



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 \pm 4.0
Connector Type	IPEX MHF 1

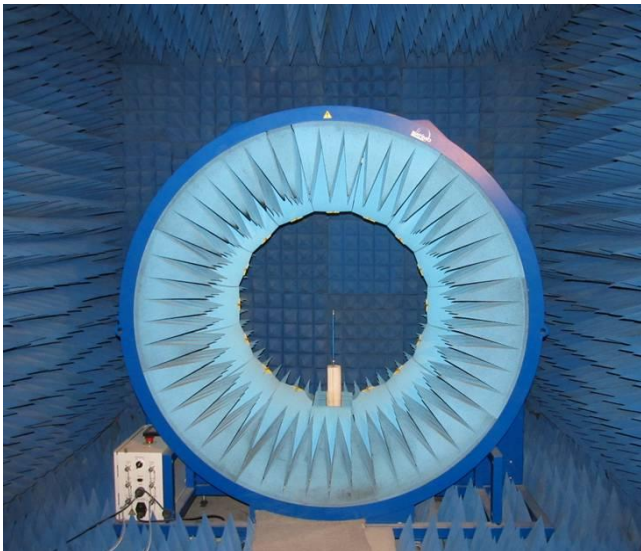
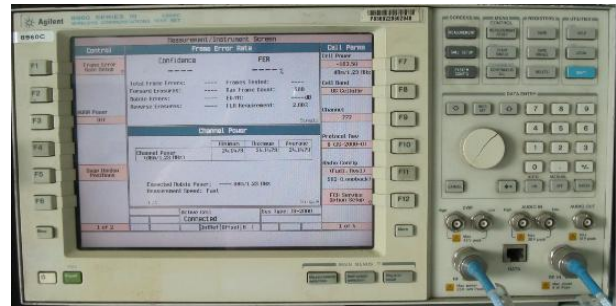
3. Environmental

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℃ ± 2℃, 湿度
 50% ± 15%
 Test environment: temperature 20 °C
 + 2 °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。

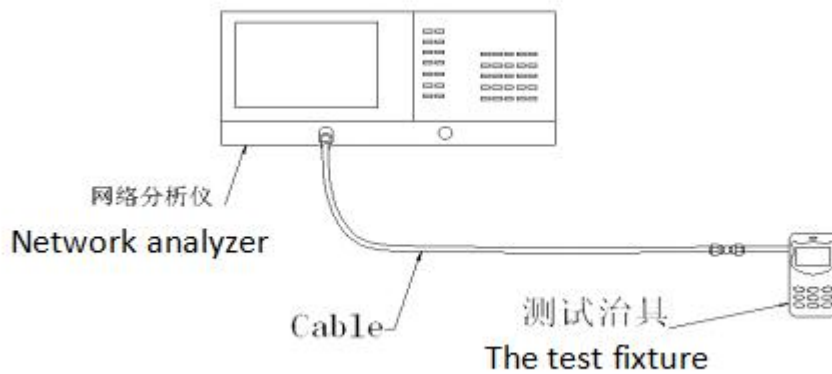
测试示意图如下：

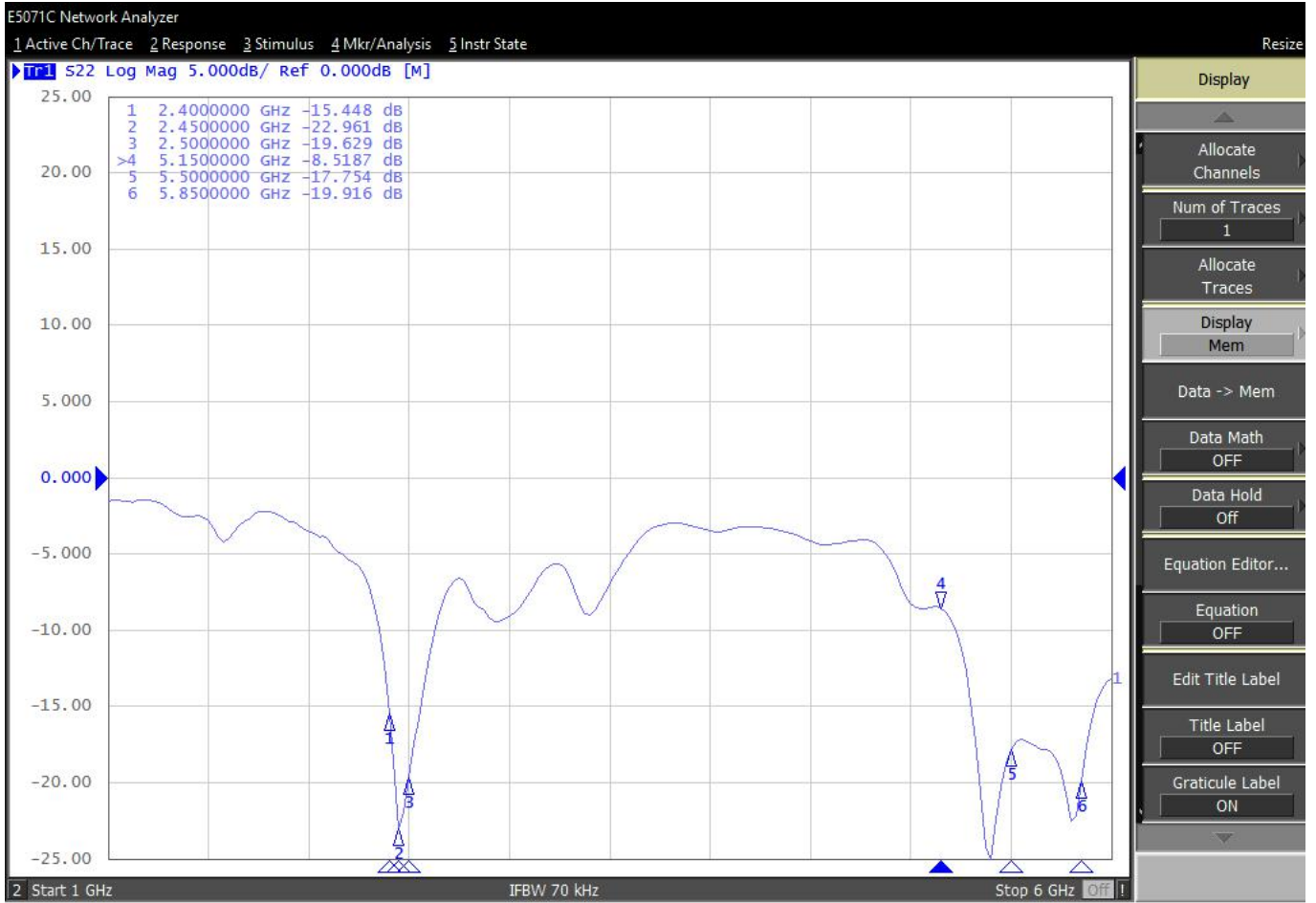
Testing equipment: network analyzer (HP 8753 e)

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

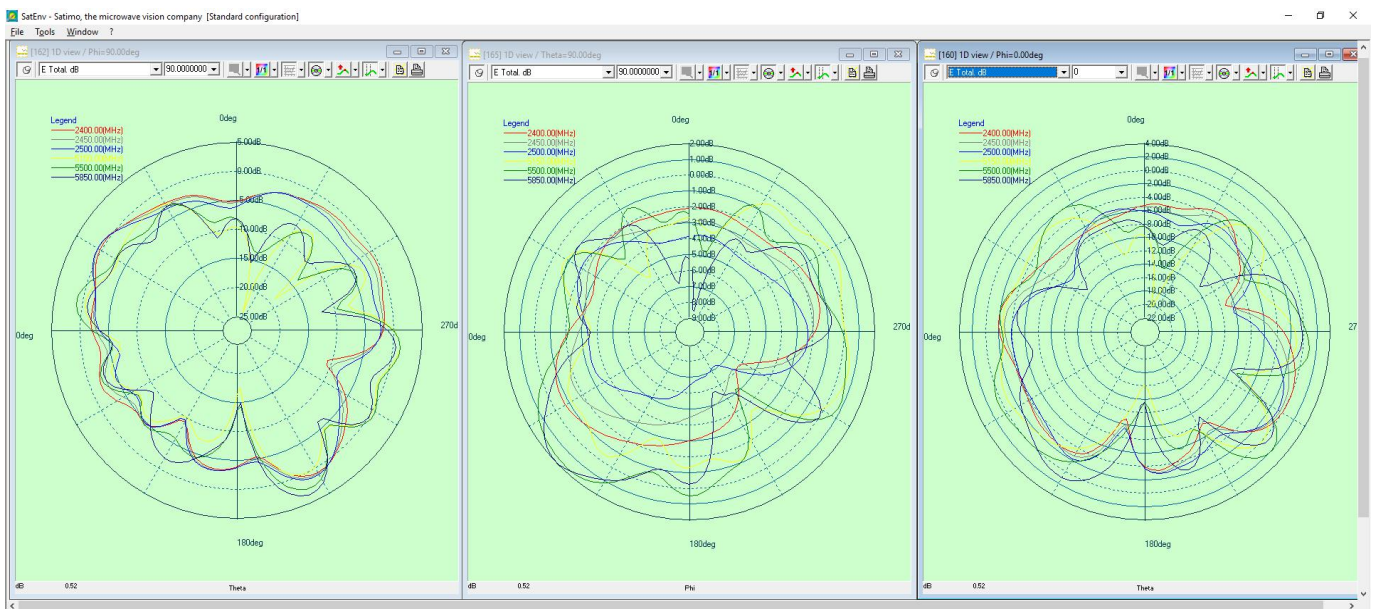
Rf fixture of the SMA connector, records related to the frequency points corresponding return loss and standing wave ratio.

Test schematic diagram is as follows:

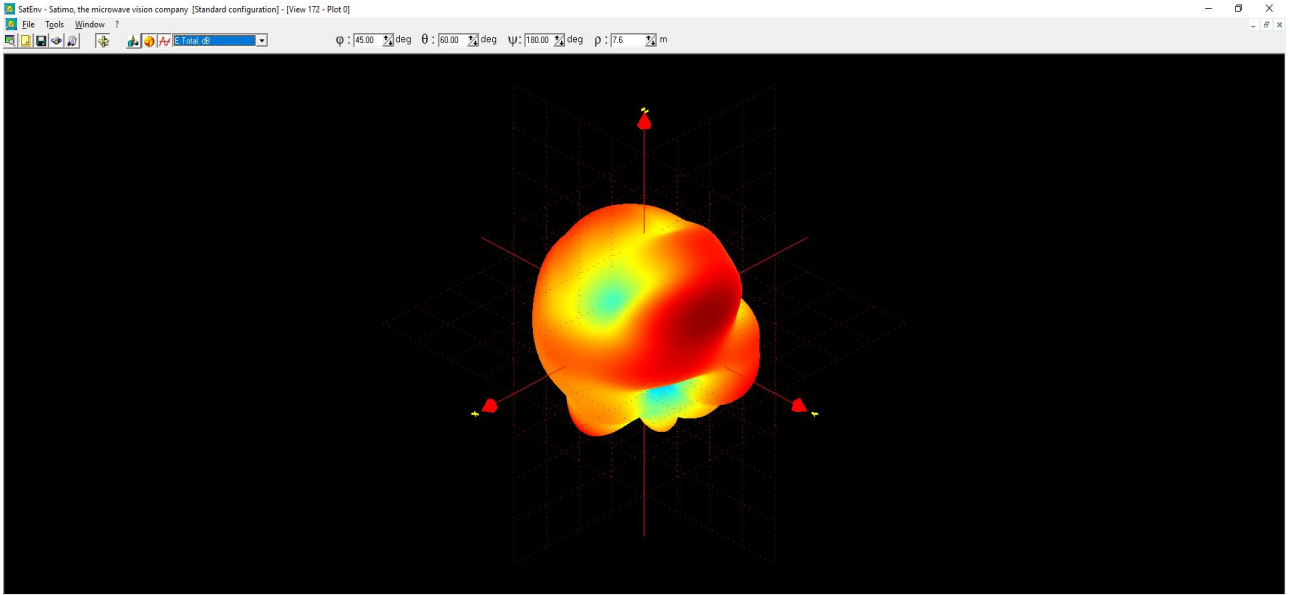




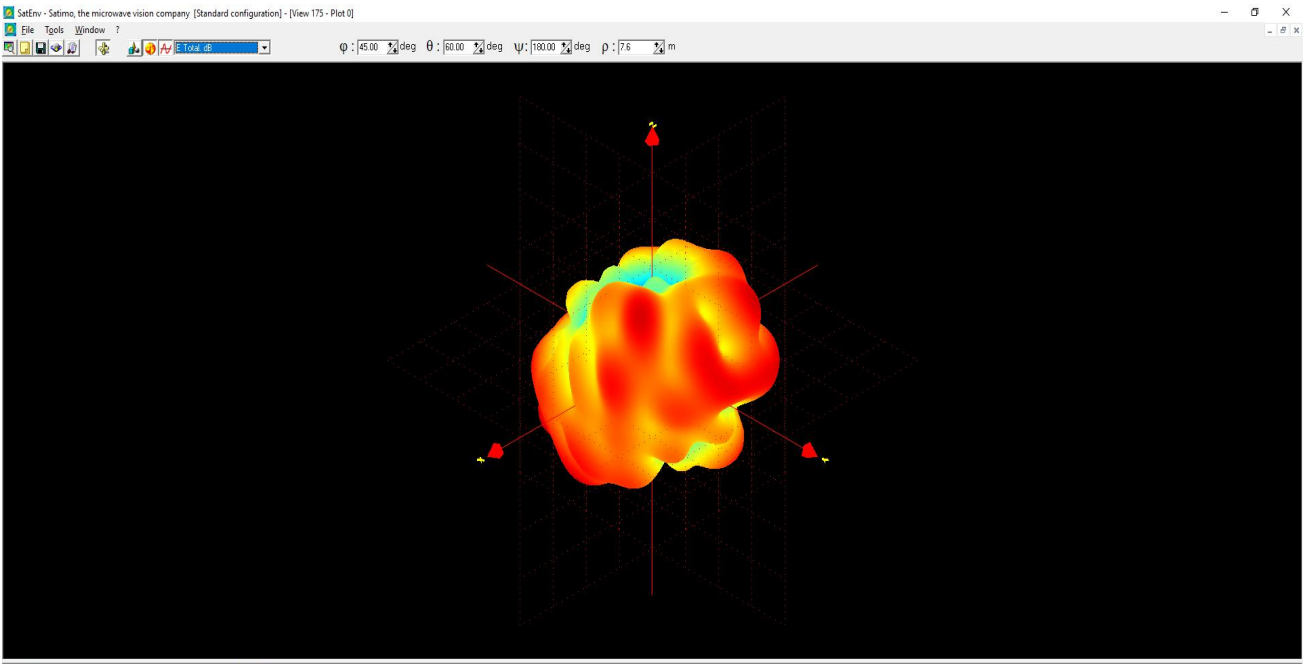
2D 图



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

