



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: RD542109NB86-2

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	$\leq -15.44\text{dB}$	$\leq -8.51\text{dB}$
Gain	2.05dBi	3.17dBi
Average Efficiency	47%	64%
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	185.0 ± 4.0
Connector Type	IPEX MHF 1

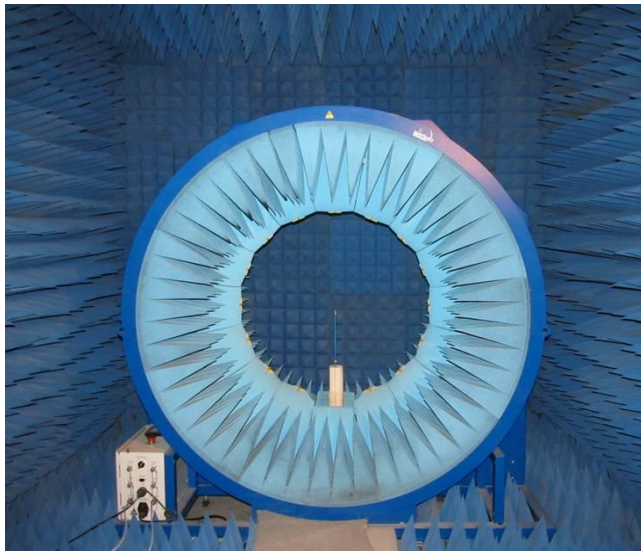
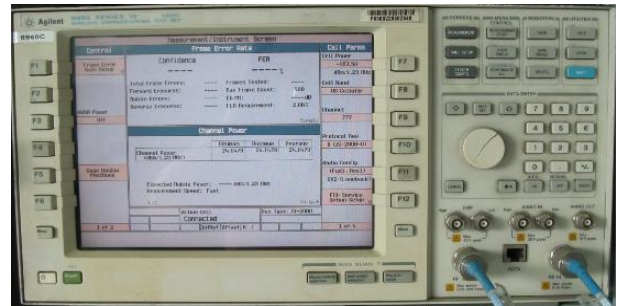
3. Environmental

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。

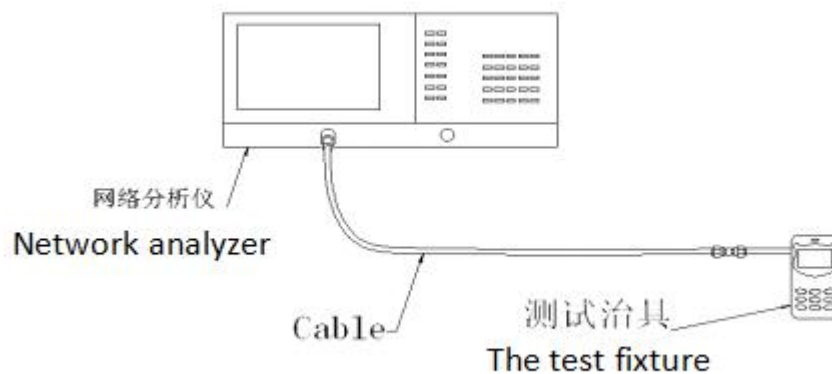
测试示意图如下：

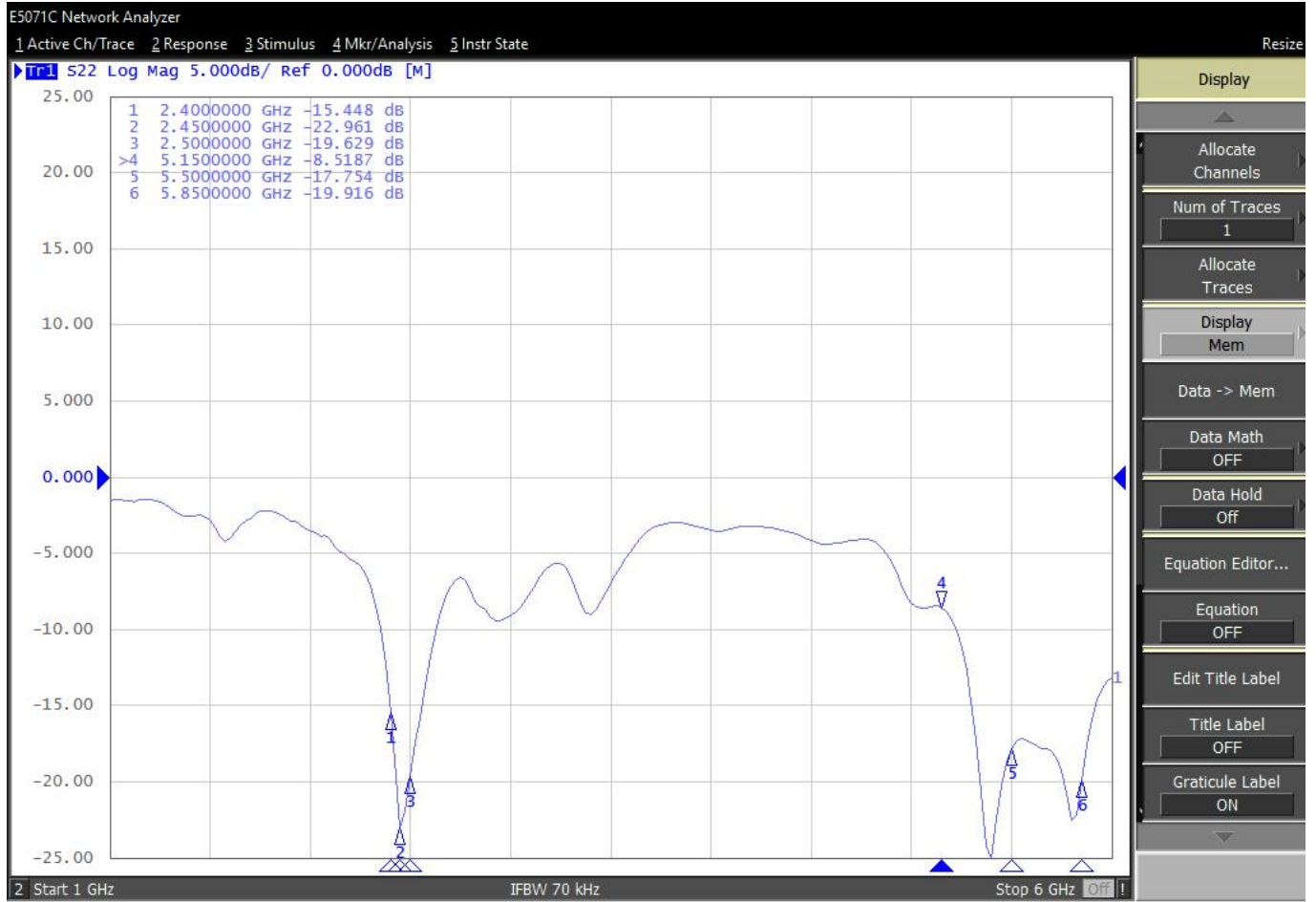
Testing equipment: network analyzer (HP 8753 e)

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

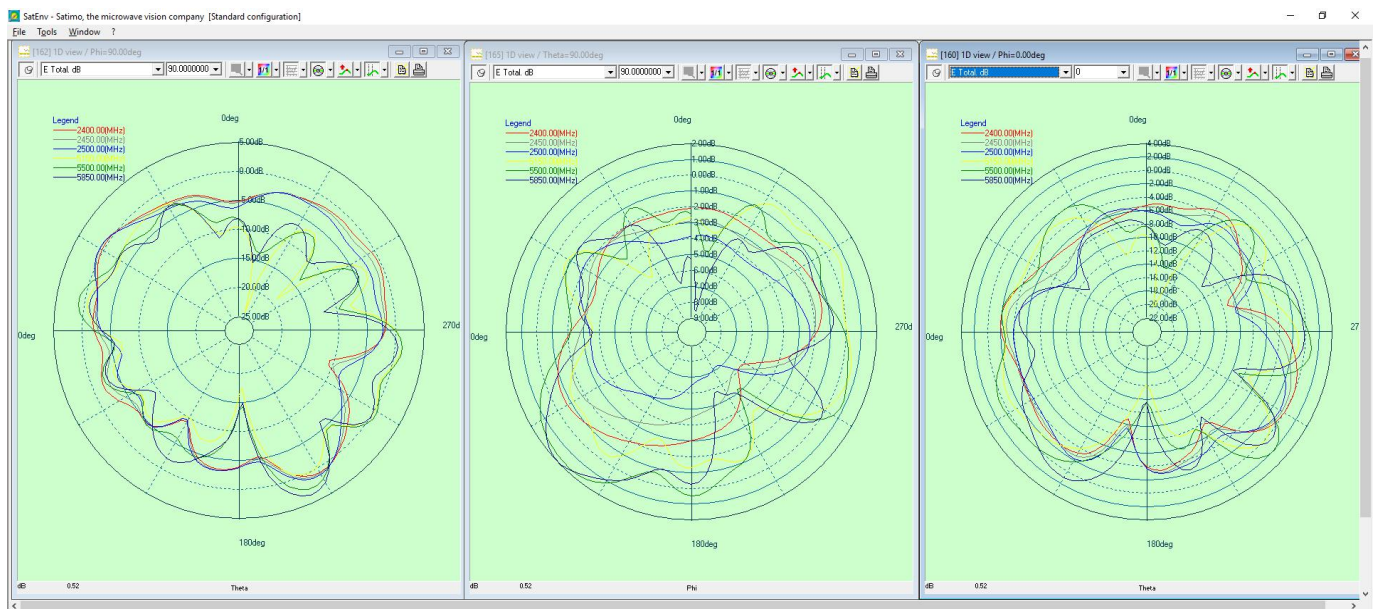
Rf fixture of the SMA connector, records related to the frequency points corresponding return loss and standing wave ratio.

Test schematic diagram is as follows:

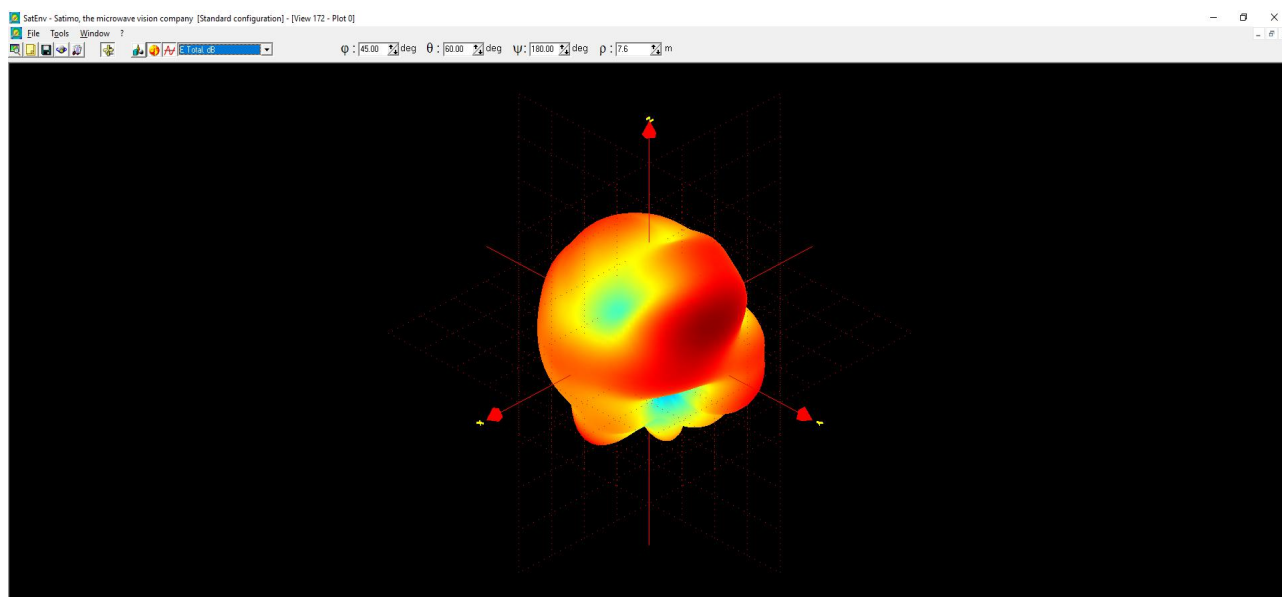




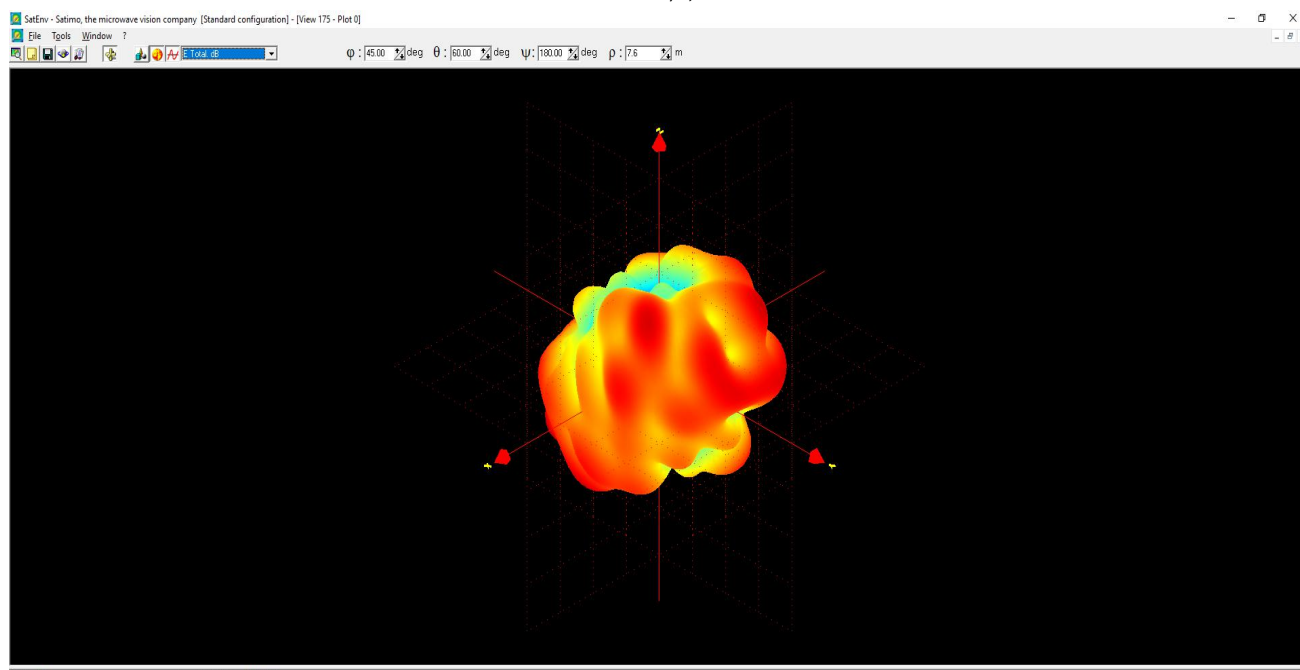
2D 图



2.4G 3D 图



5.8G 3D 图





6、Passive Test

频率 (MHz)	效率 (%)	效率 (dB)	增益 (dBi)
2400	48%	-3.22	1.99
2410	50%	-3.05	2.05
2420	48%	-3.17	1.89
2430	49%	-3.12	1.90
2440	49%	-3.13	1.83
2450	47%	-3.25	1.45
2460	47%	-3.25	1.52
2470	47%	-3.31	1.60
2480	46%	-3.39	1.55
2490	45%	-3.46	1.56
2500	44%	-3.58	1.52

频率 (MHz)	效率 (%)	效率 (dB)	增益 (dBi)
5150	50%	-3.04	0.50
5200	58%	-2.39	1.09
5250	61%	-2.12	1.29
5300	62%	-2.09	1.45
5350	61%	-2.13	1.29
5400	63%	-2.01	1.60
5450	66%	-1.83	1.87
5500	66%	-1.78	2.05
5550	68%	-1.65	2.50
5600	69%	-1.64	2.55
5650	71%	-1.49	2.93
5700	69%	-1.61	3.06
5750	68%	-1.66	3.17
5800	68%	-1.68	2.96
5850	66%	-1.82	2.65



7、Drawings

