

**Product Number: ASC-515813**

**Product Name: Antenna**

## 1. Specification

### Sample Photo



### A. Electrical Characteristics

<b>Frequency</b>	<b>5150 ~ 5850 MHz</b>
<b>V.S.W.R.</b>	<b>&lt;= 2.5</b>
<b>Peak Gain</b>	<b>13.36 dBi</b>
<b>Polarization</b>	<b>Linear</b>
<b>Impedance</b>	<b>50 Ohm</b>

### B. Material & Mechanical Characteristics

<b>Material of Radiator</b>	<b>CU</b>
<b>Material of Plastic</b>	<b>Plastic + UV</b>
<b>Connector Type</b>	<b>N Female</b>

### C. Environmental

<b>Waterproof</b>	<b>IPX6</b>
<b>Operation Temperature</b>	<b>- 40 °C ~ + 75 °C</b>
<b>Storage Temperature</b>	<b>- 40 °C ~ + 80 °C</b>

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## 2. Characteristics and Reliability Test

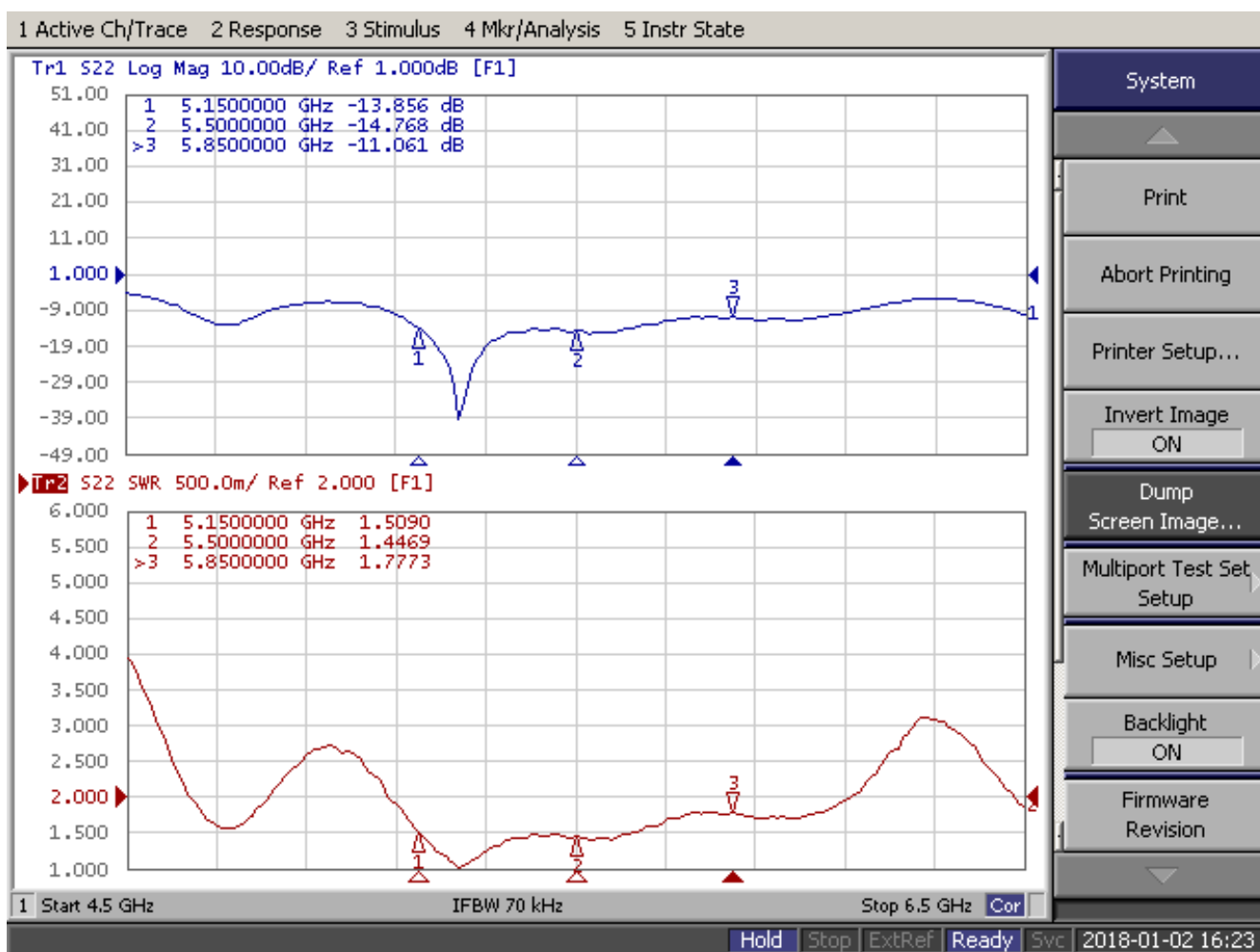
Test Items 測試項目	Test Condition and Procedure 測試方法	Requirements 要求	Result 結果
C1 V.S.W.R. 電壓駐波比	Set DUT on Network Analyzer; make individual calibration to test 設置網路分析儀參數進行測試	Directive DUT specification 符合待測物規範	PASS
C3 Antenna Gain 天線增益	Set DUT on Antenna Chamber; make individual calibration to test 設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

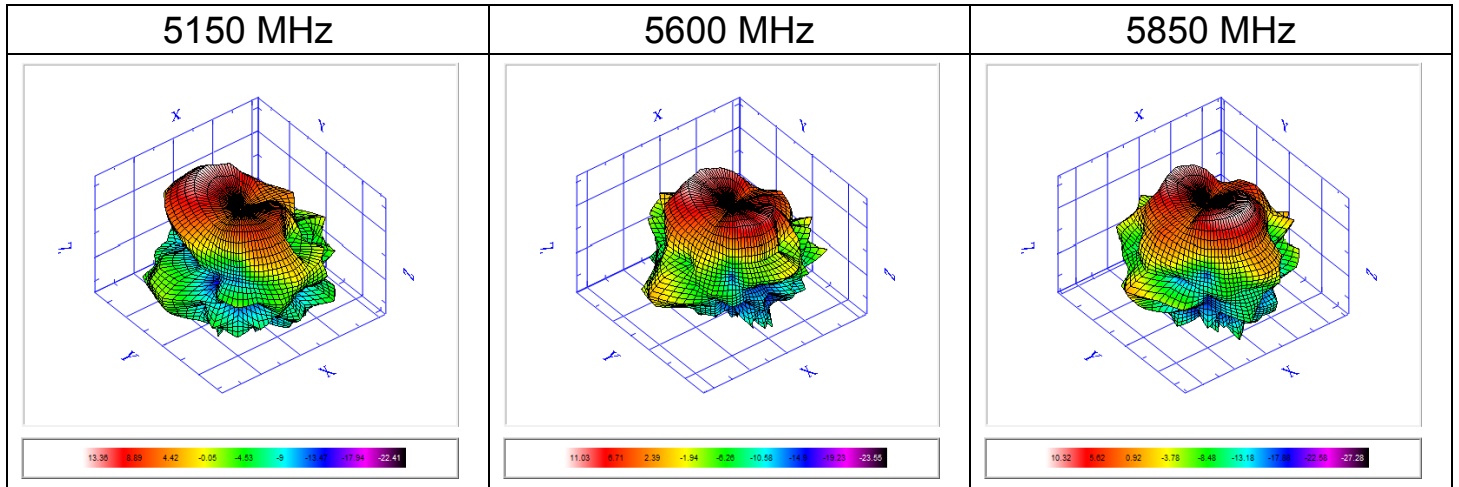
### 3. Antenna - S Parameter Test Data



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**4. Antenna - Radiation Pattern Test Data**



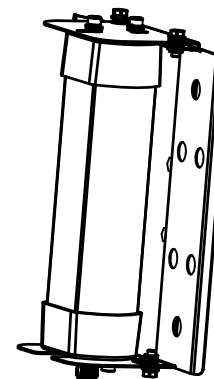
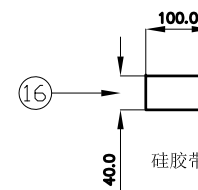
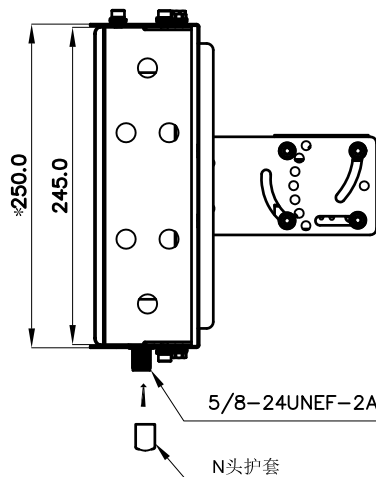
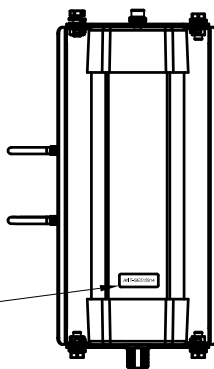
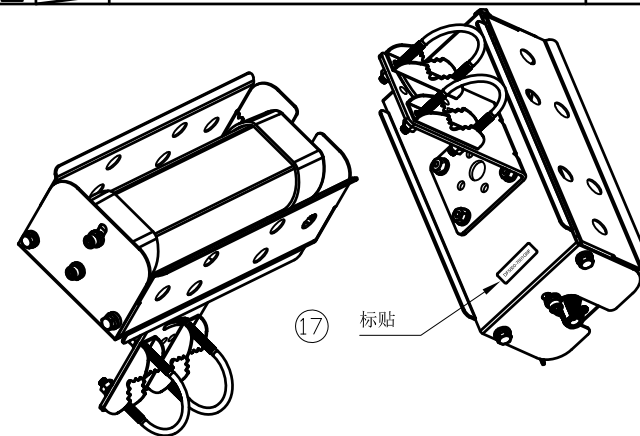
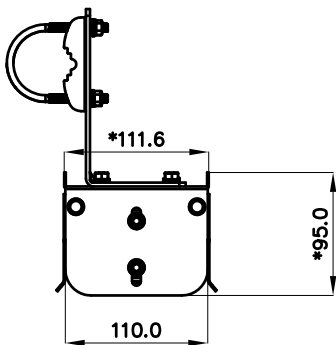
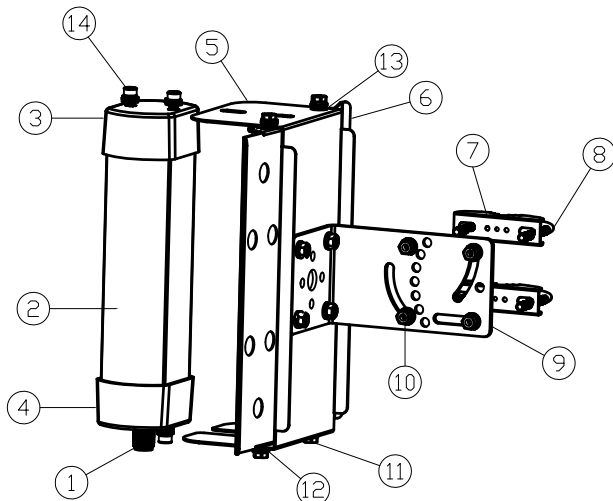
Frequency	5150	5250	5350	5470	5600	5700	5725	5785	5800	5850
E-Total Peak Gain (dBi)	13.36	11.64	12.78	12.65	11.03	10.88	11.55	10.7	10.48	10.32

# RoHS

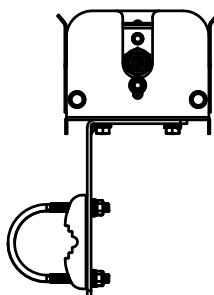
## Compatible



SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			



17	LABEL-DF78-5800	LABEL	PET	35*10mm	1
16	TAPE-DF78-01	Silicone tape	Silicone	Black 100*40mm	1
15	LABEL-DF78-SE515914	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



Note:

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

TITLE: 5GHz Outdoor Antenna					
PART NO.: ASC-515813			CUSTOMER P/N: /		
APP BY	CHK BY	RF BY	DES BY		Tolerance
Grant 2018/01/03	Kenny 2018/01/03	SF 2018/01/03	HC 2018/01/03		UNITS: mm SCALE: 1/1 REVISION: A