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# 产品规格书

## PRODUCT SPECIFICATION

Customer:

Customer's part number:

Product description: 2.4G-5.8G WiFi Terminal Antenna

Uni Link's part number: AL-2.4G-5.8G-FPC-42

Issue Date: 2012-11-9

Note: 2400-2500MHZ,4900-5900MHZ

### 一、目录

#### 1、产品技术指标 (PRODUCT TECHNICAL SPECIFICATION)

电性能指标 Electrical Specifications	
频率范围 Frequency Range (MHz)	2400-2500 4900-5900
频带宽度 Bandwidth (MHz)	100
输入阻抗 Input Impedence ( $\Omega$ )	50
电压驻波比 V.S.W.R	$\leq 1.5$
增益 Gain (dBi)	4.17dBi(Max.) for 2.4G Band and 4.36dBi(Max.) for 5G Band
极化形式 Polarization Type	垂直 Vertical
功率容量 Power Capacity (w)	50
机械指标 Mechanical Specifications	

天线长度 Antenna Length (mm)	100mm 或自定义
辐射体 Radiator	铜 Cuprum
连接器型号 Connect Type	IPEX-Male
工作温度 Working Temp(°C)	-40~85
外壳颜色 Radome Color	
重量 Weight (g)	0.1

## 2、产品图片 (PRODUCT PICTURE)

## 4、电气特性(ELECTRIC APPLIANCE CHARACTERISTICS)

项目 ITEM		测试环境 TEST CONDITION	规格 SPECIFICATION
1	返回损耗 Return Loss	使用 Agilent 网络分析仪 8753ET 测量天线 S11 之返回损耗参数 Using Agilent Network Analyzer 8753ET to Measure Antenna S11 Return Loss Characteristics.	0.01
2	电压驻波比 VSWR	使用 Agilent 网络分析仪 8753ET 测量天线 S11 之电压驻波比参数 Using Agilent Network Analyzer 8753ET to Measure Antenna S11 VSWR Characteristics.	≤1.5

3	阻抗 Smith chart	使用 Agilent 网络分析仪 8753ET 测量天线 S11 之史密斯阻抗参数 Using Agilent Network Analyzer 8753ET to Measure Antenna S11 Gain Response Characteristics.	50 ( $\Omega$ )
4	增益效应 Gain response	使用 Agilent 网络分析仪 8753ET 测量天线 S21 之史密斯阻抗参数 Using Agilent Network Analyzer 8753ET to Measure Antenna S21 Gain Response Characteristics.	5DB

## 5、机械性能 (MECHANICAL CHARACTERISTICS)

1	摇摆测试 BENDING TEST	放离接头 30CM 的线端上荷重 120g, 固定接头后进行摇摆测试, 摇摆角度左右各 60 度, 摇摆 1000 次后测试特性.	摇摆 1000 次后测试特性无任何现象显示电器性能之损坏.
2	强度测试 STRENG TEST	一个 15 磅之静负荷施加放线端底部持续一分钟.	无任何现象显示机械及电器性能之损坏.

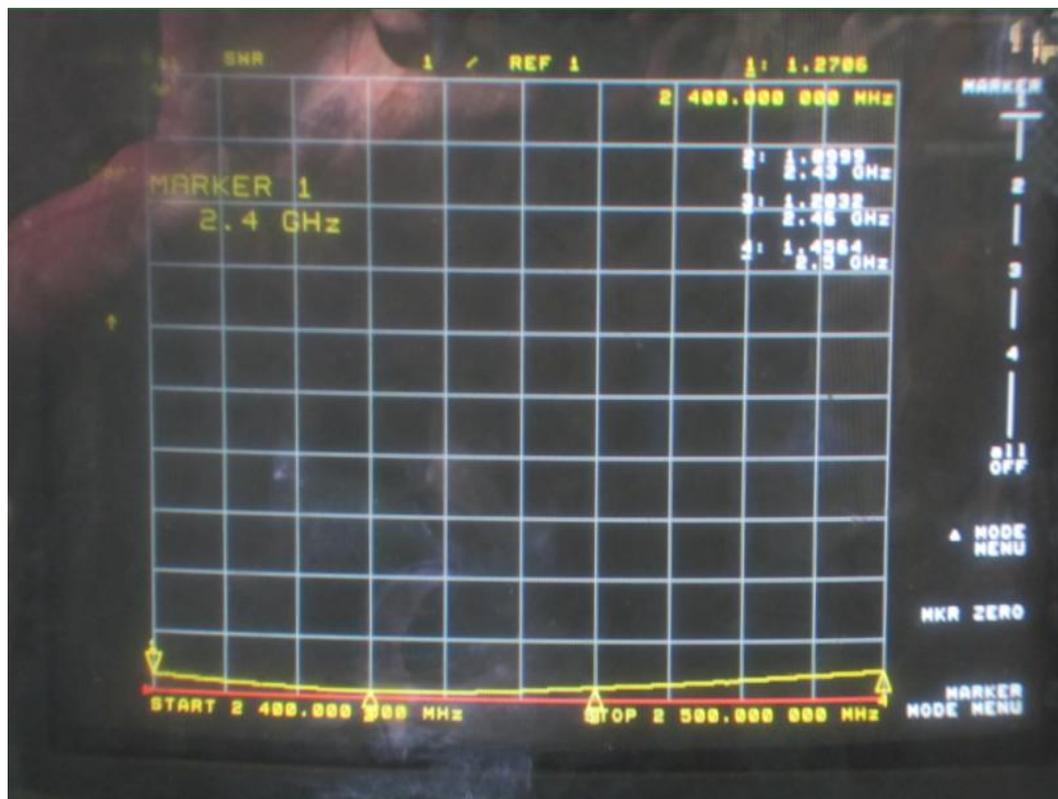
3	拉力测试 PULLING FORCE	用拉力计接头及线材间进行拉力测试.	可承受拉力为 7Kg 无任何现象显示电 器性能之损坏.
4	振动测试 VIBRATION TEST	以 1.10mm 和振幅和 33.30Hz/sec 振动频率 以 X 轴方向振动 120 分钟, Y 轴方向振动 120 分钟, Z 轴方向振动 240 分钟.	无任何现象显示电 器性能之损坏.

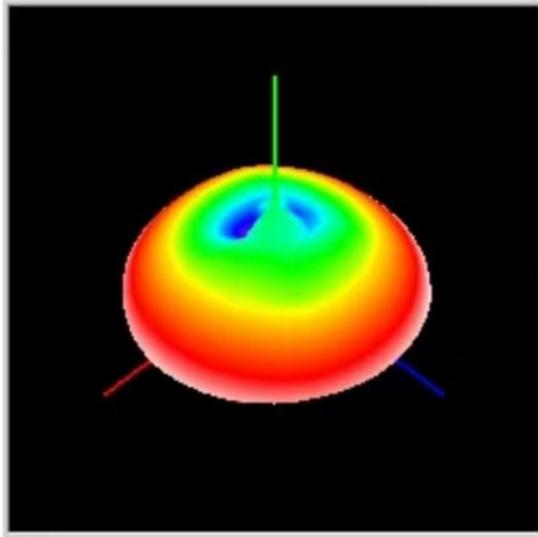
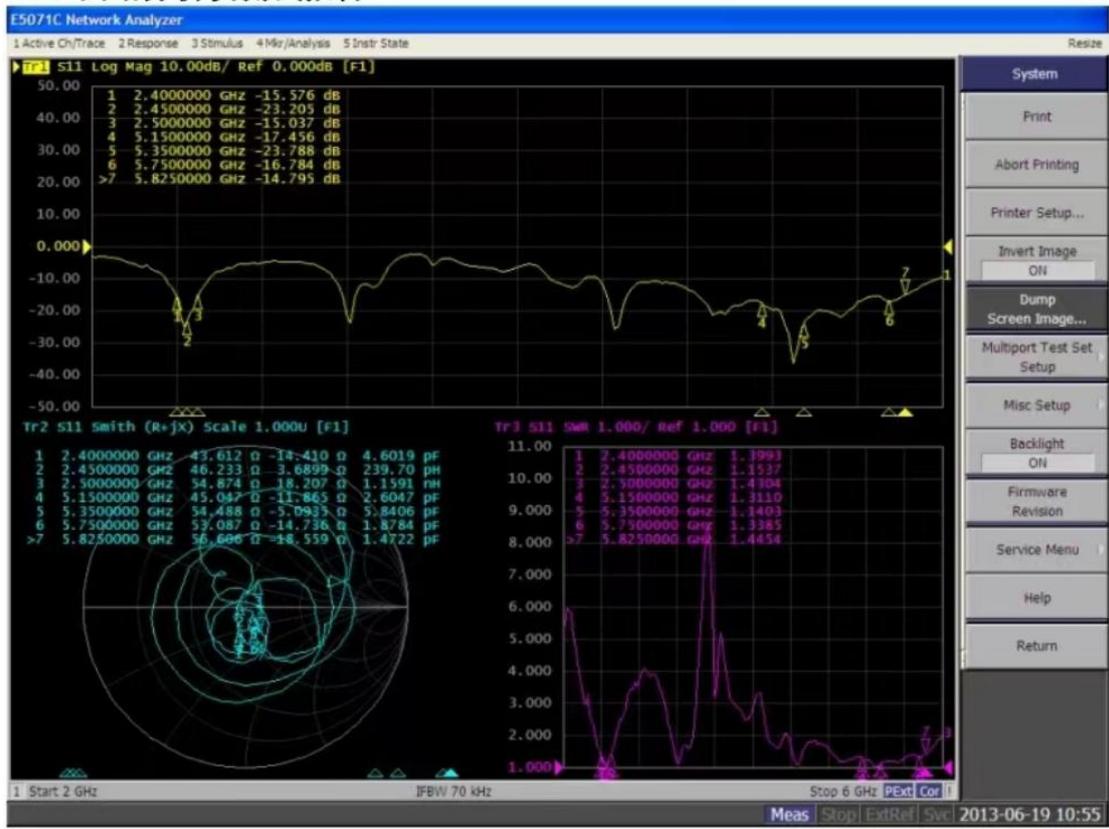
## 6、耐久性测试 (DURABILITY)

1	盐雾试验 SAIT SPRAY TEST	盐水喷雾试验: 依 GB1266-86 标准 蒸馏水: 一次蒸馏 PH6.5~7 喷雾量: 1.4me80cm <sup>2</sup> /h 压缩空气压力: 1Kgf/ cm <sup>2</sup> 试验相对度: 98° 温度: 45° ~47° 压力温度: 35° 测试时间: 96hr	
2	高温试验 HEAT TEST	在 85+2°C 环境中放 96 小时, 再放在正常环 境中 30 分钟后进行测试 85+2°C for 96 hours, after keep in normal condition for 30mim the to test.	所有规格变化范 围初始值 30% All characteristic range is 30% of

3	湿度试验 HUMIDITY TEST	在 40+2℃ 90-95%RH 环境中放 96 小时，再放在正常环境中 30 分钟后进行测试 40+2℃ 90-95%RH for 96hours, after keep in normal condition for 30min the to test.	the initial value
4	低温试验 COLD TEST	在-40+2℃ 环境中放 96 小时，再置放正常环境中 30 分钟后进行测试 -40+2℃ for 96hours, after keep in normal condition for 30min the to test.	无任何现象显示电器性能之损坏.

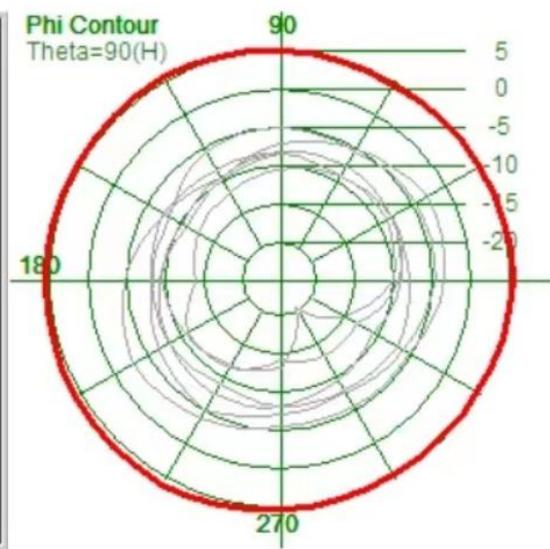
## 7、驻波图 (STATIONARY WAVE PATTERN)



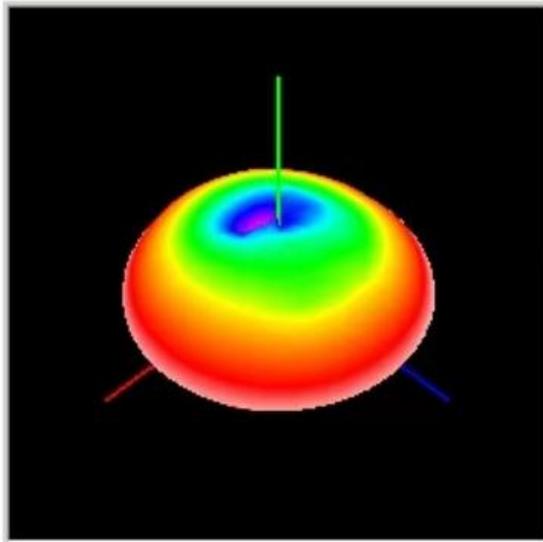


2.4GHz

Gain: 3.98Bi

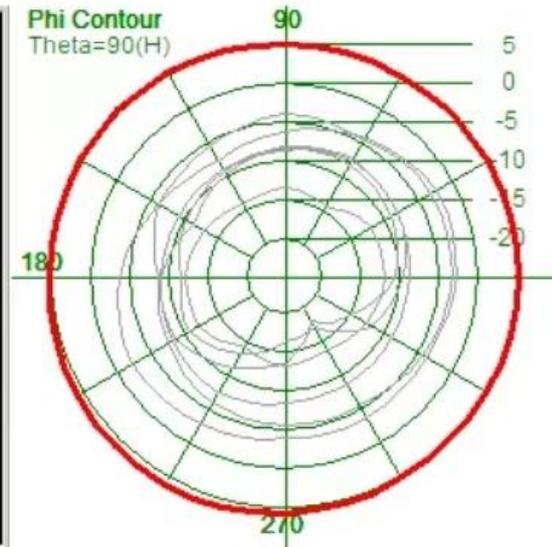


Efficiency:69.94%

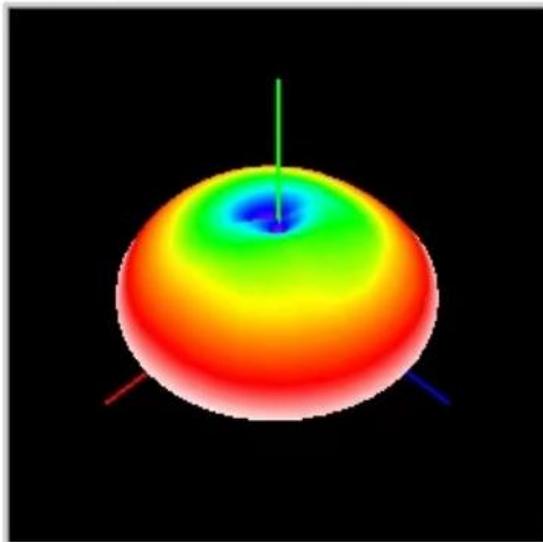


2.45GHz

Gain: 4.17dBi

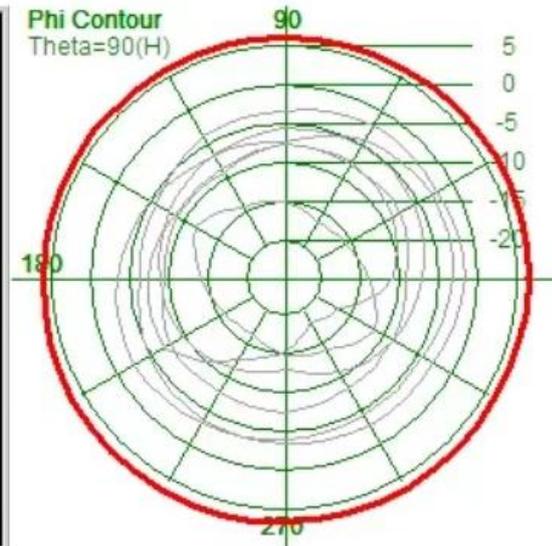


Efficiency: 70.19%

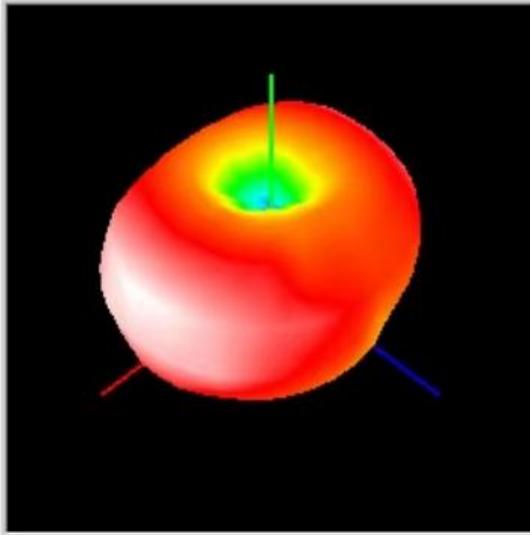


2.5GHz

Gain: 4.14dBi

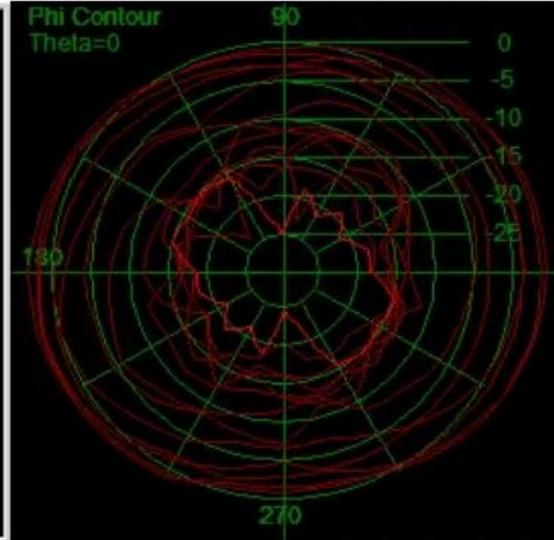


Efficiency: 72.03%

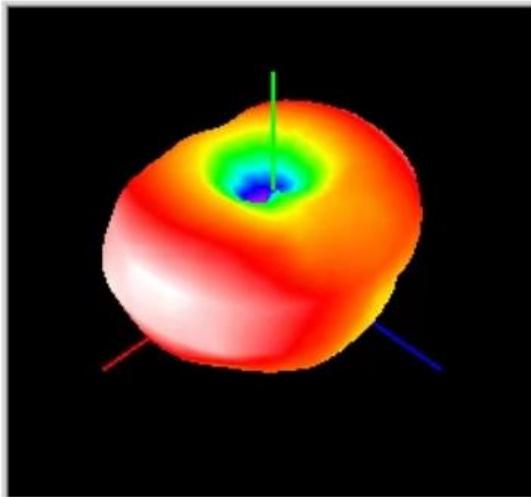


5.15GHz

Gain: 3.99dBi

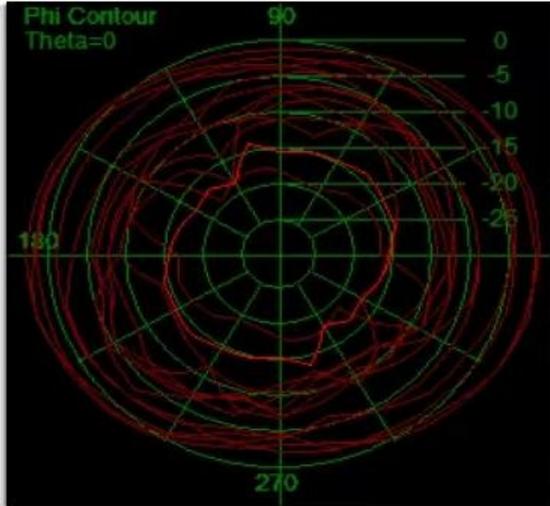


Efficiency:70.86%

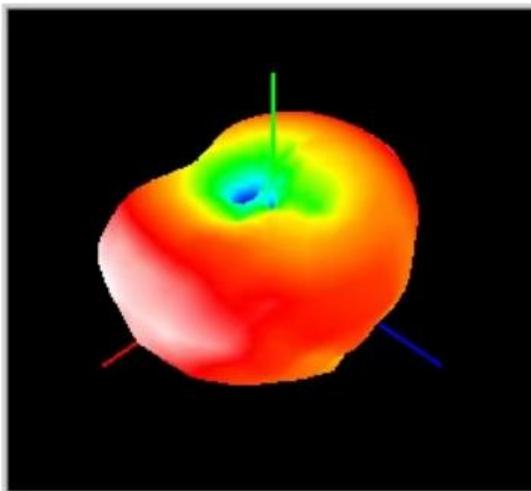


5.35GHz

Gain: 4.22dBi

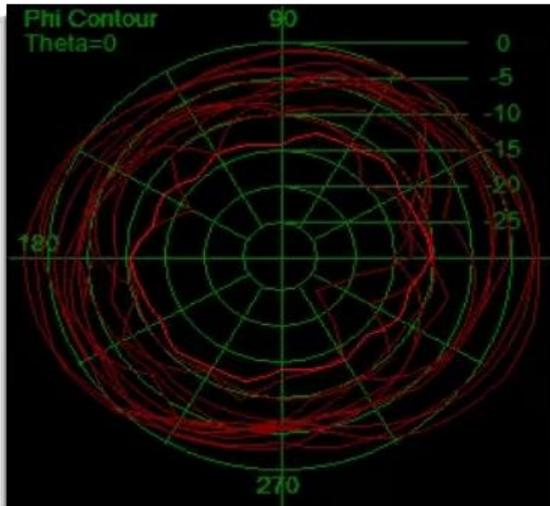


Efficiency: 71.47%

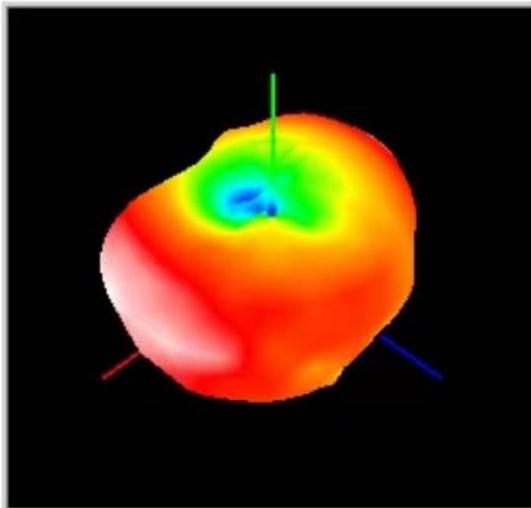


5.75GHz

Gain: 4.31dBi

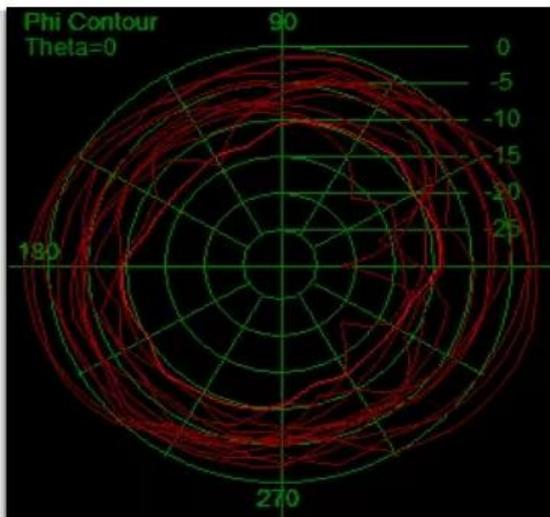


Efficiency: 71.63%



5.825GHz

Gain: 4.26dBi



Efficiency: 72.17%

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## 8.Spec Drawing(mm)

