



深圳市睿德通讯科技有限公司

Shenzhen Etheta Communication Technology Co., LTD.

供应商名称: 深圳市睿德通讯科技有限公司

Supplier:

产 品 规 格 书

Specification for Approval

客户名称

Client Name:

Shenzhen Mindray BIO-Medical electronics Co., LTD.

品 牌

Brand Name:

Etheta

原厂料号

Part No:

RD542109NB86-1

物料规格

Part Description:

RD542109

产品制造商:

Manufacturer:

Shenzhen Etheta Communication Technology Co., LTD.

物料类别

PAX Part Name:

FPC+cable

物料编号

PAX Materiel No.:

物料描述

PAX Description:

采用原因

PAX Import Reason:

供 应 商 签 章		日期	客 户 签 章
结构	胡杰锋	2022/03/01	承 认: 确 认:
射频	李向东	2022/03/01	
确 认	周彦超	2022/03/01	



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Antenna Specification

Sample Photo



1. Electrical Characteristics

Frequency	2.4to2.5GHz	5.150to5.850GHz
Return Loss	$\leq -11.40\text{dB}$	$\leq -12.13\text{dB}$
Gain	-0.68dBi	3.29dBi
Average Efficiency	36%	73%
Polarization	Linear	
Impedance	50 Ohm	

2. Material & Mechanical Characteristics

Material of antenna	FPC
FPC Size(WxLxT)	12.00x36.00x0.10mm
Cable Type	Φ 1.13 Coax Cable
Total Cable length,Lc	80.0 ± 2.0
Connector Type	IPEX MHF 1

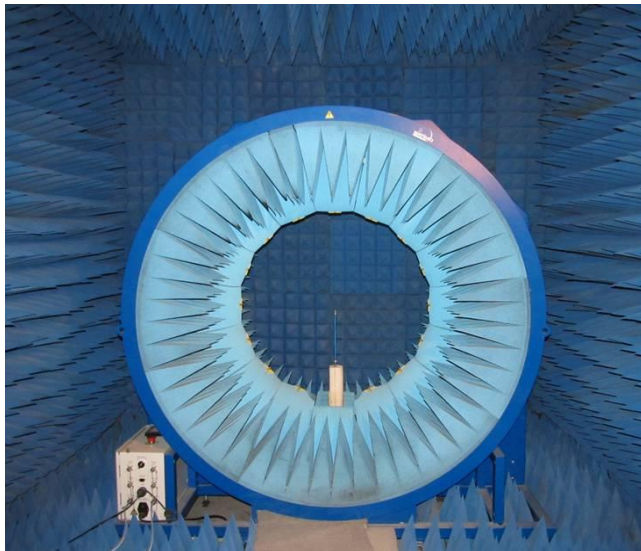
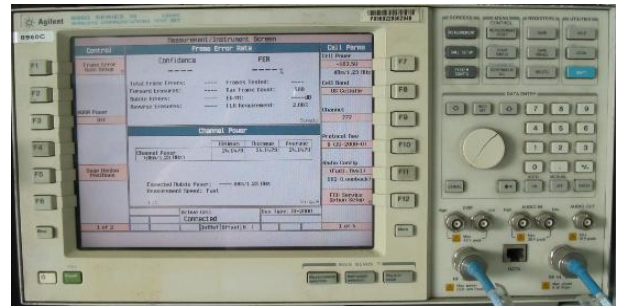
3. Environmental

Operation Temperature	- 40 °C ~ + 80°C
Storage Temperature	- 40 °C ~ + 80 °C
Antenna Color Storage life	< 2 year

Antenna Specification

4、Test &Item Equipment

List	Test Item	Equipment	
1.S11 Parameter	Return Loss	Agilent VNA	Satimo Starlab
3.Passive Test	Gain, Efficiency, Pattern	Agilent VNA	



暗室测试参数

A darkroom test parameters

测试系统 The test system:

SATIMO-SG24

测试环境: 温度 $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 湿度 $50\% \pm 15\%$

Test environment: temperature $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$, humidity of 50% plus or minus 15%

测试设备: 测试有源数据时, 使用综测仪 Agilent 8960 Active test equipment, test data, from using

5、S11 Parameter Test

5.1、Test methods and specifications

测试设备：网络分析仪 (HP 8753E)

测试方法：用一根 50 欧姆 CABLE 电缆从仪器测试端口导出，使用校准件校准后连接射频治具的 SMA 接头，记录相关频点对应的回波损耗和驻波比。

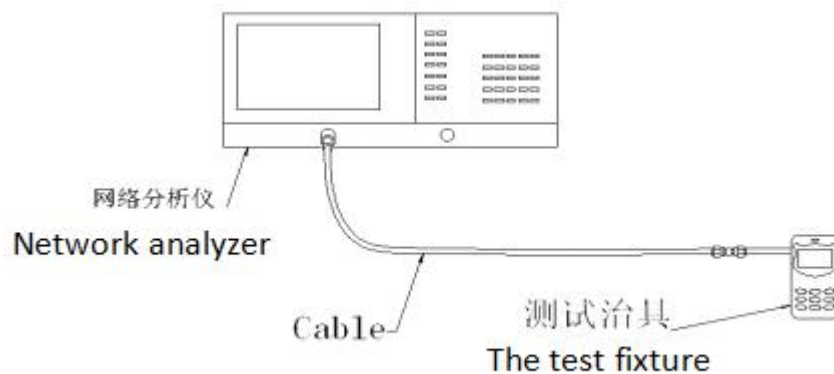
测试示意图如下：

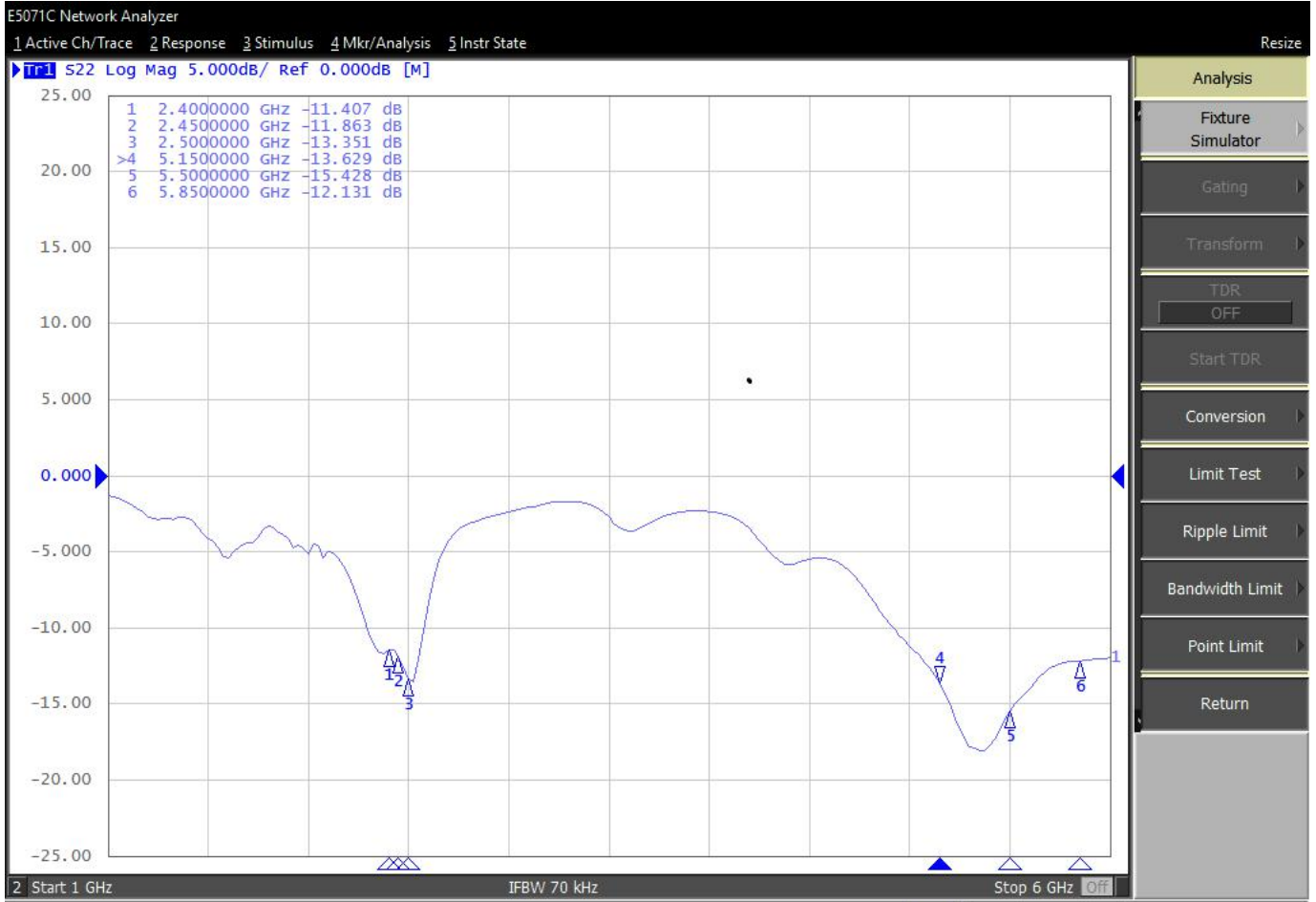
Testing equipment: network analyzer (HP 8753 e)

Test method: with a 50 ohm CABLE CABLE from the instrument test port export, calibration using a calibration after connection

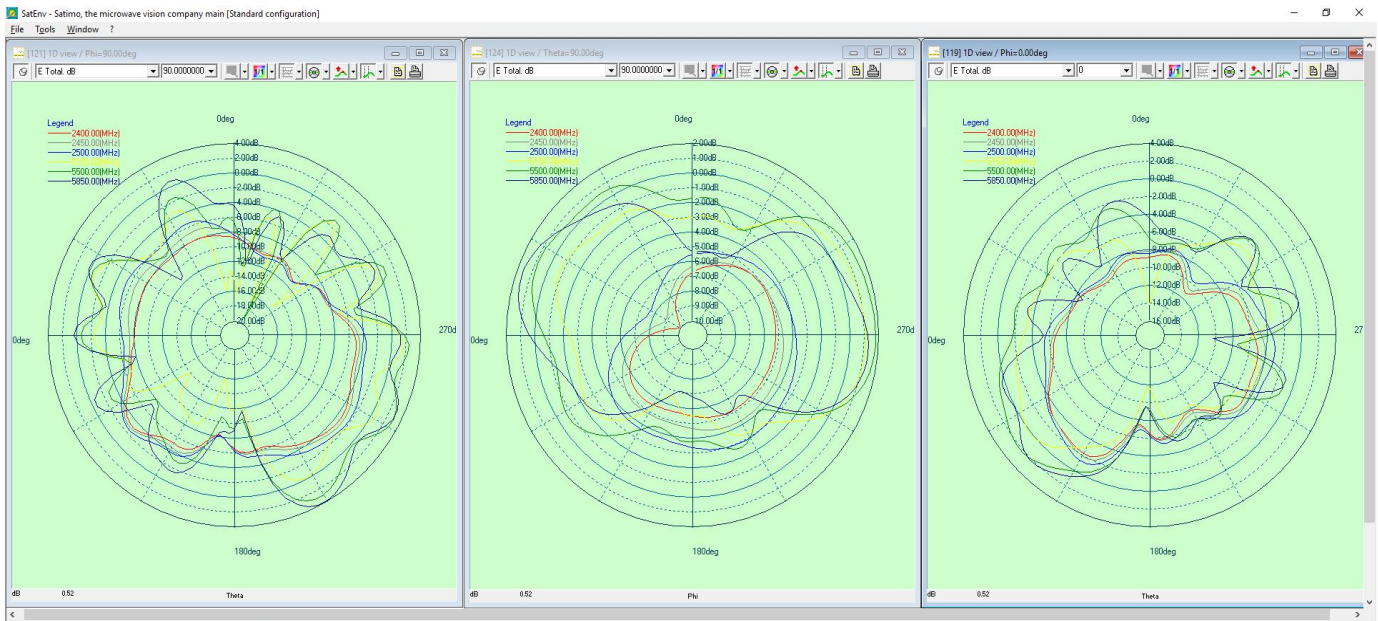
Rf fixture of the SMA connector, records related to the frequency points corresponding return loss and standing wave ratio.

Test schematic diagram is as follows:

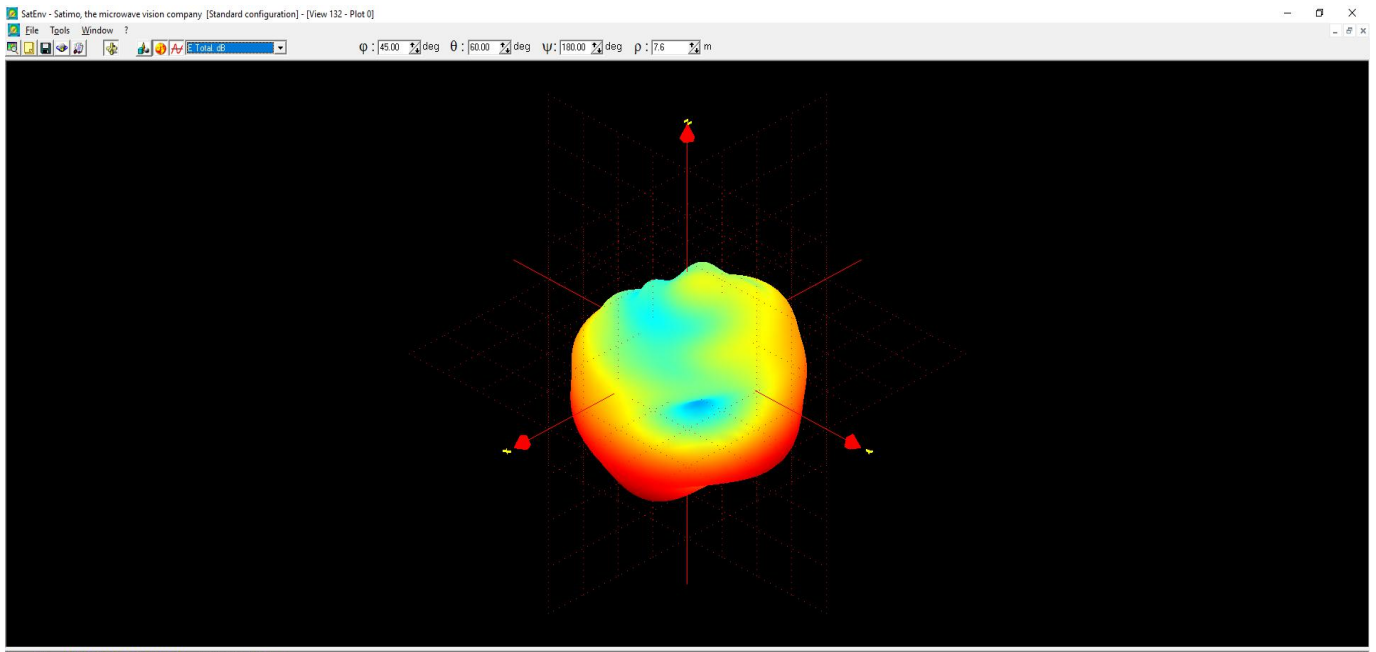




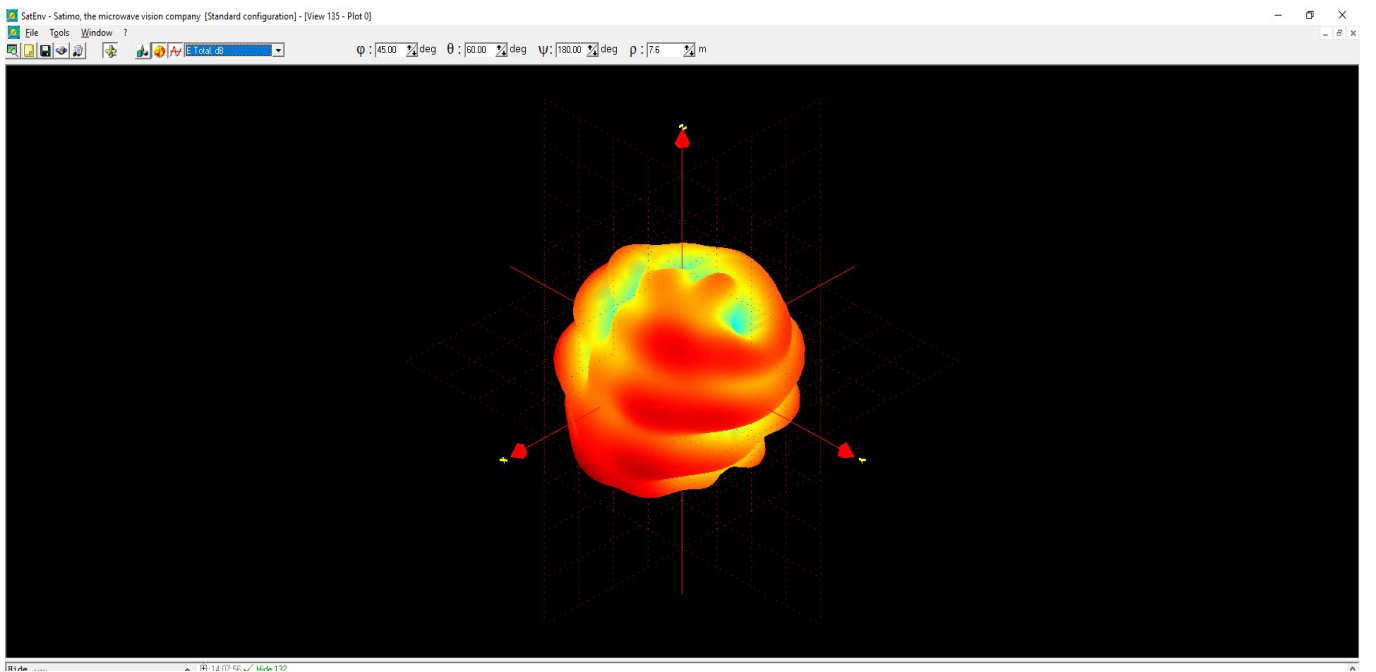
2D 图



2.4G 3D 图



5.8G 3D 图





6、Passive Test

频率 (MHz)	效率 (%)	效率 (dB)	增益 (dBi)
2400	31%	-5.04	-1.82
2410	32%	-4.91	-1.62
2420	34%	-4.72	-1.49
2430	34%	-4.62	-1.33
2440	35%	-4.54	-1.26
2450	37%	-4.34	-1.01
2460	37%	-4.30	-0.95
2470	38%	-4.24	-0.89
2480	39%	-4.12	-0.73
2490	38%	-4.20	-0.83
2500	39%	-4.08	-0.68

频率 (MHz)	效率 (%)	效率 (dB)	增益 (dBi)
5150	59%	-2.27	-0.06
5200	66%	-1.79	0.45
5250	69%	-1.61	0.50
5300	73%	-1.38	0.82
5350	74%	-1.30	0.98
5400	75%	-1.27	1.11
5450	75%	-1.28	1.26
5500	73%	-1.35	1.41
5550	75%	-1.26	1.98
5600	73%	-1.37	2.06
5650	74%	-1.29	2.39
5700	74%	-1.32	2.59
5750	76%	-1.16	3.05
5800	78%	-1.07	3.29
5850	76%	-1.20	3.22

7、 Drawings

[illegible]