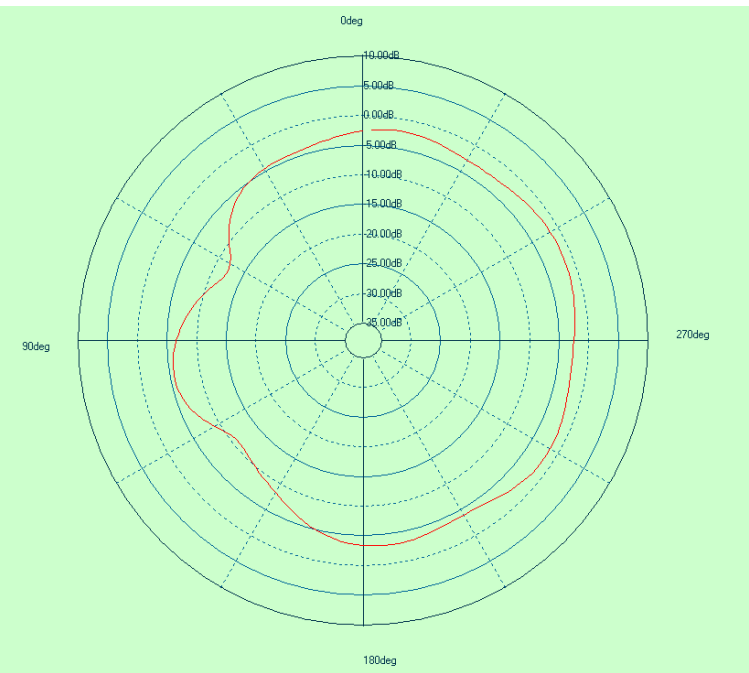


Frequency	960MHZ	2500MHZ
Return Loss	-10.4	-10.0
VSWR	1.9	1.9

2.2 Main antenna Peak Gain

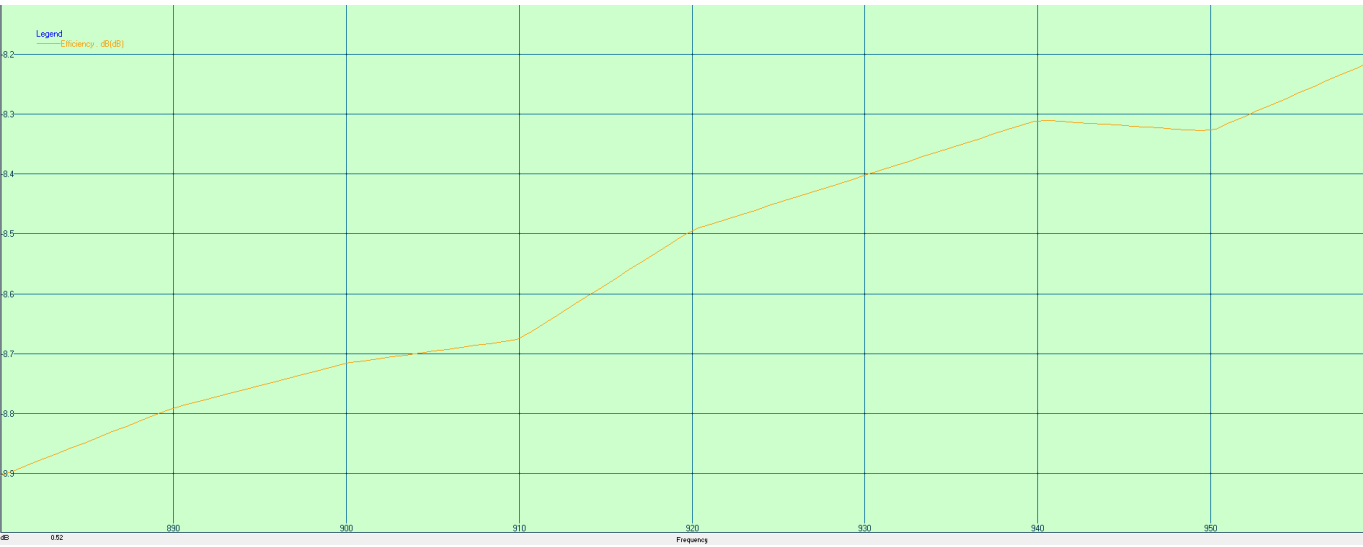


960MHZ	Peak Gain(dBi)
XZ-Plane	-1.3
YZ-Plane	-1.5
XY-Plane	-1.0

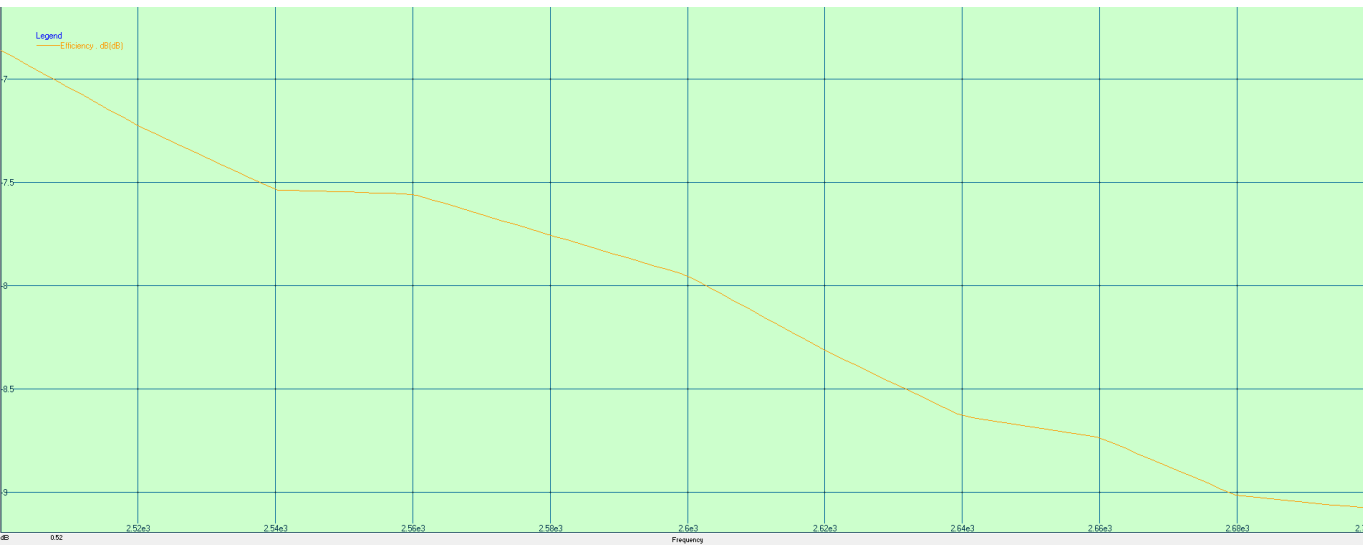


2500MHZ	Peak Gain(dBi)
XZ-Plane	-0.8
YZ-Plane	-1.0
XY-Plane	-0.9

2.3 Main antenna Efficiency



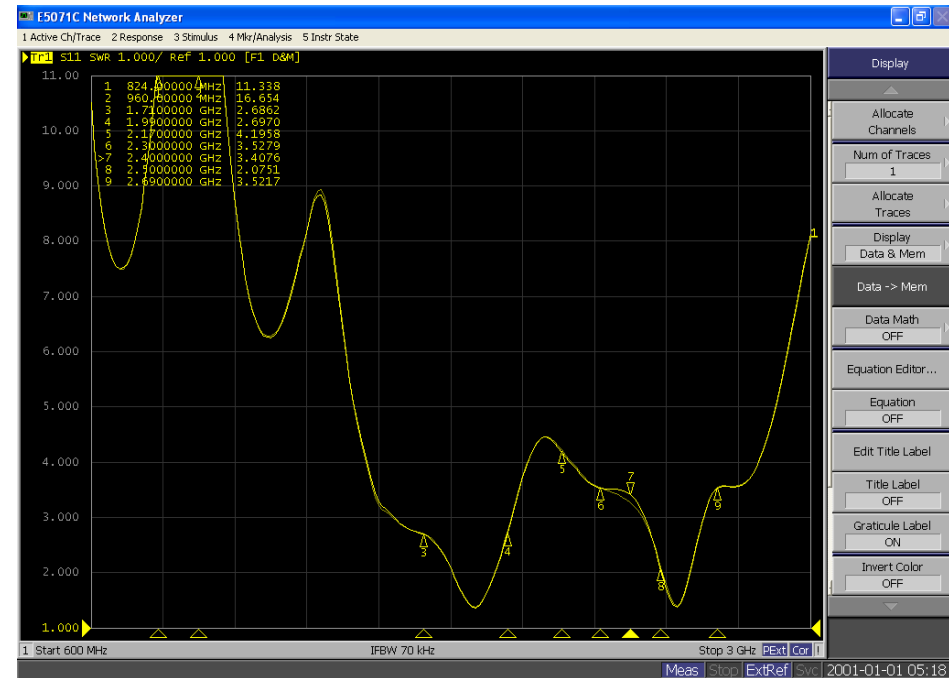
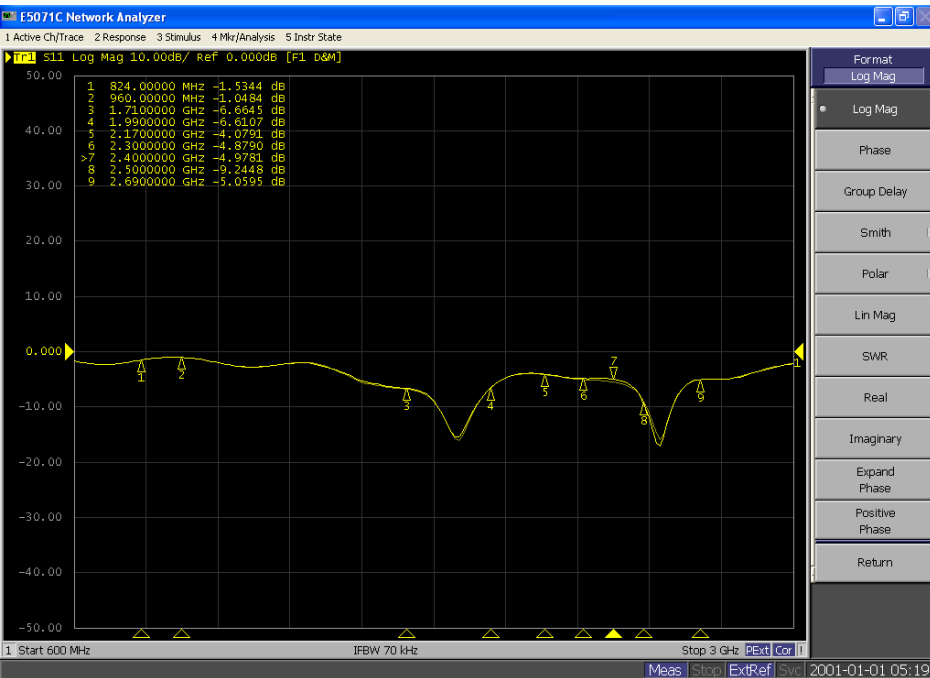
960MHZ



2500MHZ

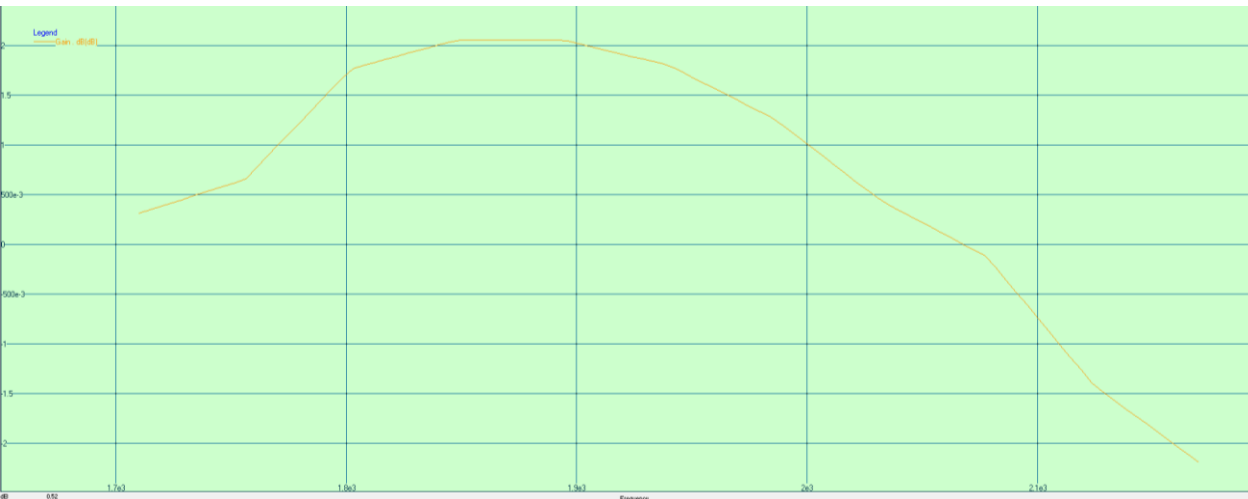
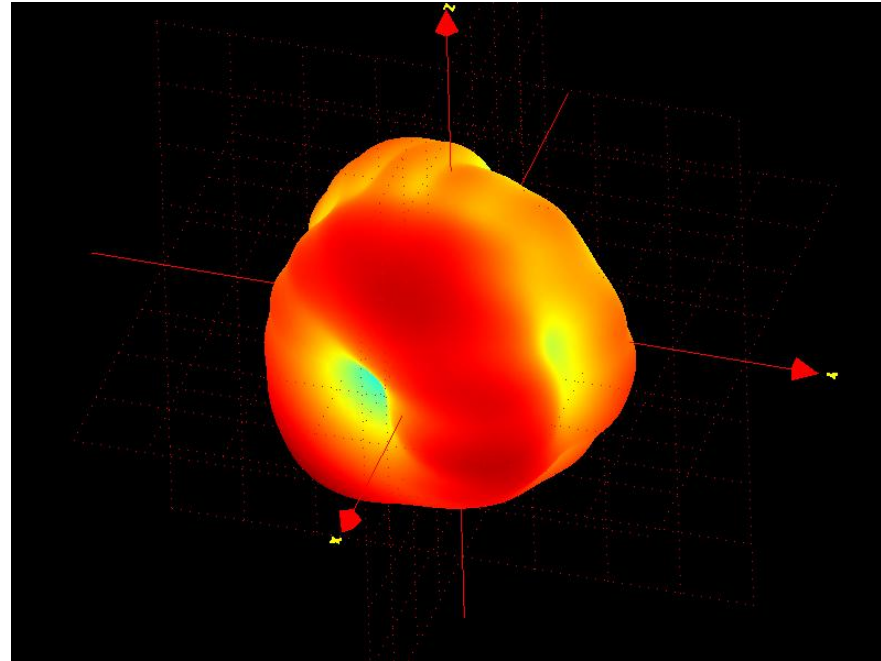
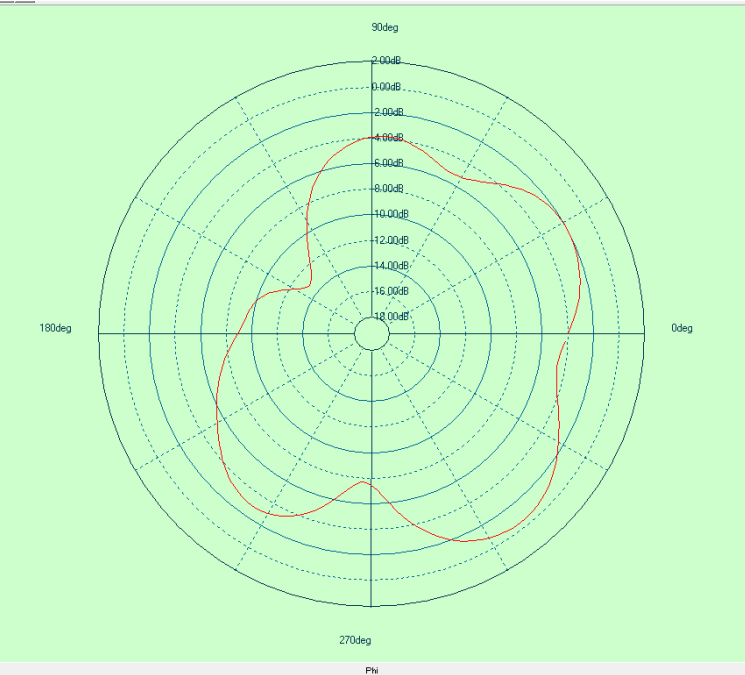
Frequency	960MHZ	2500MHZ
Efficiency	27.3%	30.6%

2.4 Div antenna Return Loss

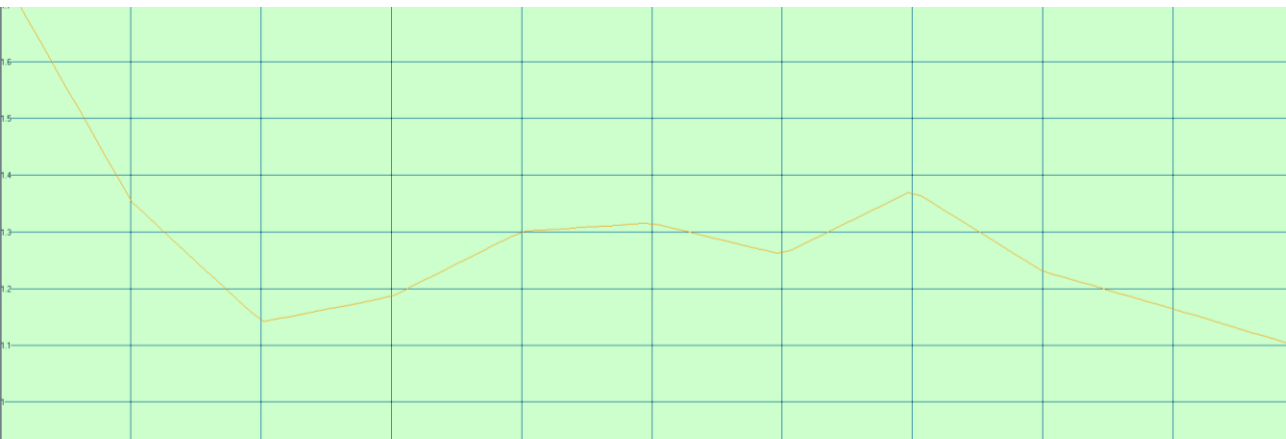
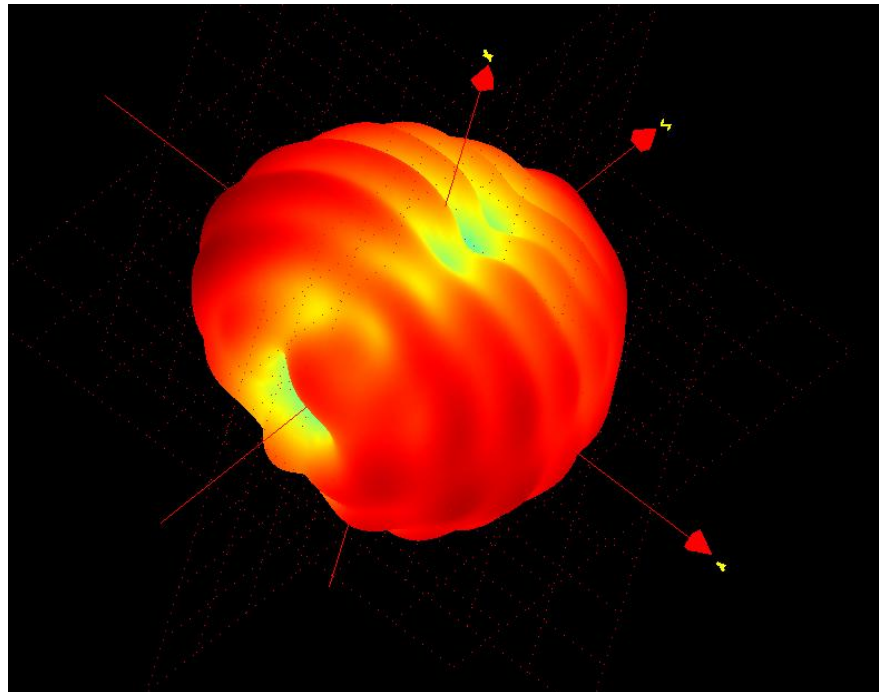
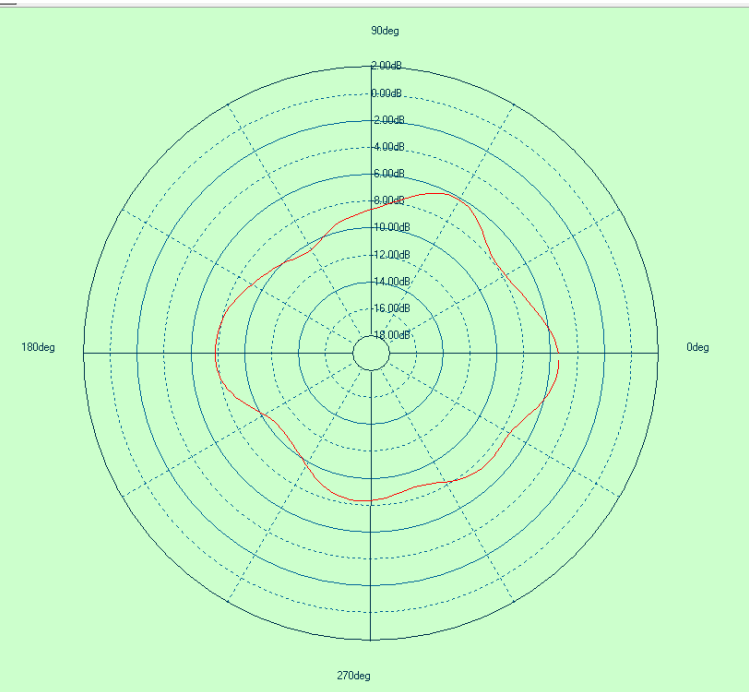


Frequency	1710MHZ	2170MHZ
Return Loss	-6.6	-4.0
VSWR	2.6	4.1

2.5 Div antenna Peak Gain

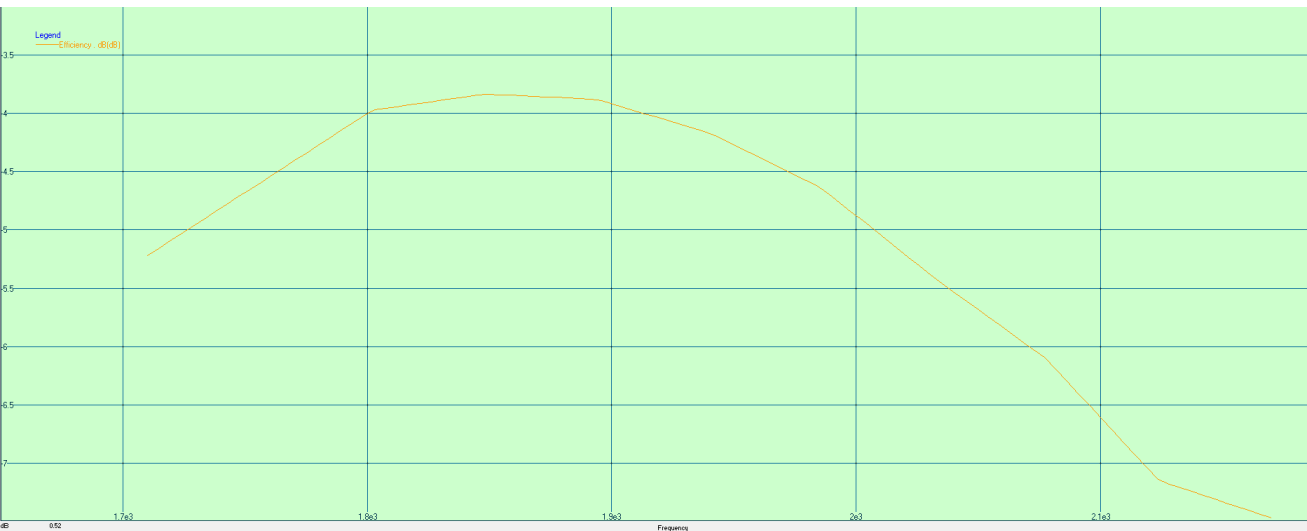


1710MHZ	Peak Gain(dBi)
XZ-Plane	-0.7
YZ-Plane	-1.0
XY-Plane	-0.9



2170MHZ	Peak Gain(dBi)
XZ-Plane	-1.1
YZ-Plane	-0.7
XY-Plane	-0.8

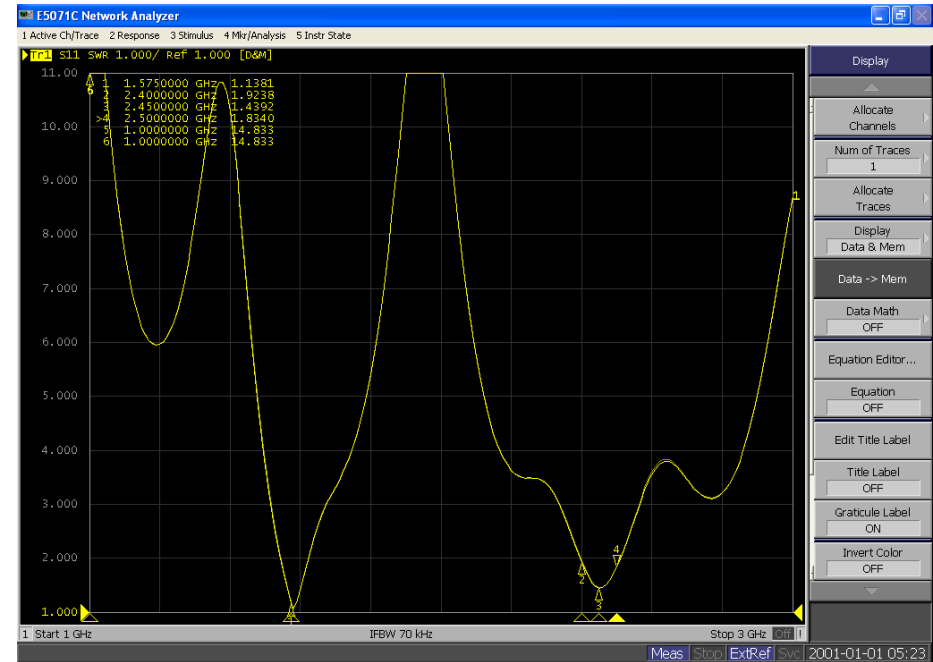
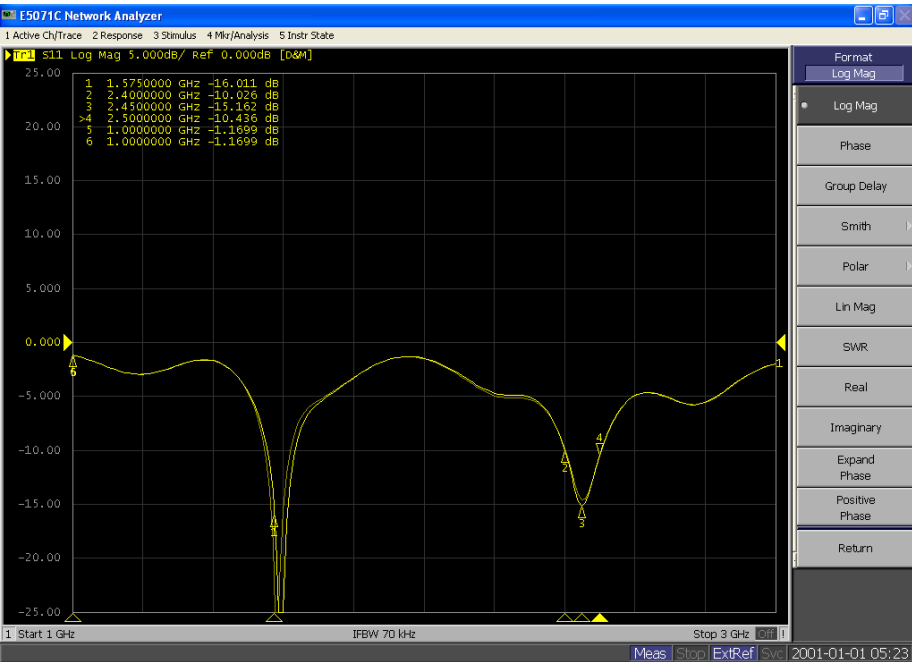
2.6 Div antenna Efficiency



1710~2170MHZ

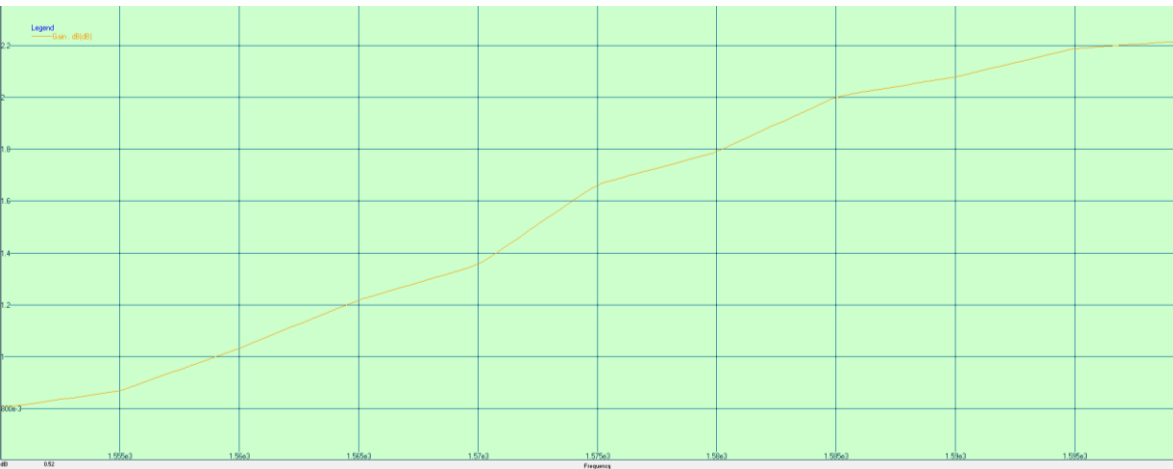
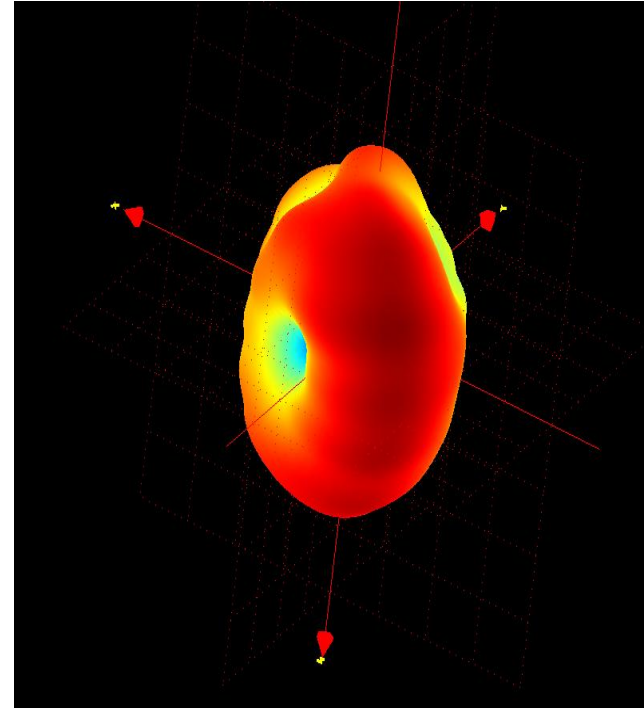
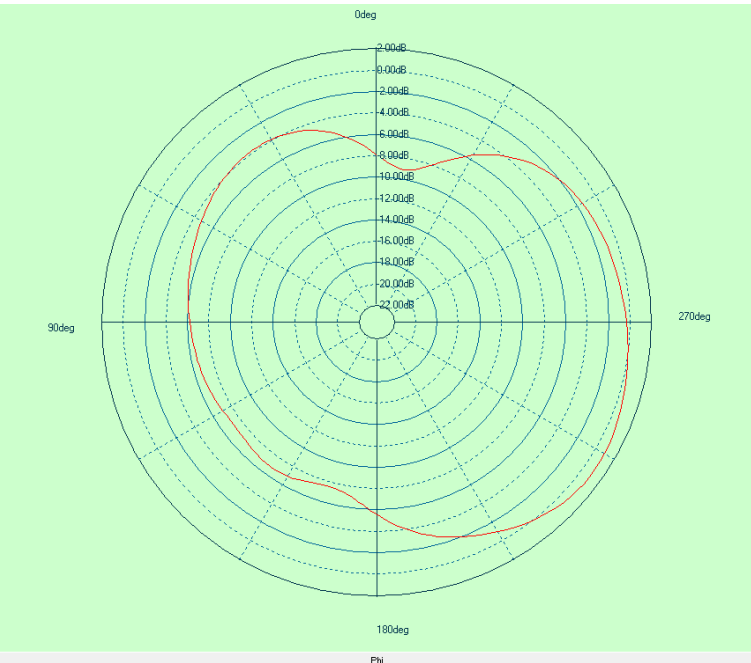
Frequency	1710MHZ	2170MHZ
Efficiency	-37.4%	-34.9%

2.7 GPS & WIFI antenna Return Loss

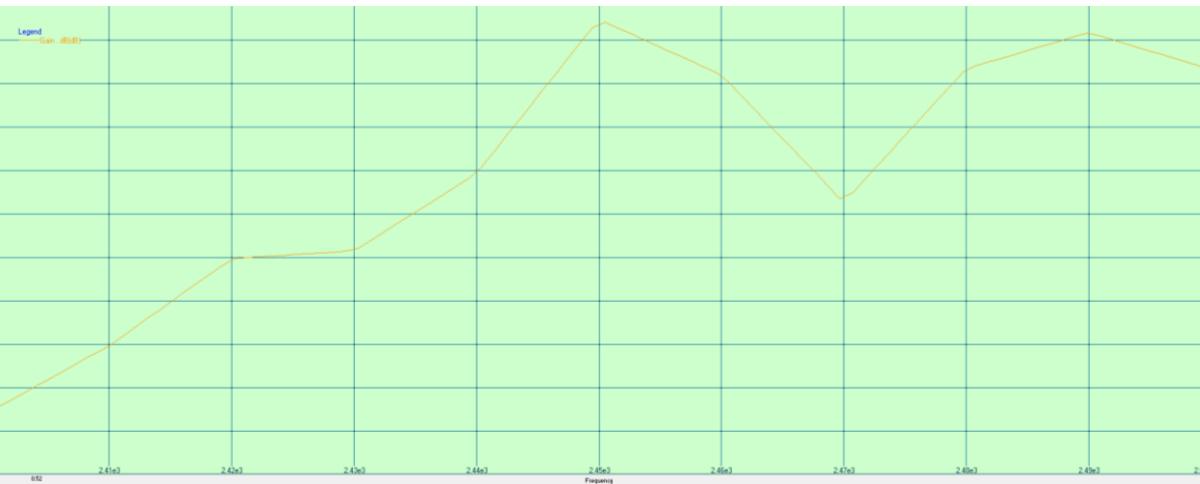
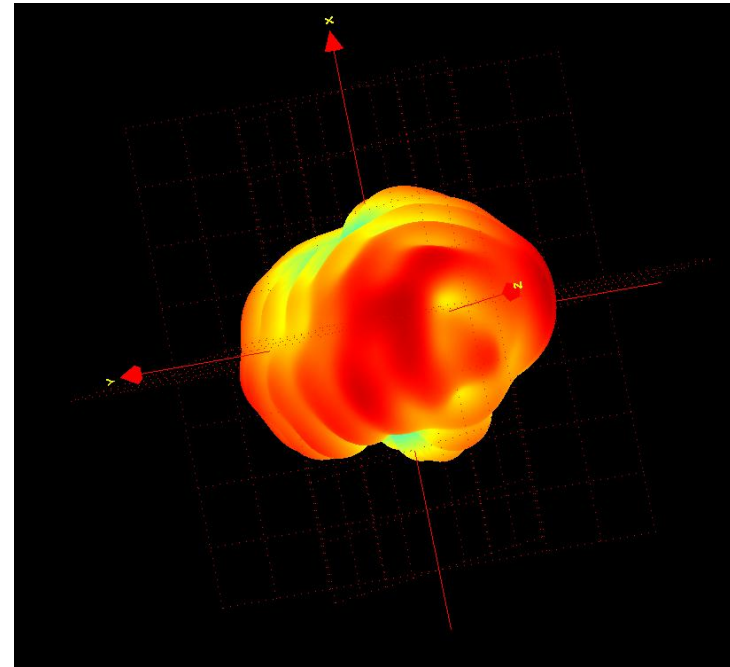
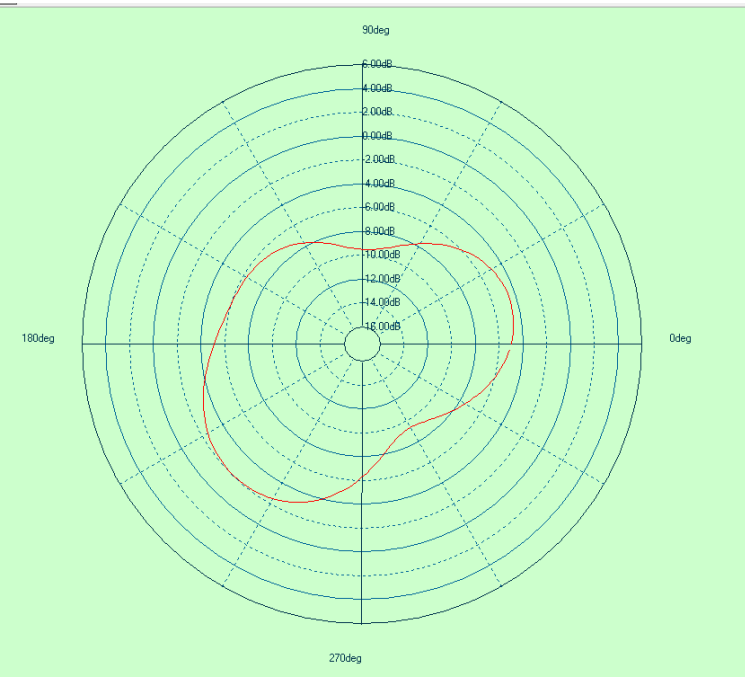


Frequency	1570MHZ	2450MHZ
Return Loss	-16.0	-15.1
VSWR	1.1	1.4

2.8 GPS & WIFI antenna Peak Gain

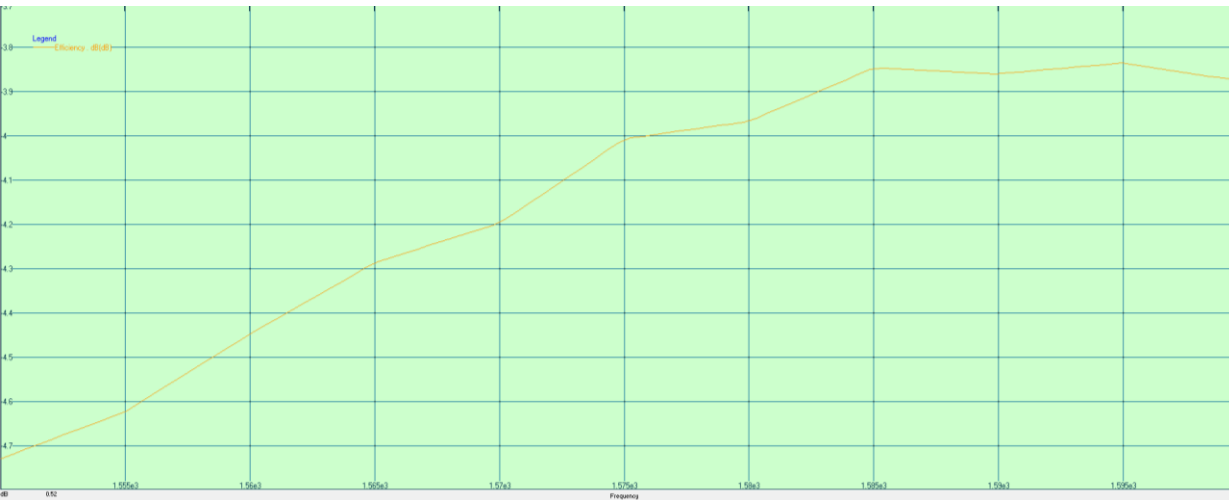


1575MHZ	Peak Gain(dBi)
XZ-Plane	-0.6
YZ-Plane	0.3
XY-Plane	-0.8

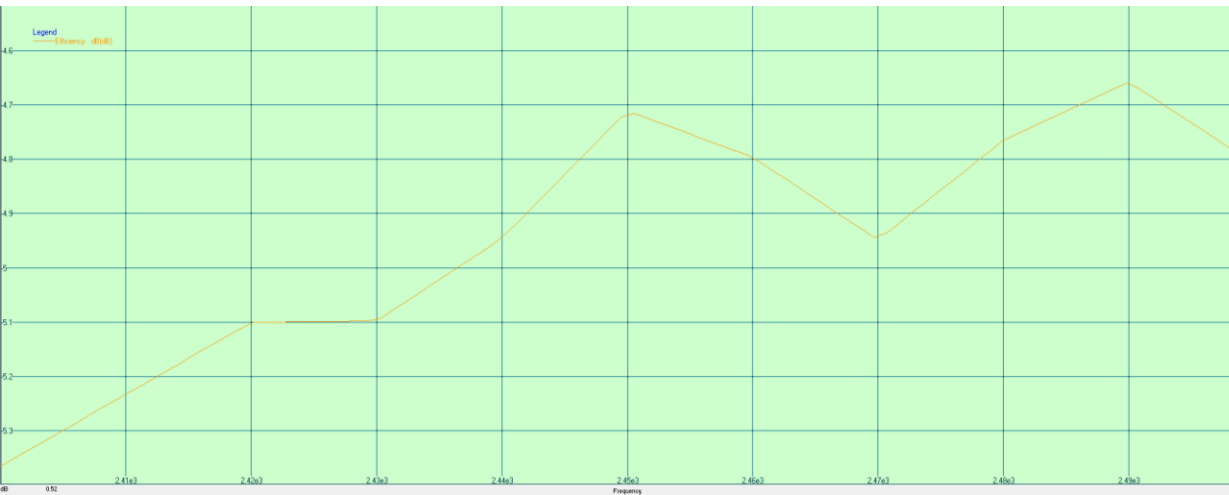


2450MHZ	Peak Gain(dBi)
XZ-Plane	-0.7
YZ-Plane	-0.4
XY-Plane	0.2

2.9 GPS & WIFI antenna Efficiency



1575MHZ



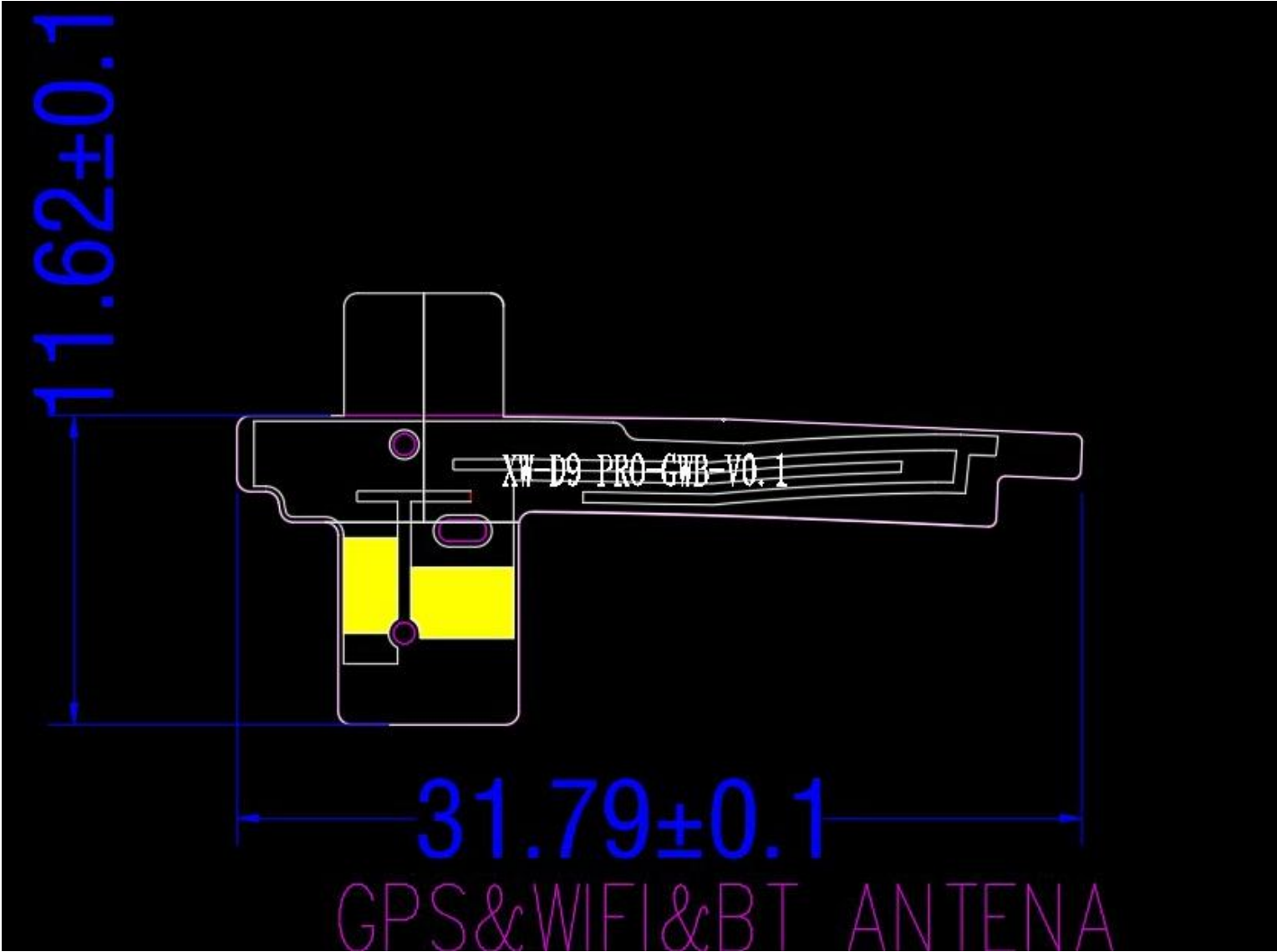
2450MHZ

Frequency	1570MHZ	2450MHZ
Efficiency	-35.3%	-38.2%

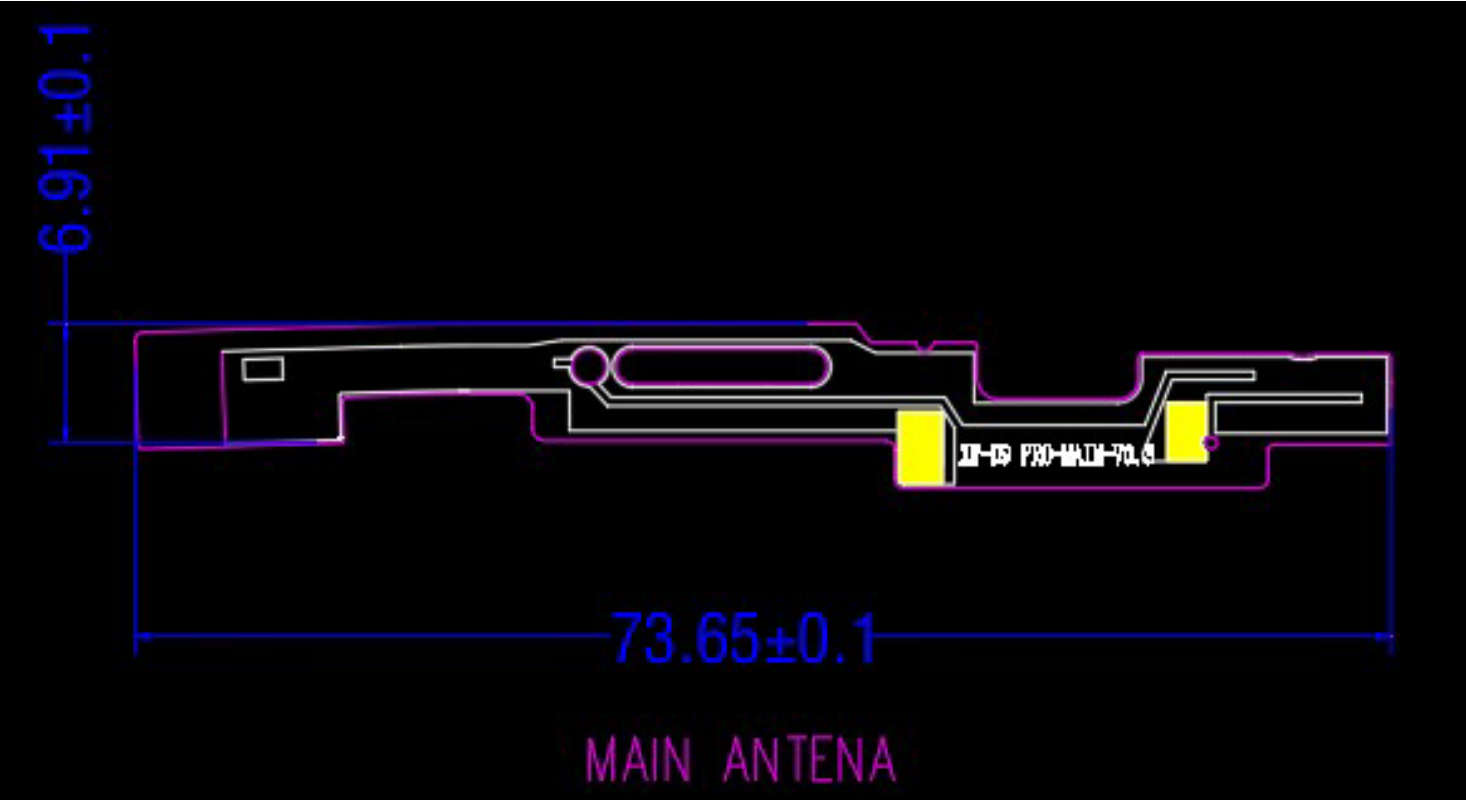
4、 Antenna dimension drawing (LTE Div Ant)



4、Antenna dimension drawing(BT/WIFI/GPS Ant)



4、Antenna dimension drawing GSM/WCDMA/LTE Div Ant



3 、 Contact information

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Structural Engineer: Li Wenbo	电话: 15919806329 邮箱: liwb@szcoe.com