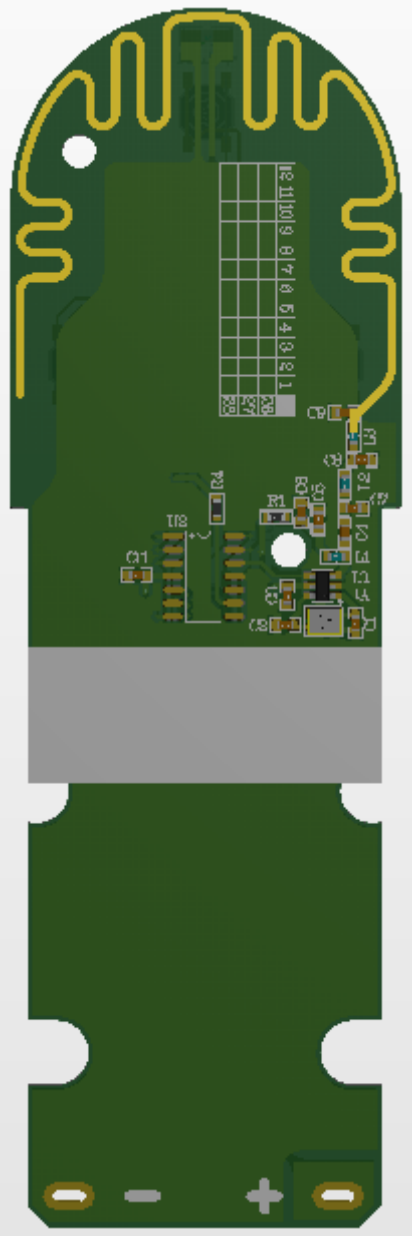
目录/Catalogue

序号 No.	项目 Item	页码 Page No.
1	图纸或实物图片 Drawing or Product Image	2
2	技术参数 Technical Parameter	3
3	射频性能测试报告 RF Performance Test Report	4-7

Manufacturer : **VOLDAM(CHINA)ELECTRICALS LIMITED**

Address : No.88, ChuangYuan Road, Anle industrial park,Anle community,DongFeng Town,Zhongshan city, GuangDong China. P.R. Post code.528425

1、Drawing or Product Image/产品图纸或实物图片



二、Technical Parameter /技术参数

1. Antenna/天线		
No/序号	**Part Name/项目**	**SPEC/规格**
1	Frequency Range/ 频率范围	433MHz
2	Impendence/阻抗	50 ohm nominal
3	Gain/增益	＞-3dBi
4	Polarization/极化	LINE
5	VSWR/驻波比	≤1.5
6	Efficiency/效率	≥18%

2. Environmental Characteristics/环境特性		
No/序号	**Part Name/项目**	**SPEC/规格**
1	Operation Humidity/ 工作湿度	5~95%不冷凝
2	Operating Temperature/ 工作温度	-20~+60℃
3	Store Temperatuer/ 储存温度	-30~+70℃

三、射频性能测量报告/RF Performance Test Report

天线测试设备简介

Antenna Test Equipment Introduction

测试天线输入特性使用 **Agilent E5071C and Agilent 5062A** 矢量网络分析仪；辐射特性利用 Satimo 三维近场暗室进行测试，并分别使用 8960 E5515 和 Agilent E4438C 进行了分析。暗房的测试坐标如下：

Test of antenna input characteristics using **Agilent E5071C and Agilent 5062A** vector network analyzer; The radiation pattern of the antenna are tested using the Satimo starlab 3D near field Anechoic Chamber, and the instrument is used to agilent8960 E5515 and Agilent E4438C. The test coordinates of the darkroom are as follows:

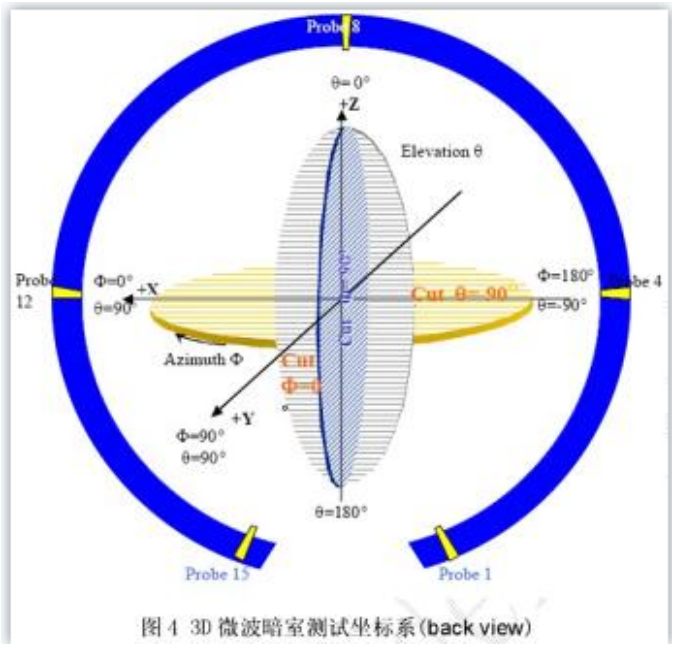


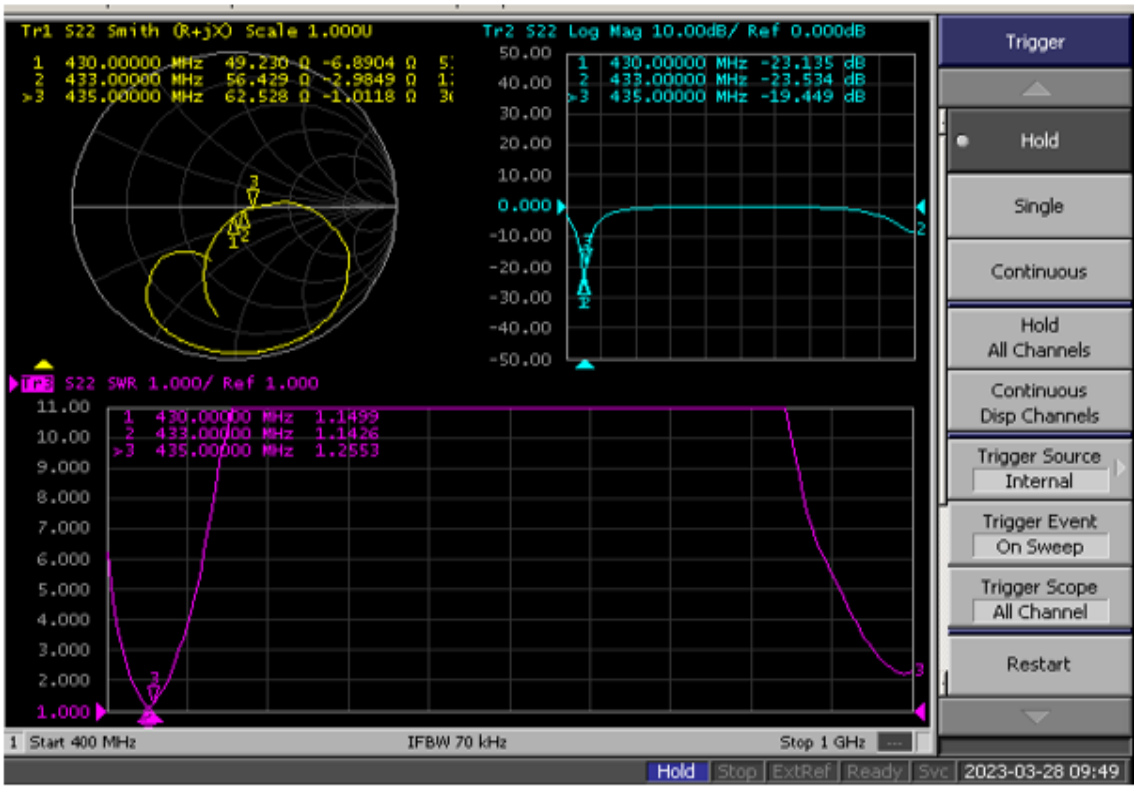
图 4 3D 微波暗室测试坐标系(back view)

1. S11 参数测量/*S11 Parameter-VSWR*

使用一根 50Ω 同轴电缆连接到天线，然后该电缆连接到网络分析仪测量 S11 参数，被测量产品远离金属至少 20 厘米。

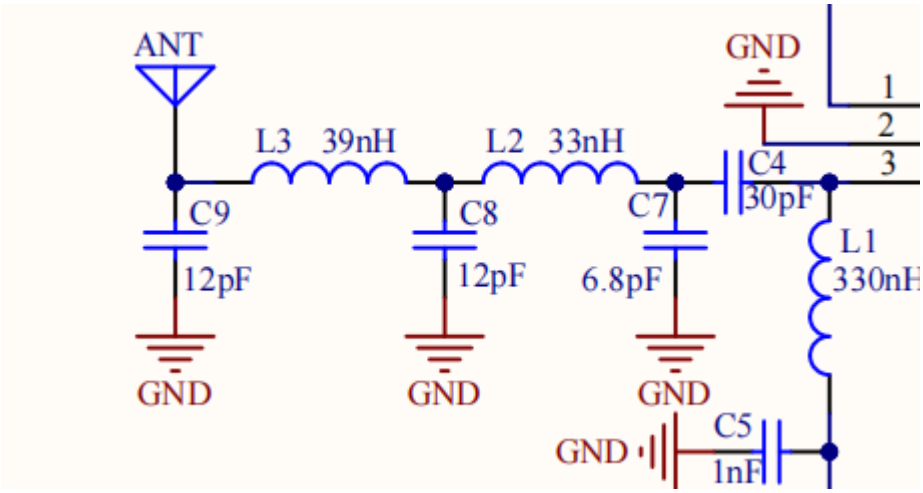
Measuring Method is a 50Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the S11 parameter, Keeping this fixture away from metal at least 20cm.

S11 Parameter



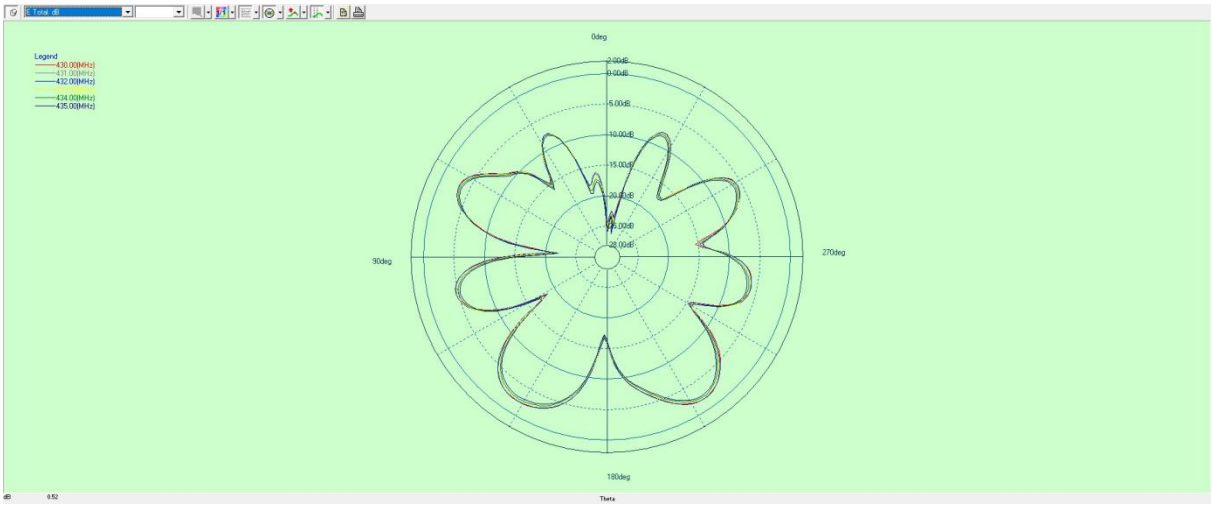
Frequency(MHz)	430	433	435
VSWR	1.14	1.14	1.25

2. 天线匹配网络/**Antenna Matching Network**

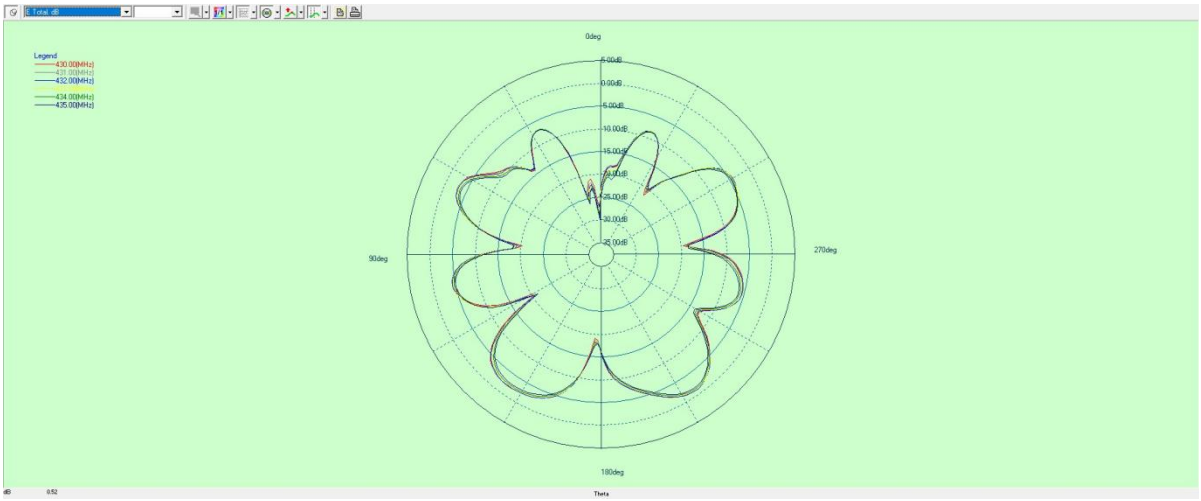


PCB板端匹配电路未改动

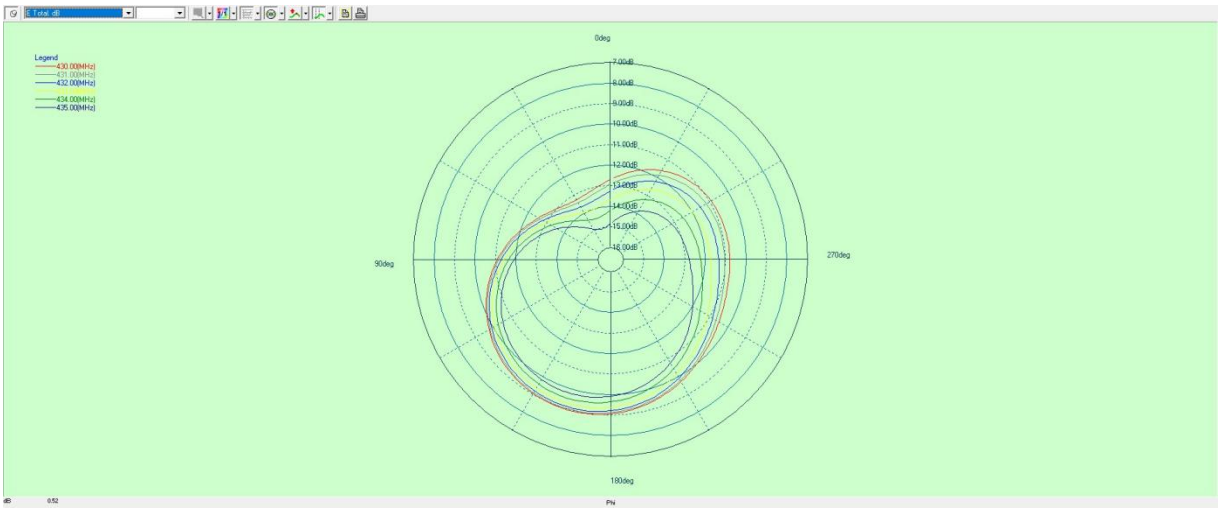
2D Pattern



Phi =0



Phi =90



Theta =90

3. Gain & Efficiency-ANT

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
430	21.27	-1.33
433	21.66	-1.22
435	20.19	-1.53