产品规格书
Product Specification

制造商 Manufacturer: Prime Land Outdoor LLC

项目名称 Project Name： 2.4G 5.43DB Black color antenna SMA connector

规格描述 Product Spec： YH2.4G-SMAJ-195-13

版 本 REV： V1.0

日 期 Date： 2022/04/07

制 作 drawing	审 核 check	批 准 approved
黄勇军	王玉美	蒋振华

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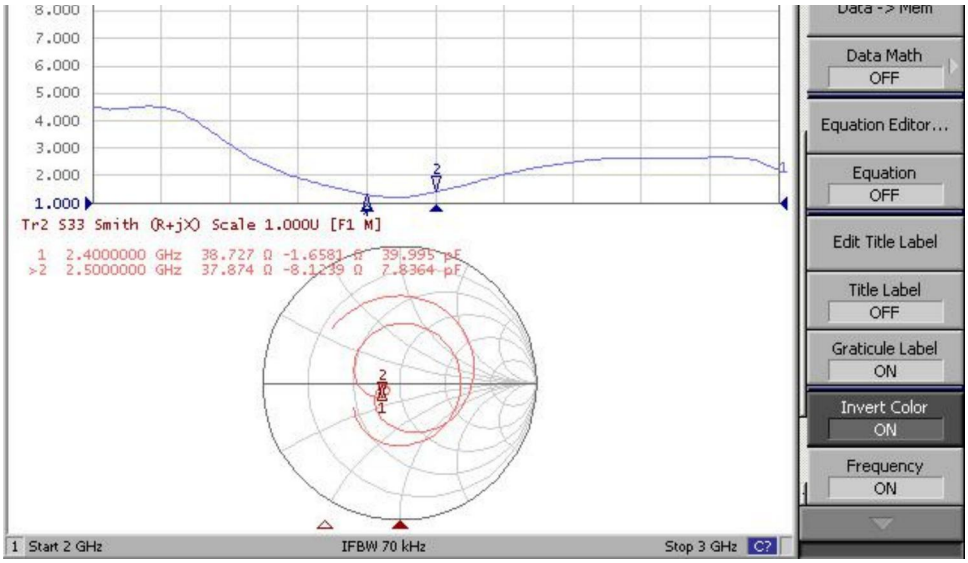
电性能指标 Electrical Performance Index

电 器 性 能 指 标		Electrical Specifications	
频率范围		2400-2500MHZ	
电压驻波比	≤1.8	VSWR	≤1.8
增益	≤5.43DBI	GAIN	≤5.43DBI
辐射方式	全向	Radiation	OMNI
极化方式	线极化	Polarizatin	LINEAR
输入阻抗	50 Ω	Input Impedance	50 Ω
机 械 性 能 指 标		Mechanical Specifications	
接口形式	SMA-J	Input connector	SMA-J
天线材质	PCB+五金	Antenna materia	PCB+Hardware
工作温度	-30℃~+80℃	Working Temperature	-30℃~+80℃
工作湿度	40~85%	Working Humidity	40~85%

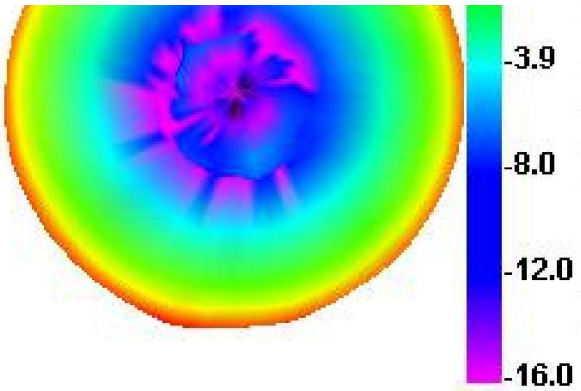
1.天线驻波图天线效率 Antenna standing wave diagram antenna efficiency

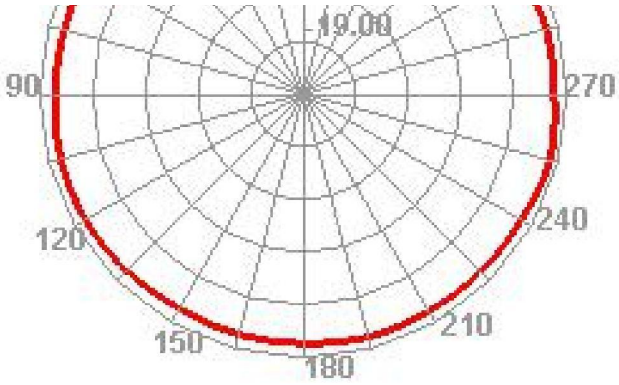


2.天线效率 antenna efficiency

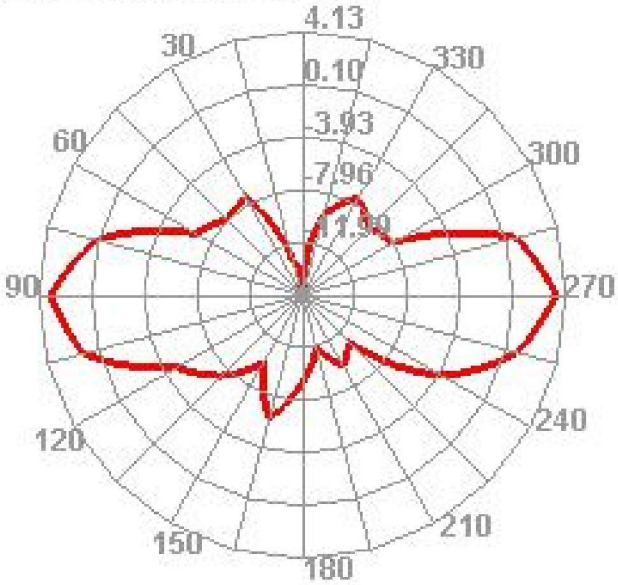
2410	71.45	-1.46	5.17	3.02	33.198	38.256
2415	68.98	-1.61	5	2.85	32.281	36.702
2420	67.08	-1.73	4.84	2.69	31.6	35.478
2425	68.8	-1.62	5.03	2.88	32.396	36.407
2430	70.45	-1.52	5.12	2.97	33.397	37.052
2435	69.32	-1.59	5.02	2.87	32.742	36.579
2440	71.55	-1.45	5.21	3.06	33.937	37.612
2445	74.05	-1.31	5.33	3.18	35.111	38.934
2450	72.53	-1.39	5.43	3.28	34.31	38.22
2455	72.26	-1.41	5.36	3.21	34.16	38.102
2460	69.37	-1.59	5.16	3.01	32.427	36.94
2465	69.95	-1.55	5.08	2.93	33.012	36.934
2470	64.72	-1.89	4.81	2.66	30.322	34.397
2475	67.24	-1.72	4.85	2.7	31.294	35.944
2480	70.97	-1.49	5.34	3.19	32.881	38.091

3.天线方向图 Antenna direction

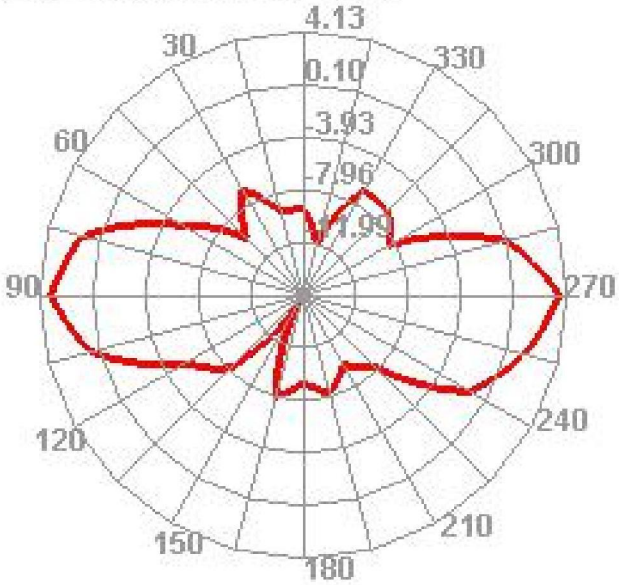




2450.000MHz E1



2450.000MHz E2



测试设备及原理 Testing Equipment and Principle

1. 测试设备 Testing Equipment：

网络分析仪 Network Analyzers ：

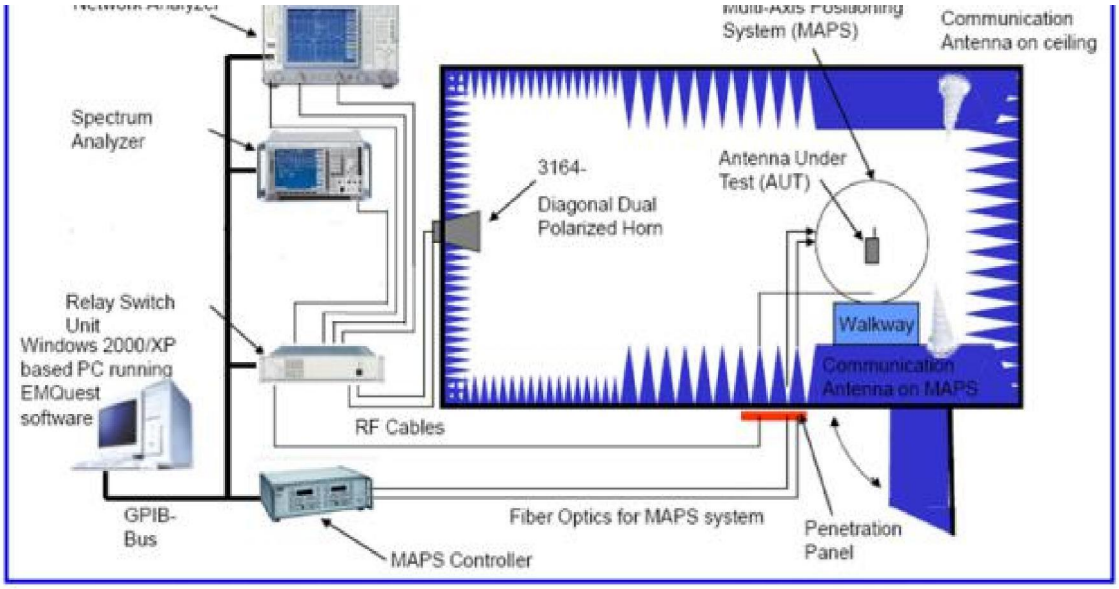
Agilent 8753D 5071B

综合测试仪 Communications Test Set:

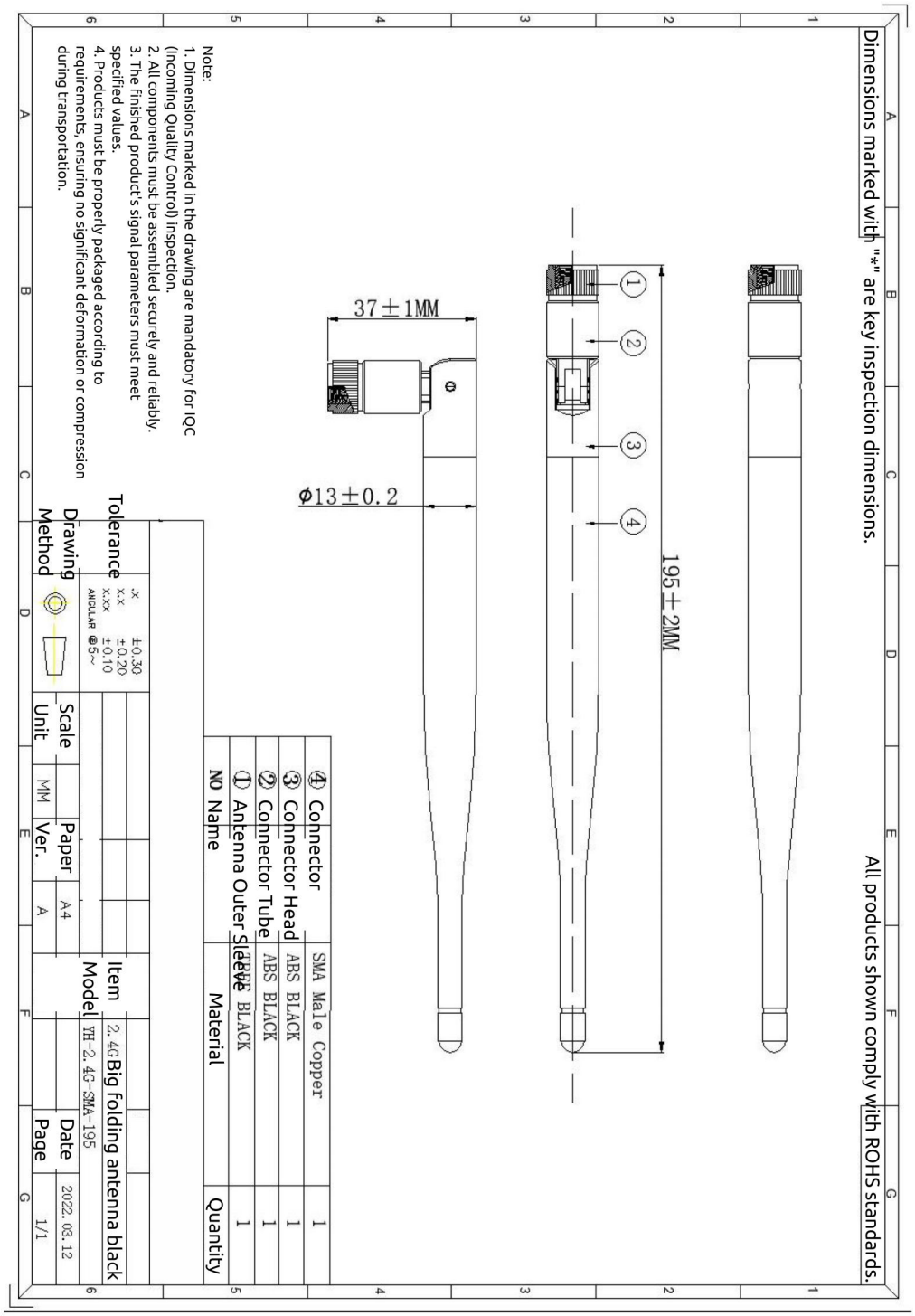
Agilent E5515C

3D 暗室测试系统 3D Chamber Test System：

2. 测试原理 Testing Principle：



工程图纸 Product Drawing



可靠性测试报告 Reliadility test report

测试项目		测试方法	要 求	结果
C1	V.S.W.R. 电性驻波比	设计网路分析仪参数进行测试 Design network analyzer parameters for testing	符合待测物规范 Meets the specifications of the test subject	pass
M1	天线增益 Antenna Gain	设计天线暗室参数进行测试 Design the anechoic chamber parameters for antenna testing	符合待测物规范 Meets the specifications of the test subject	pass
M2	Vibration 震动	GB / T2423.48-2008 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80to 20 Hz3 directions; 2 hours for each direction 振幅 amplitude 1.5mm; 频率 Frequency 20~80~20Hz; 3 directions each 2H	1. No Visual Damage 2. Frequency Tol.≤5% 无明显外观不良;频率偏移≤5%	pass
M6	Random Drop 跌落	GB / T2423.8-1995 Single : Height: 1.0 Meter; 3 directions; 1 time for each direction 单 支天线, 高 1m; 3 个方向各 1 次	1. No parts separated、fracture 2. Frequency Tol.≤5% 产品无脱落、断裂;频率偏移≤5%	pass
E3	Dimension 尺寸	Inspection of dimension, color, material, package, surface process.检查尺寸,颜色,材 料,包装,表面处理	Directive DUT specification 符合待测物规范	pass
E4	Temperature and Humidity Chamber 恒温恒湿	GB / T 2423.3-2006 Temp: 80° C / 12 H; -40° C / 12H RH: ≥ 90%; Time: 24H 温度 80° C 测 试 12H 转-40° C 测试 12H; 湿度≥ 90%; 时间 24H	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.≤5% 恢复 2H 后, 无明显外观不良; 频率 偏移≤5%	pass
E5	Thermal Shock 冷 热冲击	GB / T 2423.22 - 2008 - 40° C (30 minutes) to + 80° C (30 minutes); Cycles: 24 - 40° C 测试 30 分转 80° C 测试 30 分为一个周 期; 共 24 周期	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.≤5% 恢复 2H 后, 无明显外观不良; 频率 偏移≤5%	pass
R1	Aging test 老化	GB /T 2423.2 - 2008 Temp: 80° C; Time: 24 hours 温度 80° C, 测试 24H	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.≤5% 無明顯外觀不良;頻率偏移≤5%	pass
M1	RoHS	With Reference to IEC 62321:2008 with flow chart 参考 IEC 62321 测试流程	Directive RoHS 2015/863/EU 符合 RoHS 2015/863/EU 标准	pass

产品包装规范 Code for product packaging

产品名称 Product name / 规泛 Pack code

一 ONE、标签要求 label requirement

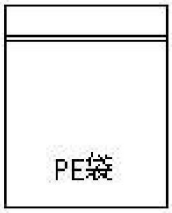
******	
采购单号 purchase order	**********
物料编码 Material code	**********
品名规格 Product name and spec	********
数量/单位 quantity/Unit	*****
备注 remarks	**********

******	
采购单号 purchase order	**********
物料编码 Material code	**********
品名规格 Product name and spec	*******
数量/单位 quantity/unit	*****
备注 remarks	**********

二 TWO、

1. 内包装：inner box

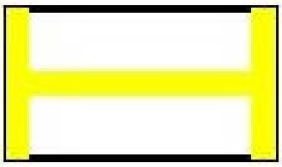
产品 50 PCS 一小袋 product 50 pcs per bag



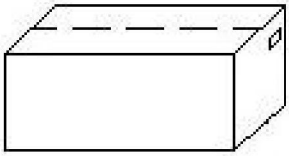
PE bag

2. 外包装：Out packing

根据实际数量定数量/箱 quantity to be as reqruirement/carton



纸箱



carton

注意事项：Remarks:

1. 是否要增设隔板、珍珠棉；Any need of clapboard or EDE

2. 标签的贴附，如 ROHS 等；any need of label such as ROHS

2.4G
MI 10X
RA