


Product Number: AGP-I868025SM-N

Product Name: Antenna



2. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	868 MHz
S.W.R.	≤ 2.0
Antenna Gain	$2.0 \pm 0.7\text{dBi}$
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Material of Plastic	TPE / ABS
Cable Type	RG-178-03
Connector Type	SMA Male
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C
Antenna Color Storage life	< 2 year

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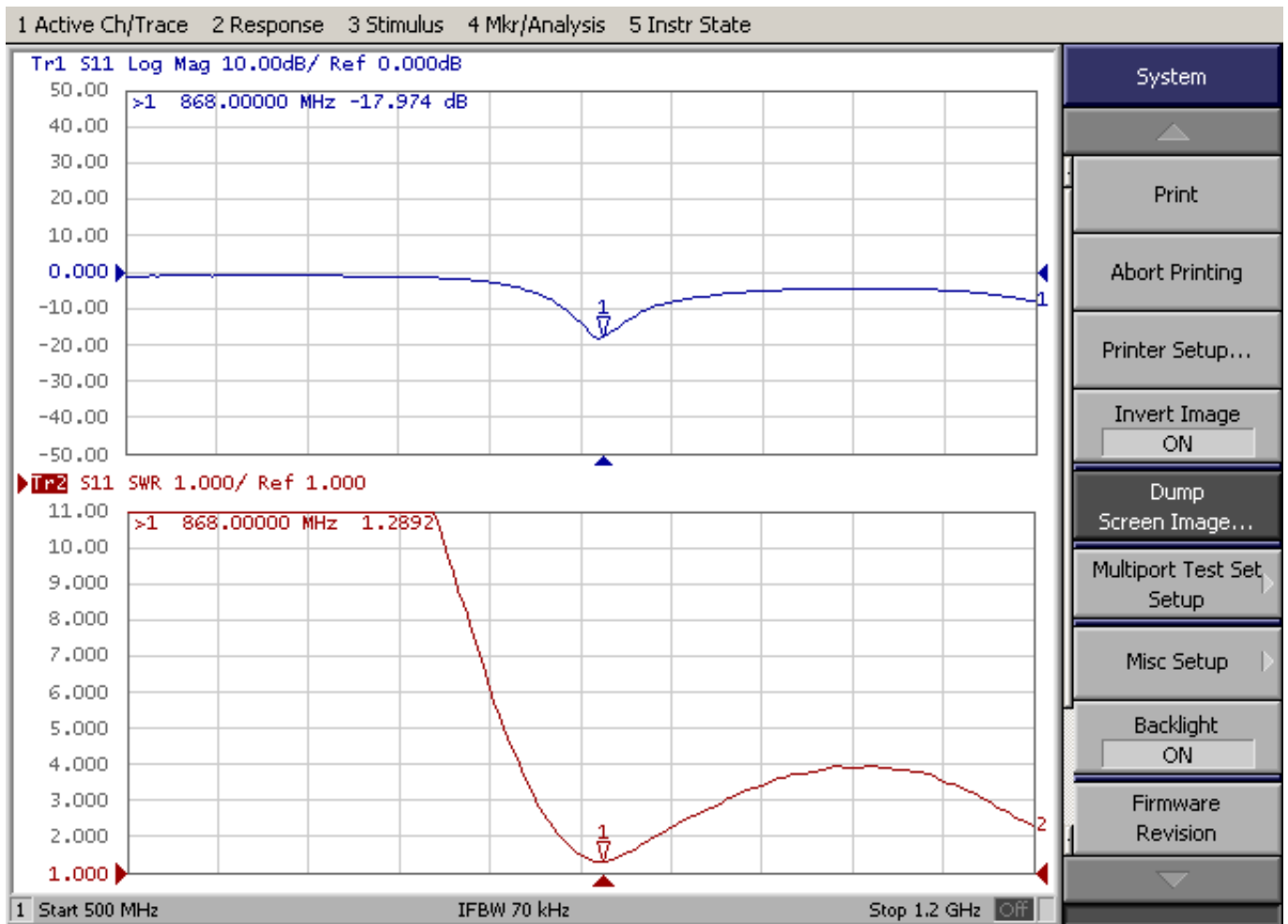
3. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	GB / T2423 . 48-1997 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80 to 20 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	GB / T2423.8-1995 Height: 1.0 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	GB 2423 . 28- 82 Solder iron: 260±5°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	GB / T 2423 . 17- 93 Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	GB / T 2423 . 4 - 93 Temp: 80°C / 12 H; -40°C / 12H RH: >= 90%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	GB / T 2423 . 22 - 87 1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	GB /T 2423 . 2 - 89 Temp: 80°C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2011/65/EU
R2	PFOS	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
R3	PFOA	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

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4. Antenna - S Parameter Test Data



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5. Antenna - Radiation Pattern Test Data

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

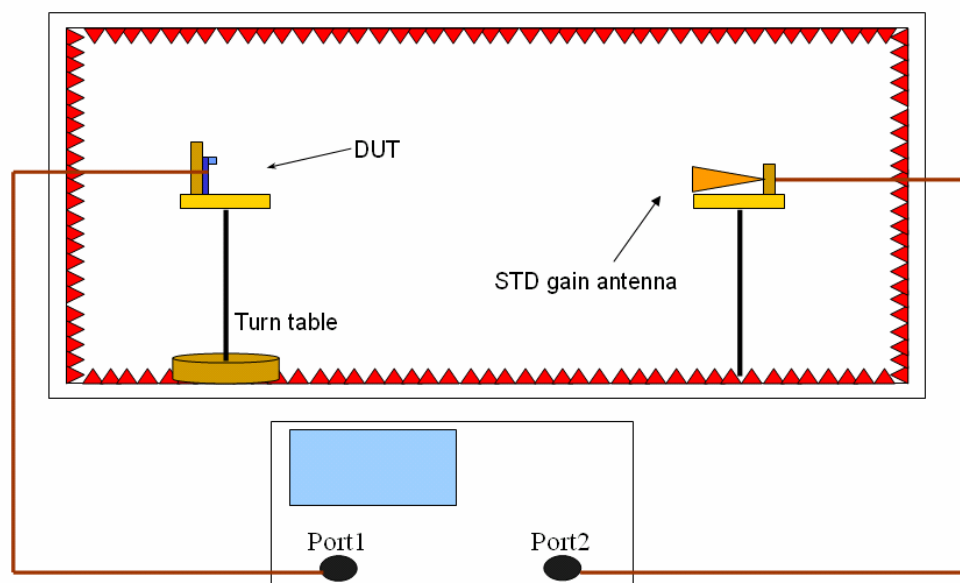
Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent 5071B

Received Antenna: 0.7 ~ 6.0 GHz for Gain Calibration

Double Ridged Horn Antenna



6. Mechanical Drawing

See attached files

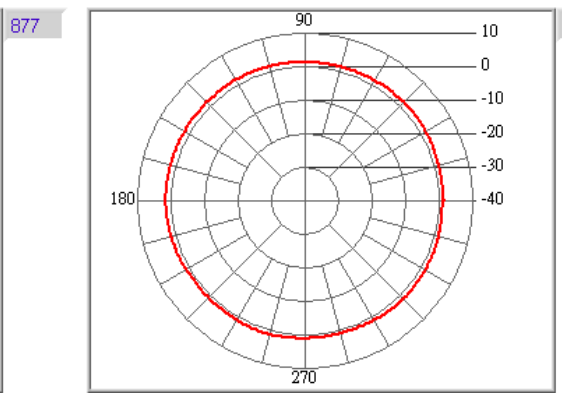
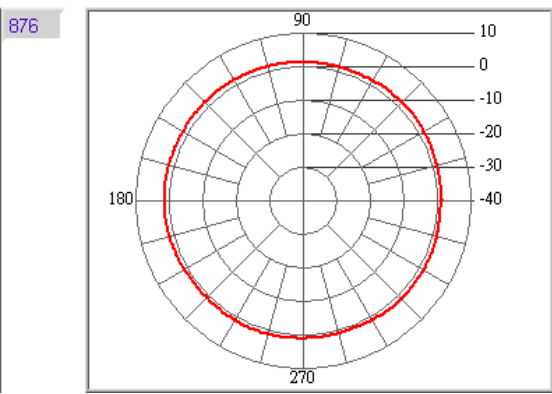
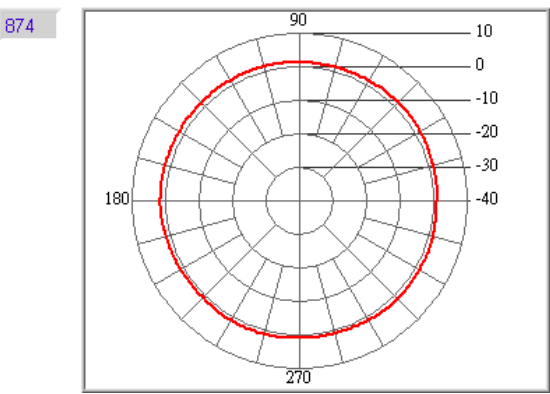
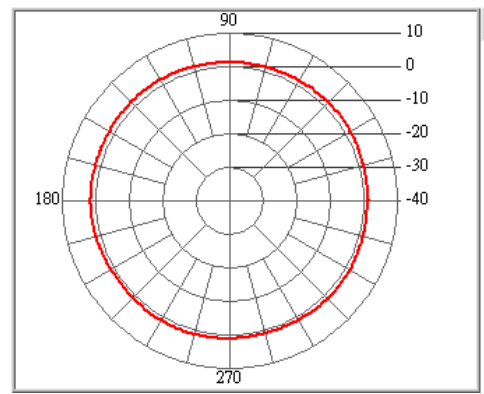
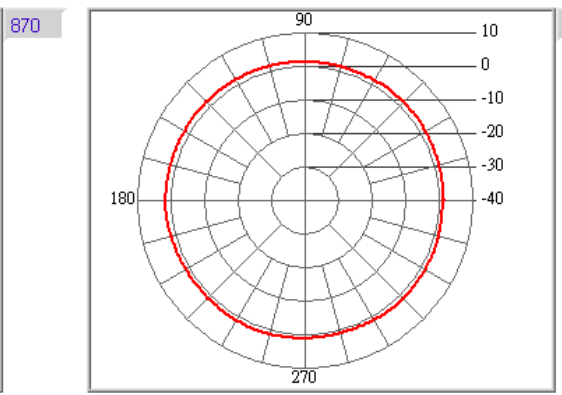
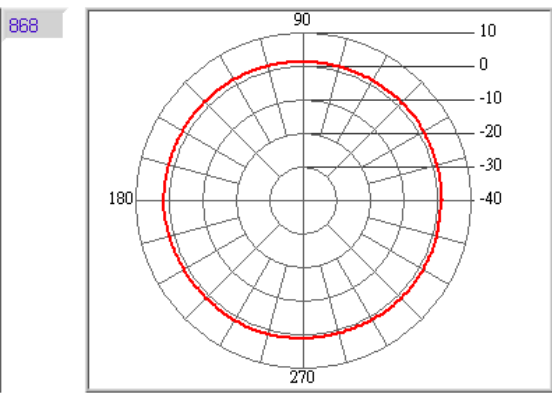
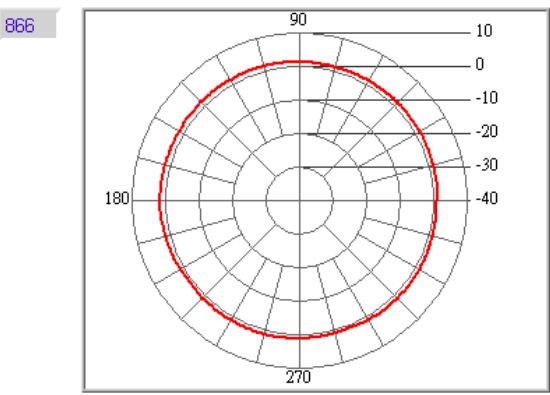
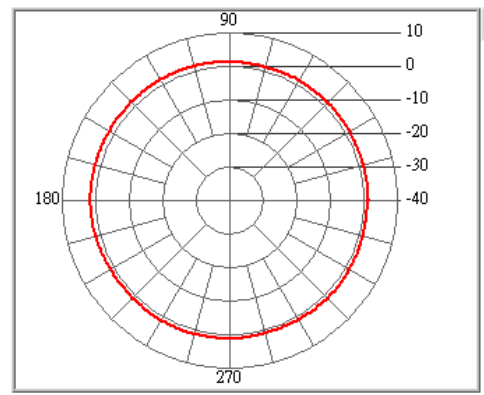
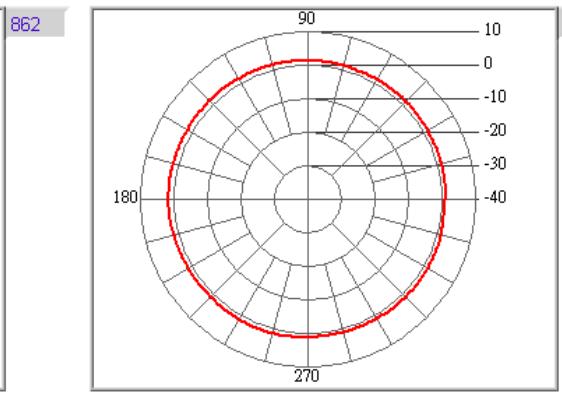
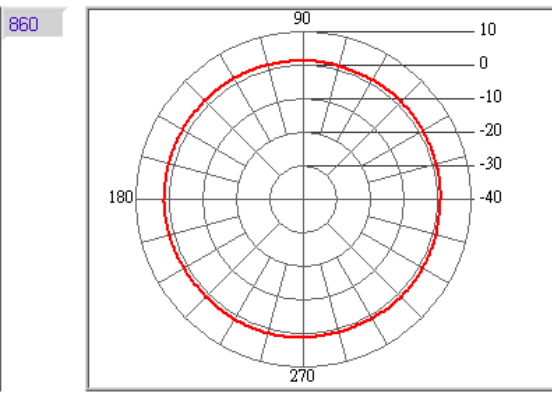
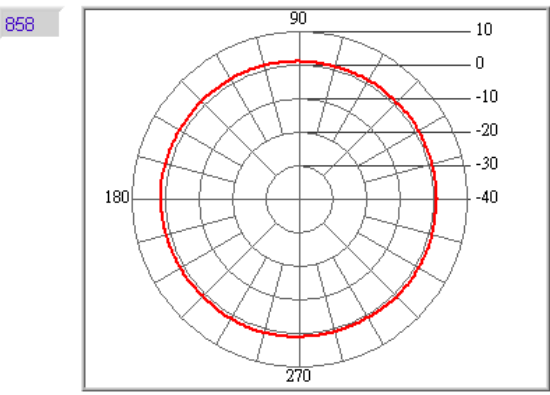
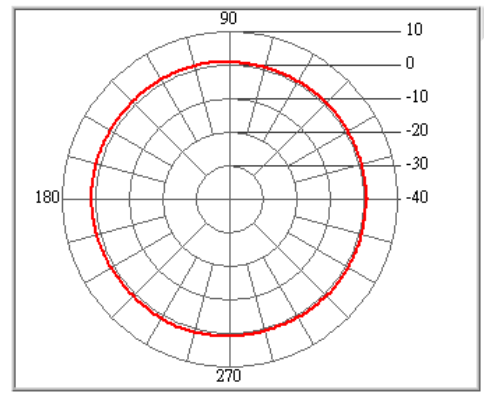
7. Material Description and RoHS Test Report

See attached files

Antenna 858-878MHz Antenna
 Remark H-Plane/V-Pol
 Tested by : Antenna 3D Lab

Freq. (MHz)	858	860	862	864	866	868	870	872	874	876	877	878
Peak Gain (dBi)	1.28	1.48	1.62	1.67	1.66	1.62	1.68	1.65	1.77	1.62	1.66	1.68
Peak Degree	120	173	121	131	120	120	120	131	131	36	36	120
AV Gain (dBi)	0.9	1.09	1.23	1.31	1.28	1.27	1.32	1.33	1.3	1.28	1.29	1.31

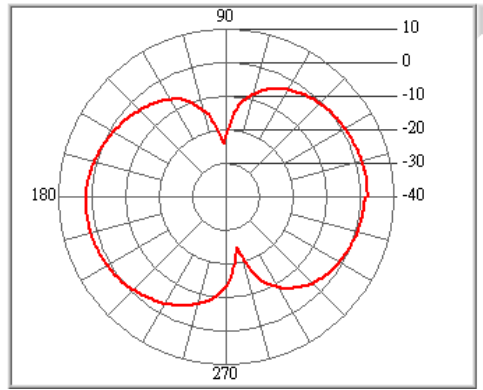
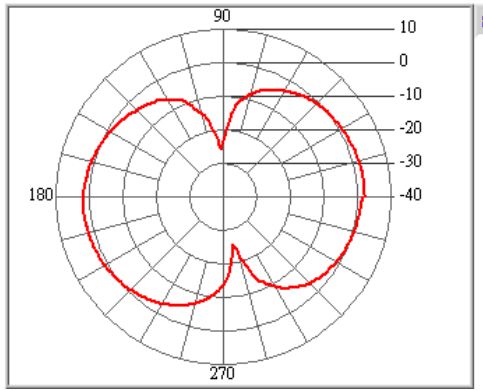
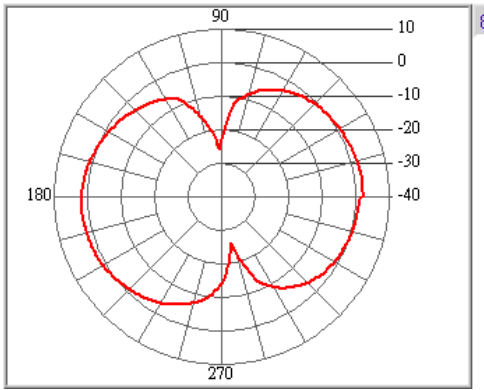
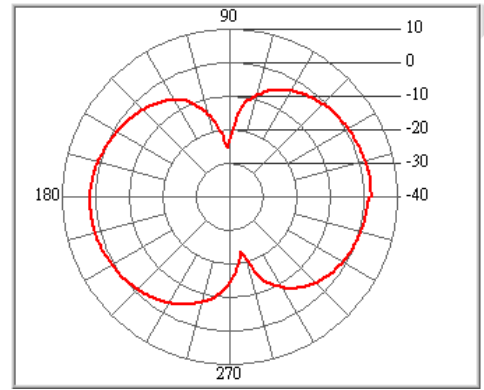
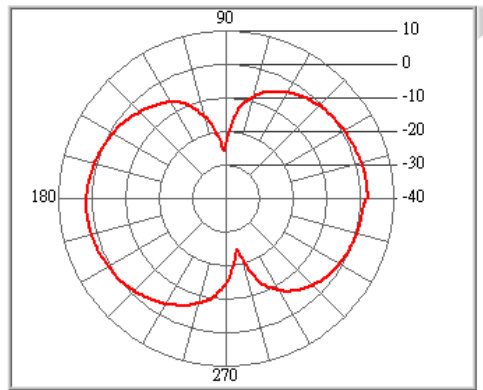
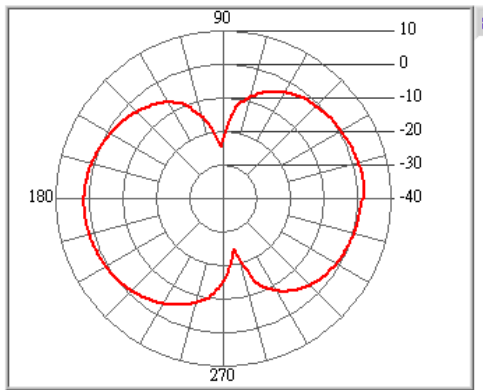
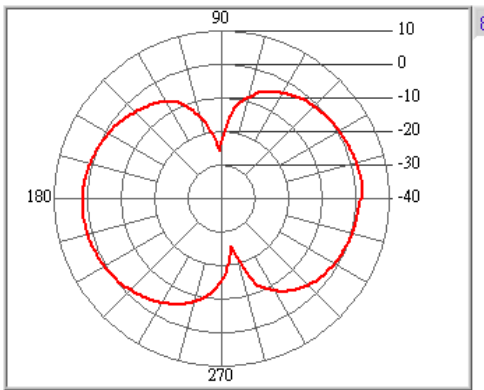
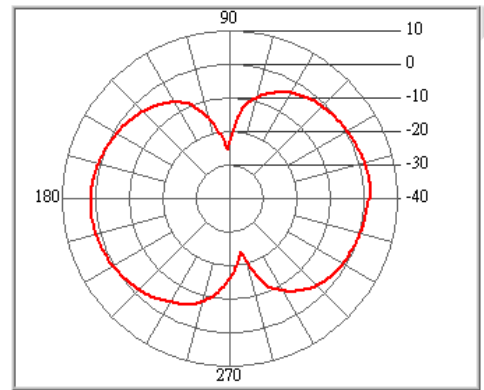
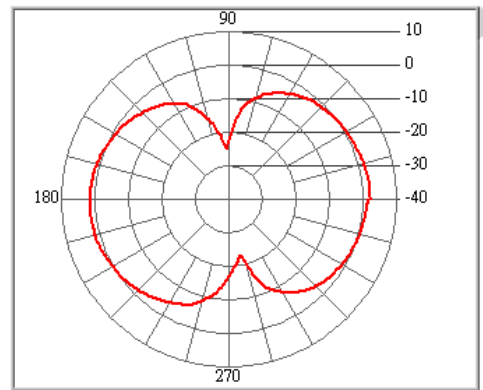
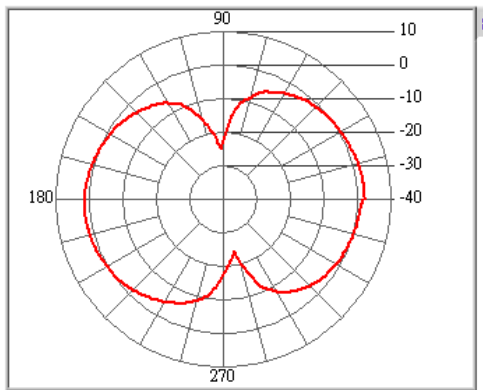
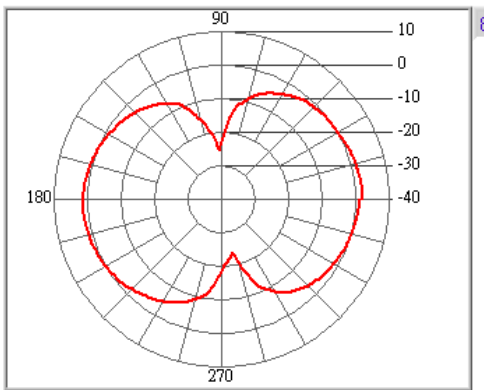
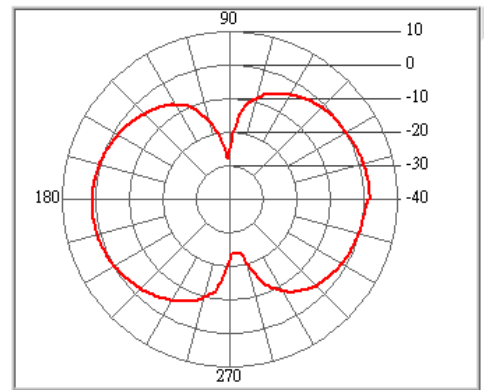
Location: **Chamber** Date: **2012/7/5** Time: **上午 11:04:28**
 Temperatur (°C): **25.00** Humidity (%): **65.00** Approved by:



Antenna 858-878MHz Antenna
 Remark E-Plane/H-Pol
 Tested by : Antenna 3D Lab

Freq. (MHz)	858	860	862	864	866	868	870	872	874	876	877	878
Peak Gain (dBi)	1.9	2.07	2.3	2.31	2.25	2.25	2.25	2.38	2.3	2.31	2.3	2.34
Peak Degree	0	0	0	0	0	7	7	0	7	7	0	7
AV Gain (dBi)	-2.28	-2.07	-1.92	-1.86	-1.87	-1.84	-1.77	-1.68	-1.67	-1.65	-1.61	-1.53

Location: **Chamber** Date: **2012/7/5** Time: **上午 11:07:53**
 Temperatur (°C): **25.00** Humidity (%): **65.00** Approved by:

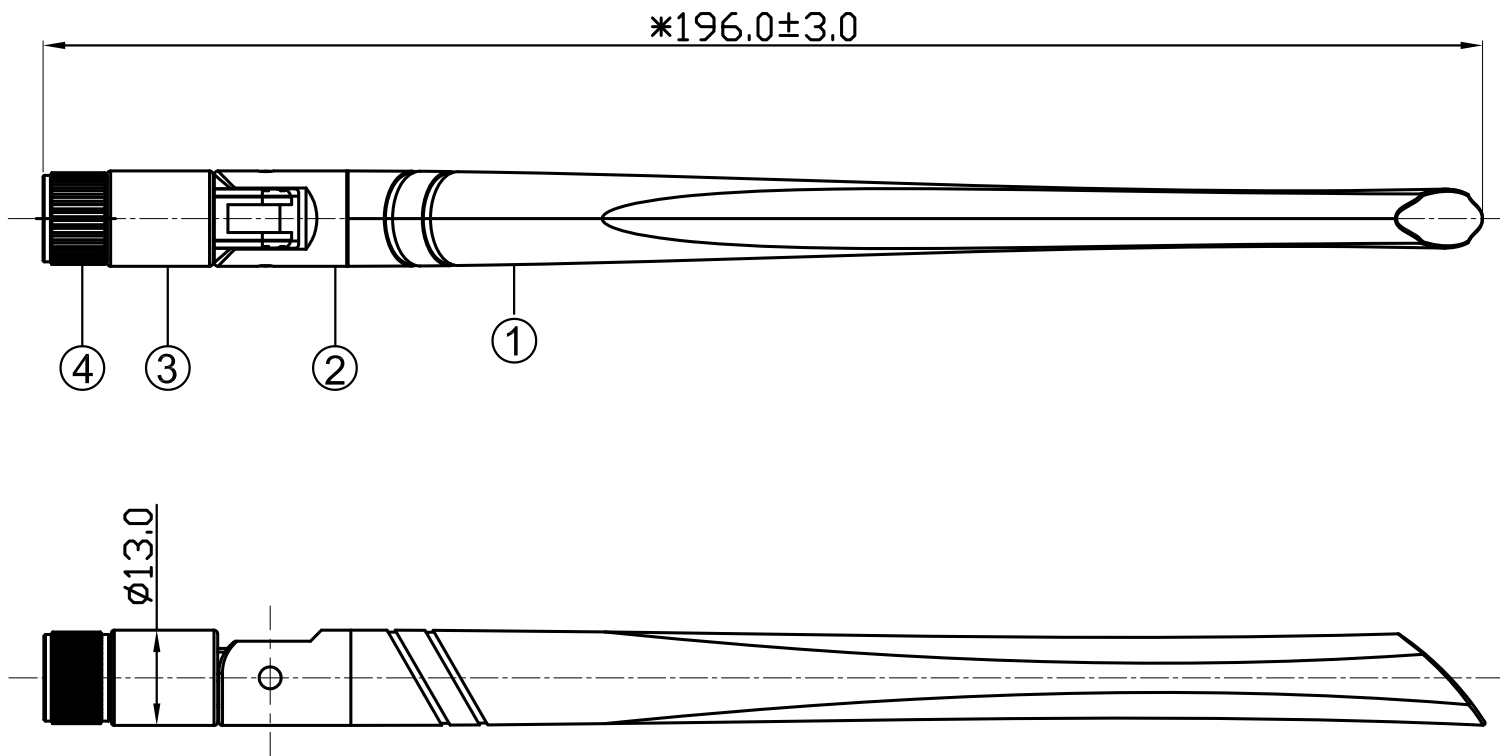
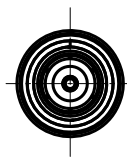


RoHS

Compatible



SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			



4	SMA207-CCT5AN19-A	SMA公頭公針	銅	電著	1
3	AN0304-T07B	連接頭	ABS	黑色	1
2	AN9201-06B	連接筒	ABS	黑色	1
1	BODY-AN50-01B	天線塑膠外套	TPE	黑色	1
No.	Part Number	Description	Material	Finished	Q'ty

TITLE: 868MHz Antenna					
PART NO.: AGP-I868025SM-N			CUSTOMER P/N: /		
APP BY	CHK BY	RF BY	DES BY		Tolerance
Grant	Jack		ZGR		X.X ±0.3
2016.05.20	2016.05.20		2016.05.20	UNITS: mm	X.XX ±0.2
				SCALE: 1/1	X° ±1
				REVISION: A	