


Product Number: AN2400-9213RS-N

Product Name: Antenna



2. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	2400 ~ 2500 MHz
V.S.W.R.	<= 2.0
Peak Gain	3.34 dBi
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	CU
Material of Plastic	TPEE / ABS
Cable Type	RG-178U
Connector Type	SMA Male Reverse
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C
Antenna Color Storage life	< 2 year

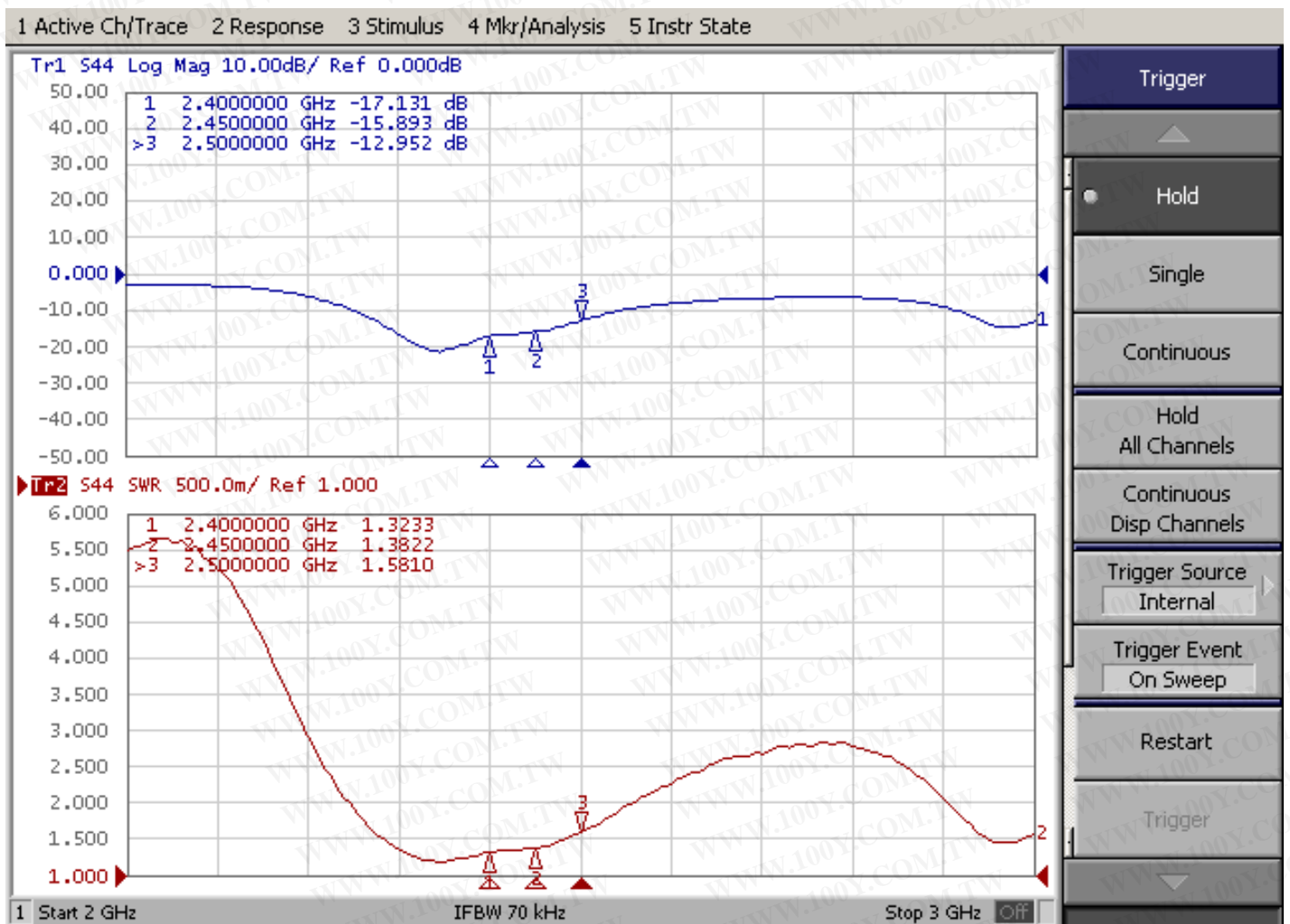
勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
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3. Characteristics and Reliability Test

Test Items 測試項目		Test Condition and Procedure 測試方法	Requirements 要求	Result 結果
C1	V.S.W.R. 電壓駐波比	Set DUT on Network Analyzer; make individual calibration to test 設置網路分析儀參數進行測試	Directive DUT specification 符合待測物規範	PASS
C3	Antenna Gain 天線增益	Set DUT on Antenna Chamber; make individual calibration to test 設置天線暗室參數進行測試	Directive DUT specification 符合待測物規範	PASS
M1	Vibration 震動	GB / T2423.48-2008 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80 to 20 Hz 3 directions; 2 hours for each direction 振幅 1.5mm ; 頻率 20~80~20Hz ; 3 個方向各 2H	1. No Visual Damage 2. Frequency Tol. ≤5% 無明顯外觀不良; 頻率偏移 ≤5%	PASS
M2	Random Drop 跌落	GB / T2423.8-1995 Single : Height: 1.0 Meter; 3 directions; 1 time for each direction 單支天線, 高 1m ; 3 個方向各 1 次	1. No parts separated · fracture 2. Frequency Tol. ≤5% 產品無脫落、斷裂; 頻率偏移 ≤5%	PASS
M4	Pull Test 拉力	Holding with individual specification; force applied to axis of terminal .單獨定義產品端子拉力	1. Directive DUT specification 2. Frequency Tol. ≤5% 符合待測物規範; 頻率偏移 ≤5%	PASS
M5	Torque Test 扭力	Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal 單獨定義產品端子之順時針及逆時針扭力	1. Directive DUT specification 2. Frequency Tol. ≤ 5% 符合待測物規範; 頻率偏移 ≤5%	PASS
M6	Dimension 尺寸	Inspection of dimension, color, material, package, surface process. 檢查尺寸, 顏色, 材料, 包裝, 表面處理	Directive DUT specification 符合待測物規範	PASS
E2	Salt Spray 鹽霧	GB / T 2423.17-2008 Temp: 35°C; RH: ≥ 95%; NaCl solution: ≥ 5%; Time: 24H 溫度 35°C ; 濕度 ≥95%; 鹽水濃度 ≥5% ; 測試 24H	1. No Visual Damage 2. Frequency Tol. ≤5% 無明顯外觀不良; 頻率偏移 ≤5%	PASS
E3	Temperature and Humidity Chamber 恒溫恒濕	GB / T 2423.3-2006 Temp: 80°C / 12 H; -40°C / 12H RH: ≥ 90%; Time: 24H 溫度 80°C 測試 12H 轉 -40°C 測試 12H ; 濕度 ≥ 90% ; 時間 24H	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. ≤5% 恢復 2H 后, 無明顯外觀不良; 頻率偏移 ≤5%	PASS
E4	Thermal Shock 冷熱衝擊	GB / T 2423.22 - 2008 - 40°C (30 minutes) to + 80°C (30 minutes) ; Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. ≤5%	PASS

		- 40°C 測試 30 分轉 80°C 測試 30 分為一個週期; 共 24 週期	恢復 2H 后, 無明顯外觀不良; 頻率偏移 ≤ 5%	
E5	Aging test 老化	GB /T 2423.2 - 2008 Temp: 80°C; Time: 24 hours 溫度 80°C, 測試 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
R1	RoHS	With Reference to IEC 62321:2008 with flow chart 參考 IEC 62321 測試流程	Directive RoHS 2011/65/EU 符合 RoHS 2011/65/EU 標準	PASS

4. Antenna - S Parameter Test Data

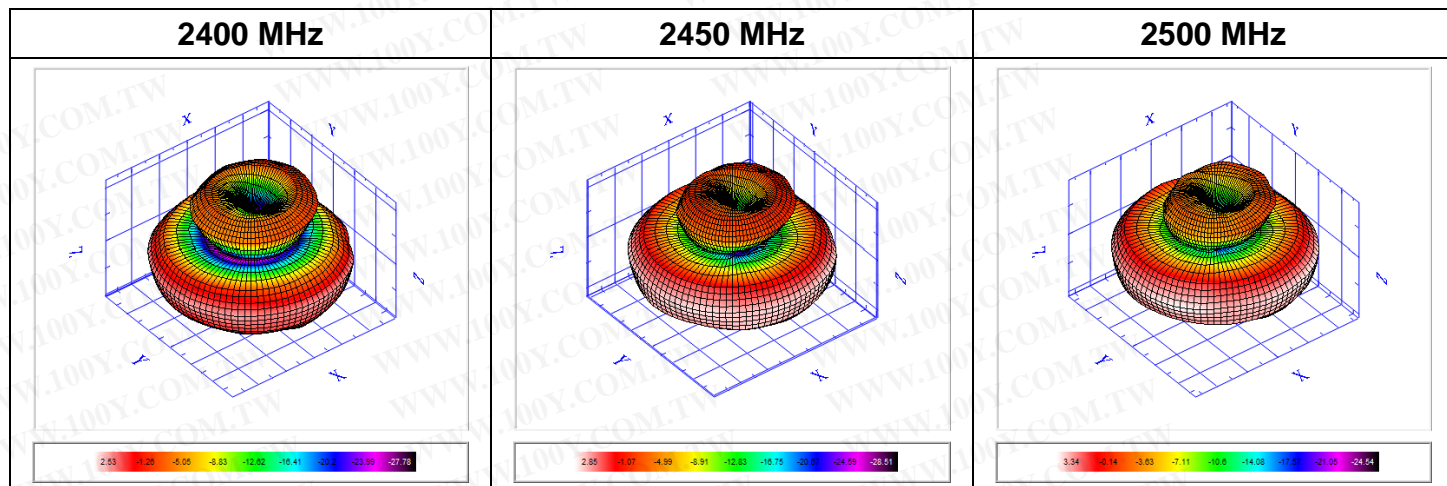


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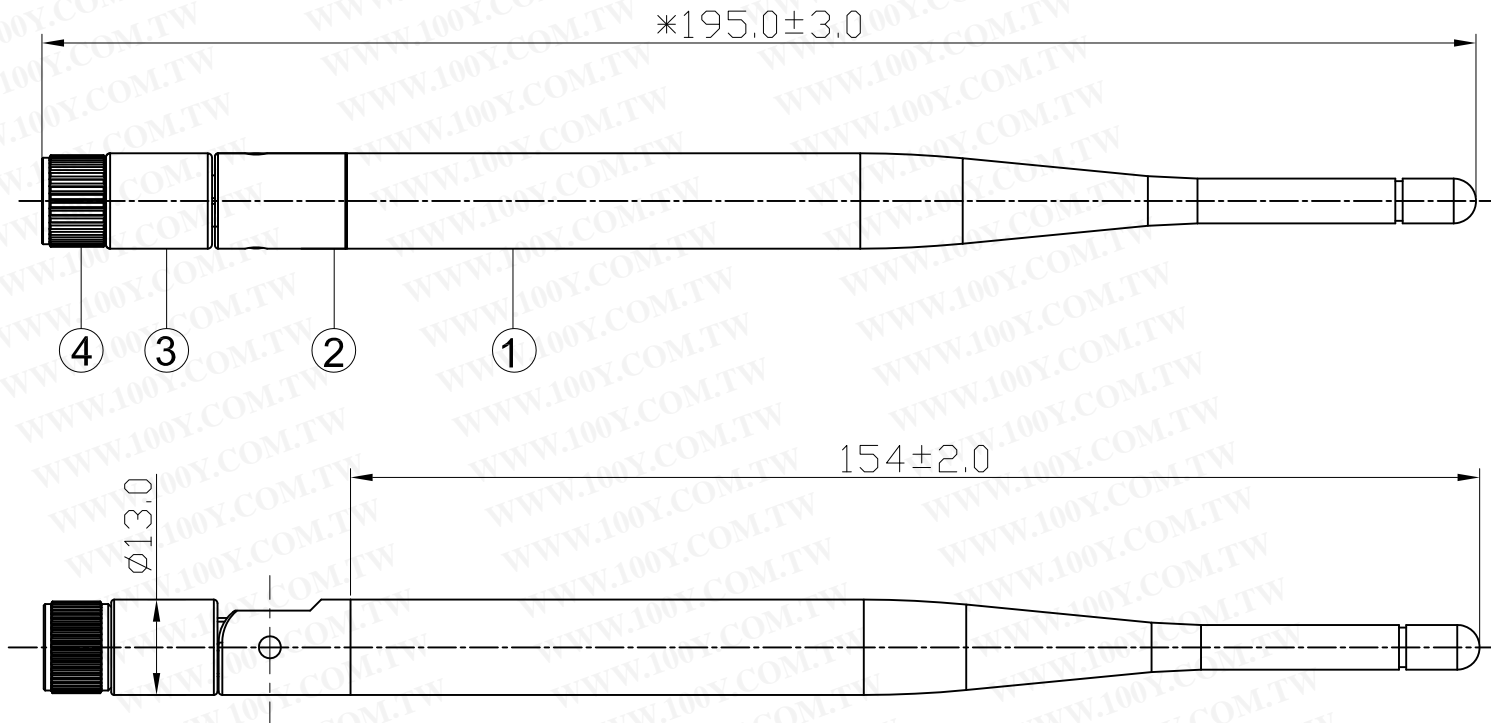
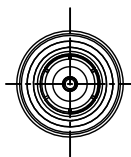
5. Antenna - Radiation Pattern Test Data



Frequency	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
E-Total Peak Gain (dBi)	2.53	2.66	2.96	3.06	2.84	2.85	2.8	3.07	3.27	3.25	3.34
Efficiency (%)	65.16	66.17	69.15	69.58	67.76	67.68	68.22	71.27	76.74	72.5	72.98
Average Gain (dB)	-1.86	-1.79	-1.6	-1.58	-1.69	-1.7	-1.66	-1.47	-1.15	-1.4	-1.37

RoHS

Compatible



SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			

No.	Part Number	Description	Material	Finished	Q'ty
4	SMA194-CCT5AN19-A	SMA Male Reverse	Cu	Eletrodeposition	1
3	AN0304-T07B	Body1	ABS	Black	1
2	AN9201-07B	Body2	ABS	Black	1
1	AN9201-04B	Body	TPEE	Black	1

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Invax System Group.
Cortec

TITLE: 2.4 GHz 5dBi Antenna			
PART NO.: AN2400-9213RS-N		DWG NAME: AN2400-9213RS-N.dwg	
APPROVED BY	CHECKED BY	DESIDNED BY	Tolerance X.X ±0.3 X.XX ±0.1 X° ±2°
			UNITS: mm
			SCALE: 1/1
			REVISION: A