

Product Number: ASC-242510

Product Name: Antenna

1. Specification

Sample Photo



A. Electrical Characteristics

Frequency	2400 ~ 2500 MHz
V.S.W.R.	<= 2.0
Peak Gain	9.67 dBi
Polarization	Linear
Impedance	50 Ohm

B. Material & Mechanical Characteristics

Material of Radiator	CU
Material of Plastic	Plastic + UV
Connector Type	N Female

C. Environmental

Waterproof	IPX6
Operation Temperature	- 40 °C ~ + 75 °C
Storage Temperature	- 40 °C ~ + 80 °C

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2. Characteristics and Reliability Test

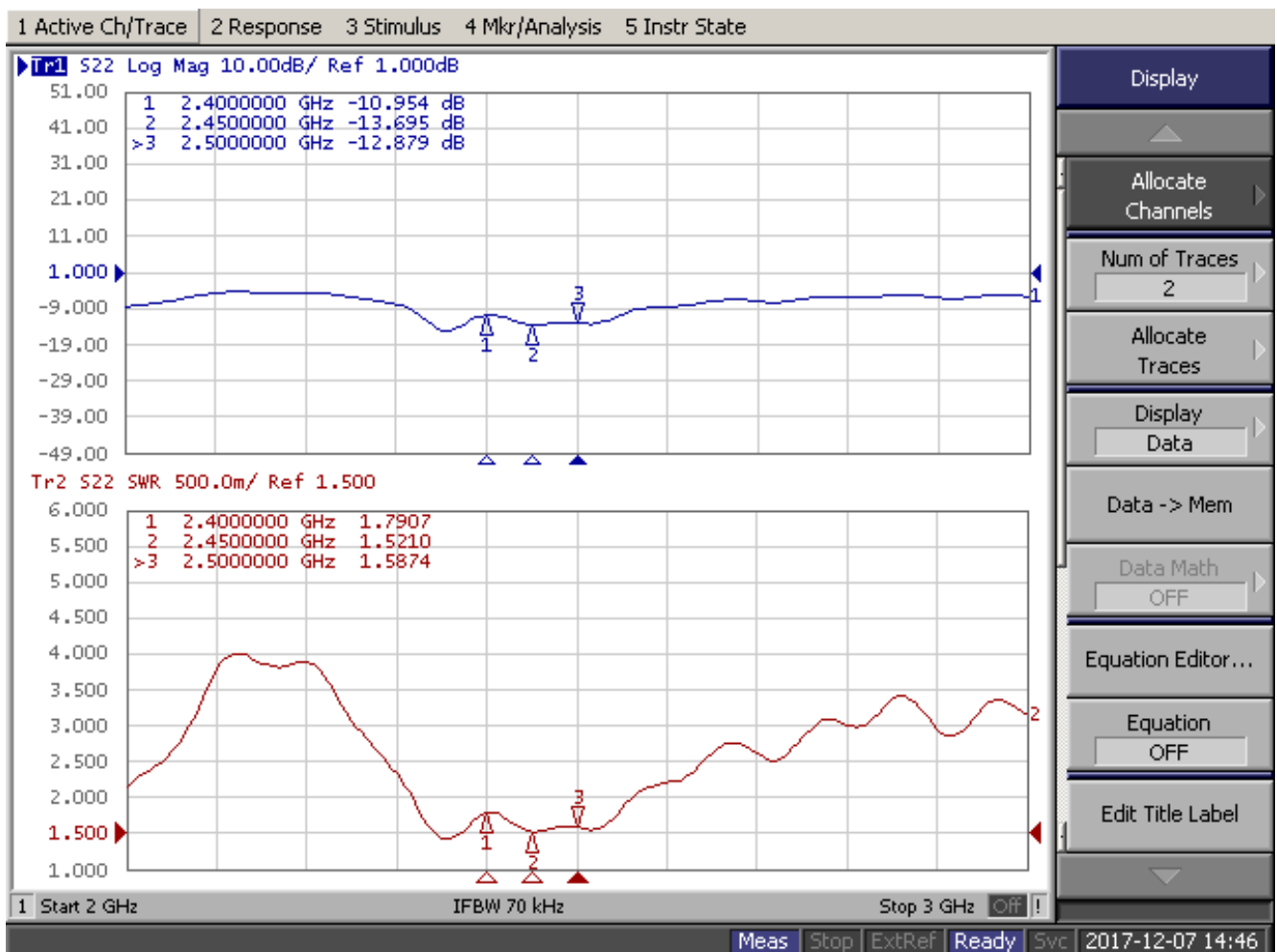
Test Items 測試項目	Test Condition and Procedure 測試方法	Requirements 要求	Result 結果
C1 V.S.W.R. 電壓駐波比	Set DUT on Network Analyzer; make individual calibration to test 設置網路分析儀參數進行測試	Directive DUT specification 符合待測物規範	PASS
C3 Antenna Gain 天線增益	Set DUT on Antenna Chamber; make individual calibration to test 設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. 检查尺寸, 颜色, 材料, 包装, 表面處理	Directive DUT specification 符合待測物規範	PASS
E1 Waterproof 防水	With Reference to IEC 60529 // IP Code Definition 參考 IEC60529 IP 定義	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: 96H 溫度 35°C ; 濕度≥95%;鹽水濃度≥5% ; 測試 96H	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: 96H 溫度 80°C 測試 12H 轉-40°C 測試 12H; 濕度≥ 90% ; 時間 96H	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	GB / T 2423.22 - 2008	After 2 Hours Recovery	PASS

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	Shock 冷熱衝擊	- 40°C (30 minutes) to + 80°C (30 minutes) : Cycles: 96 - 40°C 測試 30 分轉 80°C 測試 30 分為一個週期; 共 96 週期	1. No Visual Damage 2. Frequency Tol. ≤5% 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: 96 hours 溫度 80°C, 測試 96H	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

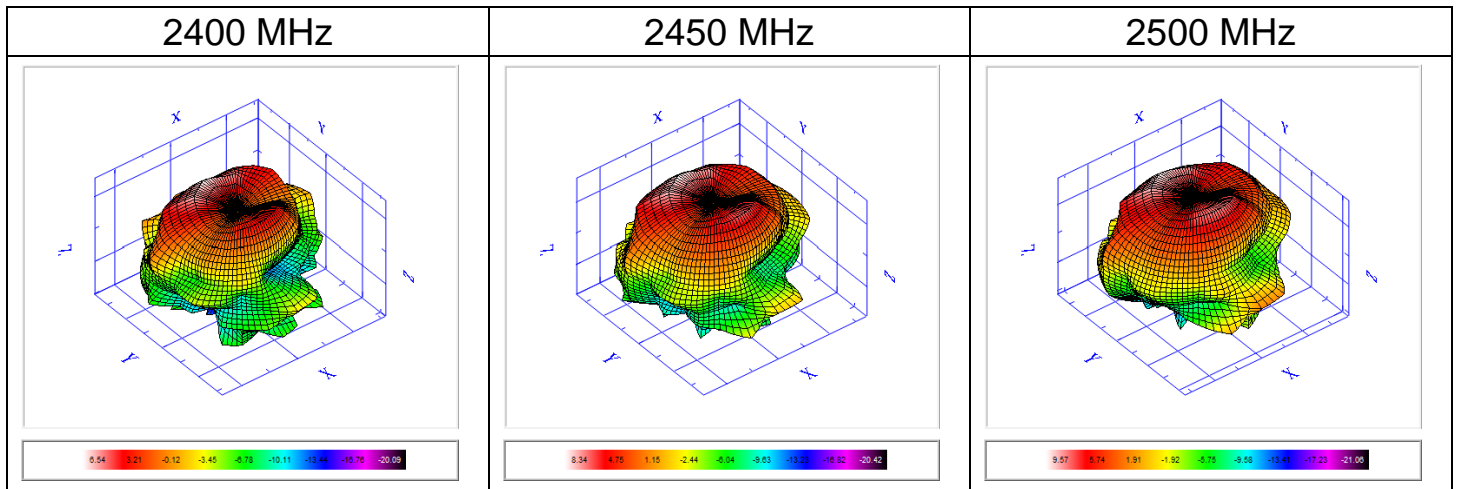
3. Antenna - S Parameter Test Data



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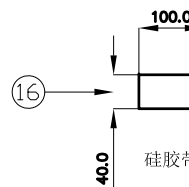
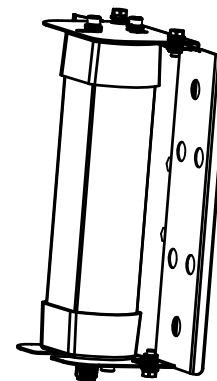
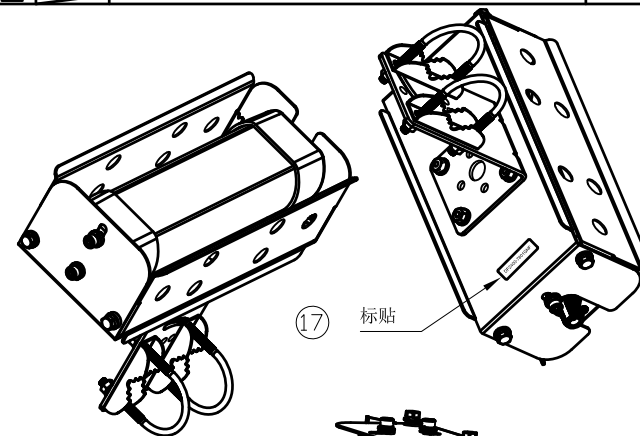
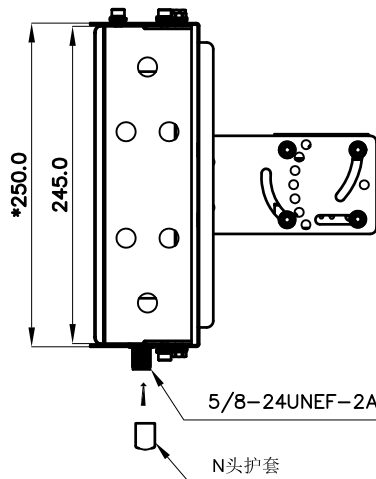
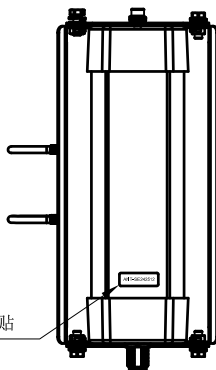
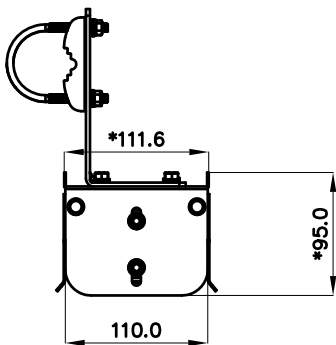
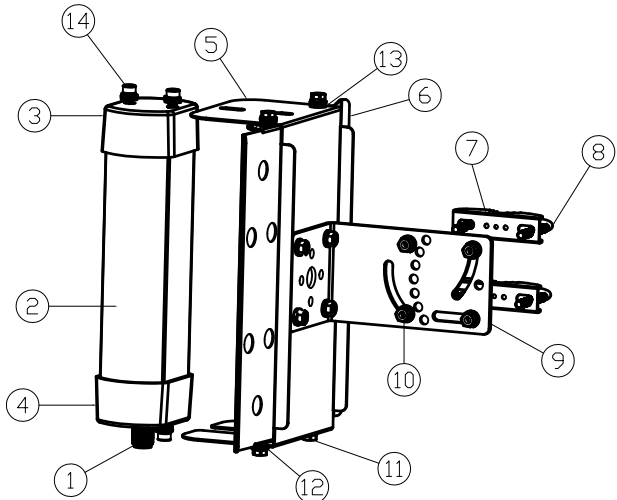
4. Antenna - Radiation Pattern Test Data



Frequency	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
E-Total Peak Gain (dBi)	6.54	7.13	7.79	8.04	8.19	8.34	8.75	9.18	9.67	9.5	9.57

RoHS

Compatible



Note:

1. Mark * is important dimension; "Cpk" Identify for process control ($Cpk \geq 1.33$).
2. Tolerance: Unmarked tolerance refer to the standard tolerance please.

17	LABEL-DF78-2400	LABEL	PET	35*10mm	1
16	TAPE-DF78-01	Silicone tape	Silicone	Black 100*40mm	1
15	LABEL-DF78-SE242512	LABEL	PET	30*10mm	1
14	SCR-DF-M6-01SM	Scerw	Stainless	Natural	3
13	TW-126512-01SM	Gasket	Stainless	Natural	15
12	TW-9356312-01SM	Washer	Stainless	Natural	15
11	SCR-DF-M6-02SM	Scerw	Stainless	Natural M6*1	4
10	NUT-M601-01SM	Nut	Stainless	Natural	12
9	SM-DF78-003AM	L-Bracket	Al	Natural	1
8	SM-DF78-005SM	U-Bracket	Stainless	Natural	2
7	SM-DF78-004SM	Fix Bracket	Stainless	Natural	2
6	SM-DF78-002SP	Bracket-2	SPCC	Paint Gray	2
5	SM-DF78-001SP	Bracket-1	SPCC	Paint Gray	1
4	COV-DF78-01G	Bottom Cover	Plastic+UV	Gray	1
3	COV-DF78-02G	Top Cover	Plastic+UV	Gray	1
2	BODY-DF78-01G	Body	Plastic+UV	Gray	1
1	00N602-CNT5DF78	N Female	Zinc Alloy	Ni Plating	1
No.	Part Number	Name	Material	Finish	Q'ty

TITLE: 2.4GHz Outdoor Antenna						
PART NO.: ASC-242510			CUSTOMER P/N: /			
APP BY	CHK BY	RF BY	DES BY		Tolerance	
Grant	Kenny	SF	HC		UNITS: mm	X.X ±2.0
2018/01/03	2018/01/03	2018/01/03	2018/01/03		SCALE: 1/1	X.XX ±1.0
					REVISION: A	X° ±1