

DJI Antenna Datasheet

N Series RC antenna

Manufacture name: Kunshan Innowave Communication
Technology Co., Ltd.

Address: No. 55, Shengchuang Road, Yushan Town, Kunshan
City, Jiangsu Province, China

Revision history

Version	Change notes	Modifier	Date
V1.0	First draft.	--	2021.06.01

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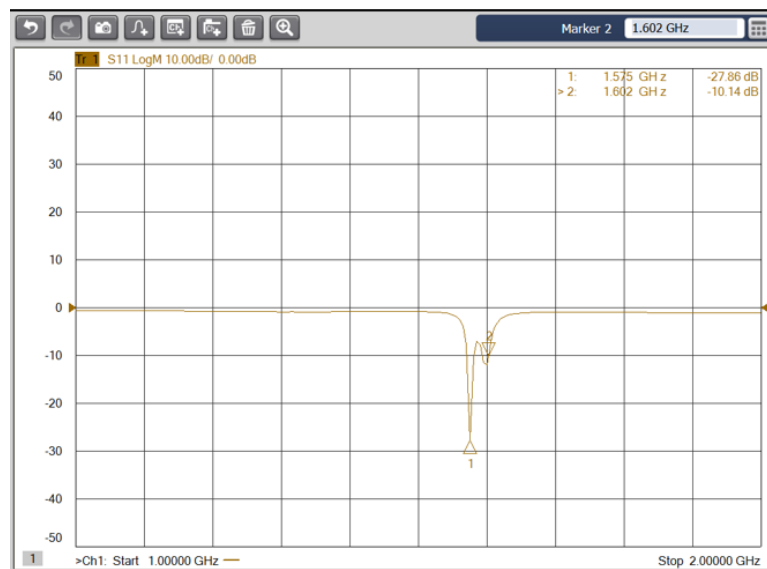
1、 Basic Specifications

No.	Specification	Descriptions	Notes	
1	Antenna Name	N Series RC Ant		
2	Brand	Spatial Hover		
3	Operation Frequency	1.574-1.576GHz; 1.598-1.606GHz 2.4~2.483GHz; 5.725~5.85GHz		
4	Connector Type	Ipex-1		
5	Impedance	50ohm		
6	Gain	0dBi@1.575GHz -1dBi@1.602GHz 2.5dBi@2.4~2.483GHz wifi 1dBi@5.15-5.25GHz wifi 3dBi@5.725~5.875GHz wifi 3dBi@2.4~2.483GHz out sdr left 3.5dBi@5.725~5.875GHz out sdr left 3dBi@2.4~2.483GHz in sdr right 4dBi@5.725~5.875GHz in sdr right 3dBi@2.4~2.483GHz in sdr left 4.5dBi@5.725~5.875GHz in sdr left 2dBi@2.4~2.483GHz out sdr right 3.5dBi@5.725~5.875GHz out sdr right right		
7	Efficiency	$\geq 40\%$		
8	VSWR	≤ 2		

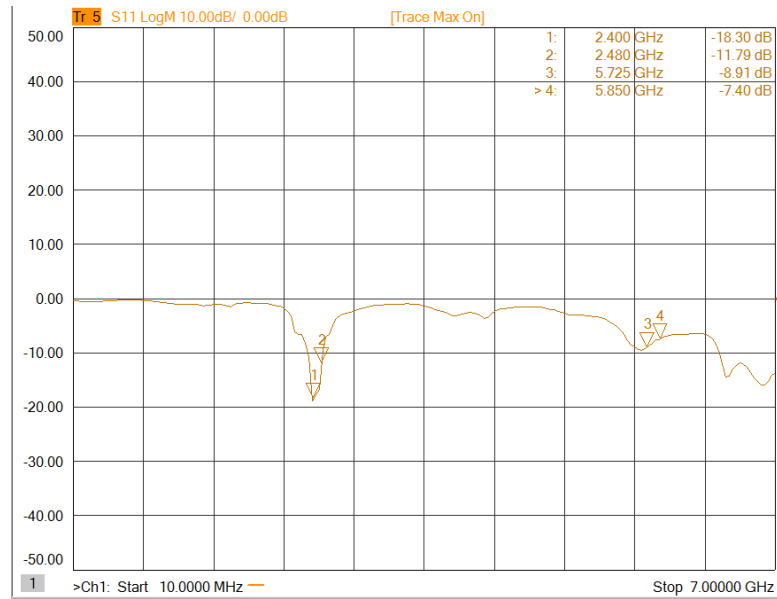
9	Polarization type	Linear		
10	3dB Beamwidth	Omnidirectional horizon		
11	Weight			
12	Antenna type	Dipole		

2、 Antenna Return Loss/VSWR

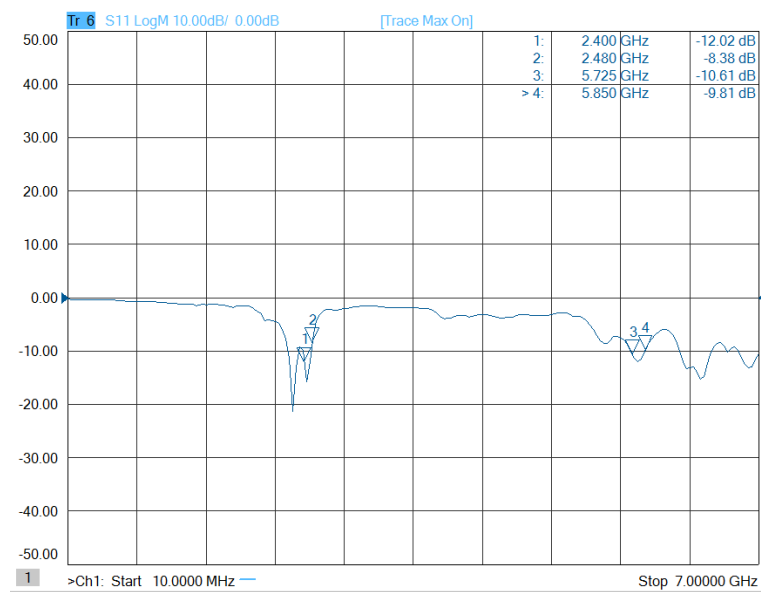
2.1 GNSS antenna return loss



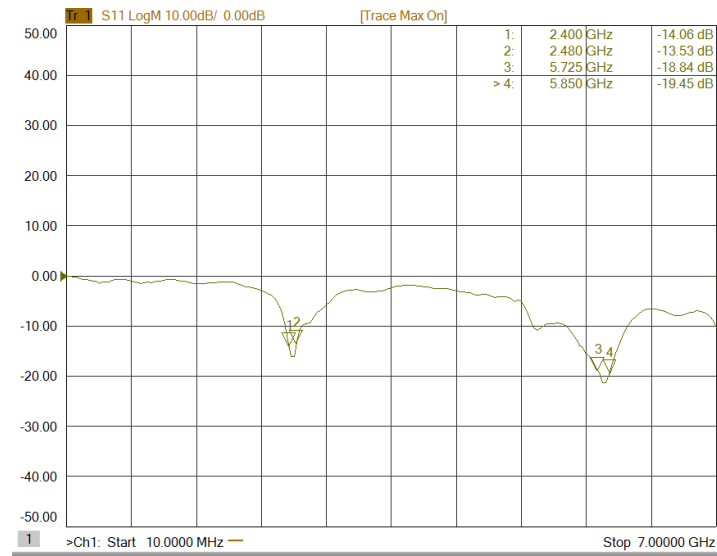
2.2 Wifi Left antenna return loss



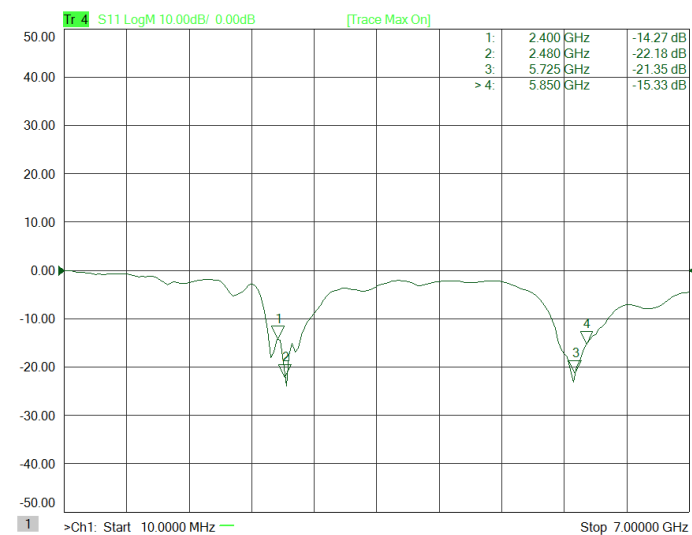
2.3 Wifi Right antenna return loss



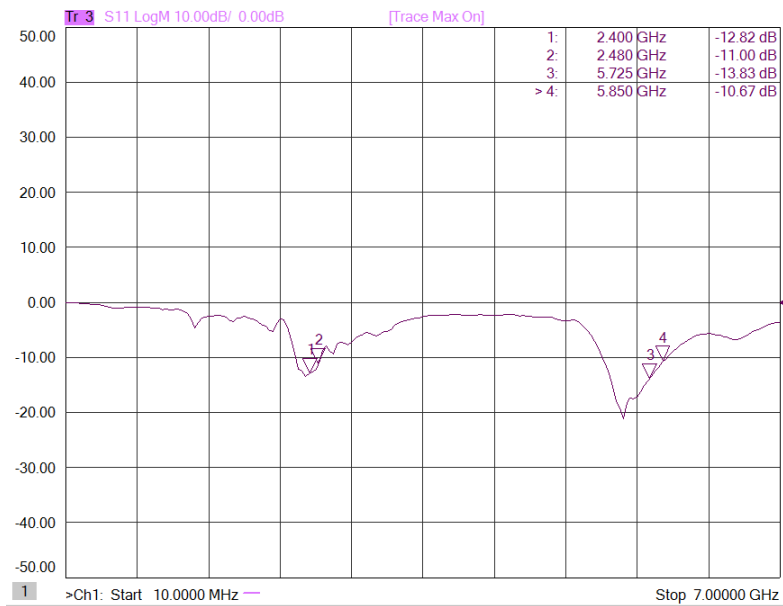
2.4 out sdr left antenna return loss



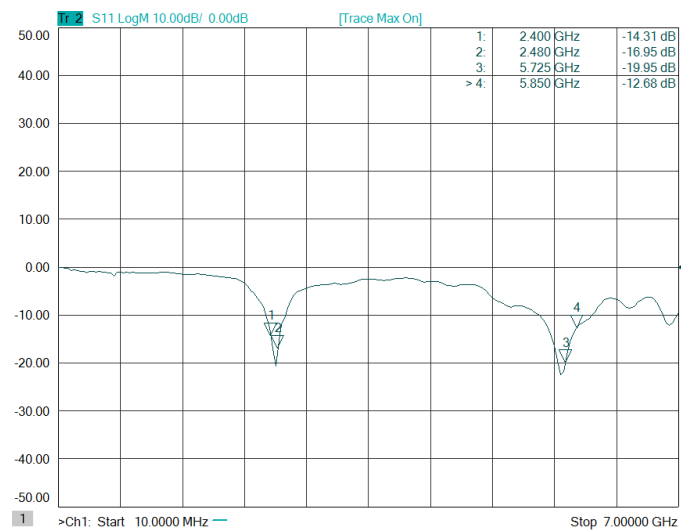
2.5 in sdr right antenna return loss



2.6 in sdr left antenna return loss



2.7 out sdr right antenna return loss



3、 Antenna Gain

3.1 Wifi antenna

Frequency	Efficiency	Gain(dBi)
2400MHz	36%	1.85886
2420MHz	42%	2.47594
2450MHz	47%	2.35731
2470MHz	47%	2.36714

Frequency	Efficiency	Gain(dBi)
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5150MHz	21%	-0.34344
5175MHz	20%	0.29354
5225MHz	16%	0.15498
5250MHz	17%	0.95313
Frequency	Efficiency	Gain(dBi)
5725MHz	34%	2.31436
5775MHz	34%	2.55277
5800MHz	35%	2.94602
5850MHz	36%	2.93588

3.2 out sdr left

Frequency	Efficiency	Gain(dBi)
2400MHz	69%	2.66257
2420MHz	71%	2.91803
2450MHz	69%	2.90777
2470MHz	69%	2.8167

Frequency	Efficiency	Gain(dBi)
5725MHz	70%	3.45116
5775MHz	70%	3.49269
5800MHz	70%	3.33893
5850MHz	65%	3.11672

3.3 in sdr right antenna

Frequency	Efficiency	Gain(dBi)
2400MHz	73%	2.87817
2420MHz	73%	2.91879
2450MHz	71%	2.86688
2470MHz	68%	2.85992

Frequency	Efficiency	Gain(dBi)
5725MHz	66%	3.913
5775MHz	66%	3.76348
5800MHz	66%	3.8849
5850MHz	63%	3.91986

3.4 in sdr left antenna

Frequency	Efficiency	Gain(dBi)
2400MHz	59%	2.57008
2420MHz	57%	2.63925
2450MHz	55%	2.76597
2470MHz	52%	2.77592

Frequency	Efficiency	Gain(dBi)
5725MHz	67%	4.4168
5775MHz	64%	4.43434
5800MHz	63%	4.31255
5850MHz	58%	4.3831

3.5 out sdr right antenna

Frequency	Efficiency	Gain(dBi)
2400MHz	73%	1.95369
2420MHz	76%	1.96722
2450MHz	76%	1.80827
2470MHz	72%	1.73247

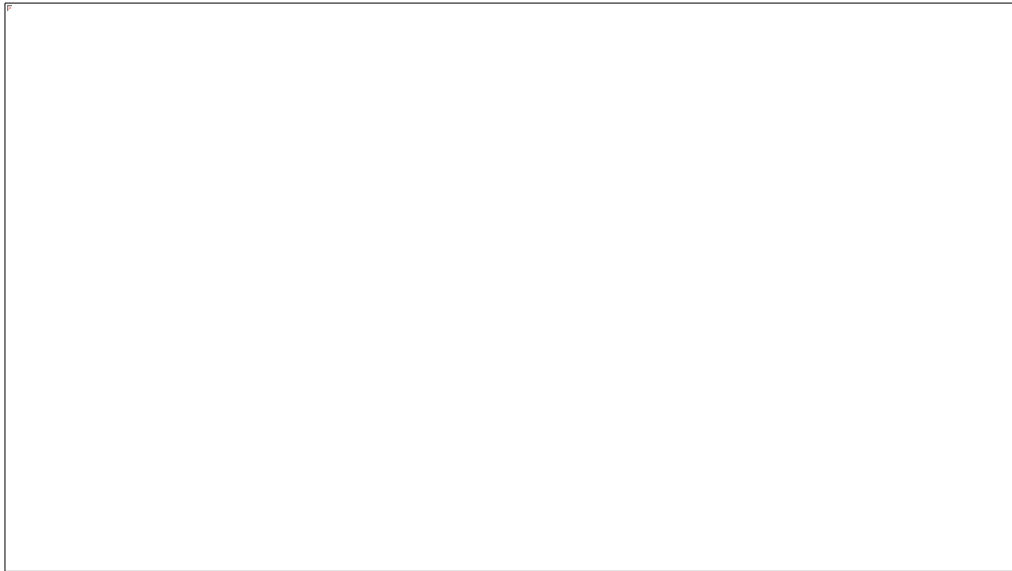
Frequency	Efficiency	Gain(dBi)
5725MHz	64%	3.47016
5775MHz	63%	3.42405
5800MHz	63%	3.41699
5850MHz	58%	3.36257

4、 Radiation Pattern

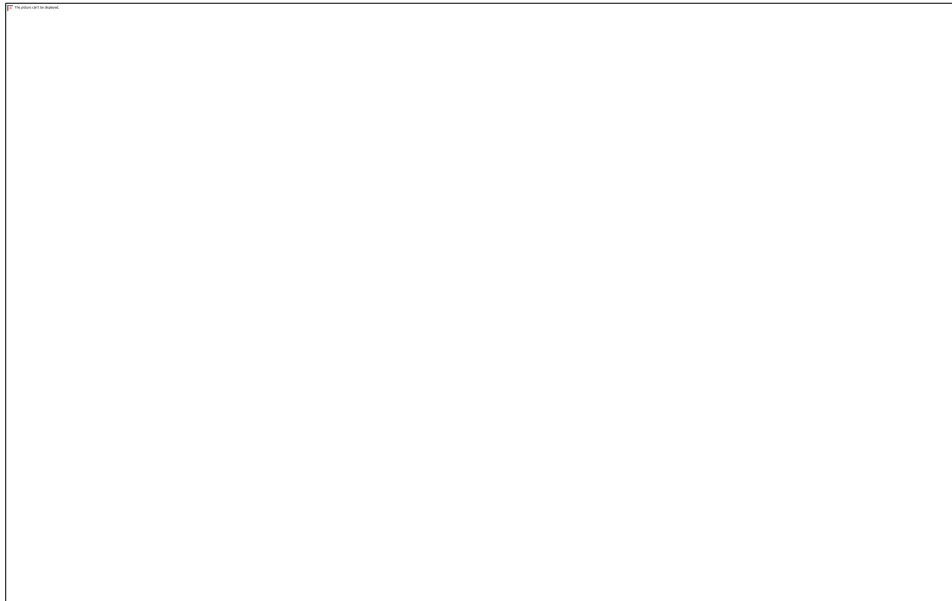
4.1 Wifi antenna 2.4G radiation pattern



4.2 Wifi antenna 5.1G radiation pattern

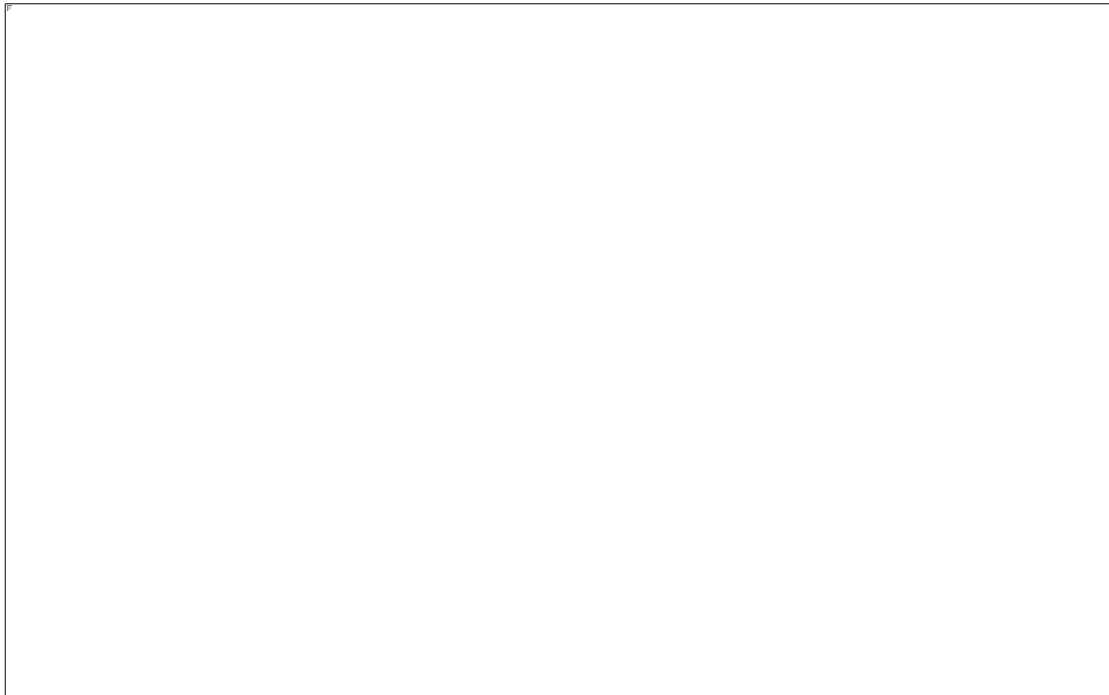


4.3 Wifi antenna 5.8G radiation pattern

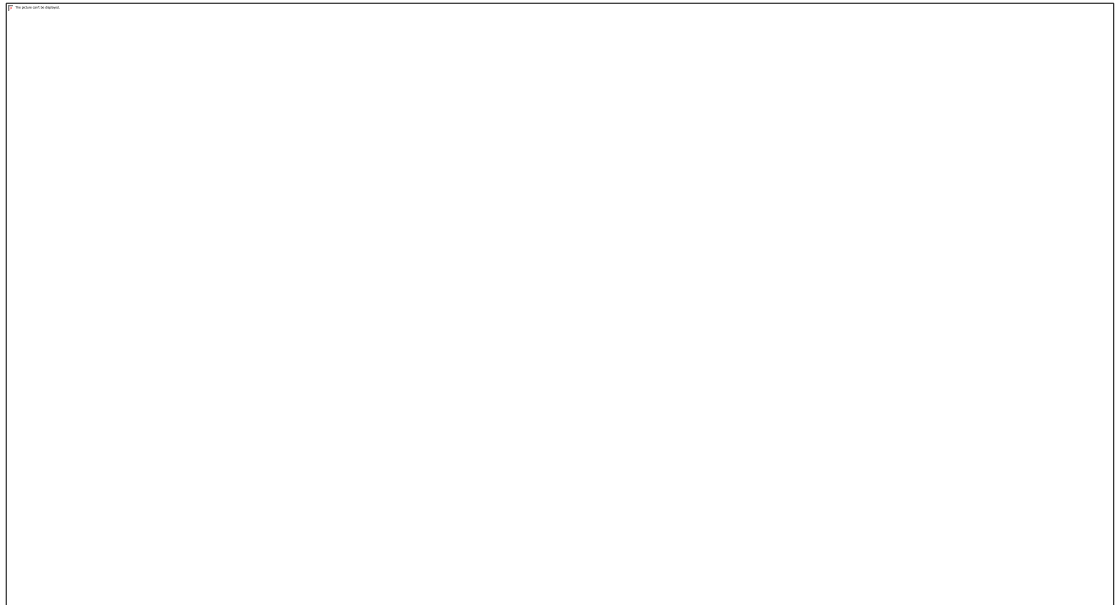


4.4 out sdr left antenna 2.4G radiation pattern

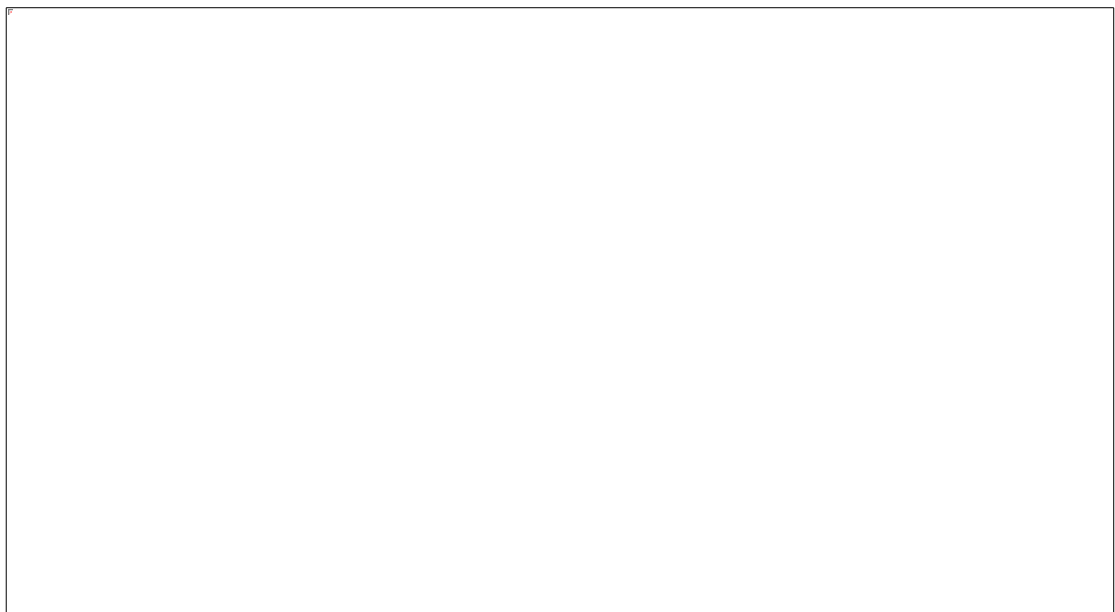
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Phi=90

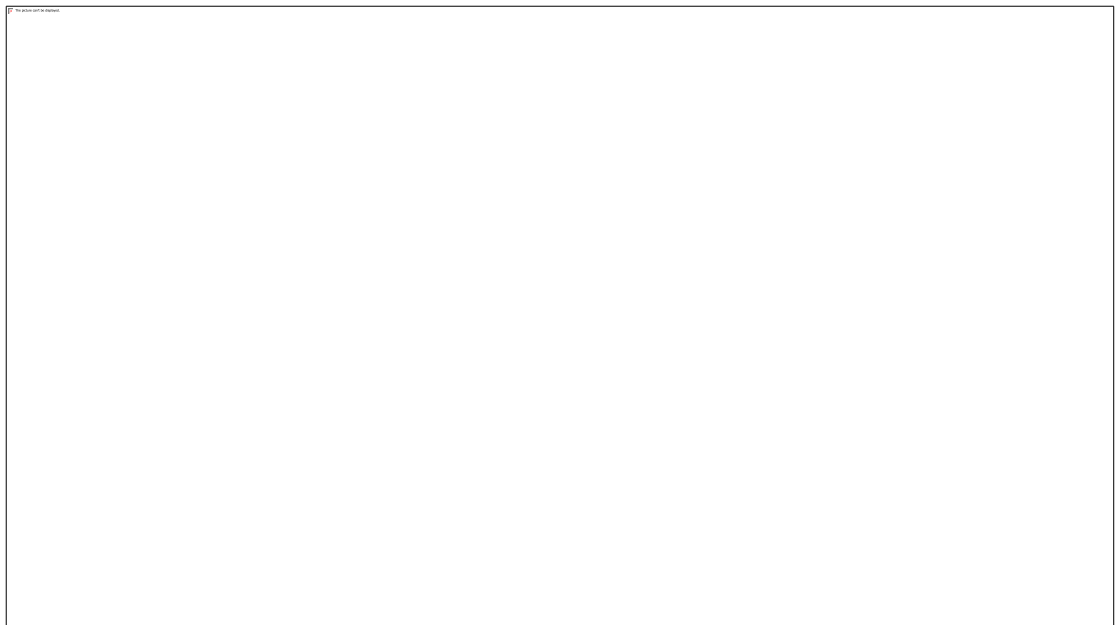


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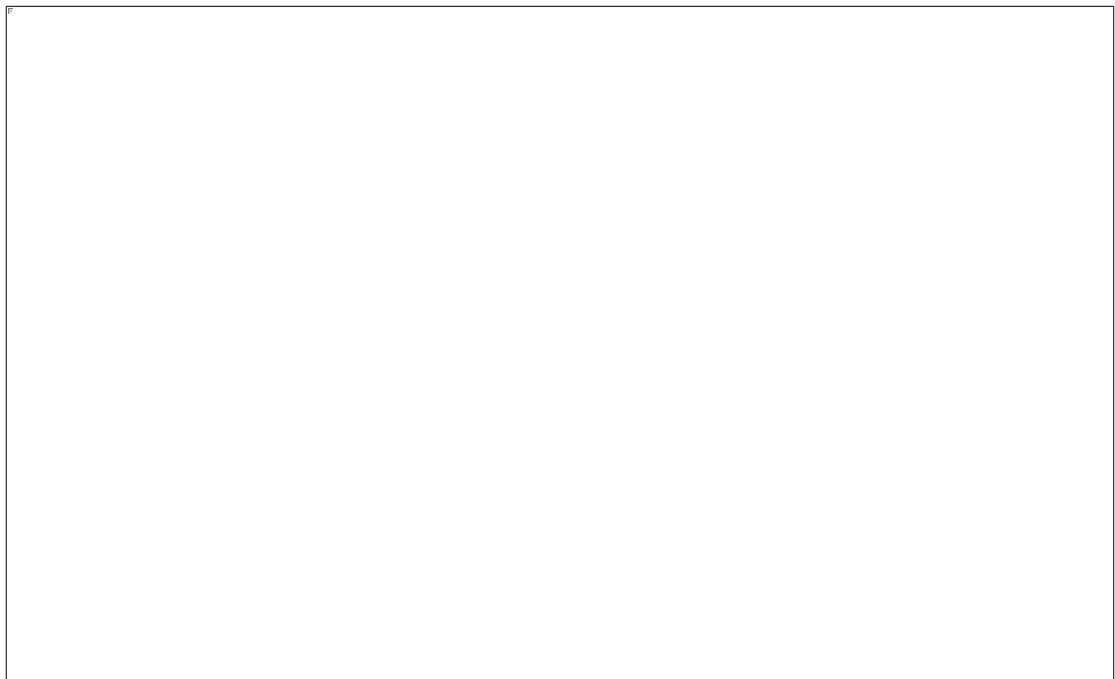


4.5 out sdr left antenna 5.8G radiation pattern

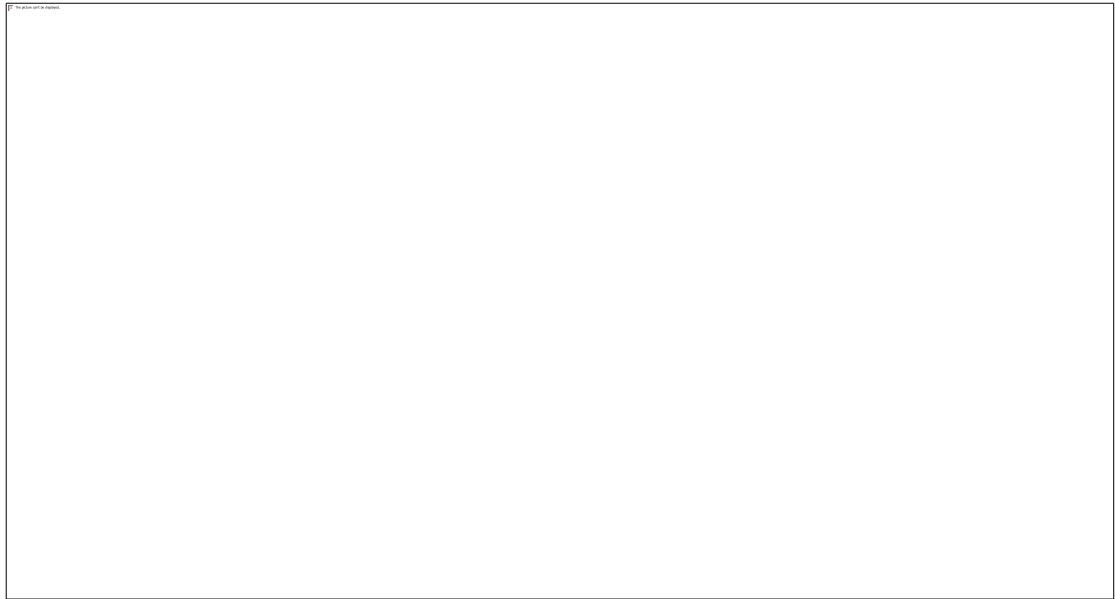
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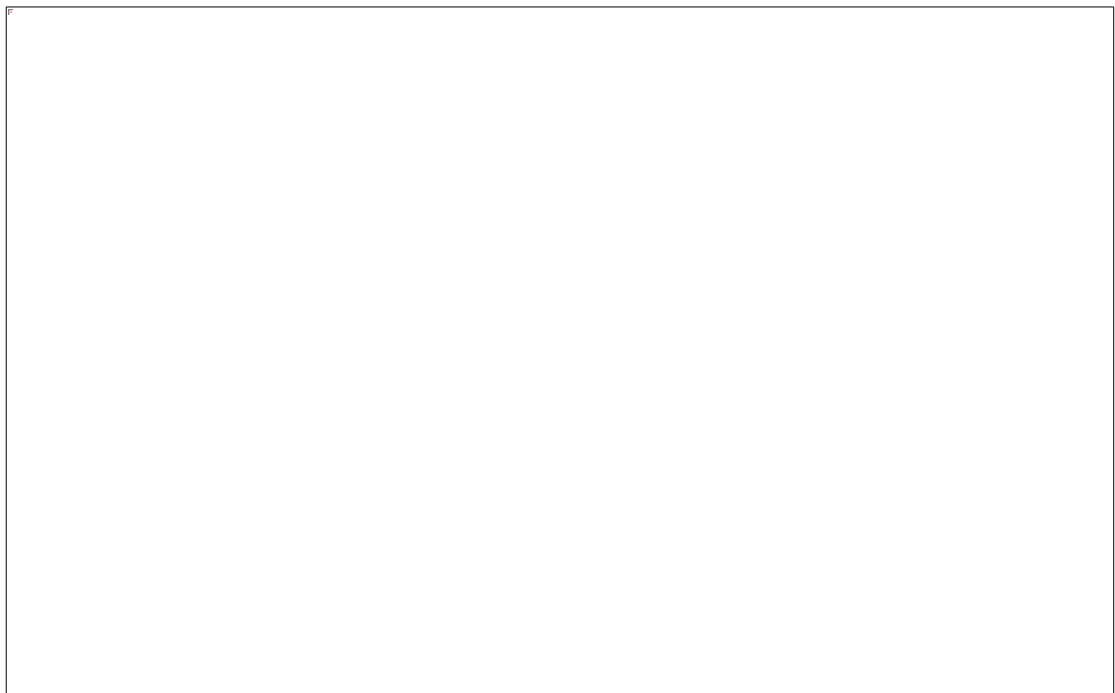


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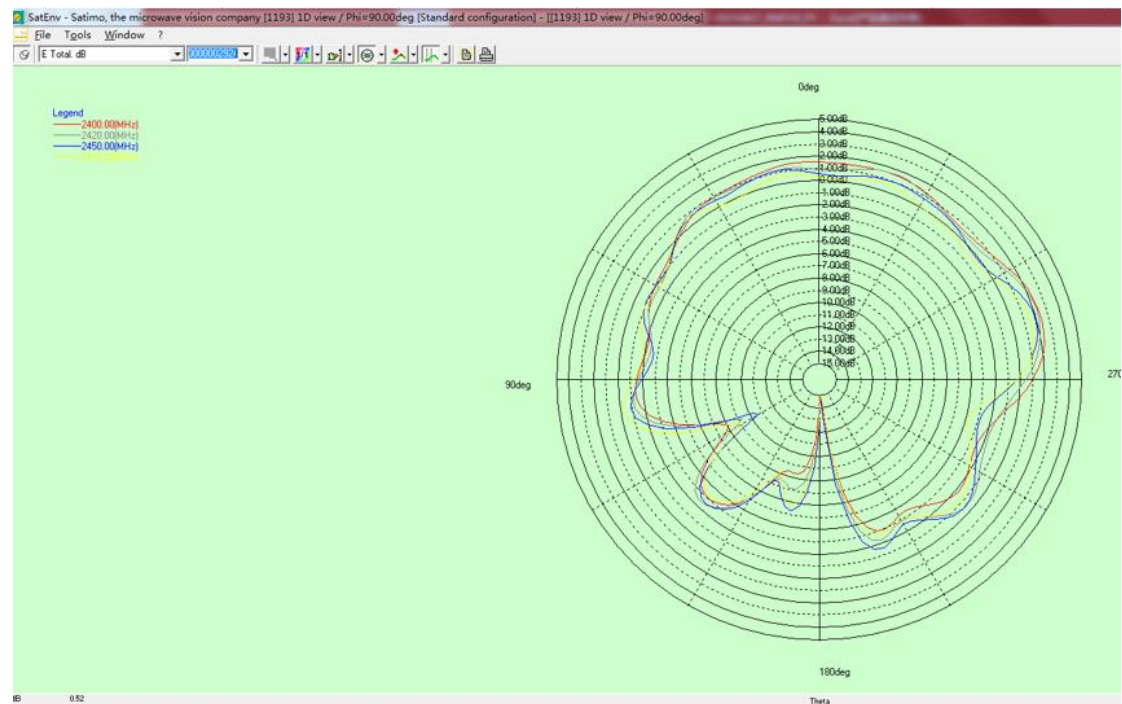


4.6 in sdr right antenna 2.4G radiation pattern

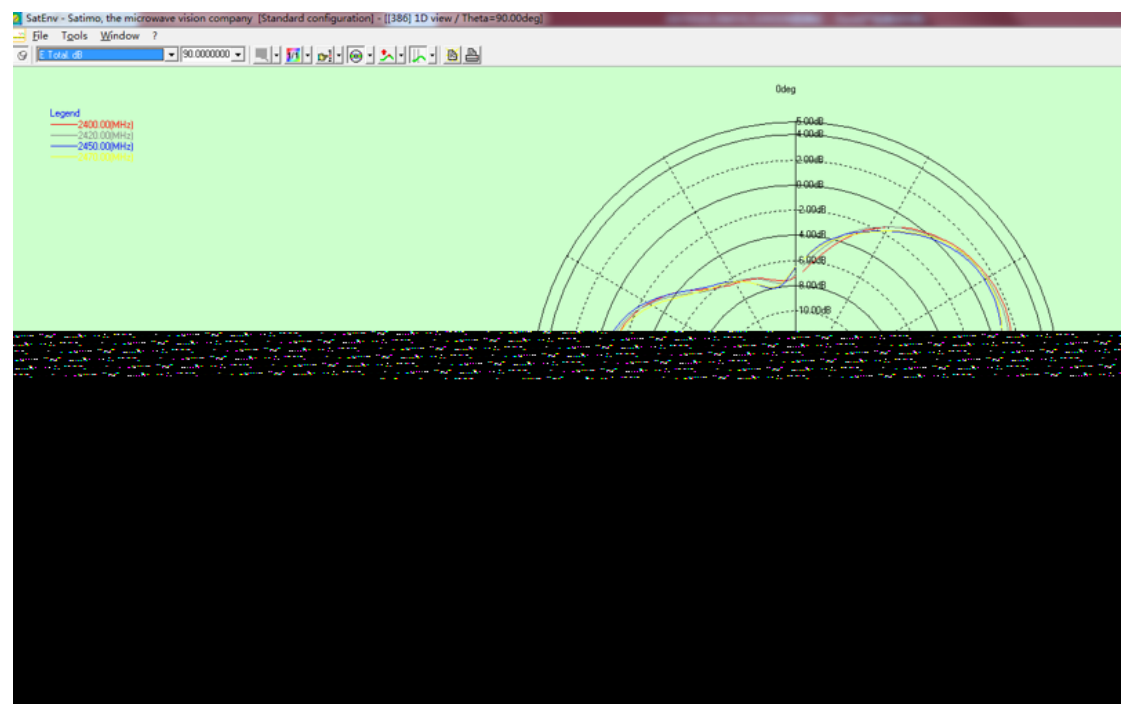
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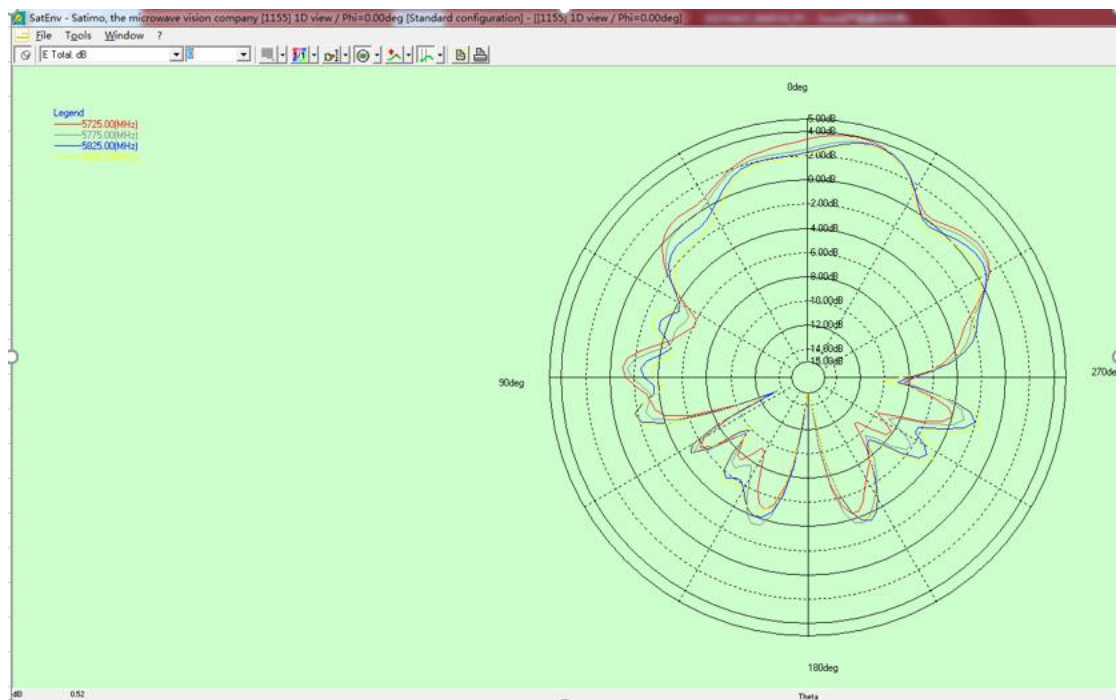


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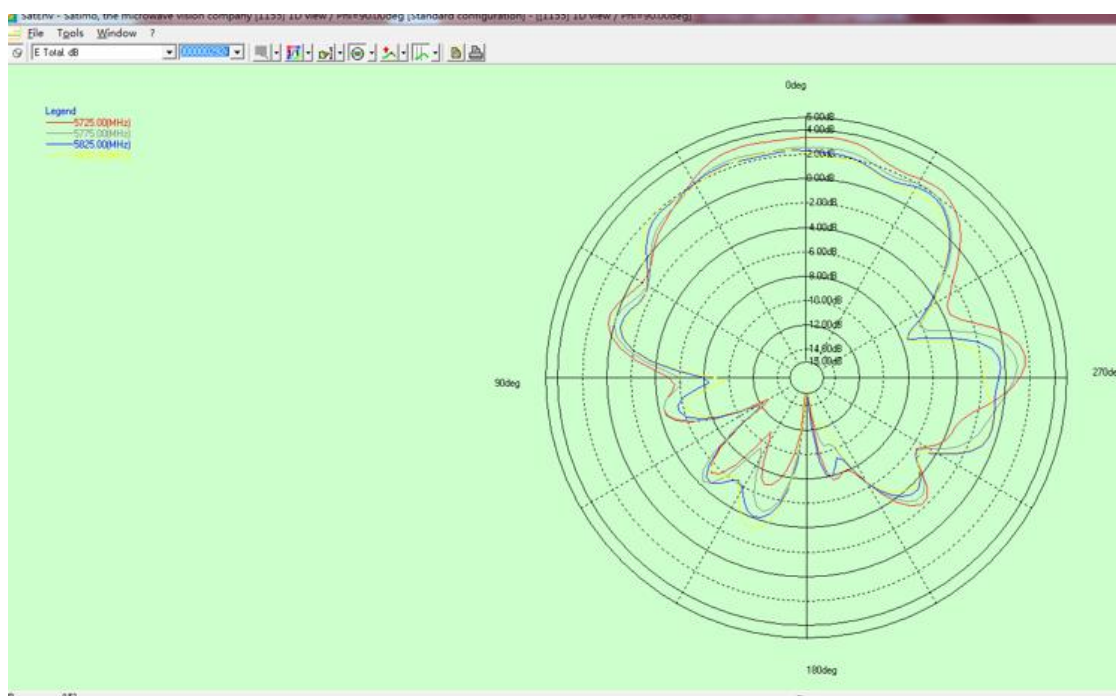


4.7 in sdr right antenna 5.8G radiation pattern

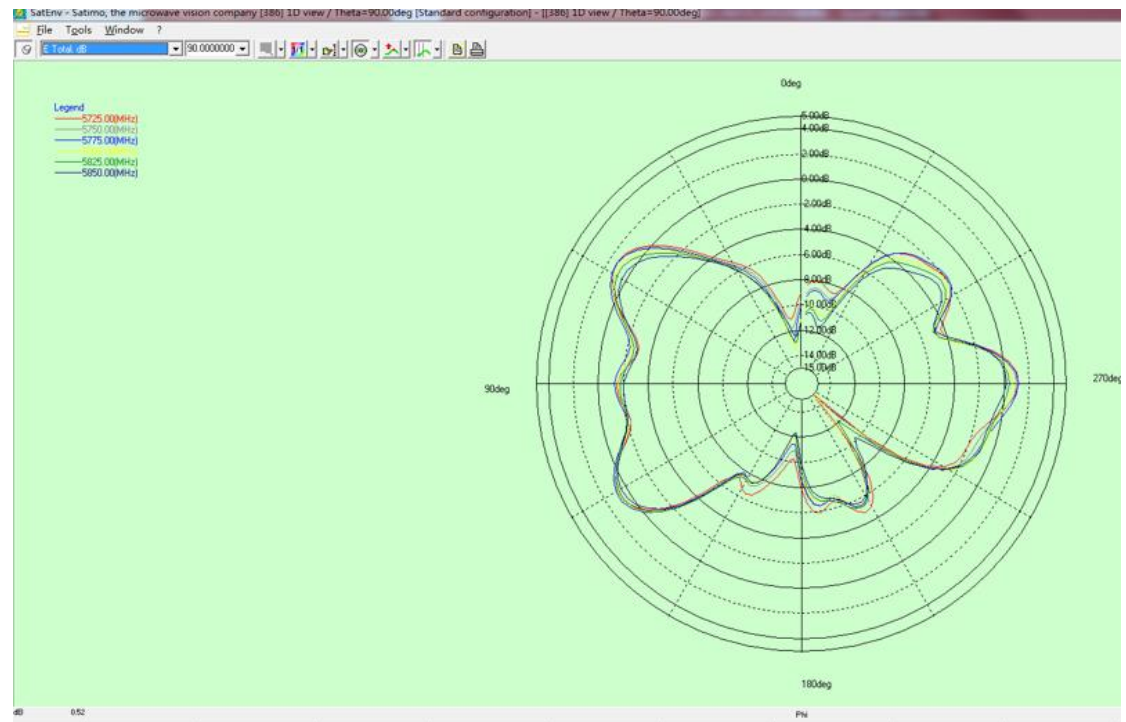
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Phi=90

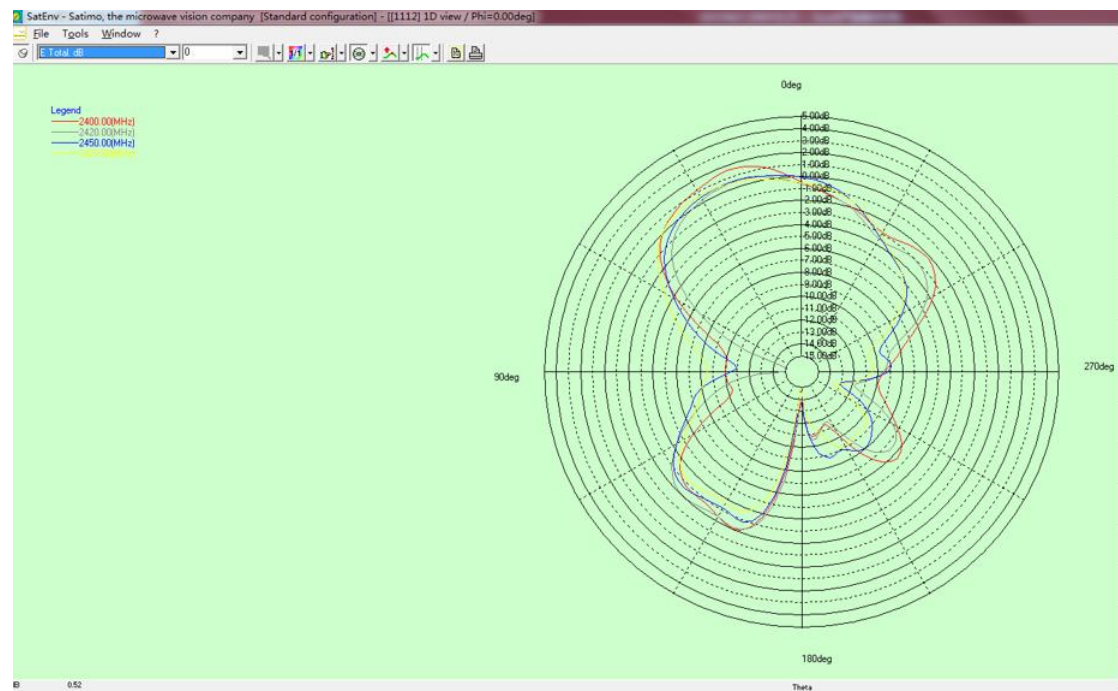


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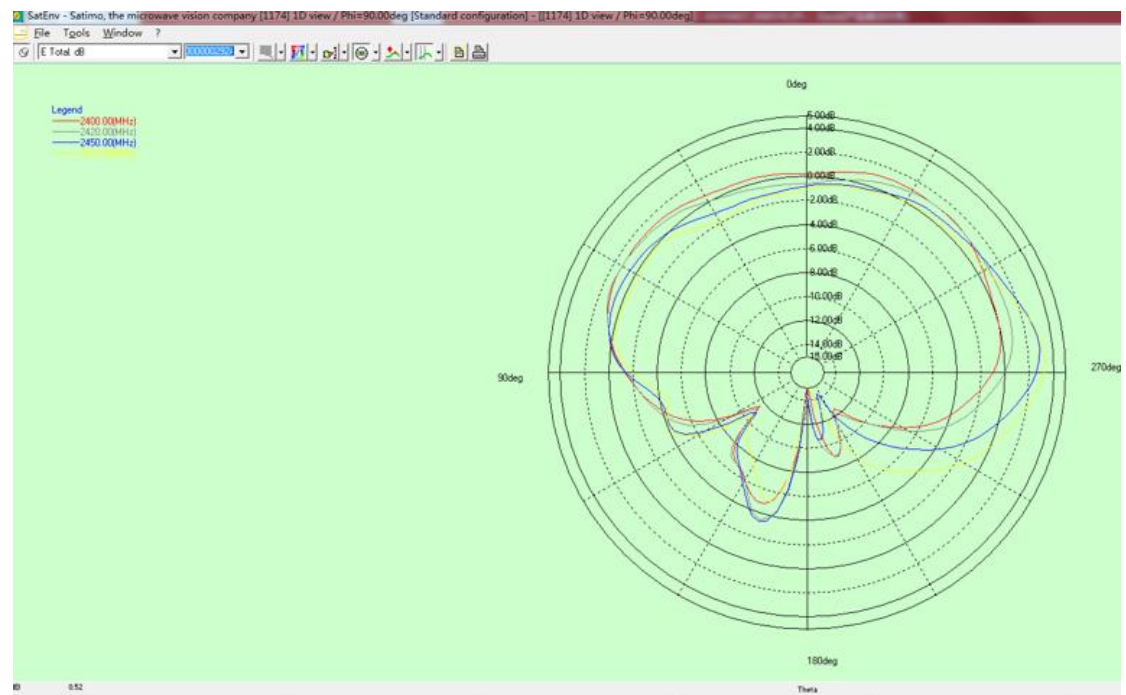


4.8 in sdr left antenna 2.4G radiation pattern

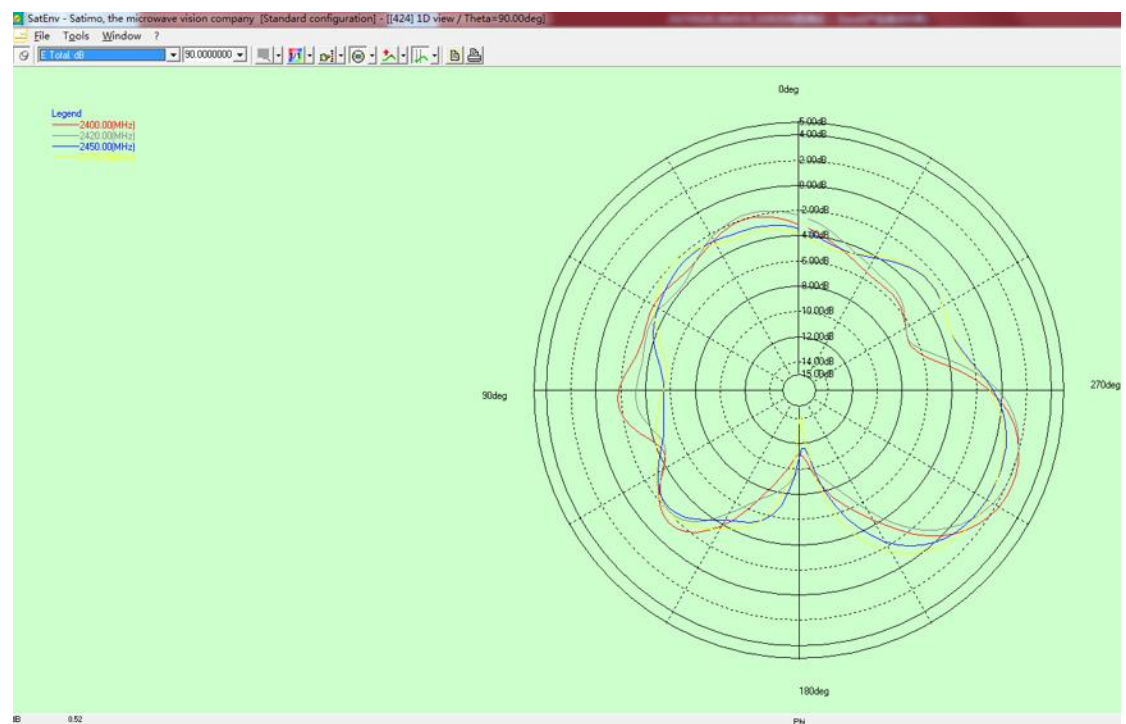
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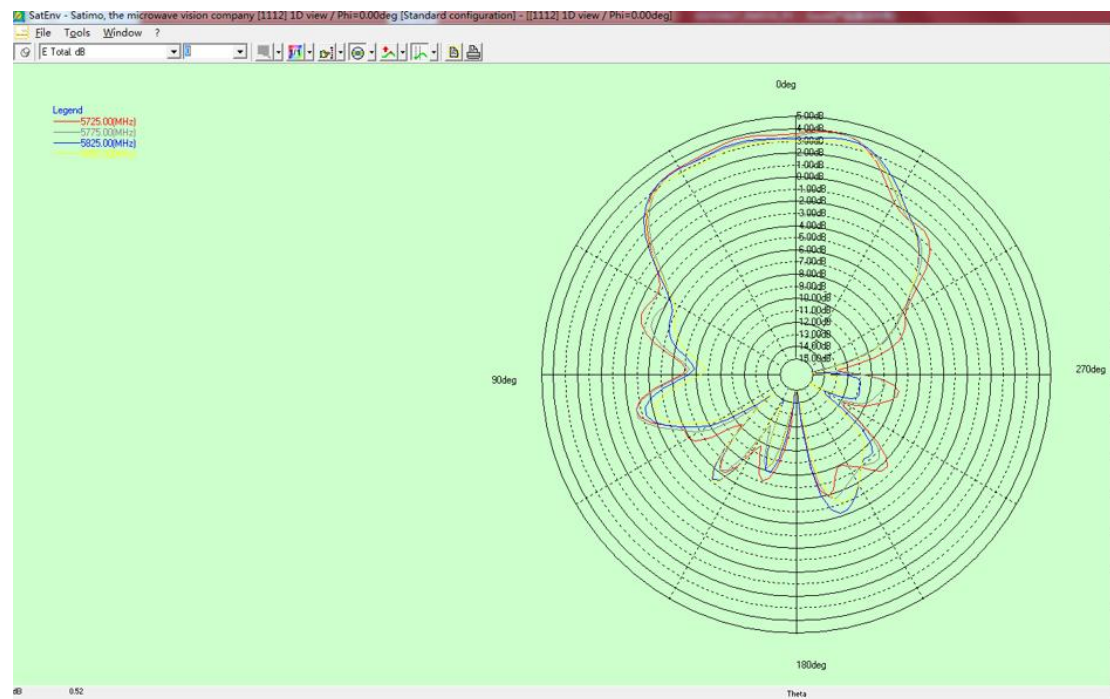


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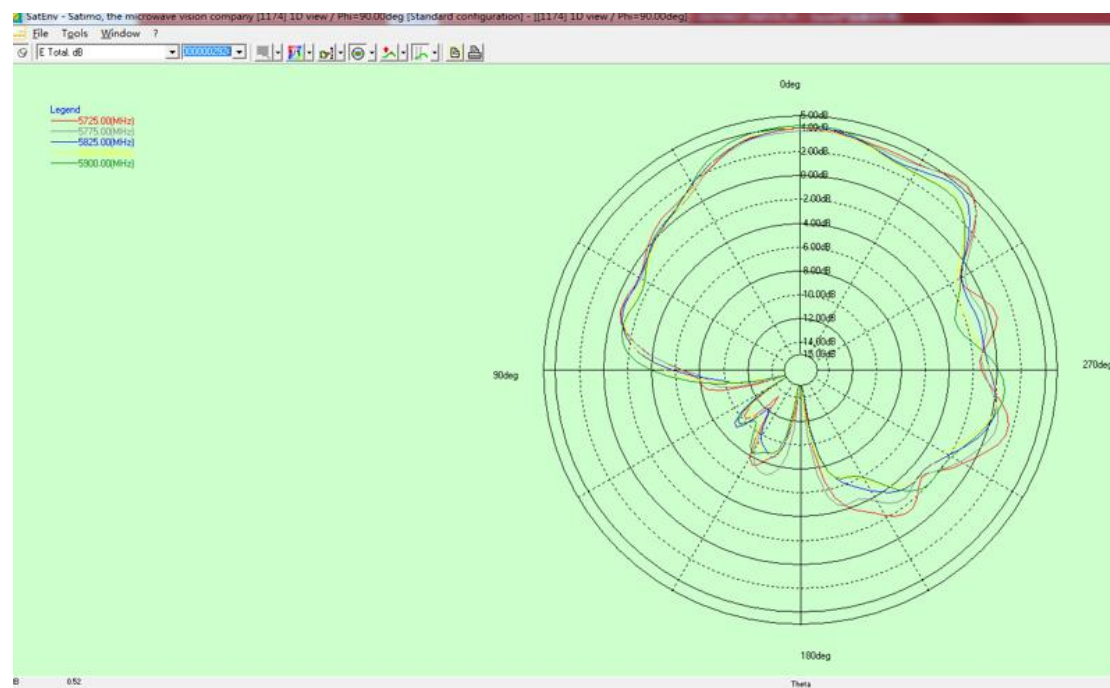


4.9 in sdr left antenna 5.8G radiation pattern

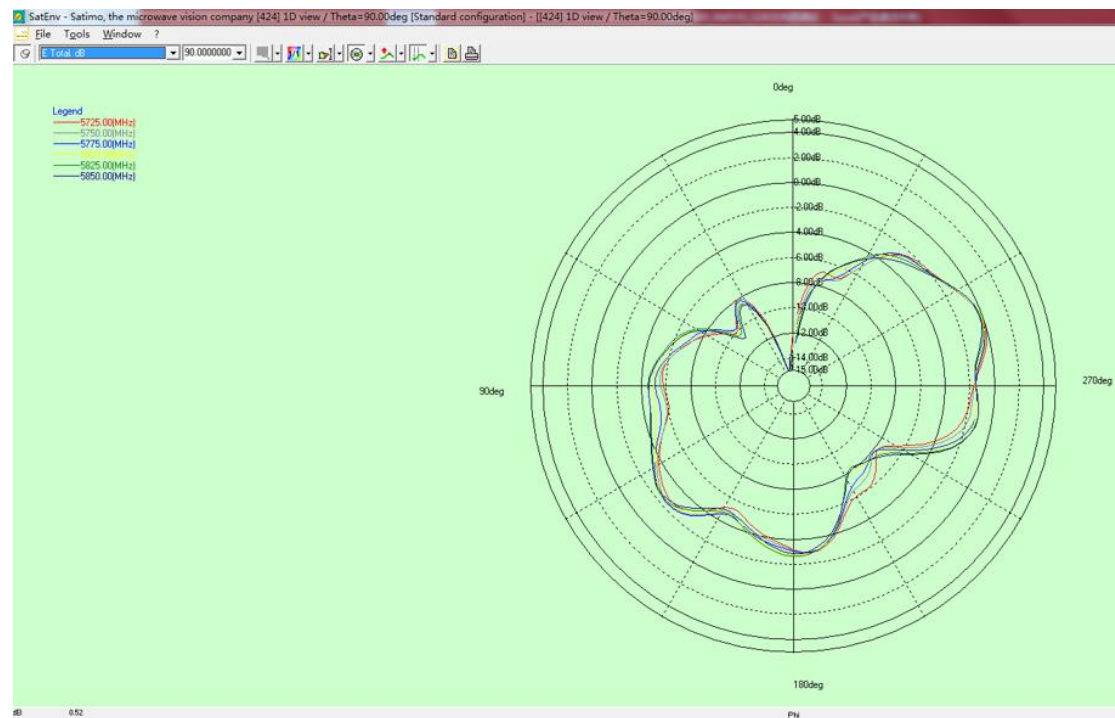
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Phi=90

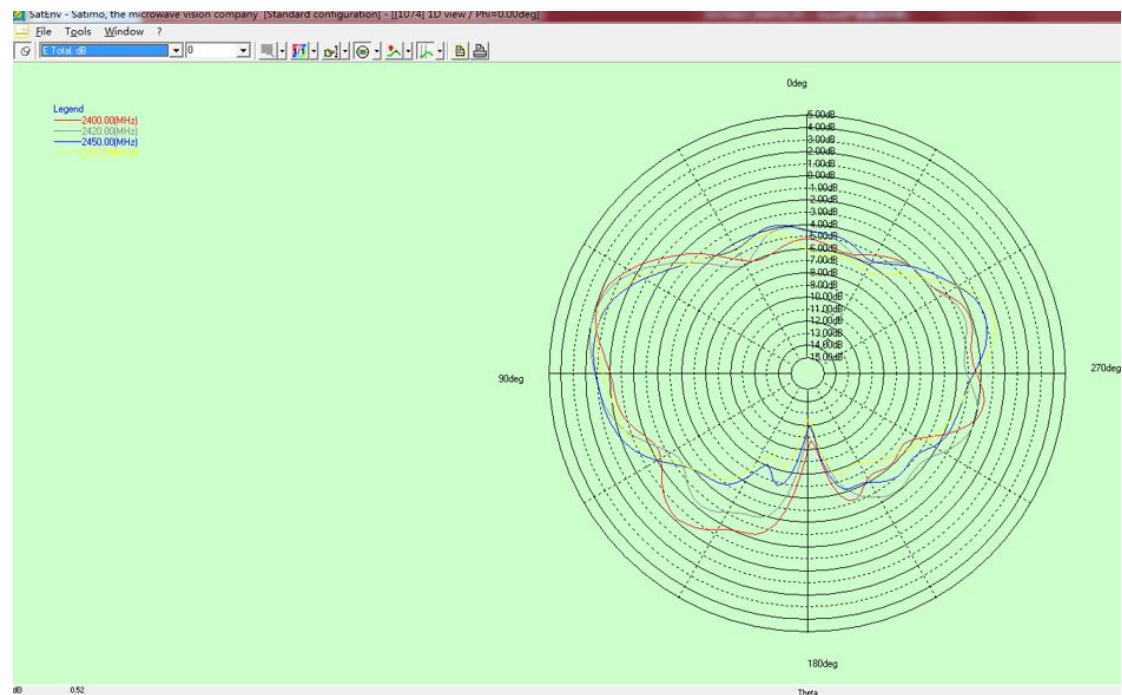


Theta=90

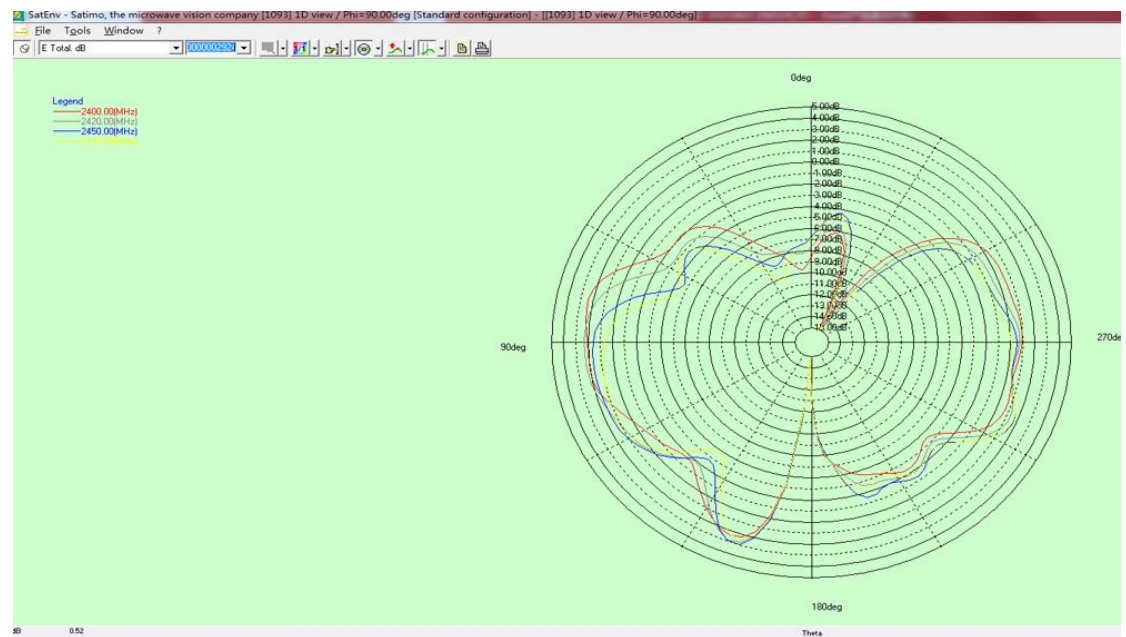


4.10 out sdr right antenna 2.4G radiation pattern

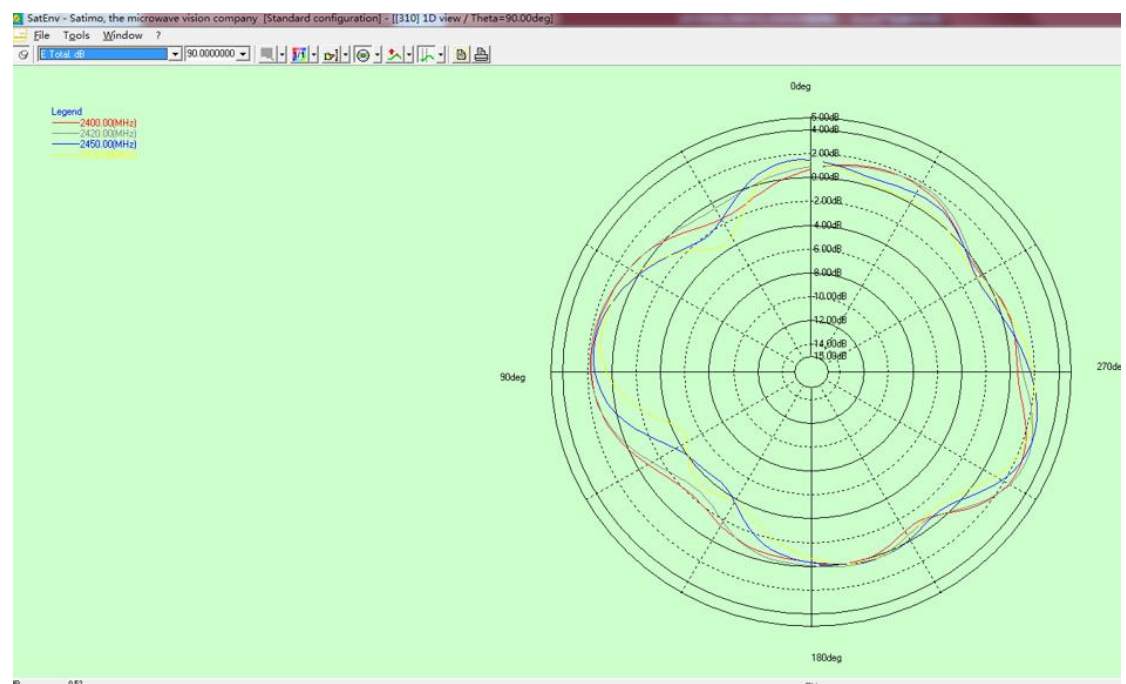
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Phi=90

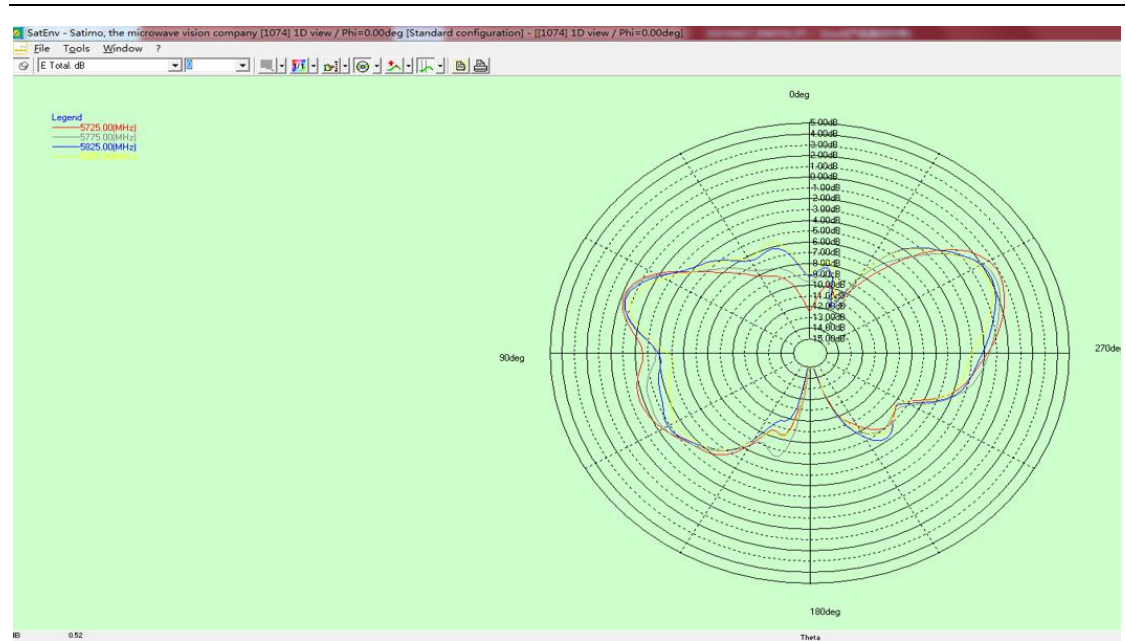


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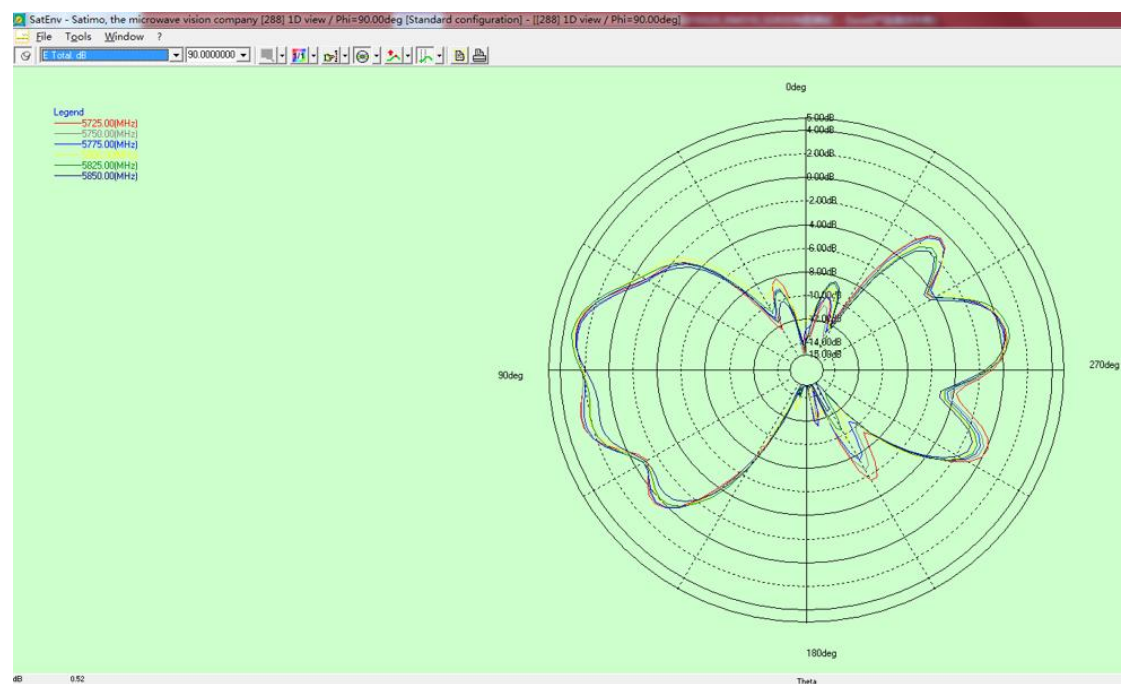


4.11 out sdr right antenna 5.8G radiation pattern

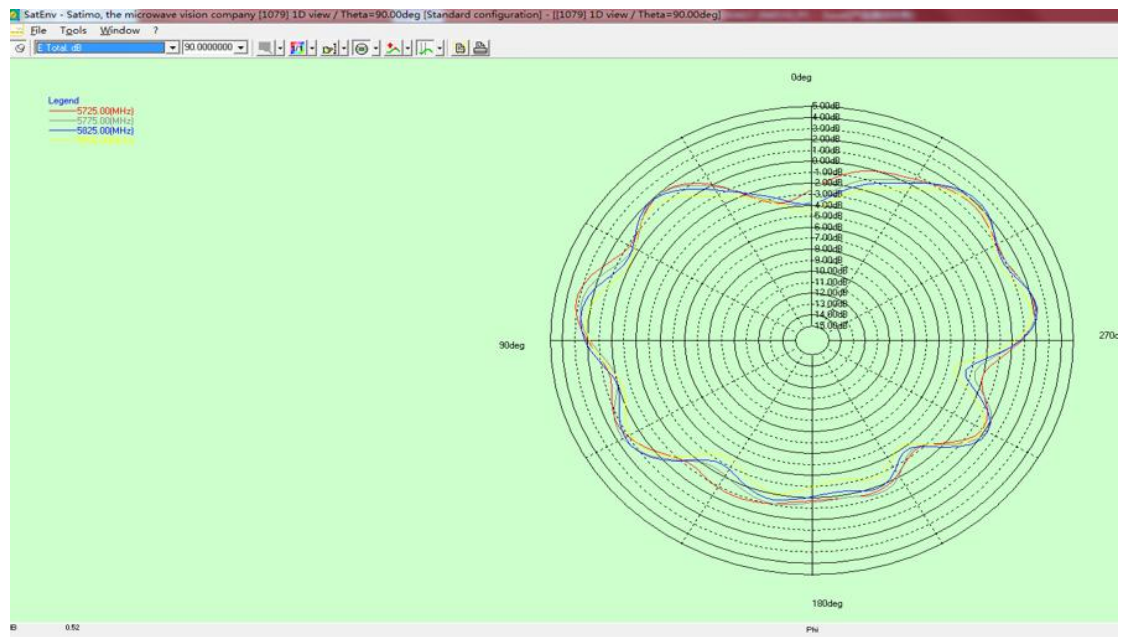
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Phi=90

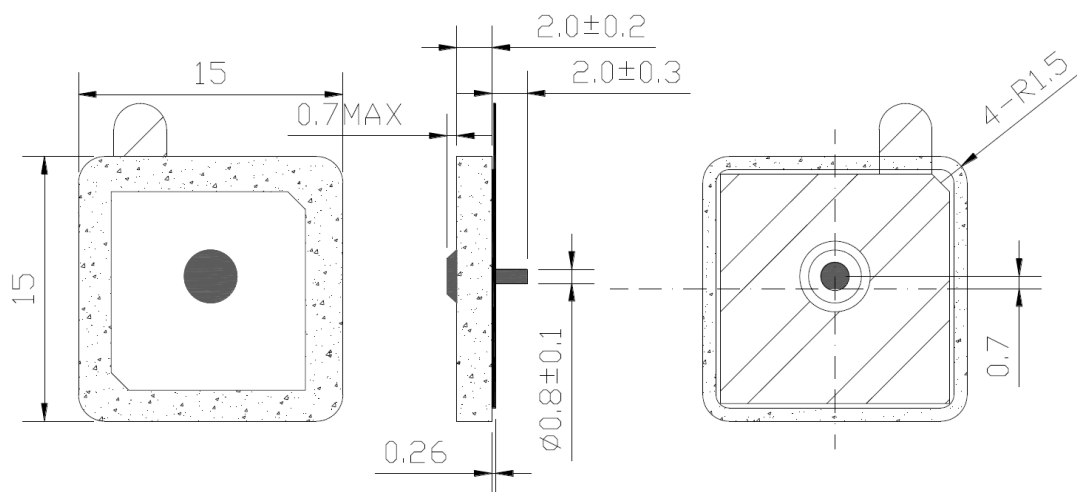


Theta=90

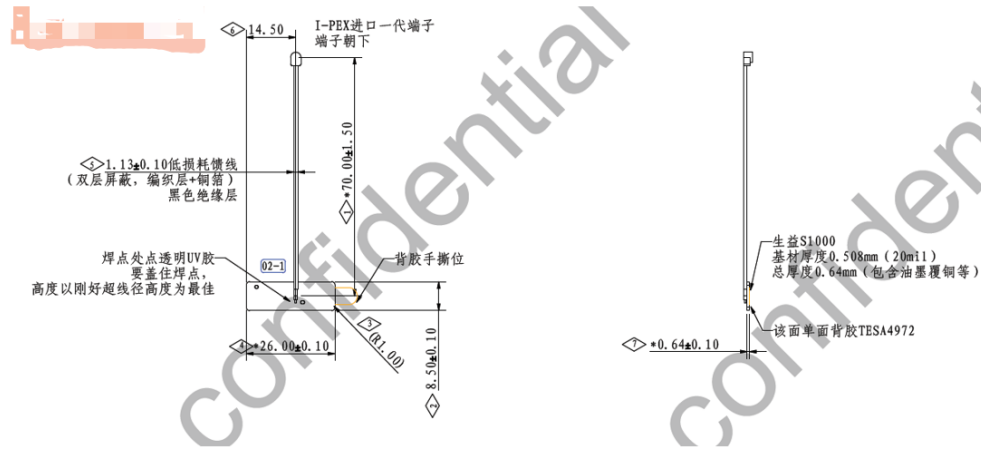


5、 Structure drawing

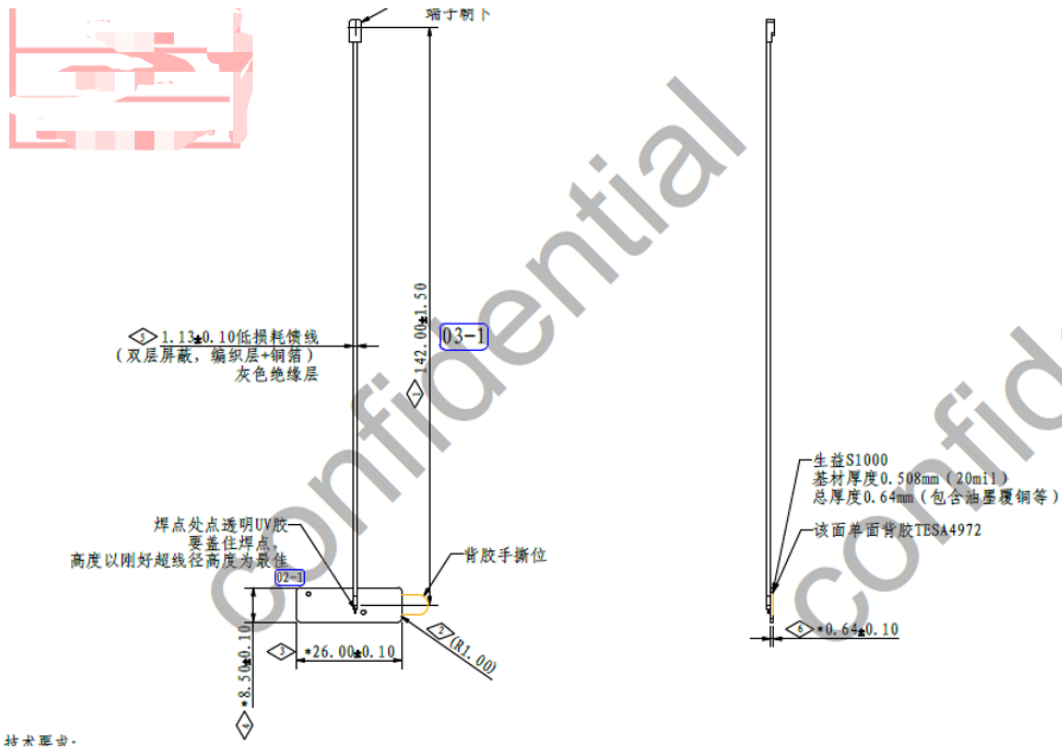
5.1 GNSS antenna 2D



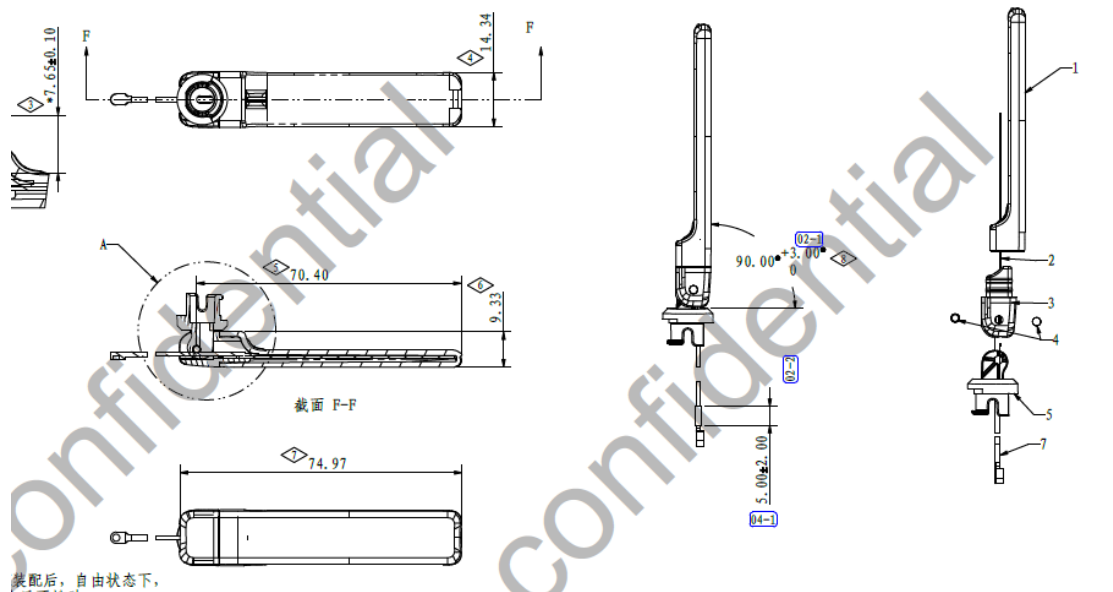
5.2 Wifi left 2D



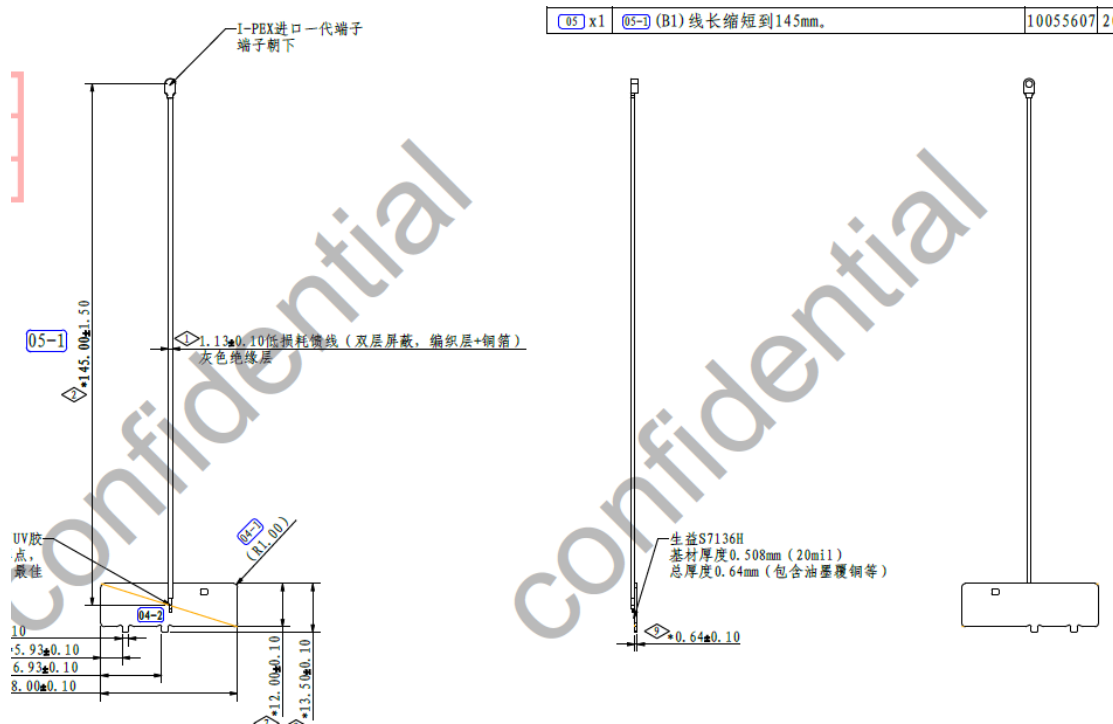
5.3 Wifi right 2D



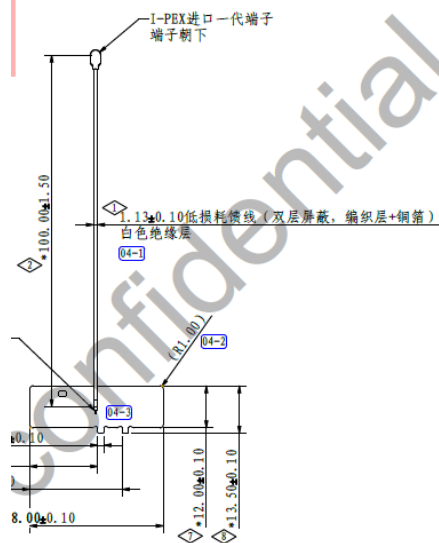
5.3 out sdr left antenna 2D



5.4 in sdr right antenna 2D



5.5 in sdr left antenna 2D



5.6 out sdr right antenna 2D

