



Mobile antenna test report

HEYUAN XUNWEI MICROWAVE
COMMUNICATION CO.,LTD

RF: qiudazhong

Date: 2022.11.23

Contents:

Test equipment

Modal information

Matching circuit

Active performance

Antenna dimension drawing

test data

Test equipment

Wireless communications test set: CMW500

Network Analyzer: Agilent 5071B

Anechoic Chamber : SATIMO SG24

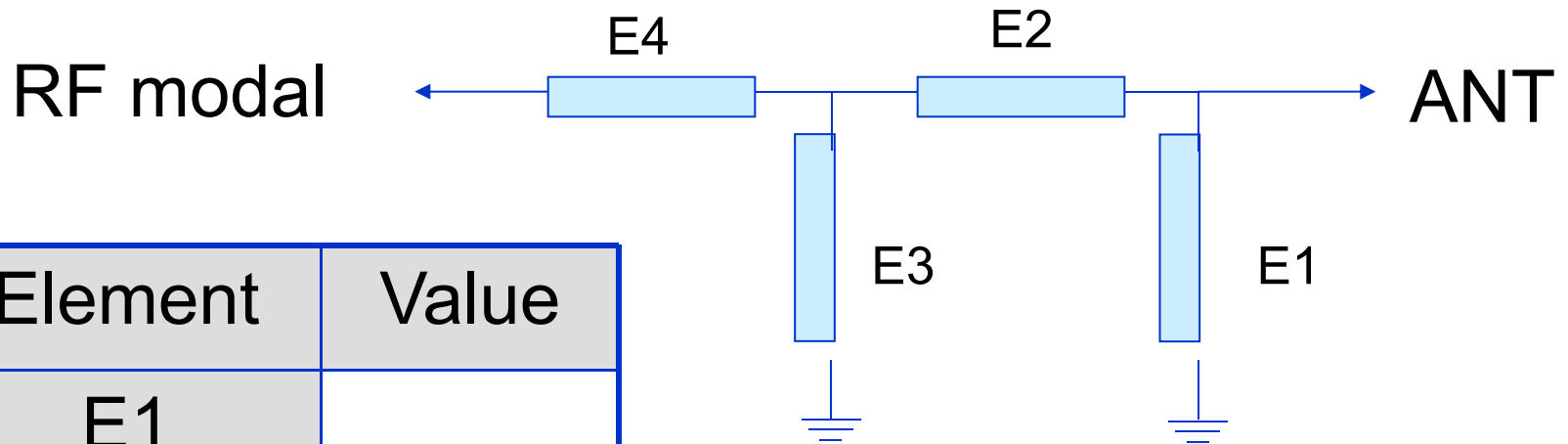


Antenna information

Antenna	GPS/WIFI/BT
Antenna model	FPC
Antenna type	PIFA

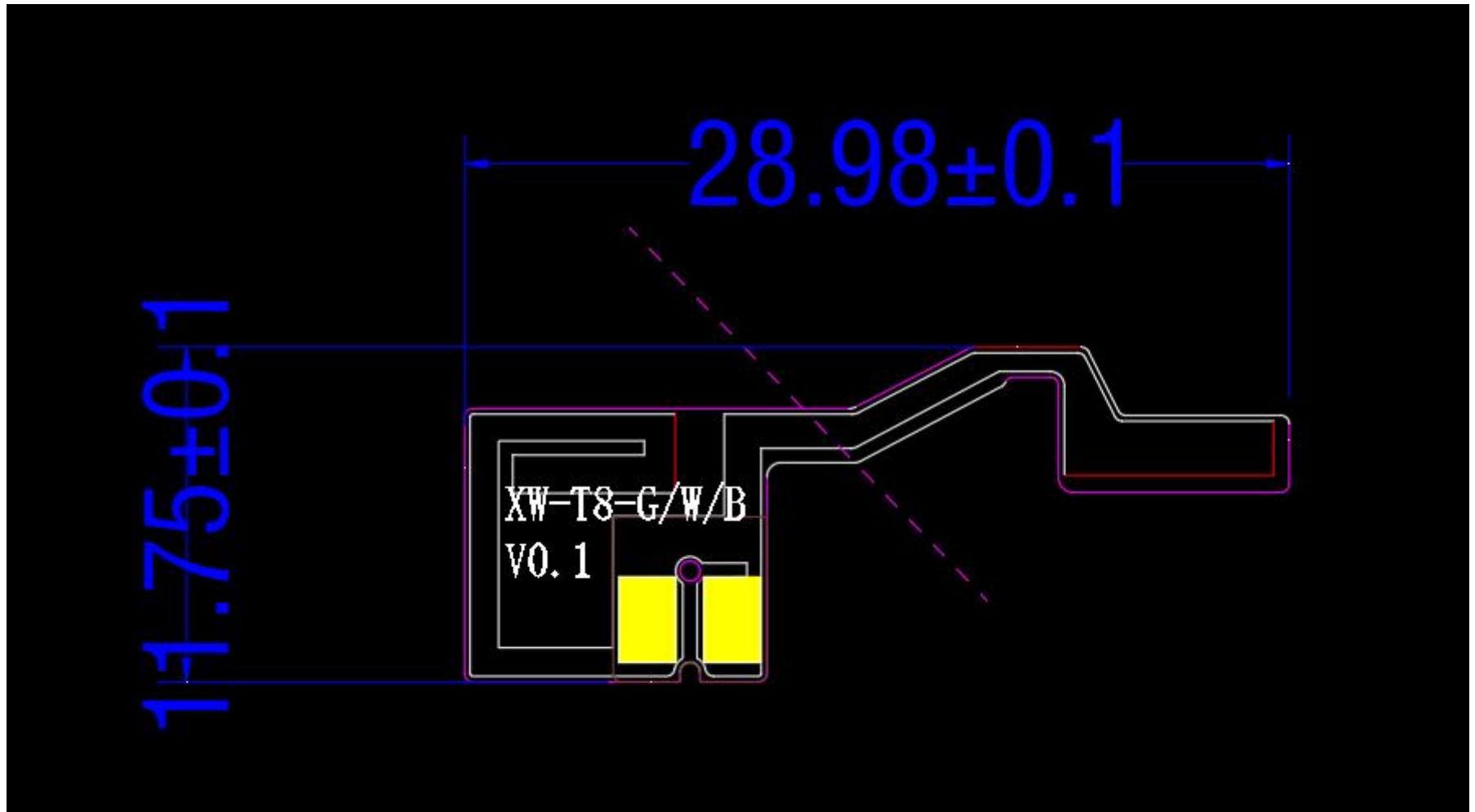
frequency range (MHz)	1575.42	2400–2500
VSWR	<3.5	<3.5

Matching circuit (No modification)



Element	Value
E1	
E2	
E3	
E4	

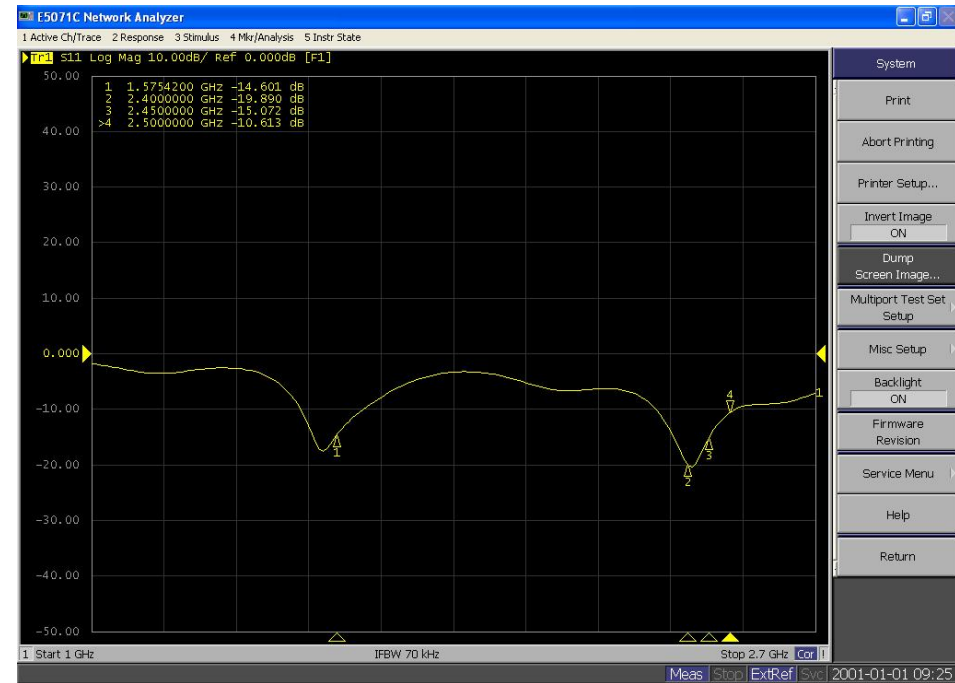
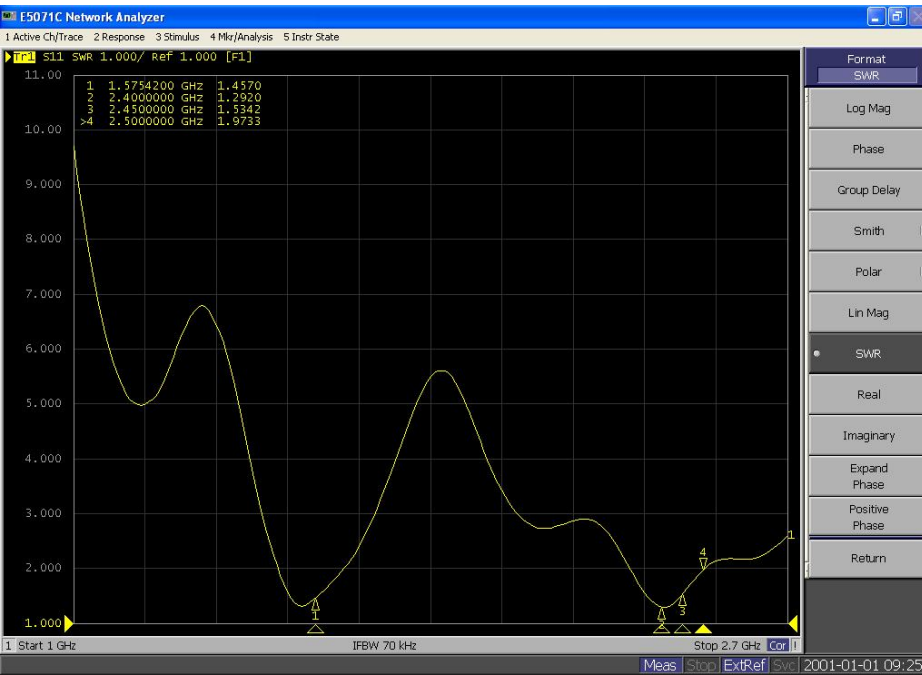
Antenna dimension drawing



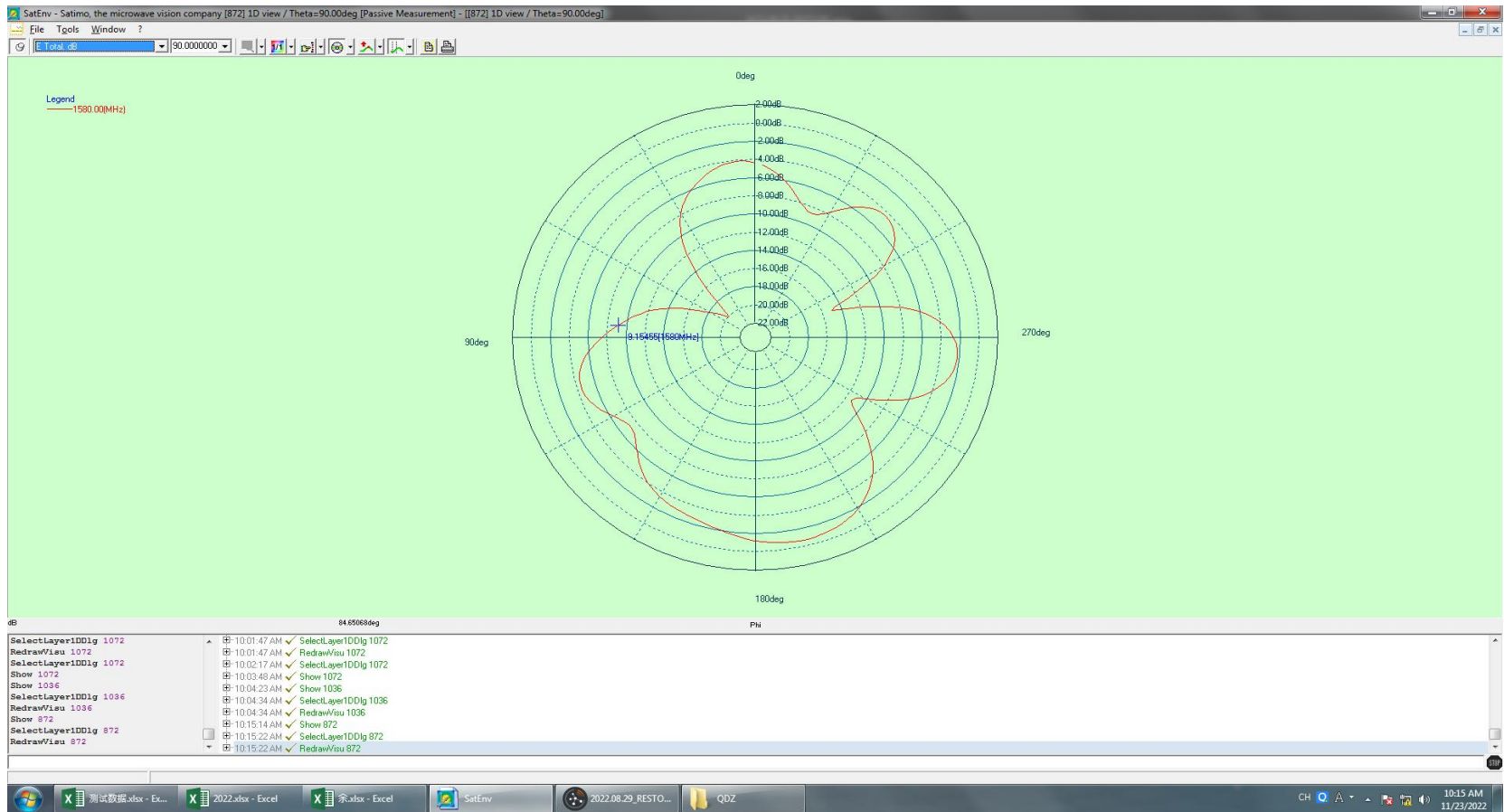
test data

(Passive efficiency test data)

S11 parameters



GPS test direction map



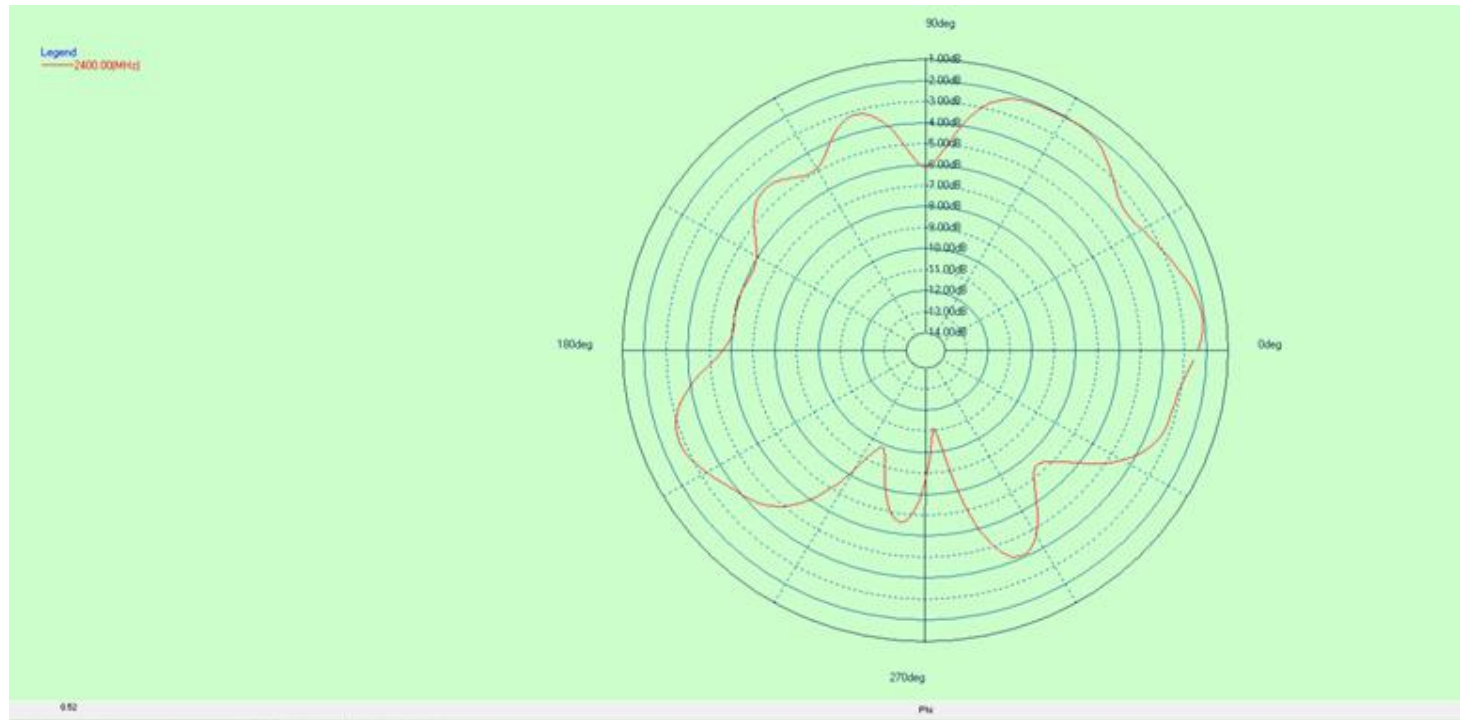
Frequency(MHZ): **1580**

Maximum Value(dBi): -0.62

Average Gain(dBi) : -6.85

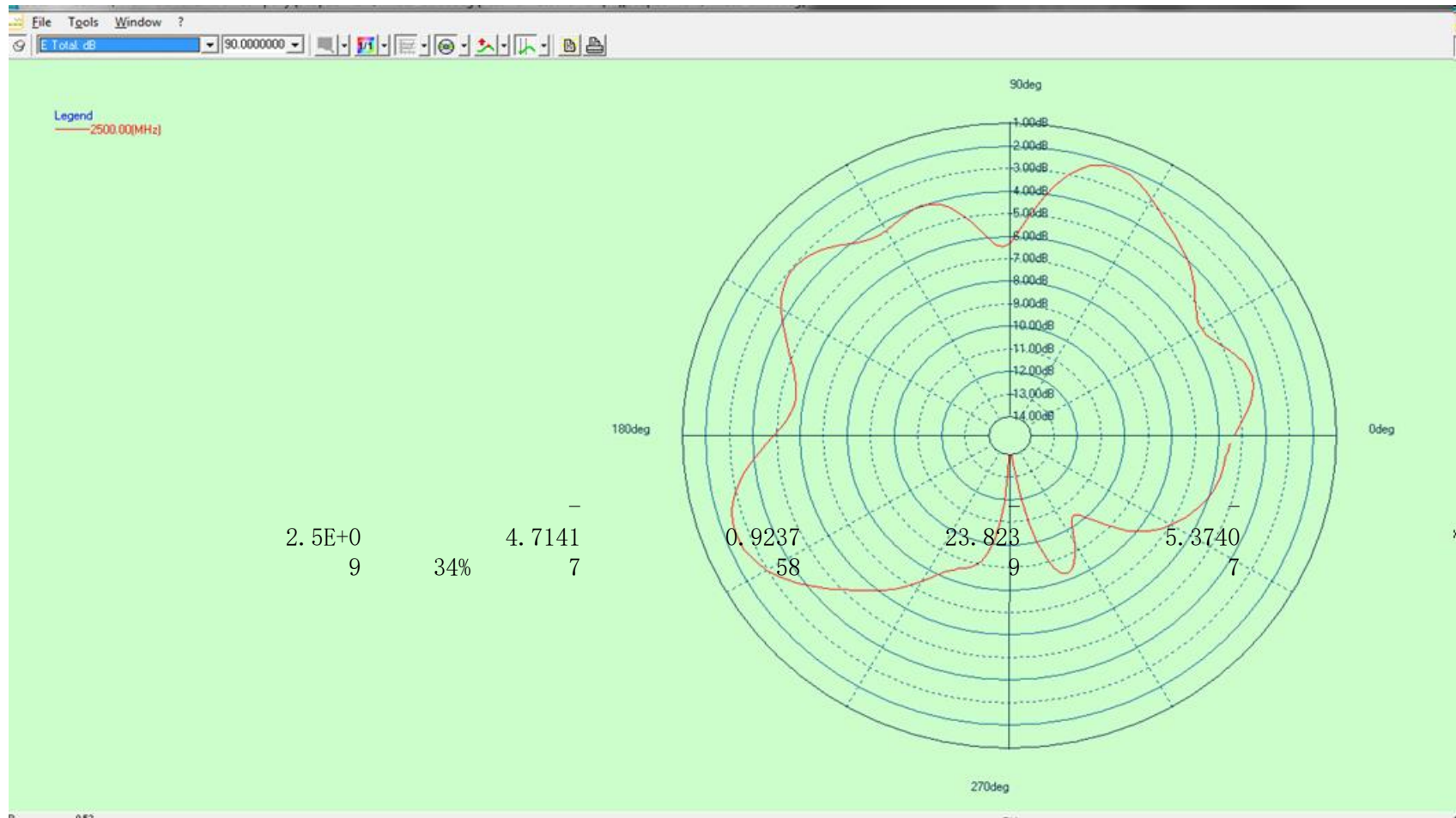
Minimum Gain(dBi): -24.94

WIFI/BT test direction map



Frequency(MHZ): **2400**
Maximum Value(dBi): 0.84
Average Gain(dBi) : -4.48
Minimum Gain(dBi): -24.84

WIFI test direction map



Frequency(MHZ): **2500**

Maximum Value(dBi): 0.92

Average Gain(dBi) : -5.37

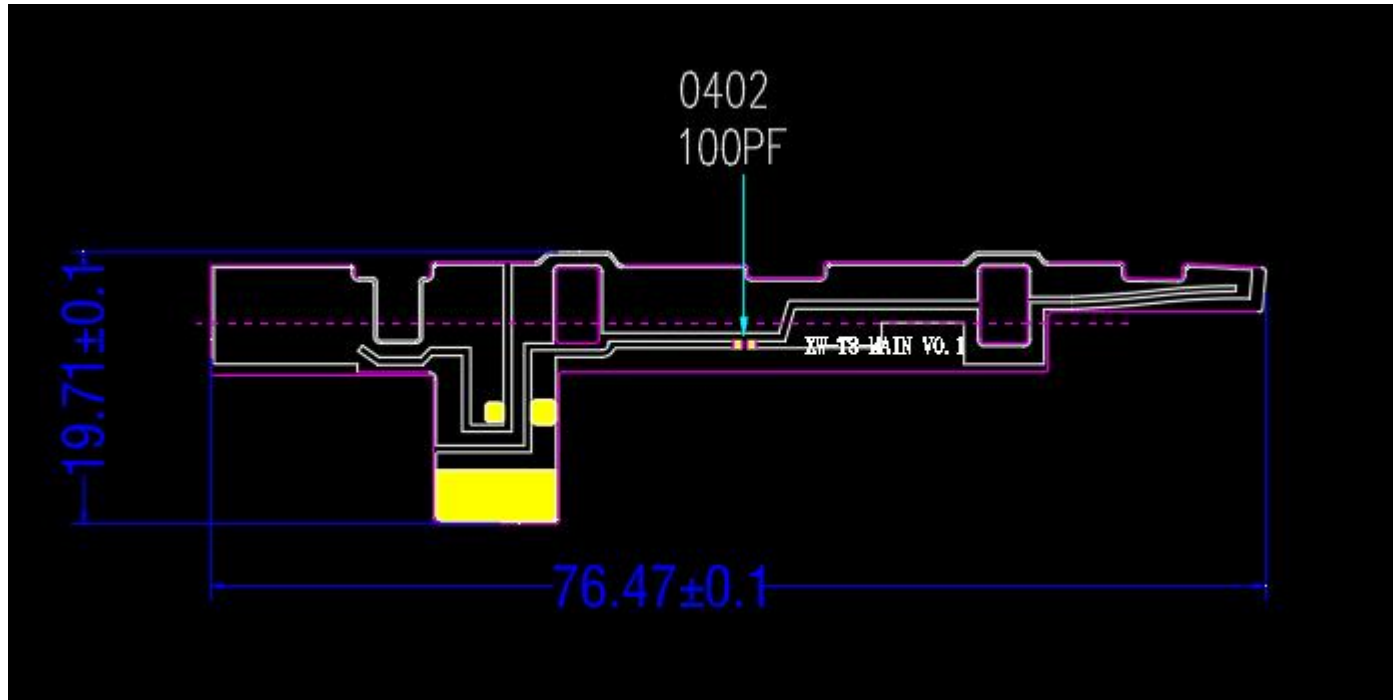
Minimum Gain(dBi): -23.82

Antenna information

Antenna	GSM
Antenna model	FPC
Antenna type	PIFA

frequency range (MHz)	699–960	1710–2700
VSWR	<3.5	<3.5

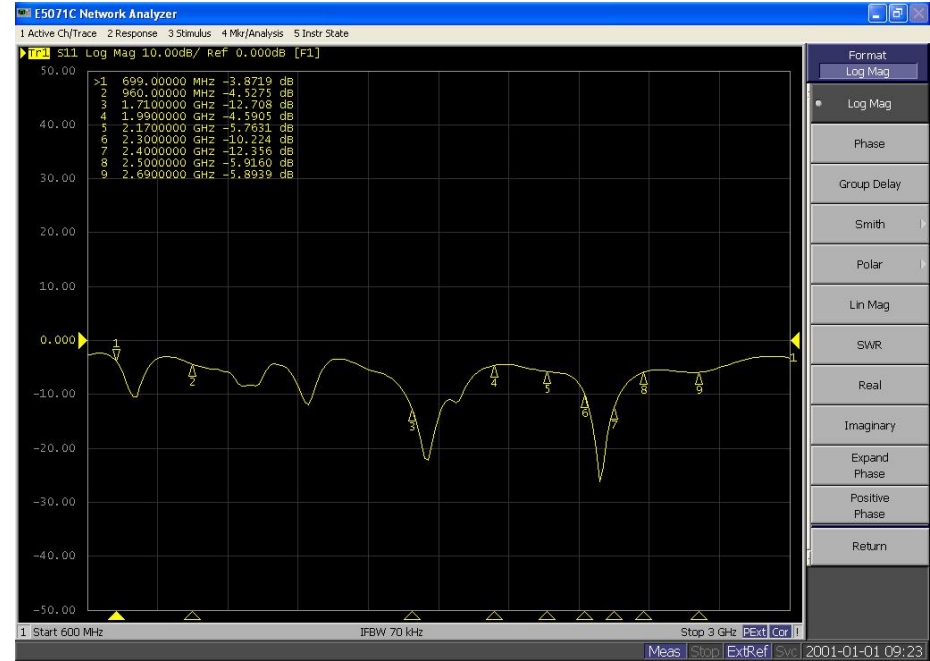
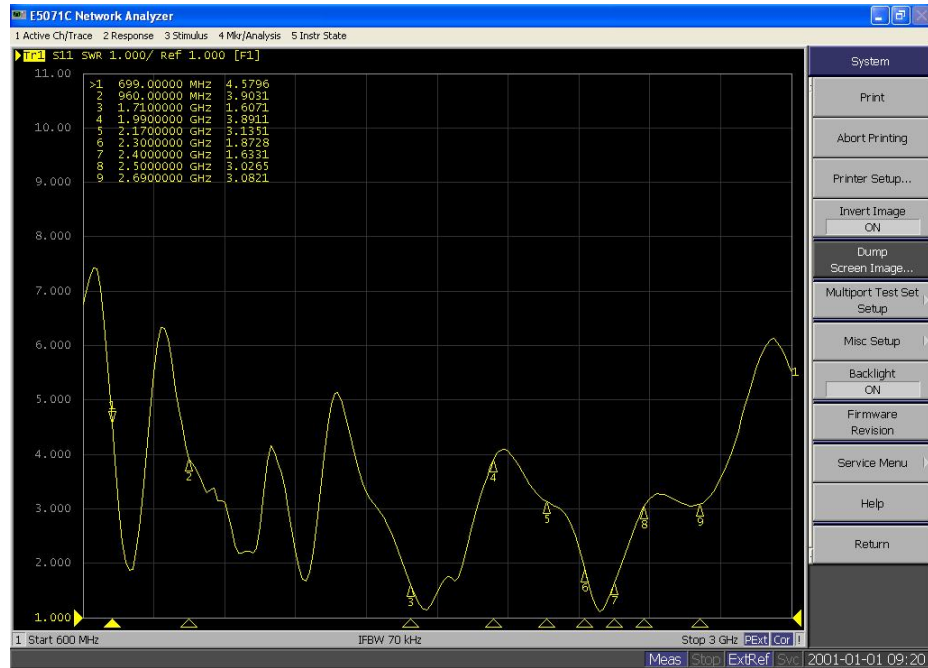
Antenna dimension drawing



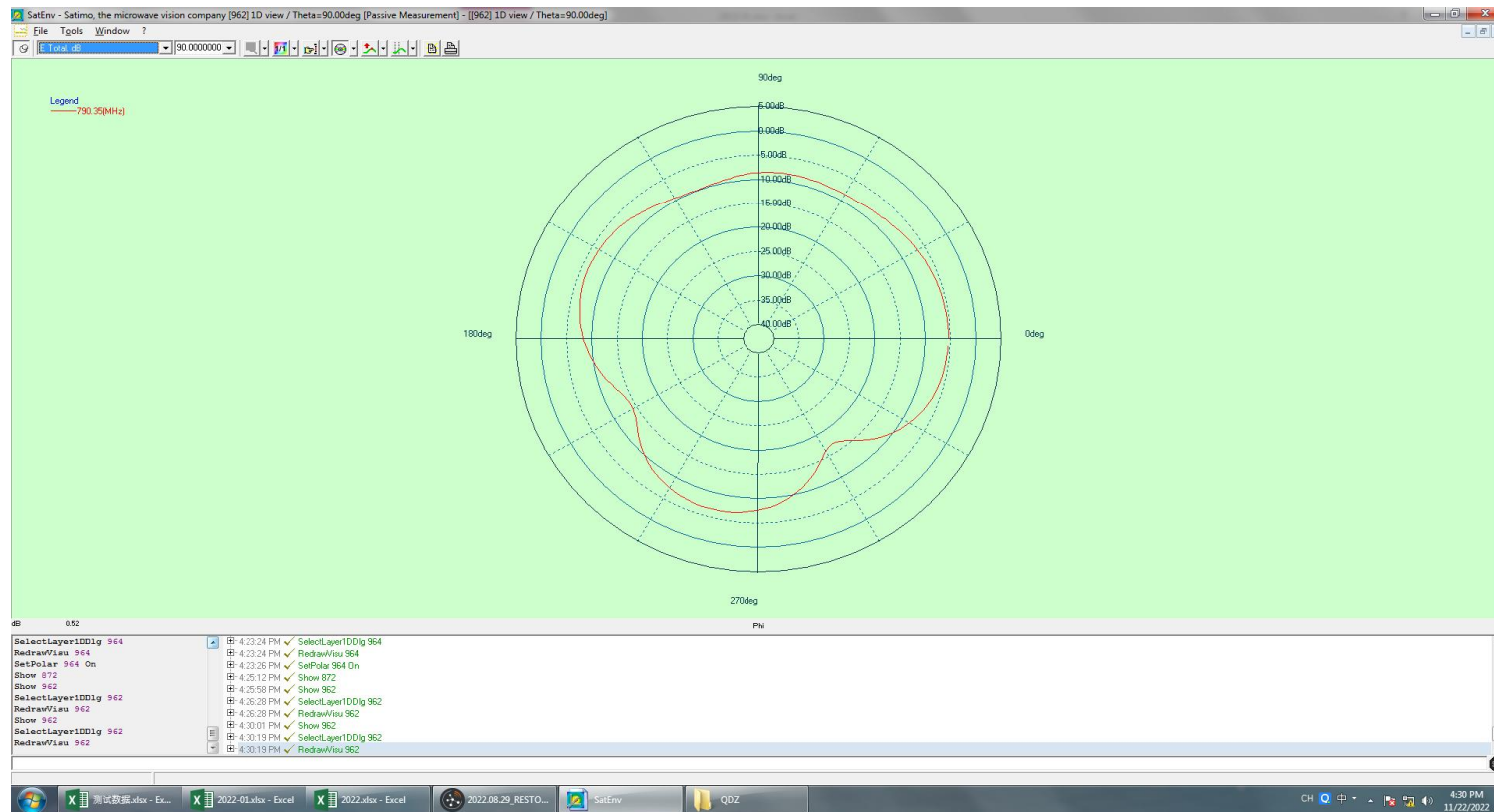
test data

(Passive efficiency test data)

S11 parameters



GSM test direction map



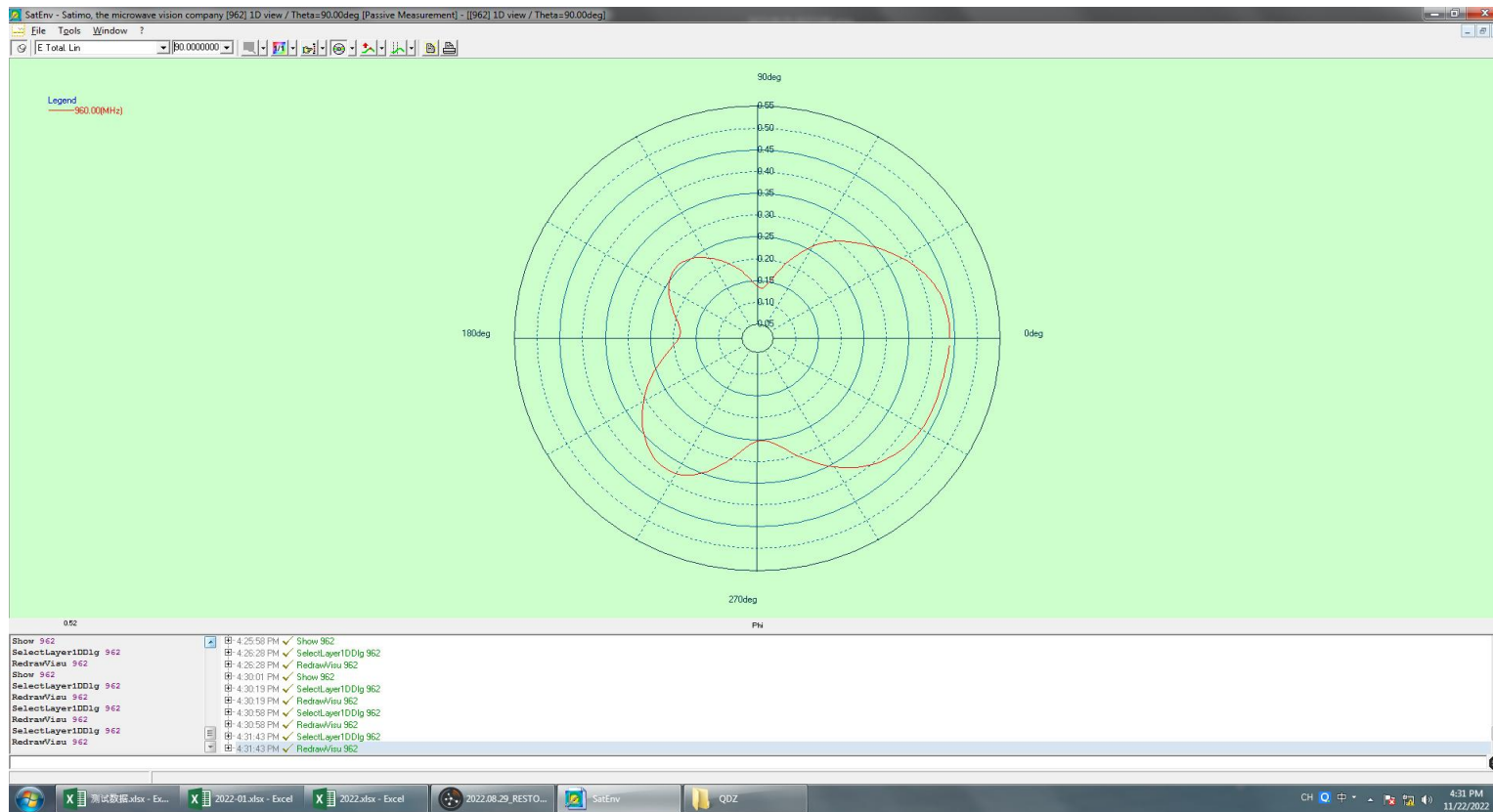
Frequency(MHZ): 790

Maximum Value(dBi): -4.34

Average Gain(dBi) : -9.36

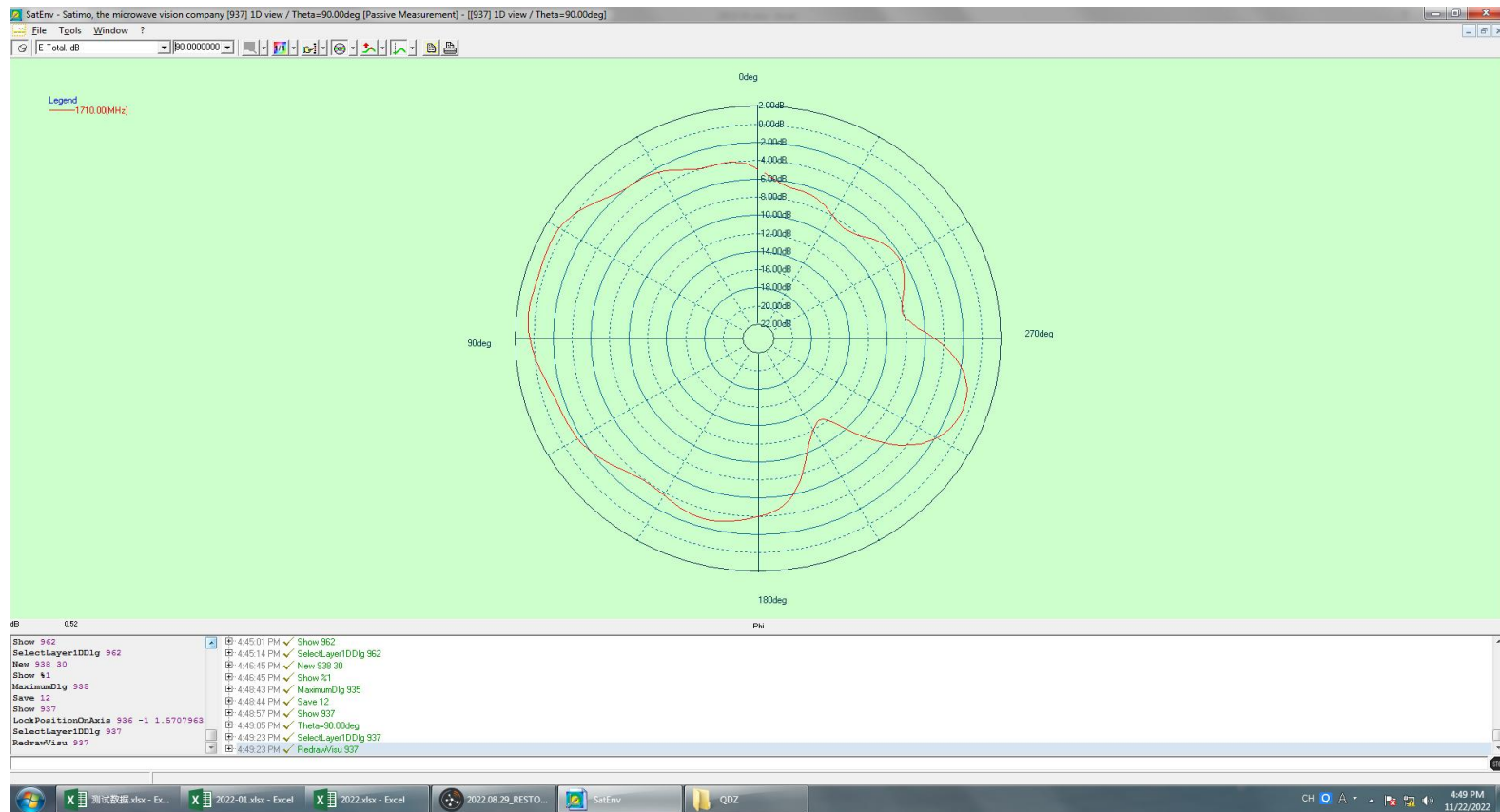
Minimum Gain(dBi): -23.50

GSM test direction map



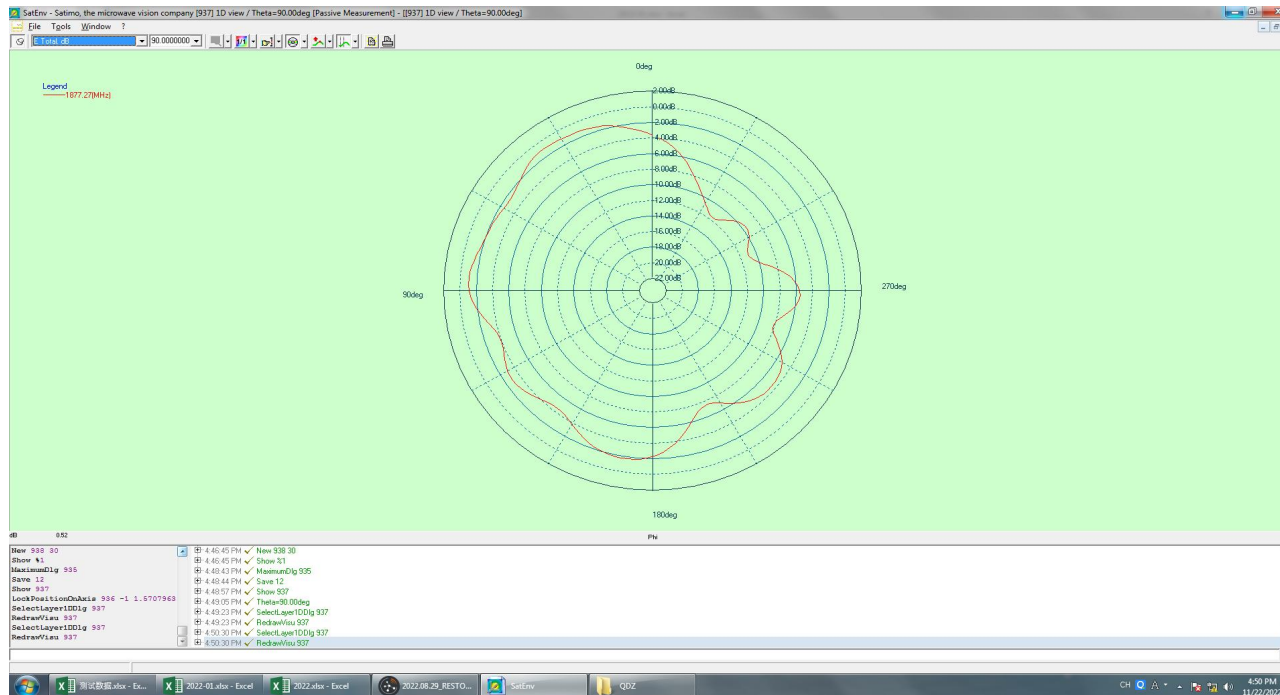
Frequency(MHZ): **960**
Maximum Value(dBi): -4.71
Average Gain(dBi) : -9.59
Minimum Gain(dBi): -26.80

GSM test direction map



Frequency(MHZ): 1710
Maximum Value(dBi): 1.73
Average Gain(dBi) : -3.49
Minimum Gain(dBi): -18.79

GSM test direction map



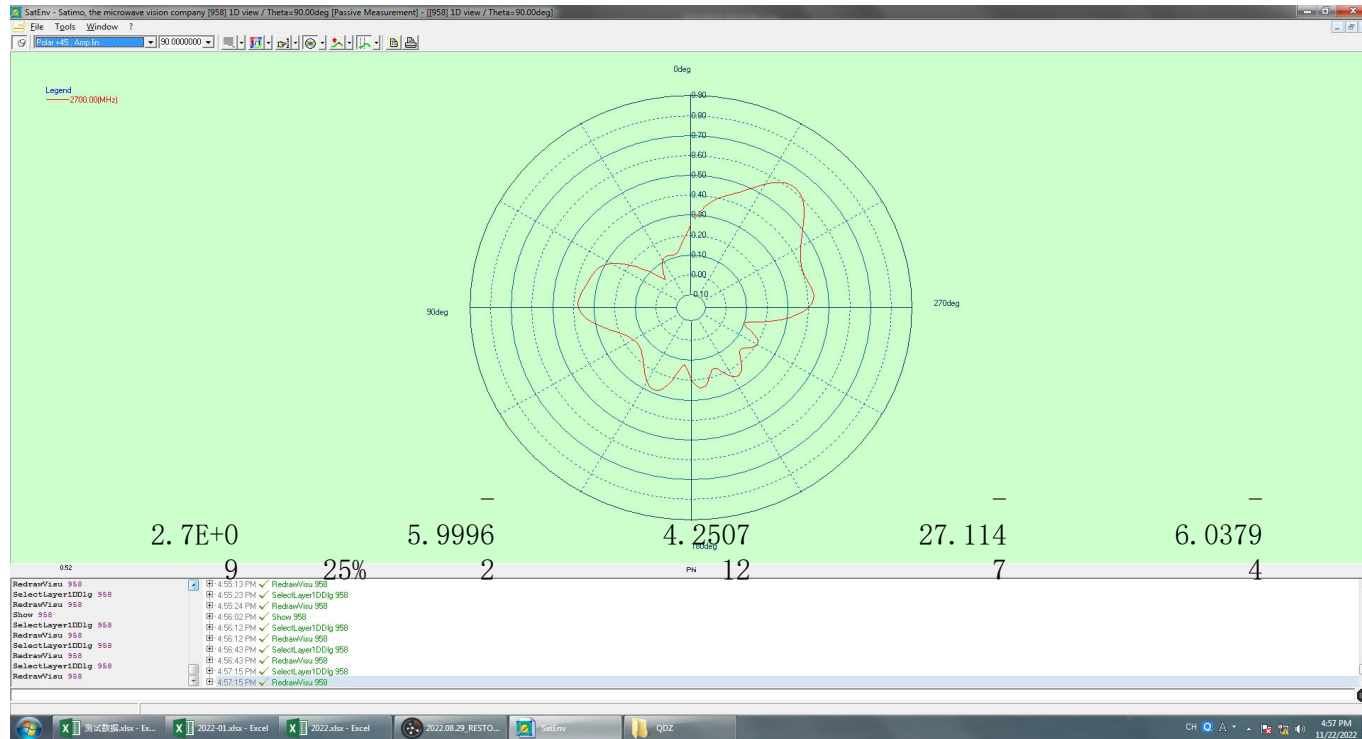
Frequency(MHZ): 1780

Maximum Value(dBi): 0.72

Average Gain(dBi) : -4.88

Minimum Gain(dBi): -35.80

GSM test direction map



Frequency(MHZ): 2700
Maximum Value(dBi): 4.25

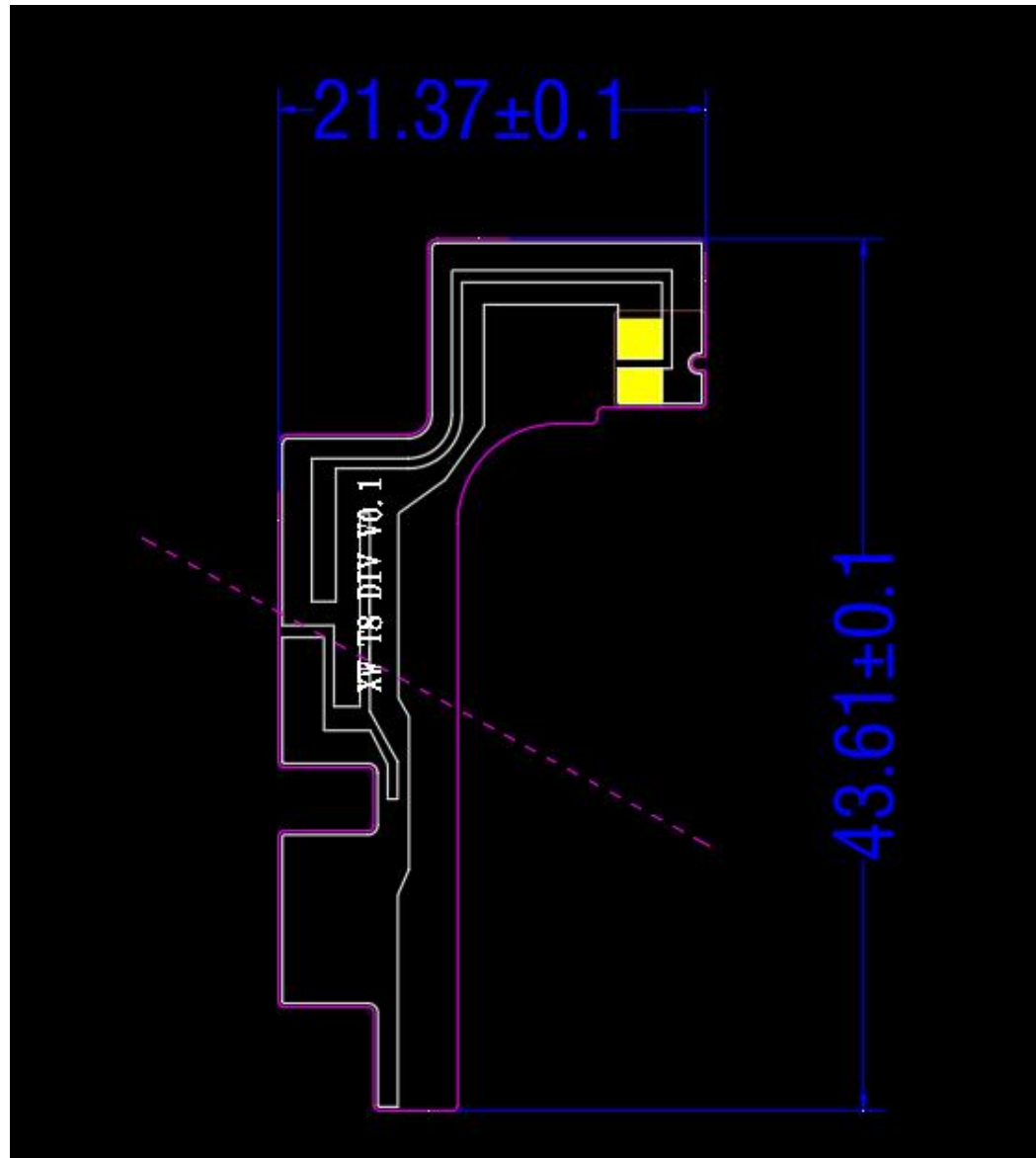
Average Gain(dBi) : -6.03
Minimum Gain(dBi): -27.11

Antenna information

Antenna	Diversity
Antenna model	FPC
Antenna type	PIFA

frequency range (MHz)	822	2420
VSWR	<4. 5	<4. 5

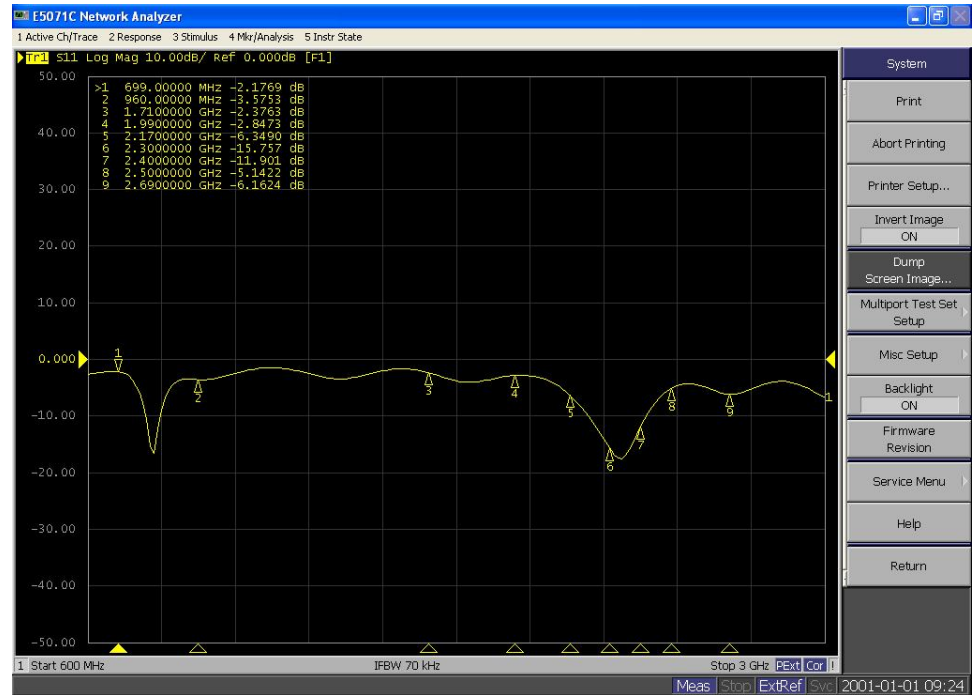
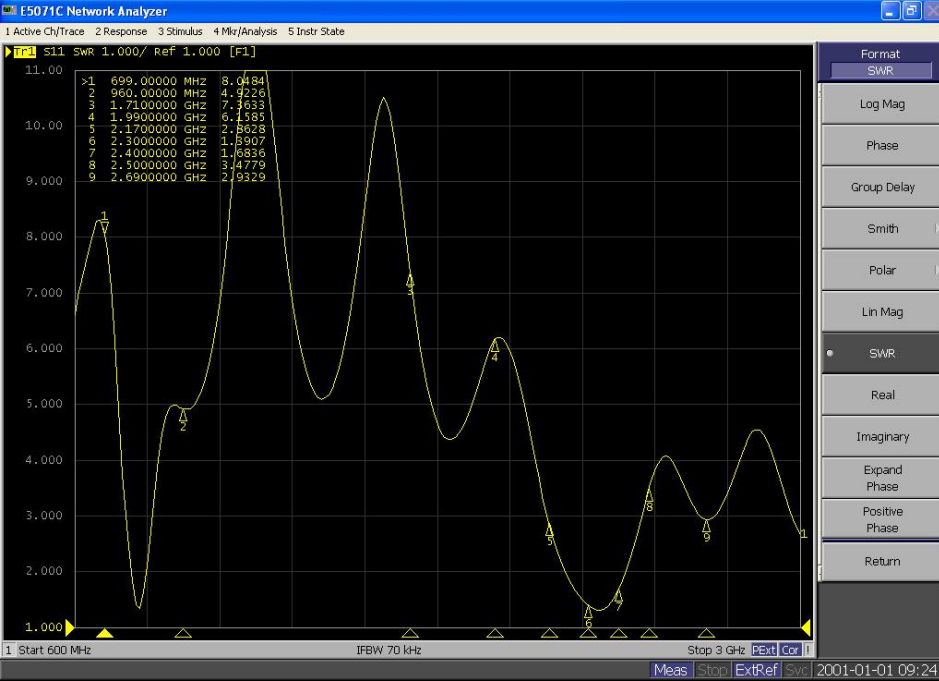
Antenna dimension drawing



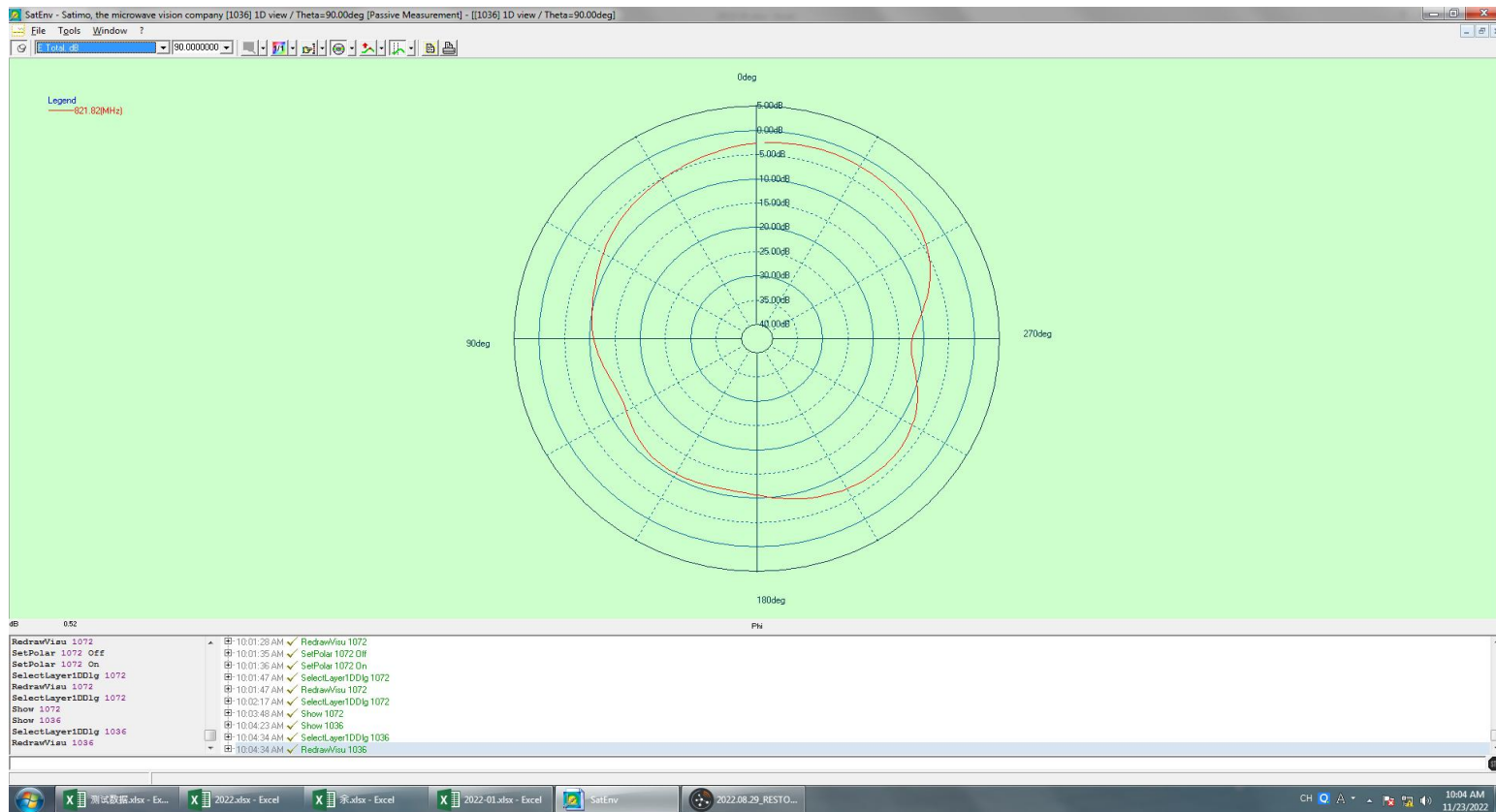
test data

(Passive efficiency test data)

S11 parameters



DIV test direction map



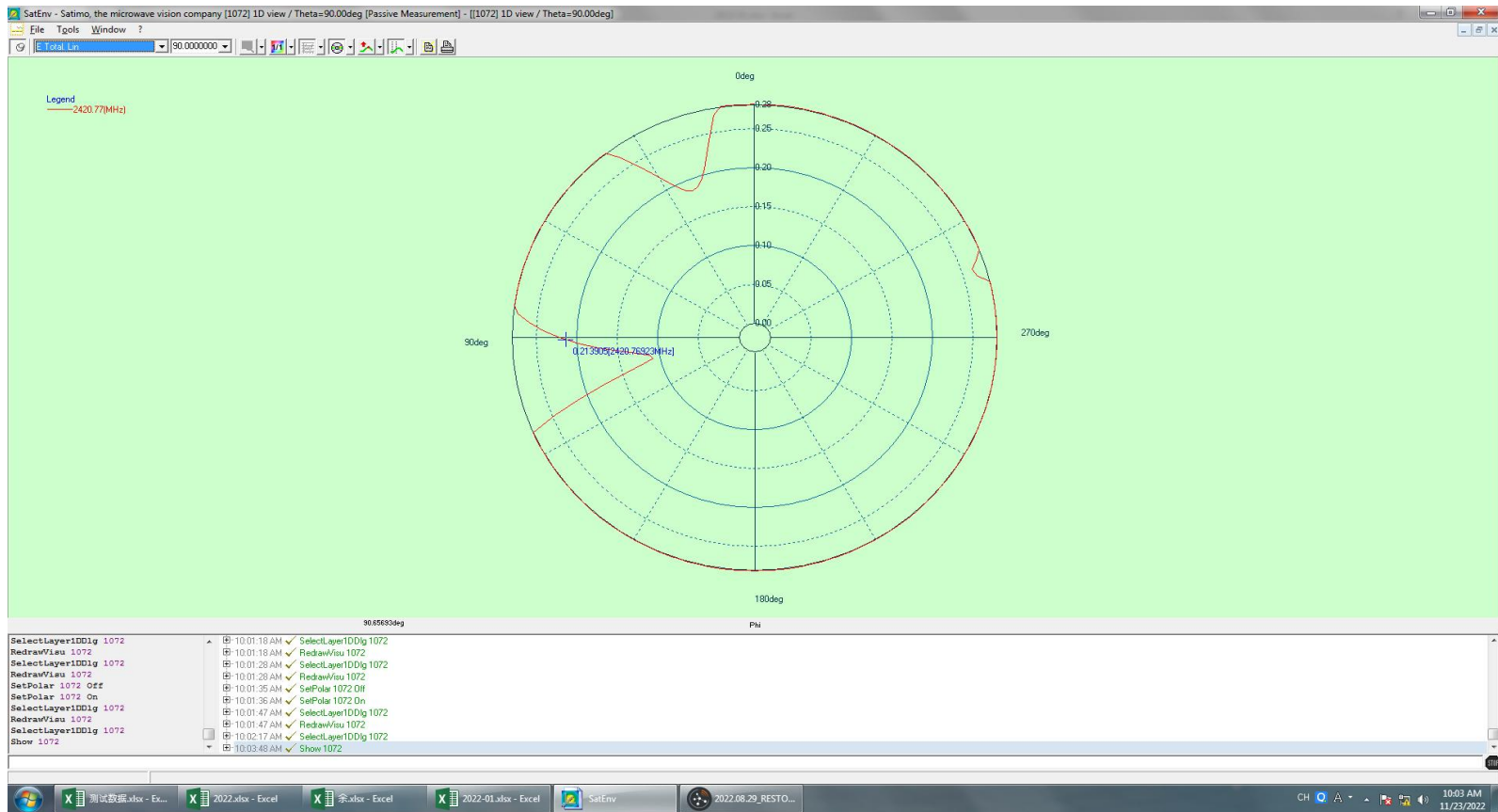
Frequency(MHZ): 822

Maximum Value(dBi): -1.14

Average Gain(dBi) : -5.05

Minimum Gain(dBi): - 15.84

DIV test direction map



Frequency(MHZ): 2420

Maximum Value(dBi): 0.14

Average Gain(dBi) : -8.00

Minimum Gain(dBi): -21.39