

天线性能规格书

Antenna Performance Specification

客户	奕瑞/IRAY
项目	LuxHD
产品类型	holder+LDS+120mm cable
工作频段	2400~2500MHz/5150~5858MHz
发行日期	2024. 07. 23
发行版本	V1.0
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审阅	夏彪/Arvin

1. 概述/Overview

此文档是奕瑞 LuxHD 的天线规格书，天线为LDS 天线焊接 120mm 同轴线。

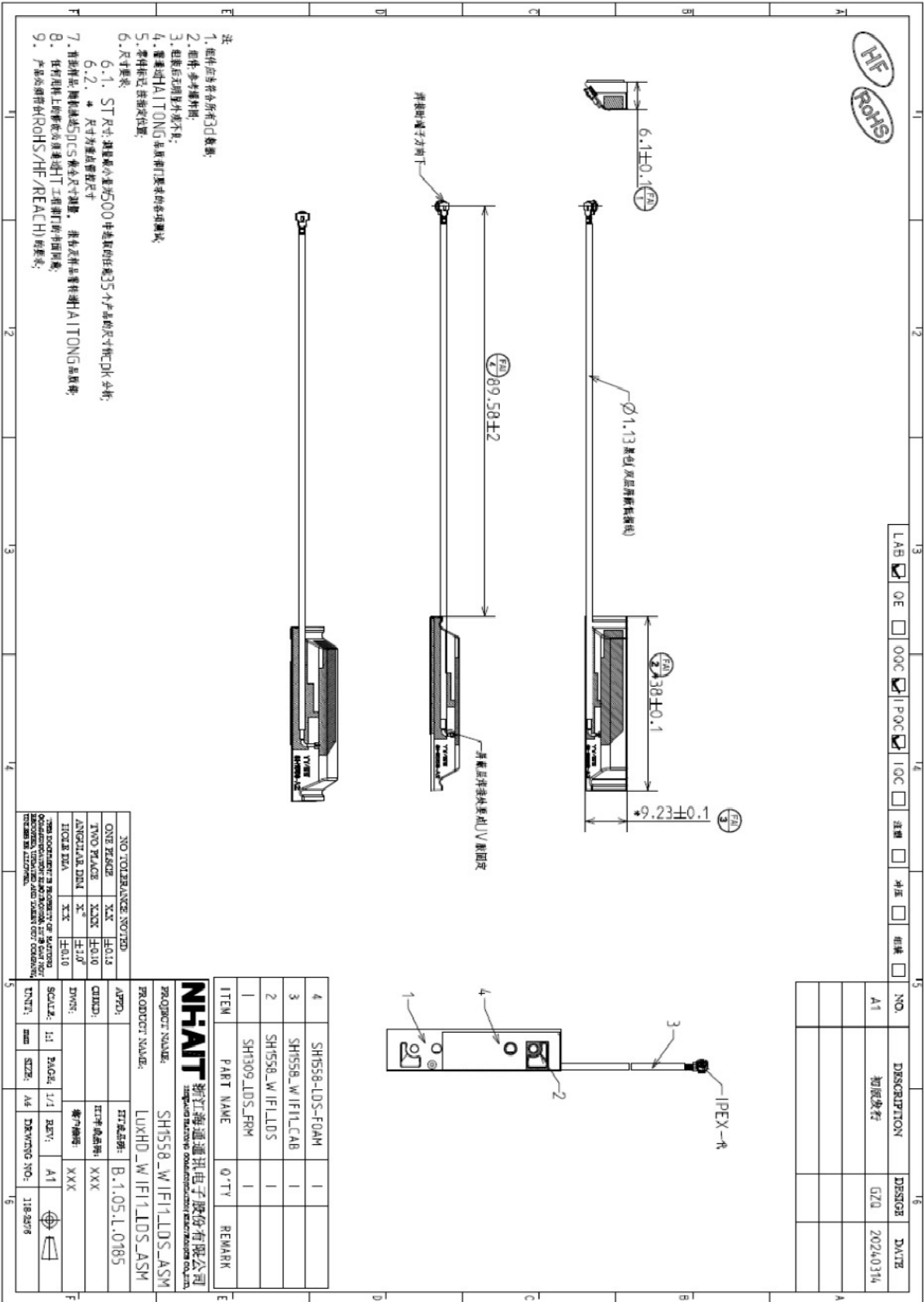
This document is the RF performance report for the LuxHD project antenna of IRAY, which is a 120mm coaxial line welded LDS antenna.

1.1 Antenna status



Figure 1: Antenna image

2. 2D drawing



3. 天线测试环境/ Antenna testing environment

天线输入特性测试使用Agilent E5071C 矢量网络分析仪。

The antenna input characteristics were tested using an Agilent E5071C vector network analyzer.

天线辐射特性测试使用Satimo SG24 3D 近场微波暗室，测试坐标系如图 2 所示。

The antenna radiation characteristics were tested using the Satimo SG24 3D near-field microwave anechoic chamber, with the testing coordinate system shown in Figure 2.

SAR 测试使用DASY5 测试系统。

SAR testing uses the DASY5 testing system.

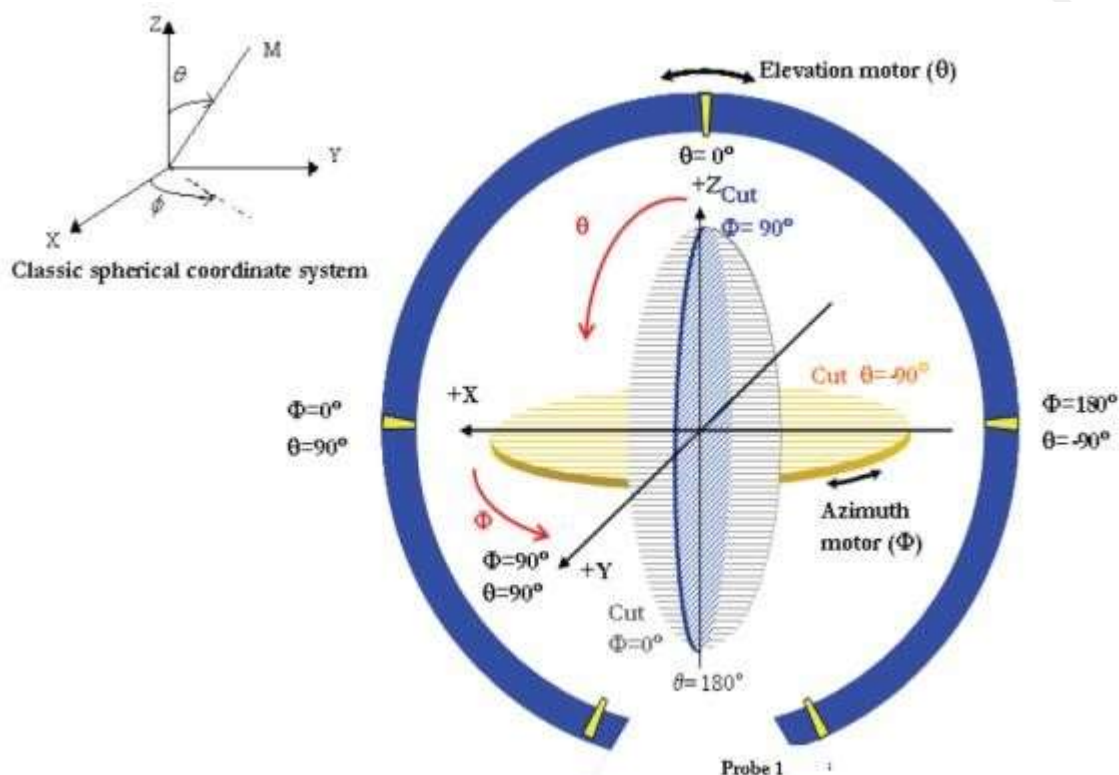


Figure 2: Coordinate System for 3D Microwave Chamber Testing (back view)

4. 天线测试结果/Antenna test results

4.1 天线反射损耗/Antenna return loss

Frequency(MHz)	2400	2500	5150	5850
S11(dB)	-10	-7	-13	-9.5

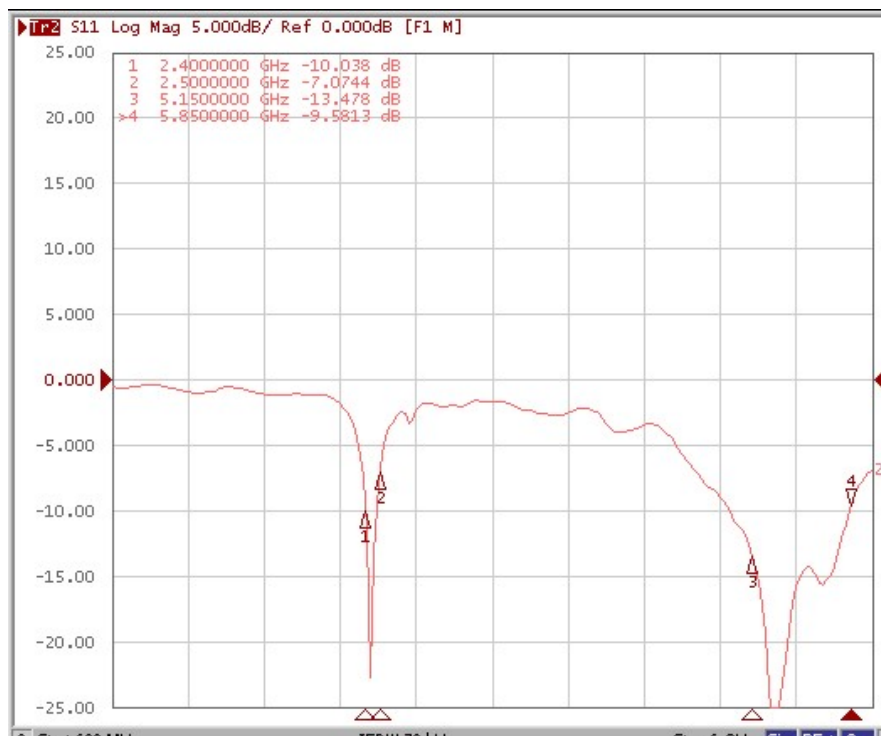


Figure 3: Antenna Reflection Loss

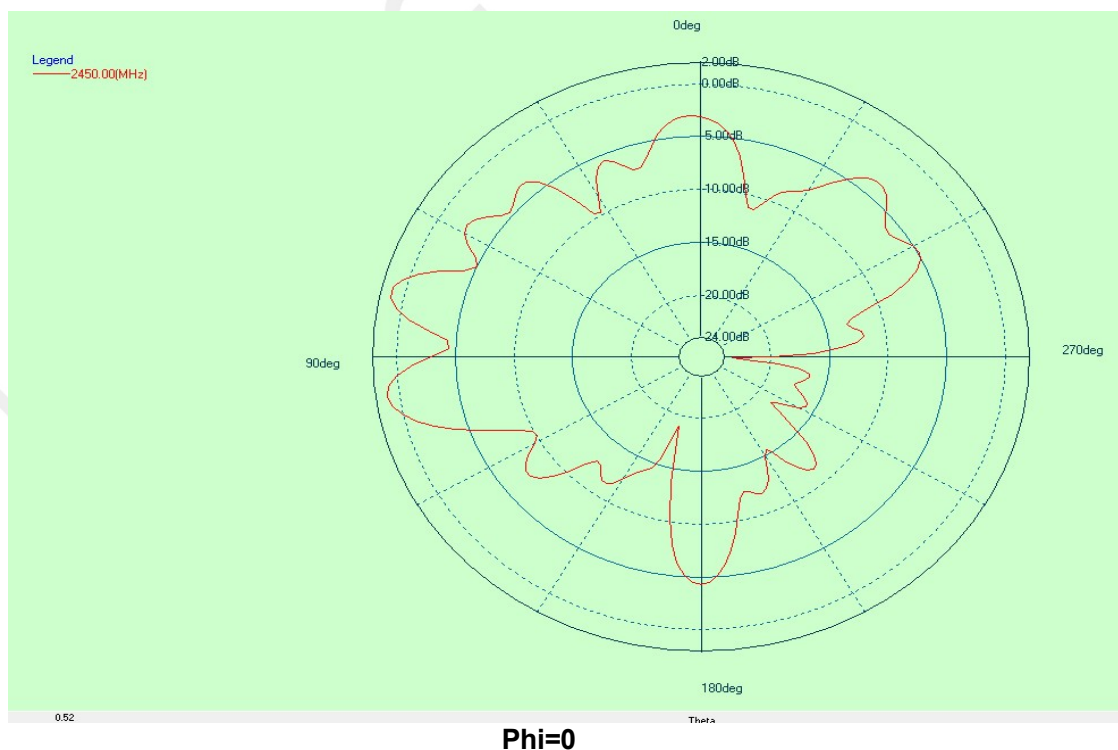
4.2 天线效率/Antenna Efficiency

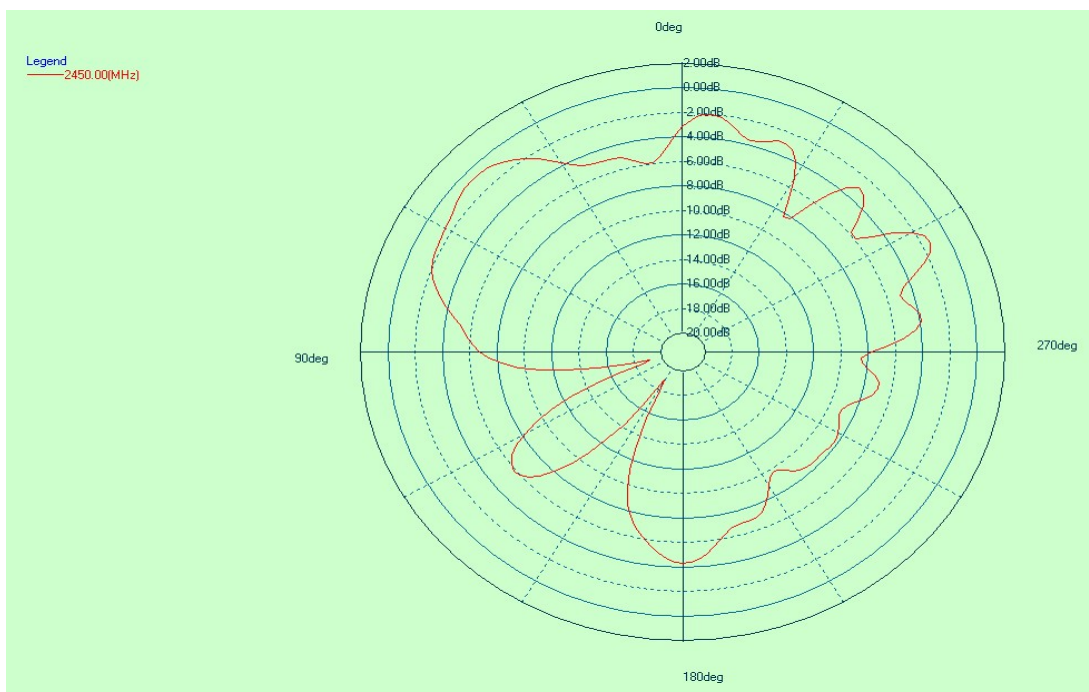
Fre/MHz	Efficiency	Gain/dBi
2400	31%	2.1
2410	33%	2.7
2420	35%	3.1
2430	37%	3.5
2440	37%	3.7
2450	37%	3.8
2460	36%	3.7
2470	34%	3.6
2480	33%	3.5
2490	34%	3.7
2500	31%	3.3

Fre/MHz	Efficiency	Gain/dBi
5150	46%	7.1
5200	46%	7.1
5250	47%	7.3
5300	46%	6.8
5350	43%	6.9
5400	43%	6.6
5450	41%	6.3
5500	41%	6.1
5550	39%	6.0
5600	39%	6.0
5650	39%	5.7
5700	40%	5.8
5750	41%	5.9
5800	41%	6.1
5850	41%	5.9

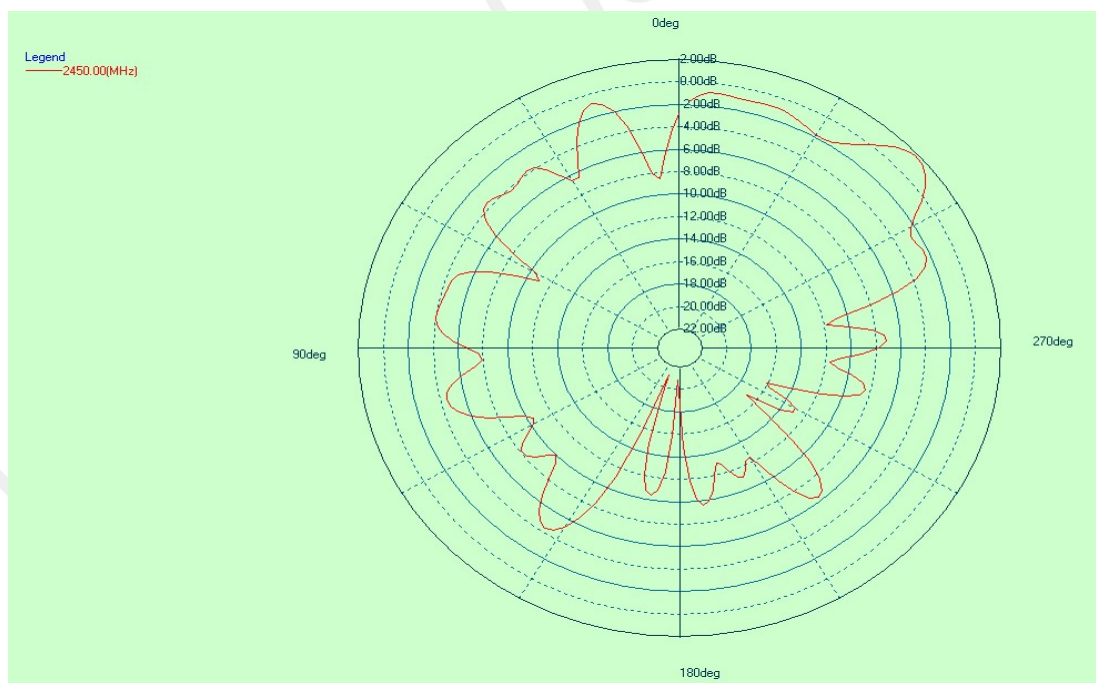
4.3 天线辐射方向图/Antenna radiation pattern

2450MHz



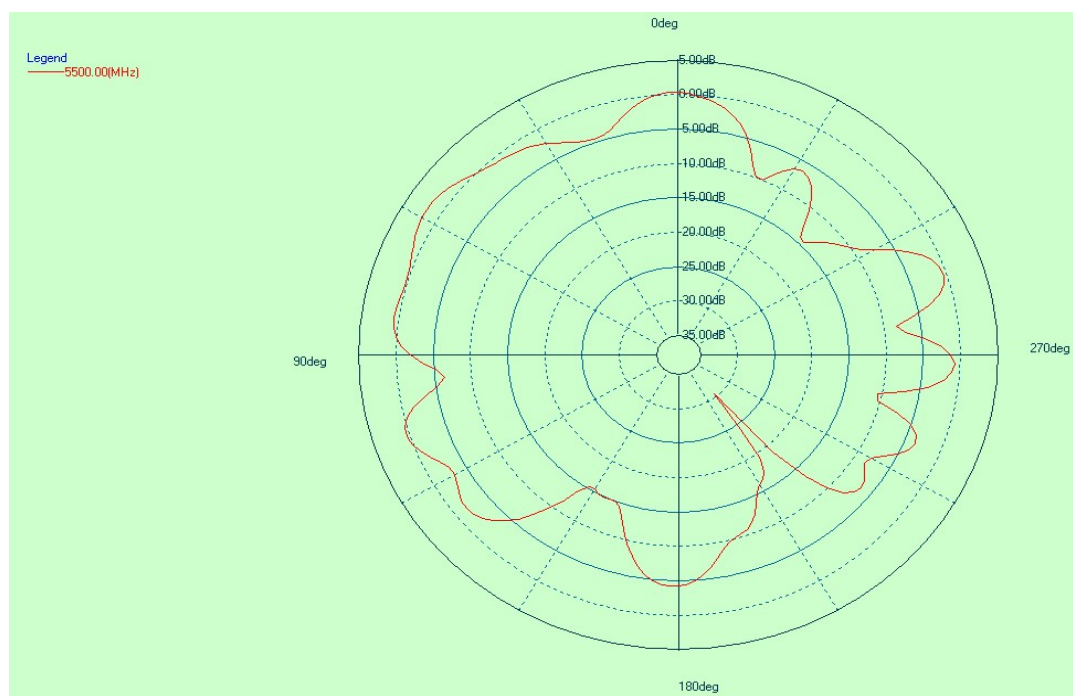


Phi=90

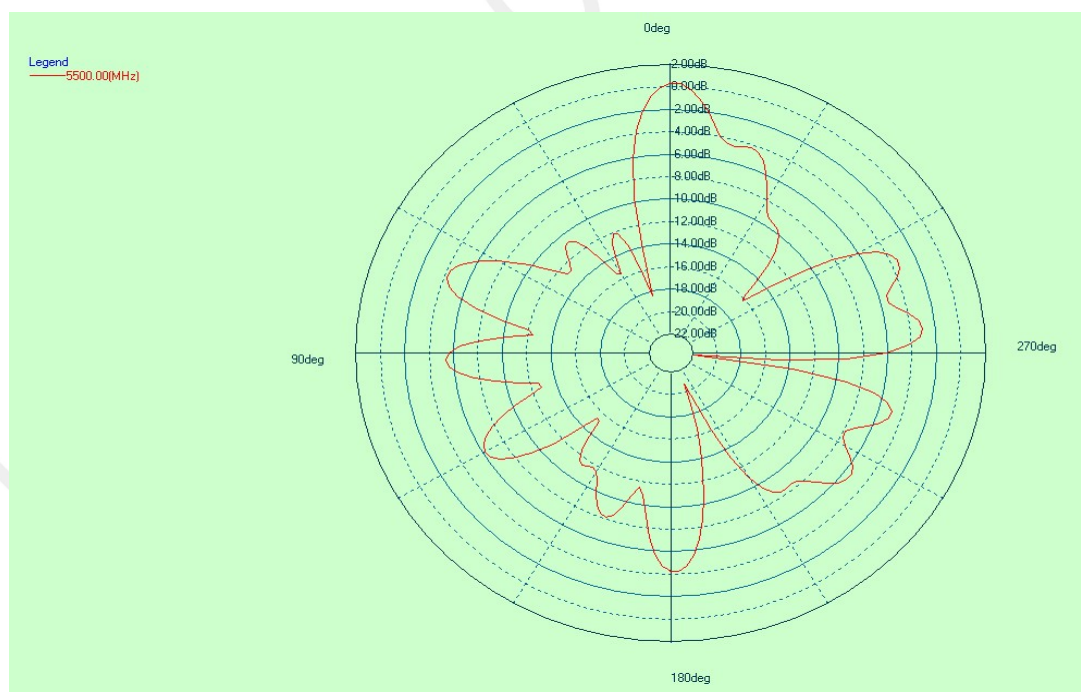


Theta=90

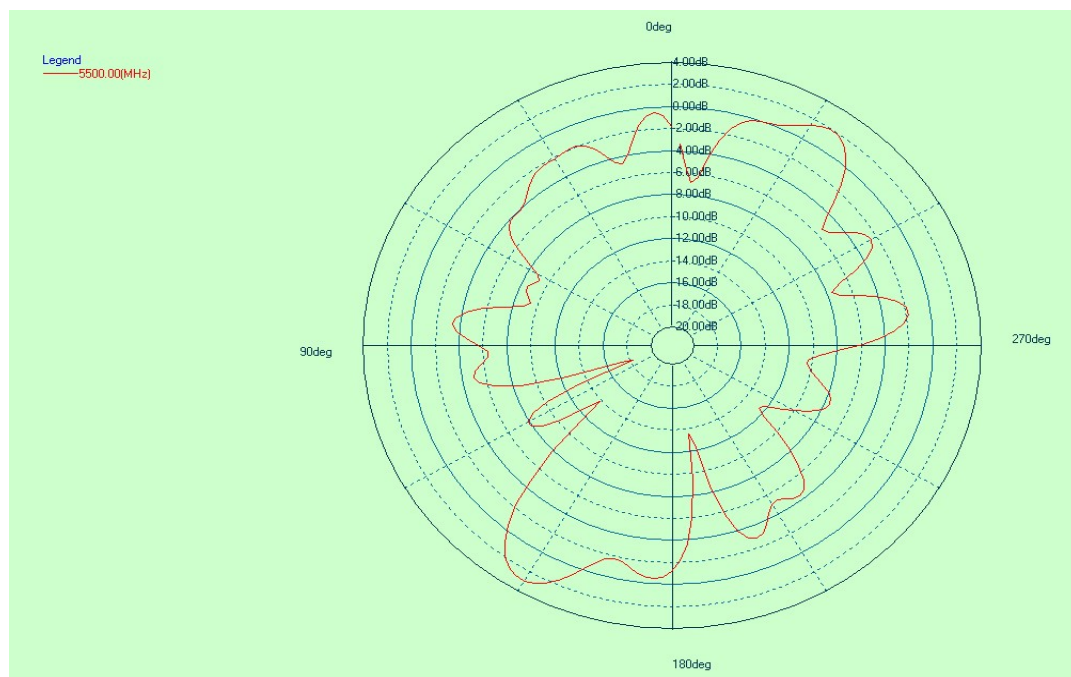
5500MHz



Phi=0



Phi=90



Theta=90