

Product Number: F04-S
Product Name: 2.4 / 5 GHz External Antenna

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1. Reliability Testing

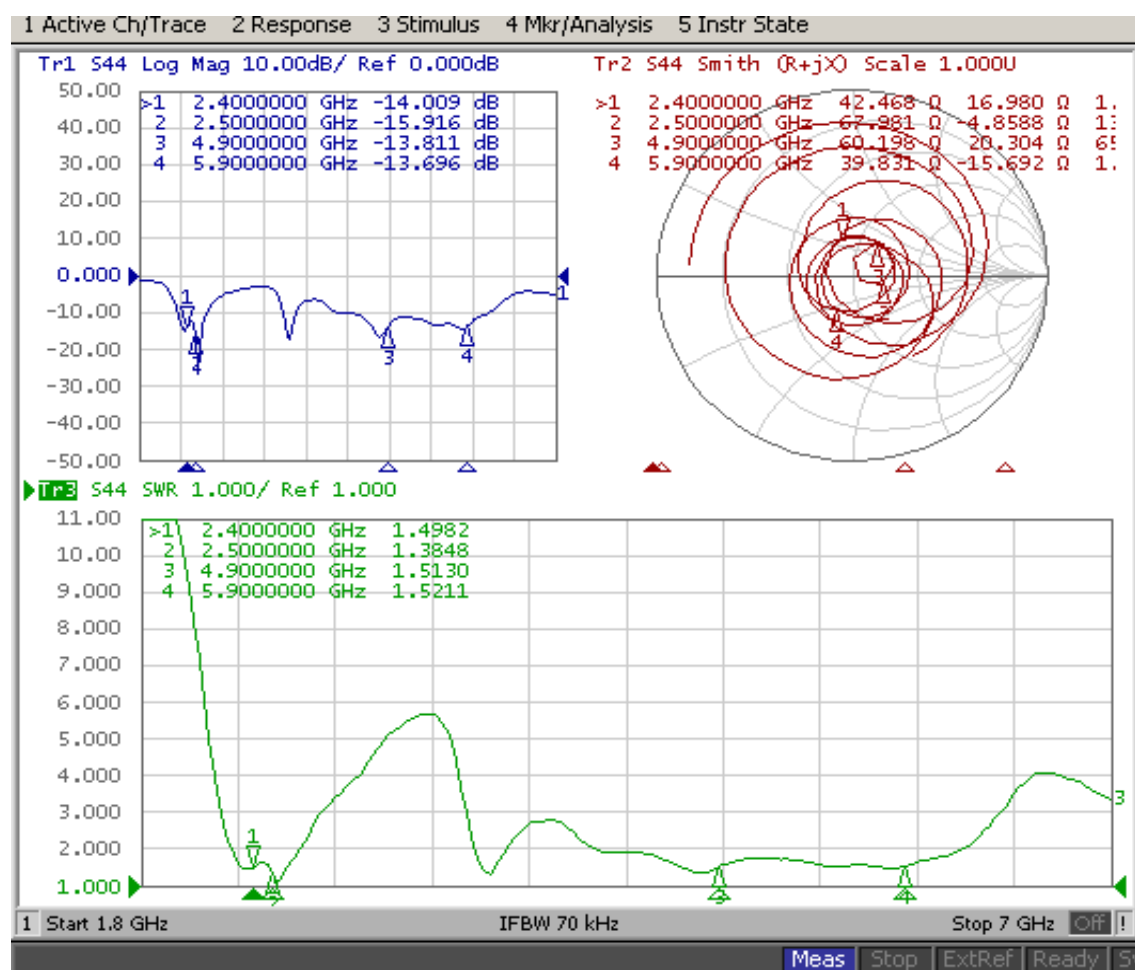
Test Item	Procedure	Requirement
1. Visual inspection and Dimension Check	Applicable methods using x5 magnification	follow specification
2. Rapid Changing of Temperature	-40°C (30minutes) to 90°C (30minutes); 24 cycles	After 2 hours recovery: 1. no visible damage 2. Freq. Tol.: < ±5%
3. Damp Heat	24 hours at 60°C; 90 ~ 95% RH	After 2 hours recovery: 1. no visible damage 2. Freq. Tol. : < ±5%
4. Endurance	24 hours at 90°C	After 2 hours recovery: 1. no visible damage 2. Freq Tol.: < ±5%

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2. Specification

A. Electrical Characteristics	
S.W.R.	≤ 2.0 @ 2400~2500 MHz ≤ 2.5 @ 4900~5900 MHz
Antenna Gain	$+2.0 \pm 0.7$ dBi @ 2450 MHz $+1.0 \pm 0.7$ dBi @ 5500 MHz
Impedance	50 Ohm
B. Material	
Material of Radiator	PCB
Connector Type	SMA Male
C. Environmental	
Operation Temperature	- 30 °C ~ + 85 °C
Storage Temperature	- 30 °C ~ + 85 °C

3. S Parameter Test Data



Product Number: F04-S

Product Name: 2.4 / 5 GHz External Antenna

4. Antenna Radiation Pattern

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

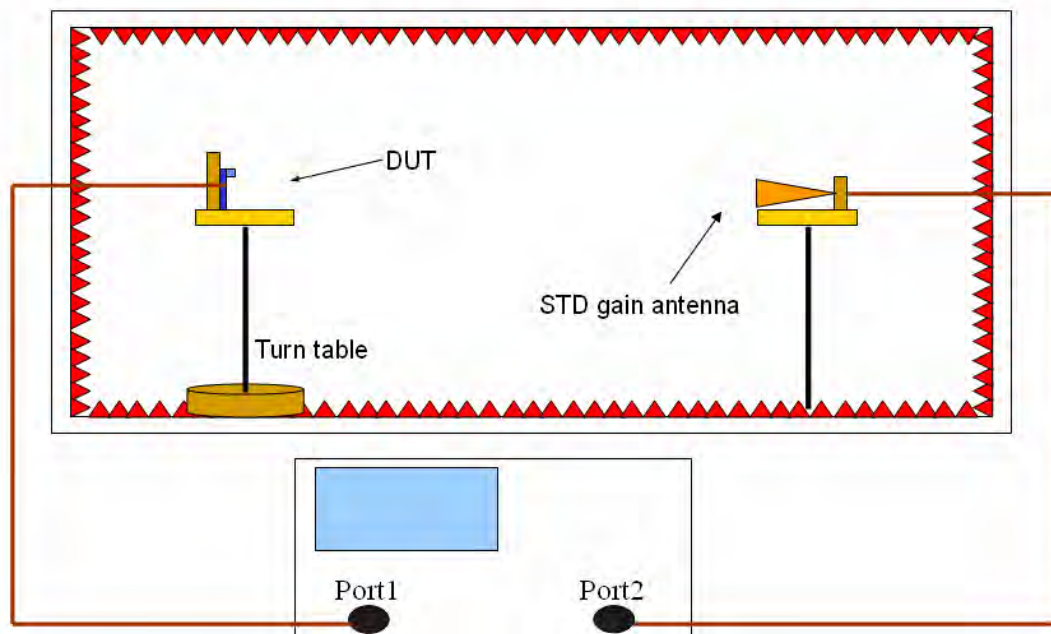
Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent 5071B

Received Antenna: 0.7 ~ 6.0 GHz for Gain Calibration

Double Ridged Horn Antenna



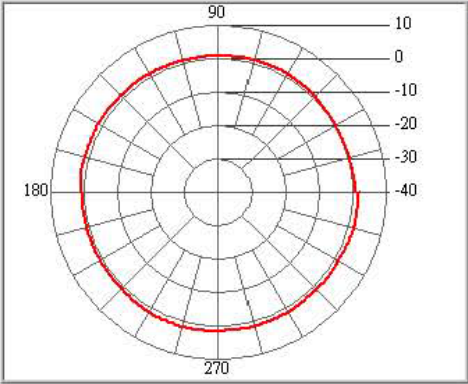
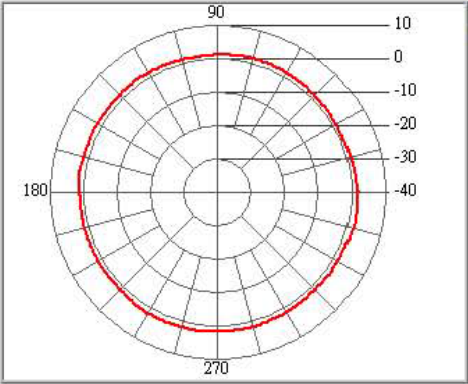
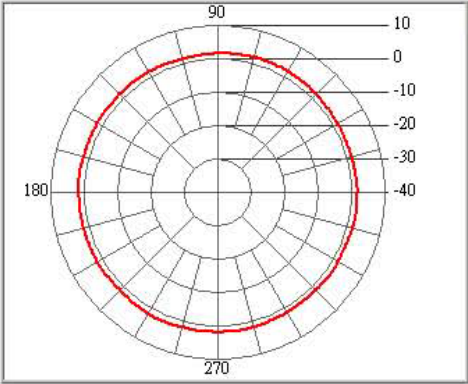
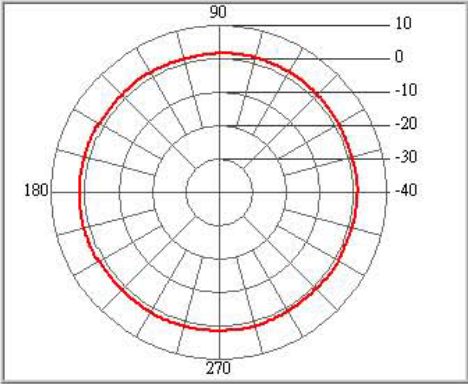
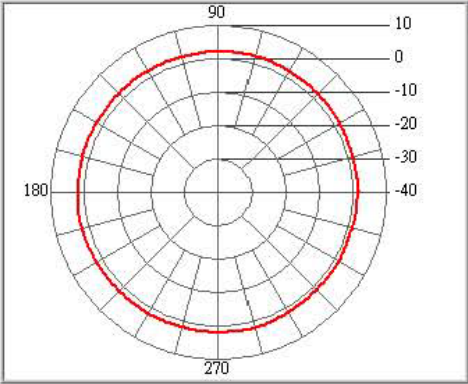
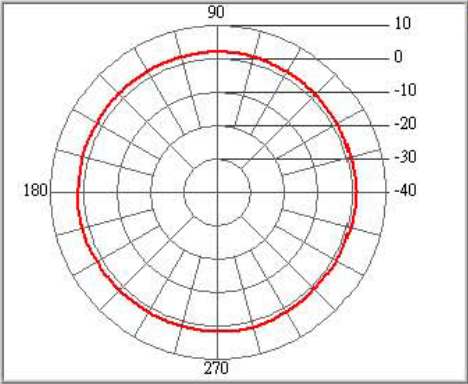
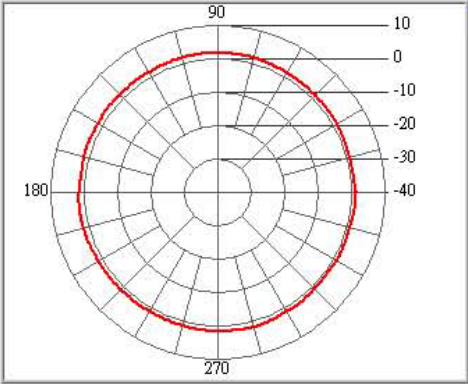
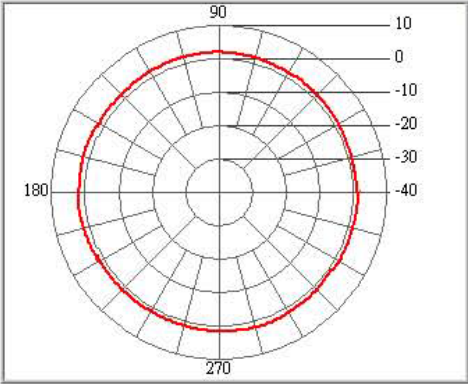
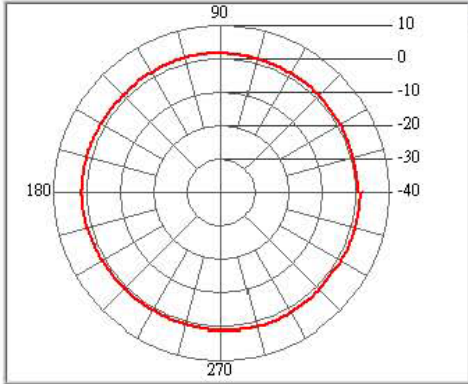
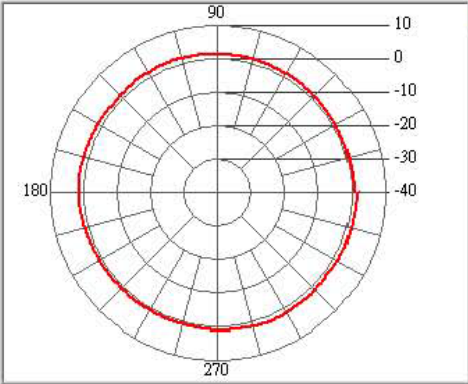
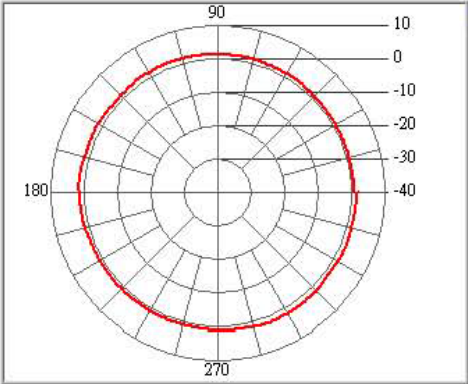
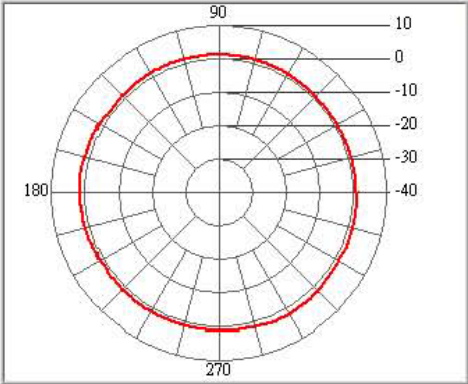
5. Mechanical Drawing

6. MSDS & SGS Report

Model: AP Antenna
Remark : H-Plane // Vertical Polarization

Location: **Chamber** Date: **2008/1/7** Time: **下午 03:00:40**
Temperatuer (°C): **22.00** Humidity (%): **55.00** Approved by:

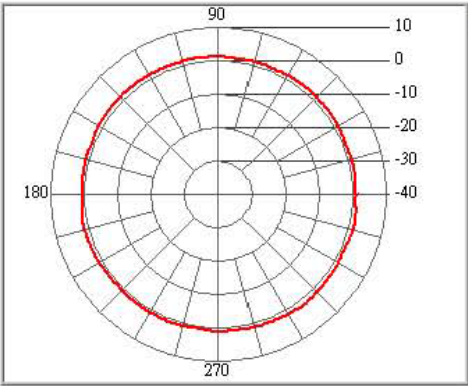
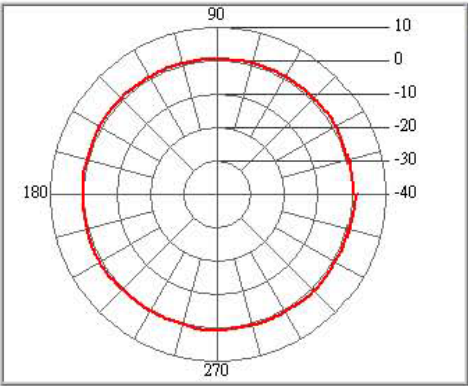
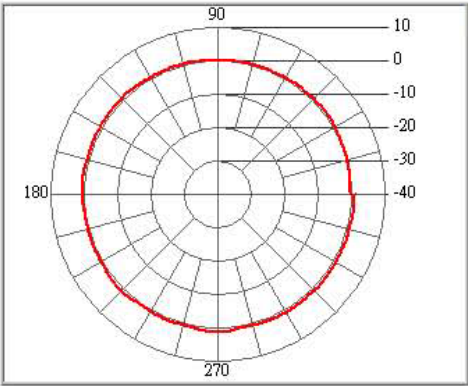
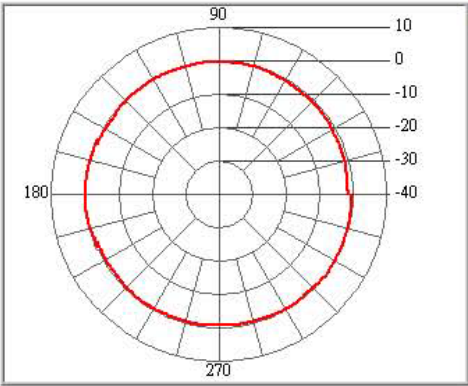
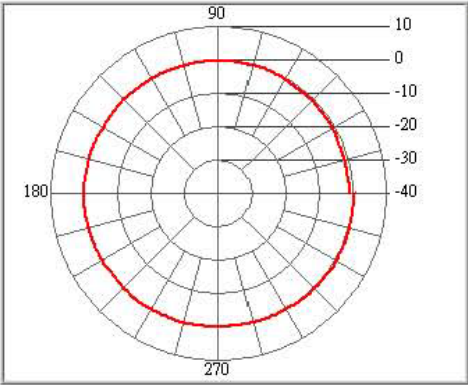
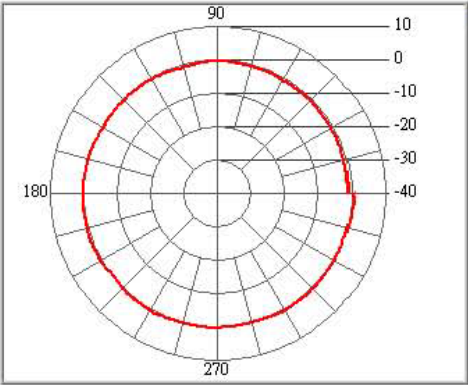
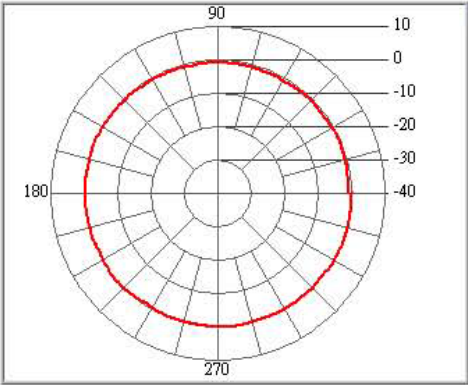
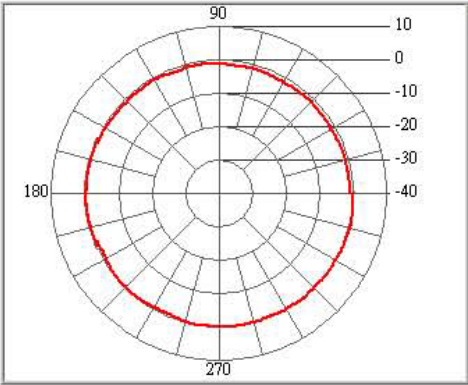
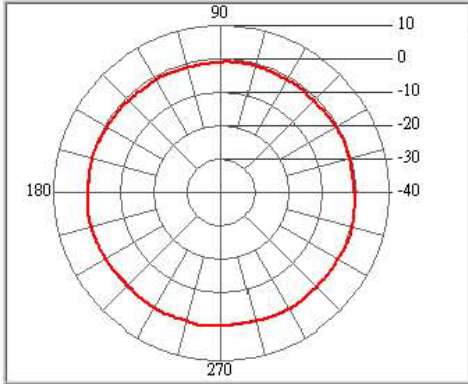
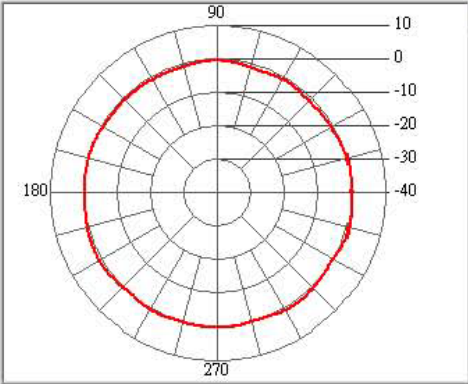
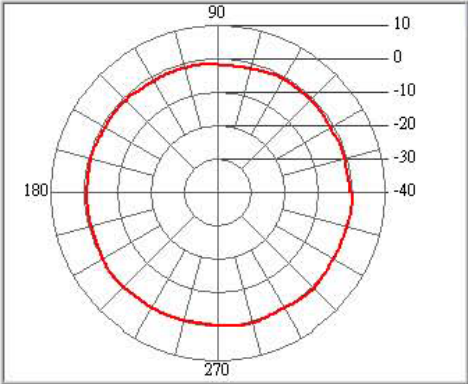
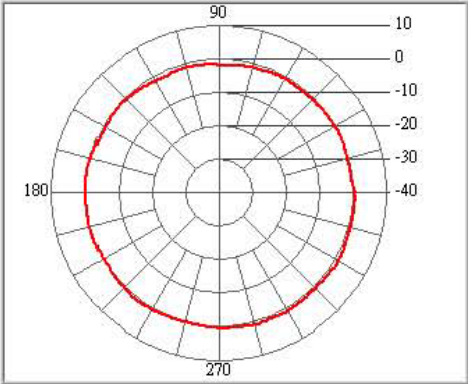
Freq. (MHz)	2390	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain (dBi)	1.88	1.81	1.65	1.74	1.99	1.81	2.01	2.26	1.78	1.95	1.98	1.78
Peak Degree	293	293	108	108	108	95	95	77	77	244	349	348
AV Gain (dBi)	1.17	1.18	1.12	1.2	1.46	1.34	1.55	1.77	1.37	1.63	1.38	1.04



Model: AP Antenna
Remark : H-Plane // Vertical Polarization

Location: **Chamber** Date: **2008/1/7** Time: **下午 03:06:44**
Temperatuer (°C): **22.00** Humidity (%): **55.00** Approved by:

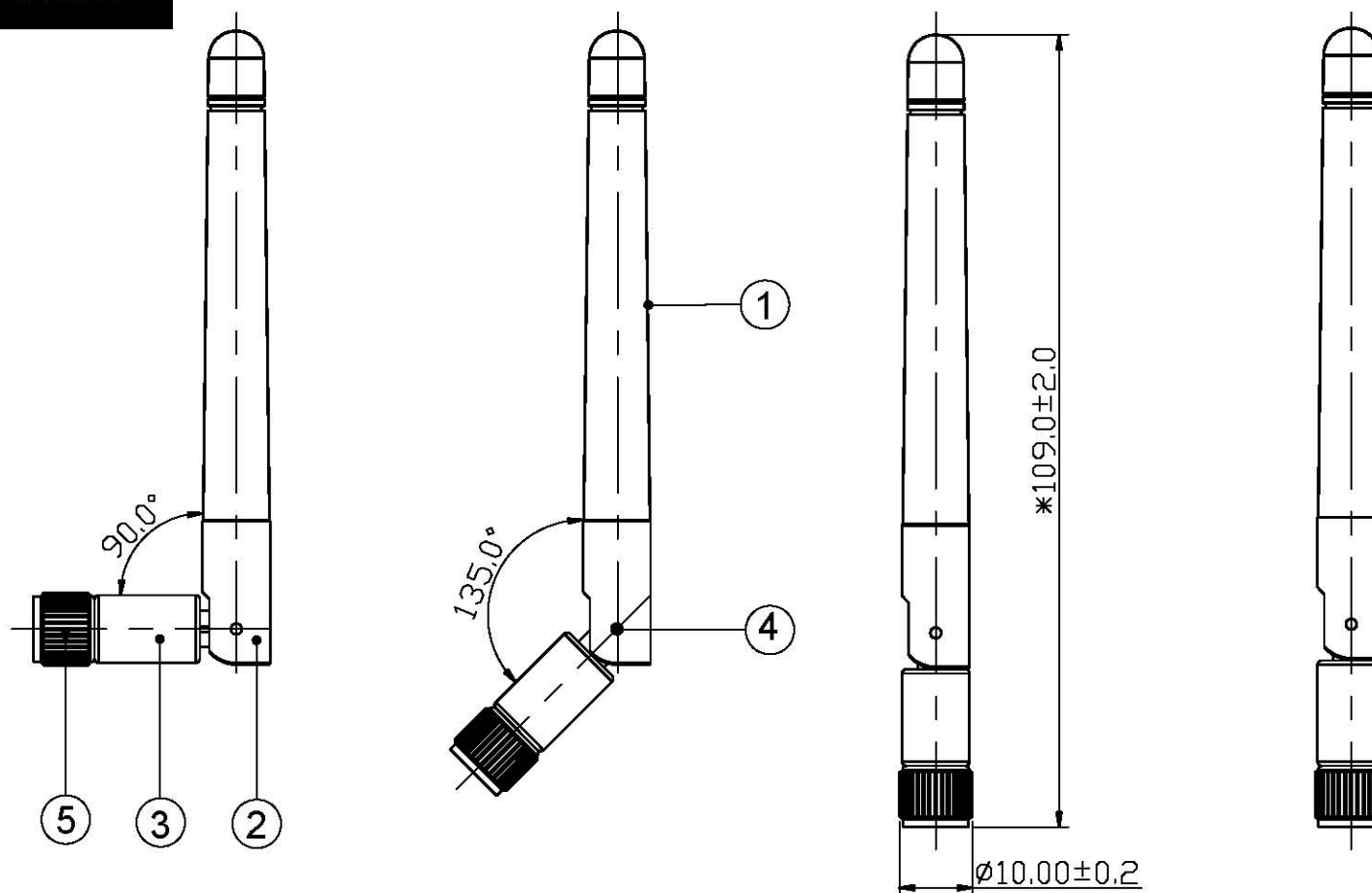
Freq. (MHz)	4900	5000	5100	5200	5300	5400	5500	5550	5600	5700	5800	5900
Peak Gain (dBi)	1.15	0.58	0.92	0.58	0.48	0.26	0.85	0.57	-0.04	1.37	1.2	1.63
Peak Degree	329	316	341	341	347	341	357	329	323	268	360	347
AV Gain (dBi)	-0.12	-0.53	-0.12	-0.4	-0.6	-0.34	-0.13	-0.17	-0.54	0.54	0.58	1.07



RoHS

Compatible

SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			



Note:
1.Dimension: Take * is the important dimension
2.Tolerance: Unmarked tolerance refer to the standard tolerance please.

5	SMA402-ZC8MNANT	SMA Male	Zn Alloy	Eleetrodeposition	1
4	R-AN01-1213Z	Pin	Cu	Black Zn Plated	2
3	R-AN57-01	Body-3	PA+ABS	Black	1
2	R-AN57-02	Body-2	PA+ABS	Black	1
1	R-AN57-03	Body-1	TPE	Black	1
NO.	Part Number	Description	Material	Finish	Q'ty

 **Tekfun Co., Ltd.**

TITLE: AP Antenna for 2.4 + 5GHz

PART NO.: F04-S

DWG NAME:

APPROVED BY	CHECKED BY	DESIGNED BY		Tolerance
Grant 2008.11.27	liukui 2008.11.27	Zhangyuexin 2008.11.27	UNITS: mm	X.X ±0.1
			SCALE:	X.XX ±0.05
			REVISION: A	X° ±1°