

# 2.4G WiFi ANTENNA Report

客 户  
CUSTOMER: \_\_\_\_\_

客 户 料 号  
CUSTOMER NO: \_\_\_\_\_

品 名 2.4G WiFi ANTENNA  
PART NAME: \_\_\_\_\_

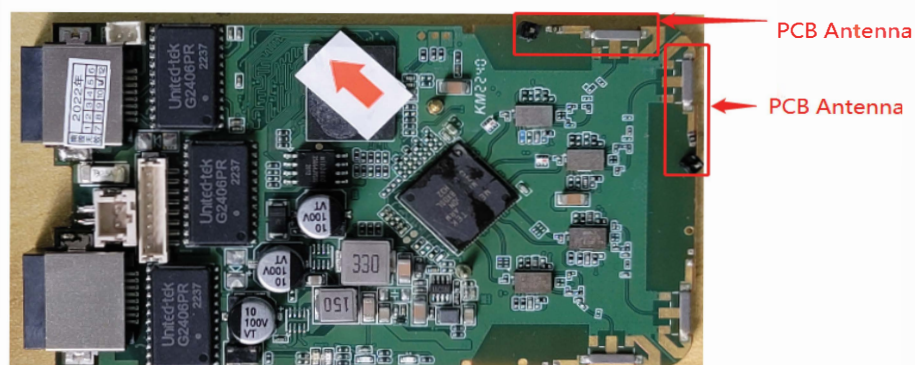
料 号 AN2400-113G-130W01  
SUPPLIER NO: \_\_\_\_\_

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# 1. 产品规格 (Product Specification)

## 产品图片 (Product Photo)



### A. 电性参数 (Electrical Characteristics)

频率 (Frequency)	2400 ~ 2500 MHz
电压驻波比 (V.S.W.R)	$\leq 2.0 @ 2400 \sim 2500 \text{ MHz}$
返回损失 (Return Loss)	$\leq -1.0 \text{ dB} @ 2400 \sim 2500$
天线增益 (Antenna Gain)	max 1.16 dBi
辐射效率 (Radiation Efficiency)	50 ~ 58 %
极化方式 (Polarization)	线性 (Linear)
阻抗 (Impedance)	50 Ohm
天线类型 (Antenna Type)	双极 (Dipole)

### B. 材质及机械特性 (Material & Mechanical Characteristics)

辐射材质 (Material of Radiator)	Cu
线材类型 (Cable Type)	
接头类型 (Connector Type)	)
拉力测试 (Pull Test)	$\geq 1.0 \text{ Kg}$

### C. 环境因素 (Environmental)

工作温度 (Operation Temperature)	- 40 °C ~ + 75 °C
储存温度 (Storage Temperature)	- 40 °C ~ + 85 °C

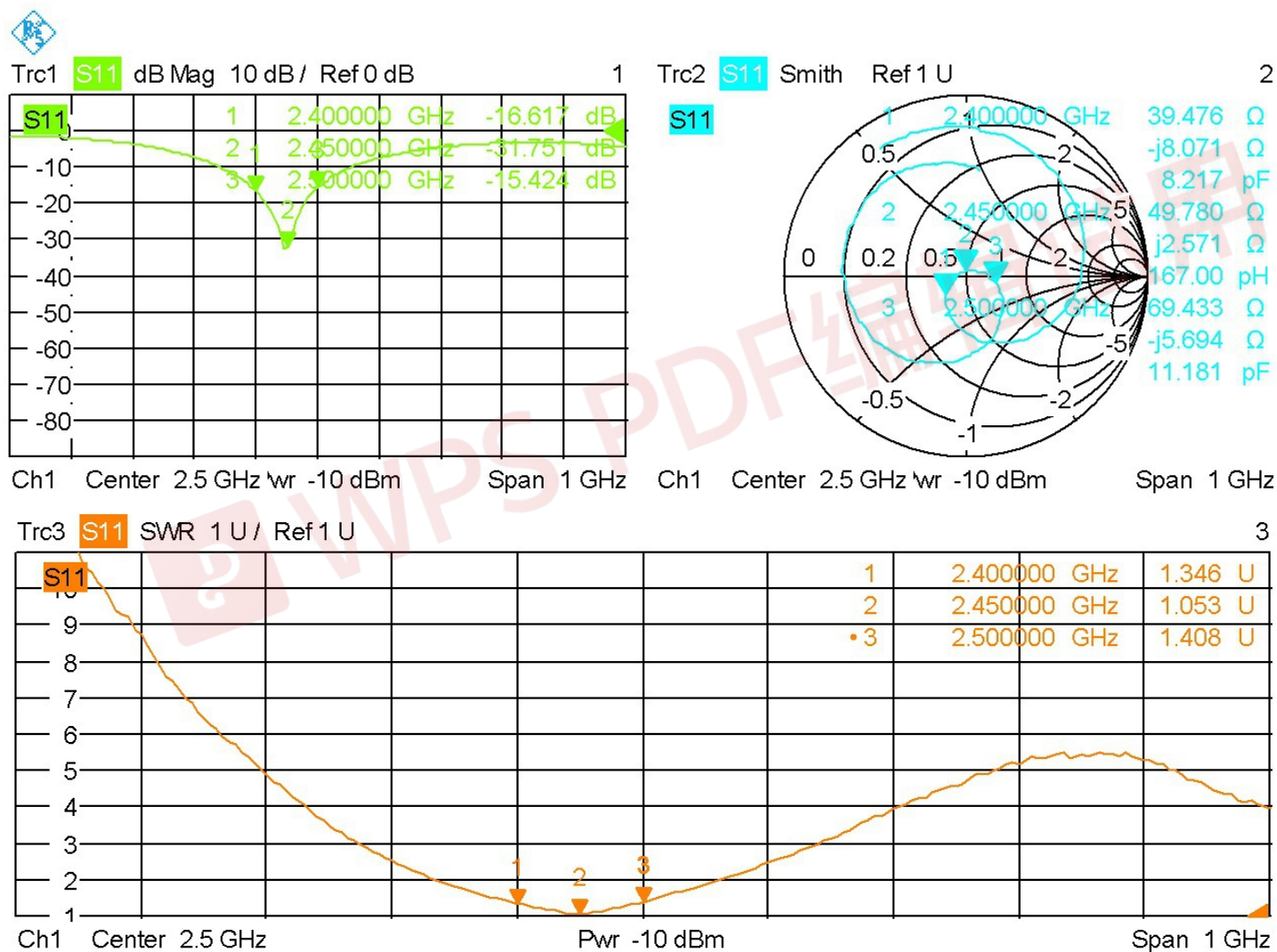
## 2. 网络参数测试数据 (S Parameter Test Data)



(ROHDE&SCHWARZ) ZVL矢量网络分析仪

测试频率范围: 9KHz-6GHz

测试能力: V.S.W.R、Return Loss、Smith等



### 3. 天线辐射场型测试 (Antenna - Radiation Pattern Test)

测试设备规格 (Testing Equipment Specification) :

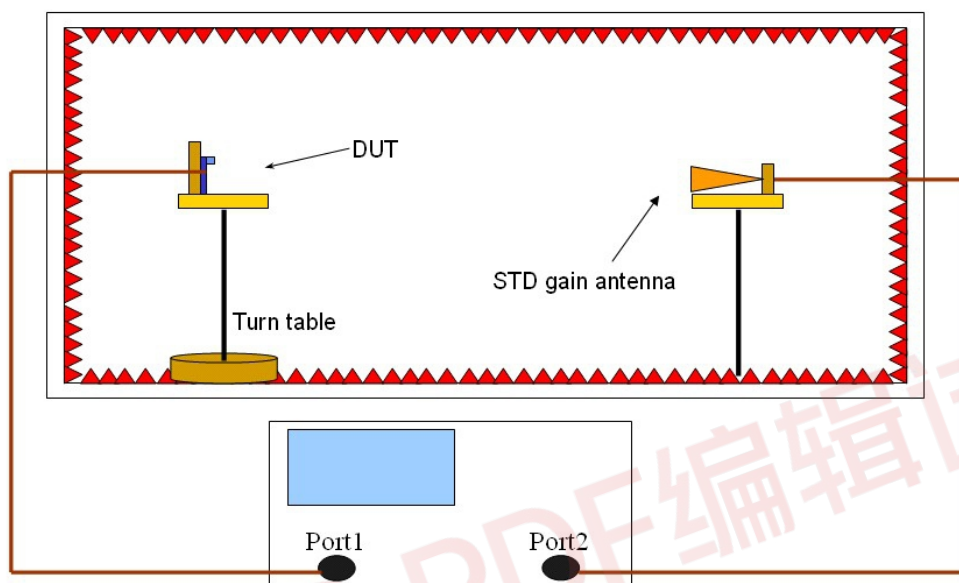
天线微波暗室尺寸 (Antenna Anechoic Chamber Dimension) : 6 x 3 x 3 米 (m)

屏蔽性能 (Isolation) : >100dB @ 1 MHz ~ 10 GHz

测试设备 (Testing Equipment) : (ROHDE&SCHWARZ) ZVL 矢量网络分析仪

接收天线 (Received Antenna) : 0.7 ~ 6.0 GHz 双极喇叭校准天线

(0.7 ~ 6.0 GHz for Gain Calibration Double Ridged Horn Antenna)



测试原理图

#### 4. 效率及增益测试数据 (Efficiency and Gain Test Data)

PASSIVE	TRP(dBm)	-2.35	-2.49	-2.54	-2.78	-2.84	-2.76	-2.55	-2.53	-2.55	-2.76	-3.01
	Para.\Freq.(mhz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
	Peak EIRP(dBm)	1.16	0.96	0.89	0.7	0.71	0.87	1.12	1.12	1.11	0.93	0.72
	Directivity	3.51	3.45	3.43	3.48	3.55	3.63	3.67	3.65	3.66	3.69	3.73
	Gain(dBi)	1.16	0.96	0.89	0.7	0.71	0.87	1.12	1.12	1.11	0.93	0.72
	Efficiency(dB)	-2.35	-2.49	-2.54	-2.78	-2.84	-2.76	-2.55	-2.53	-2.55	-2.76	-3.01
	Efficiency(%)	58.21	56.36	55.72	52.72	52	52.97	55.59	55.85	55.59	52.97	50
	NHPRP $\pi/4$ (dBm)	-3.57	-3.71	-3.76	-3.99	-4.03	-3.95	-3.73	-3.7	-3.72	-3.92	-4.18
	NHPRP $\pi/6$ (dBm)	-4.69	-4.83	-4.88	-5.11	-5.15	-5.05	-4.83	-4.8	-4.81	-5.02	-5.26
	Min. EIRP(dBm)	-11.01	-10.88	-10.75	-10.97	-11.09	-11.09	-10.85	-10.61	-10.4	-10.67	-10.9
	Upper Hem. PRP(dBm)	-5.8	-5.92	-5.96	-6.18	-6.19	-6.06	-5.78	-5.7	-5.65	-5.81	-6.04
	Lower Hem. PRP(dBm)	-4.96	-5.11	-5.18	-5.43	-5.52	-5.5	-5.35	-5.39	-5.46	-5.72	-6.01

