



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: RD542109NB86-3

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	$\leq -14.86\text{dB}$	$\leq -10.37\text{dB}$
Gain	2.45dBi	2.77dBi
Average Efficiency	38%	50%
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	355.0 ± 6.0
Connector Type	IPEX MHF 1

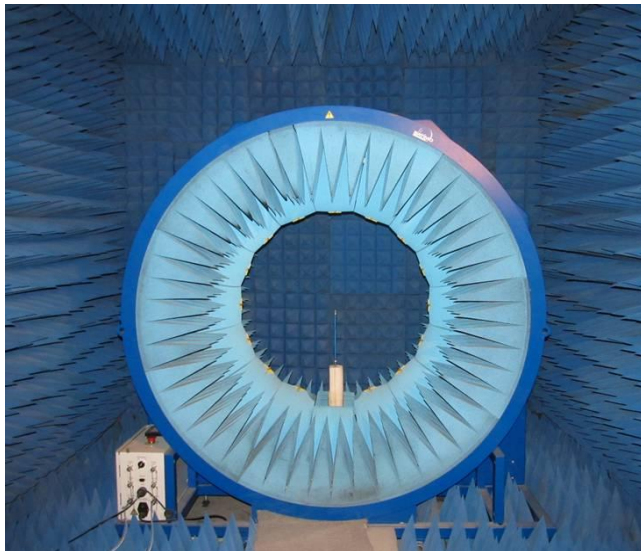
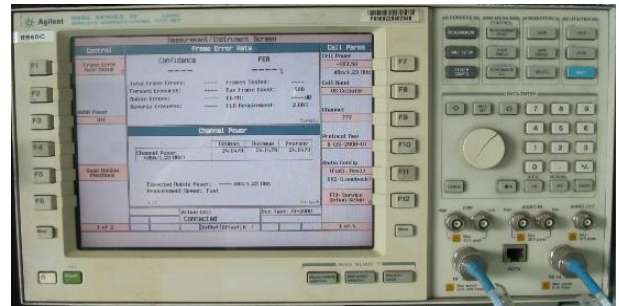
3. Environmental

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。

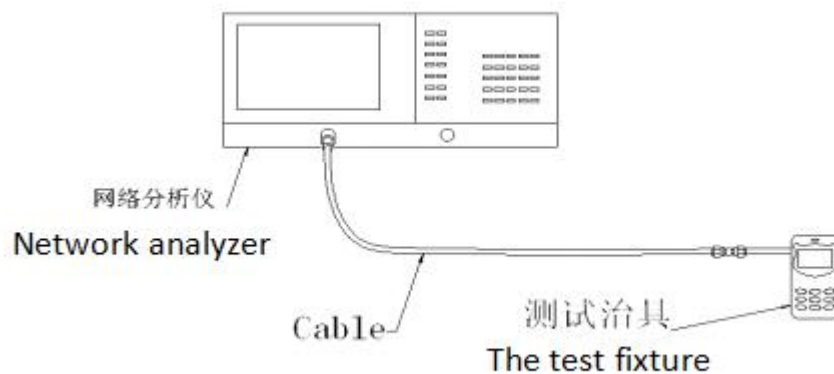
测试示意图如下：

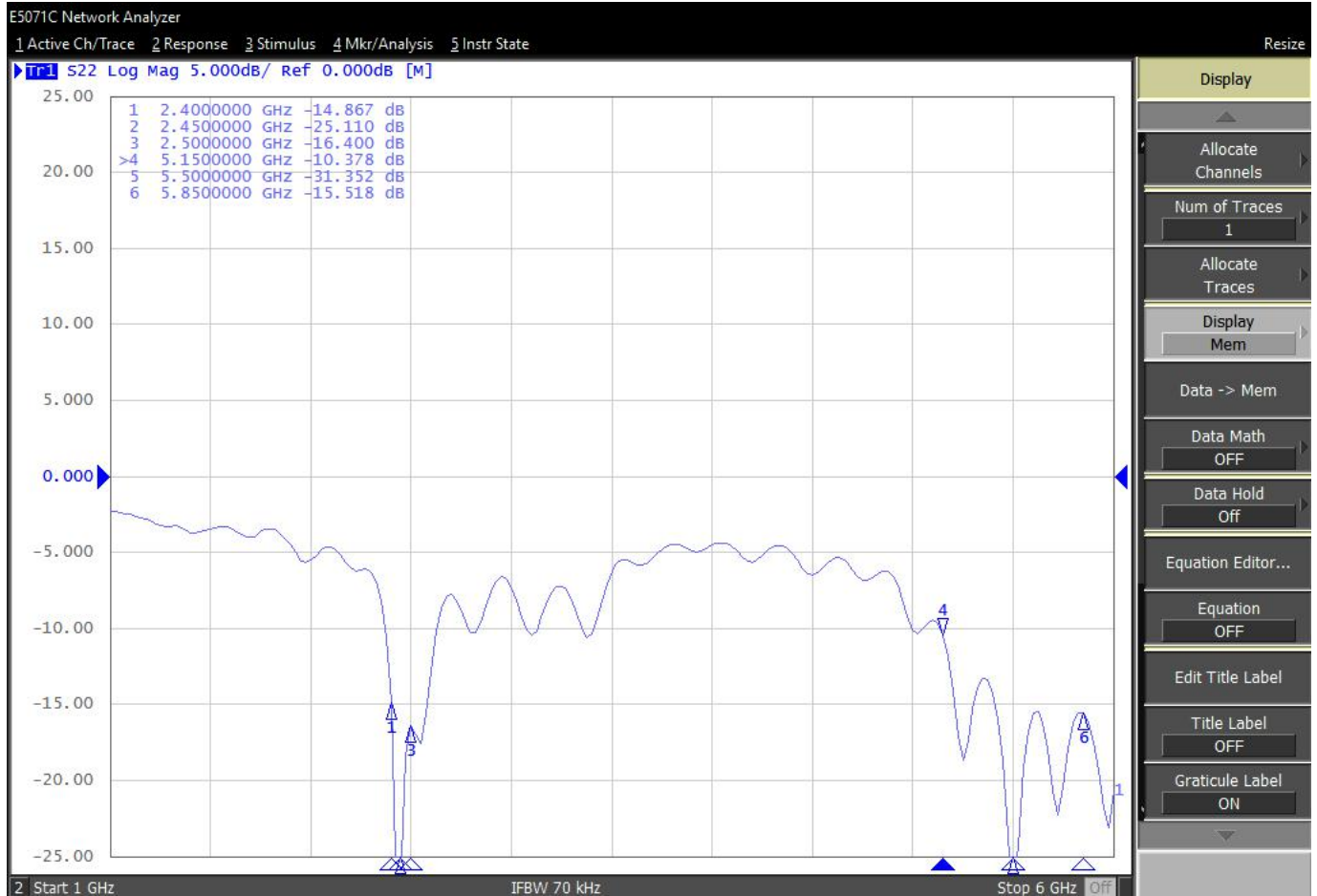
Testing equipment: network analyzer (HP 8753 e)

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

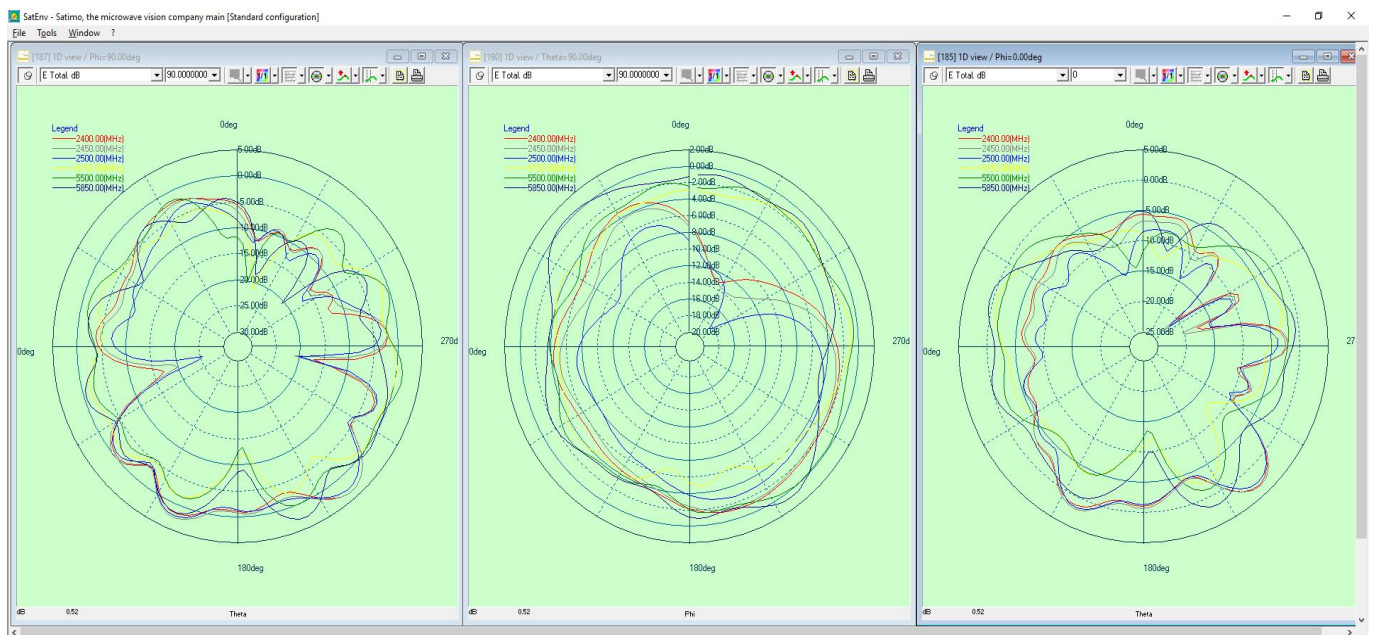
Rf fixture of the SMA connector, records related to the frequency points corresponding return loss and standing wave ratio.

Test schematic diagram is as follows:





2D 图

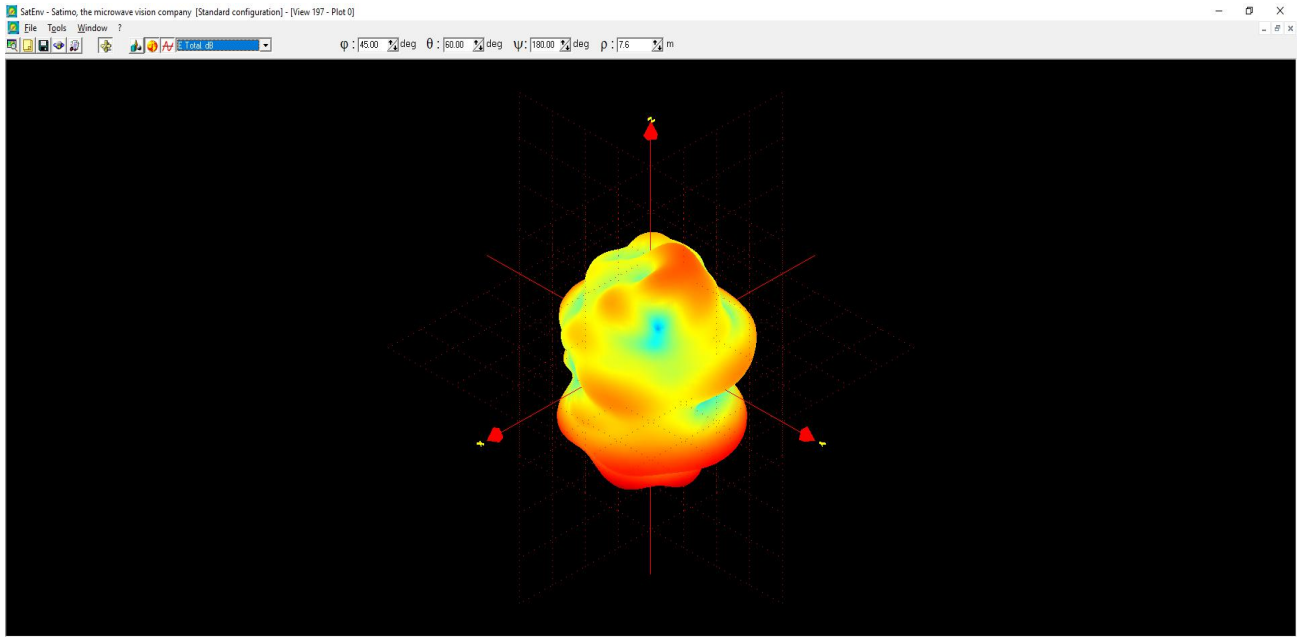




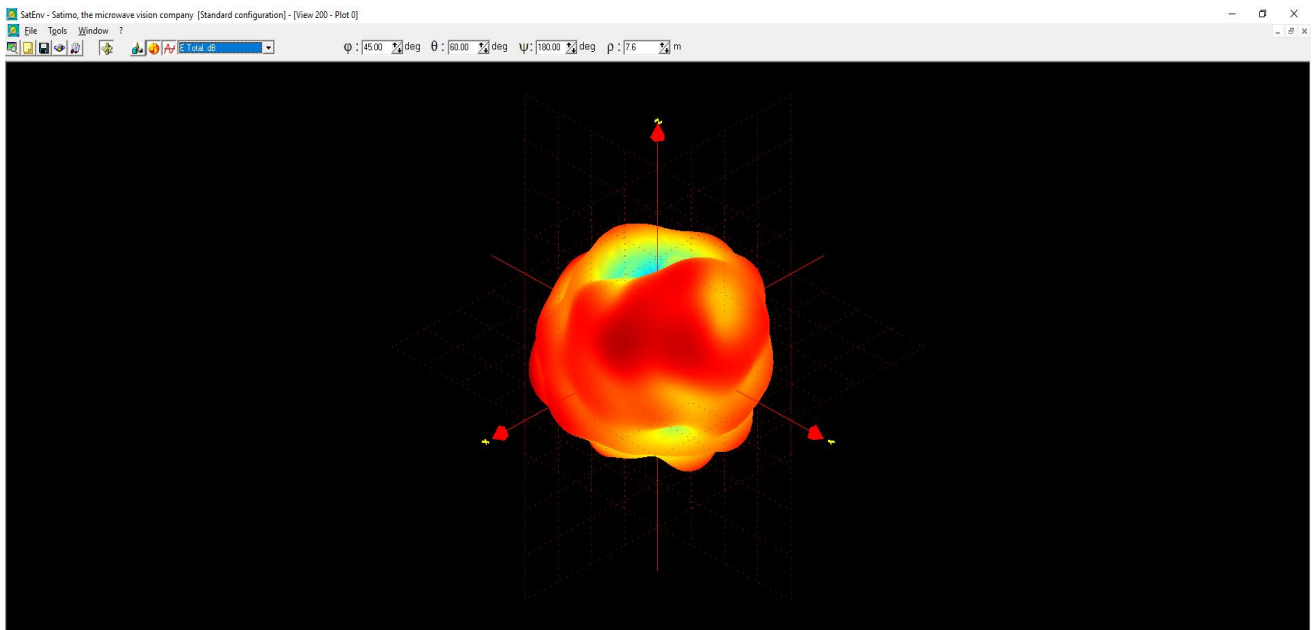
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2.4G 3D 图



5.8G 3D 图





6、Passive Test

				频率(MHz)	效率(%)	效率(dB)	增益(dBi)
				5150	44%	-3.56	0.08
				5200	46%	-3.37	0.65
频率(MHz)	效率(%)	效率(dB)	增益(dBi)	5250	46%	-3.33	0.70
2400	28%	-5.54	-0.60	5300	47%	-3.24	0.71
2410	31%	-5.09	-0.02	5350	49%	-3.09	1.07
2420	33%	-4.88	0.48	5400	52%	-2.80	1.44
2430	36%	-4.40	0.72	5450	52%	-2.88	1.68
2440	37%	-4.26	1.11	5500	51%	-2.95	1.54
2450	39%	-4.08	1.49	5550	52%	-2.81	2.04
2460	40%	-3.93	1.80	5600	53%	-2.76	2.04
2470	44%	-3.58	1.95	5650	54%	-2.70	2.12
2480	44%	-3.60	2.25	5700	50%	-2.97	1.81
2490	43%	-3.63	2.36	5750	51%	-2.94	2.08
2500	43%	-3.72	2.45	5800	52%	-2.83	2.38
				5850	52%	-2.81	2.77



7、Drawings

