

Index:

- 1. Revision History / Page 3**
- 2. Specification / Page 4**
- 3. Characteristics and Reliability Test / Page 5**
- 4. Antenna - S Parameter Test Data / Page 6**
- 5. Antenna - Radiation Pattern Test Data / Page 7 ~ 9**
- 6. Mechanical and Packing Drawing / Page 10 ~ 11**
- 7. Material Description and RoHS Test Report / Page 12 ~ end**

Product Number: AN8921F-48A05BGX

Product Name: Antenna



1. Revision History


Revision	Date	Change Notification	Description
1.0	2015.05.15	初版	

Product Number: AN8921F-48A05BGX

Product Name: Antenna



2. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	824 ~ 960 MHz 1710 ~ 2170 MHz
S.W.R.	<= 4.0 @ 824 ~ 960 MHz <= 4.0 @ 1710 ~ 2170 MHz
Antenna Average Gain	- 8 dBi @ 880 MHz - 3 dBi @ 1880 MHz
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Material of Plastic	Body: TPEE Hinge: ABS Holder: PC
Cable Type	OD.1.13mm
Connector Type	Mini Connector
Connector Pull Test	>= 1 Kg
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C

3. Characteristics and Reliability Test

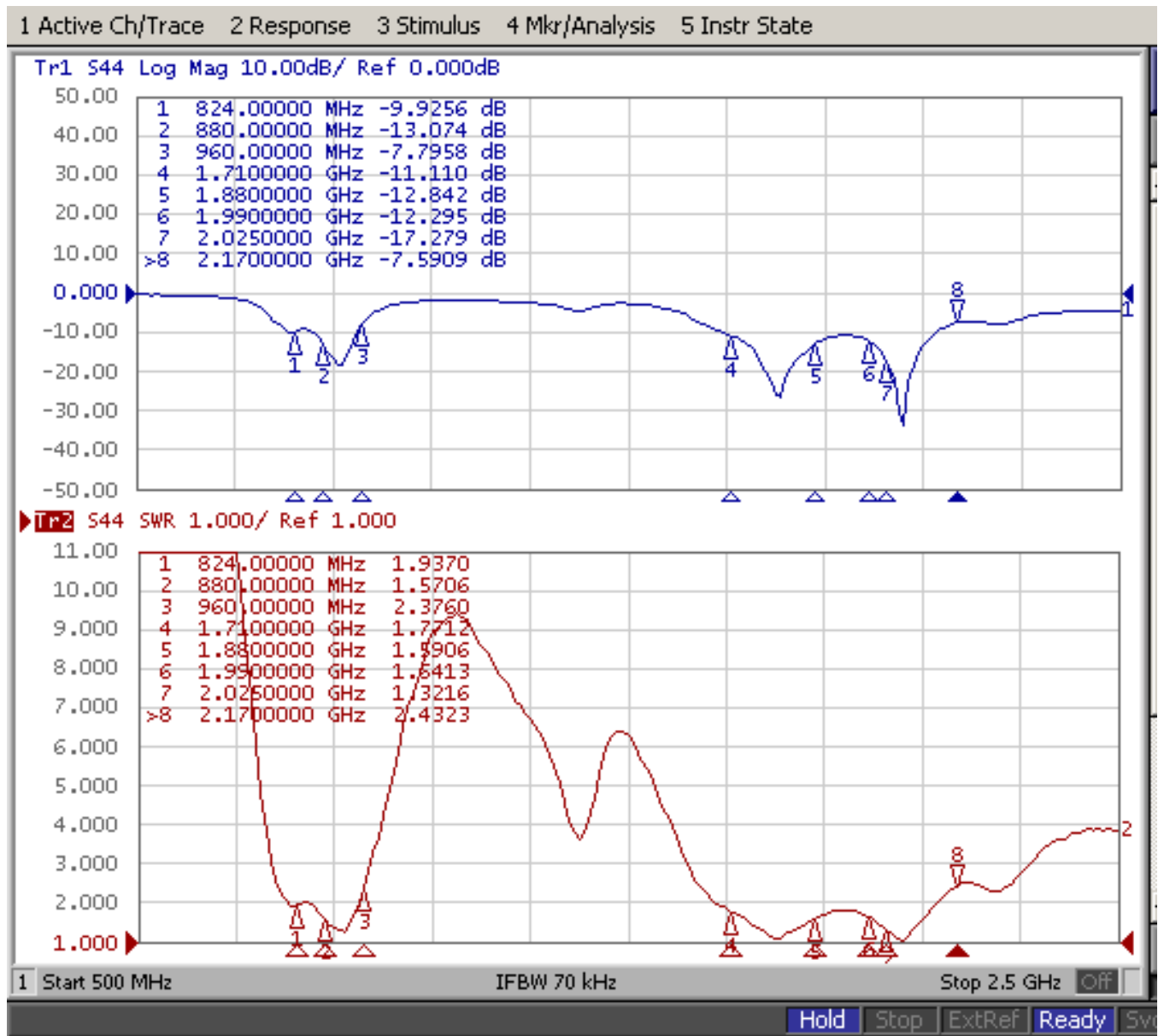
Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	GB / T2423 . 48-1997 Amplitude: 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

Product Number: AN8921F-48A05BGX

Product Name: Antenna



4. Antenna - S Parameter Test Data



Product Number: AN8921F-48A05BGX

Product Name: Antenna



5. Antenna - Radiation Pattern Test Data

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

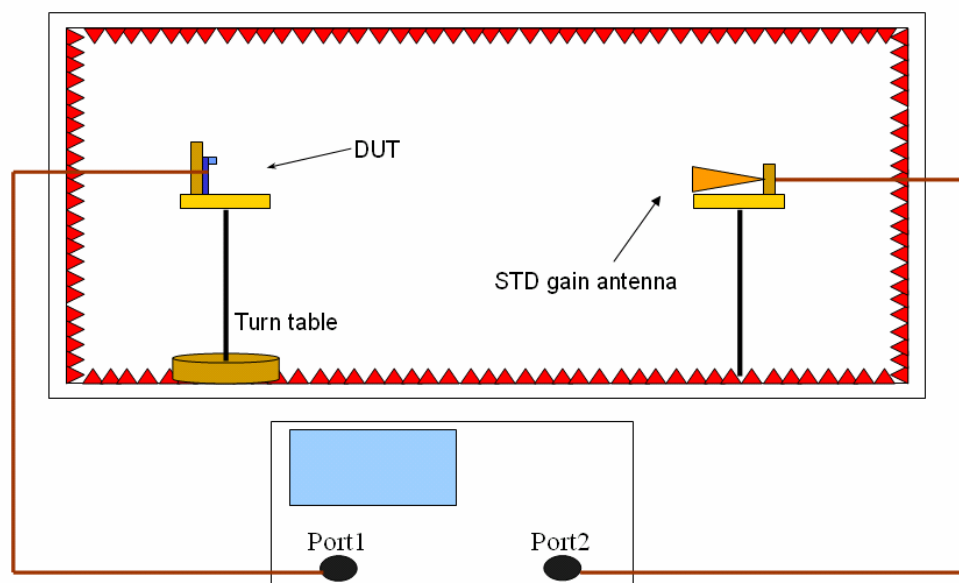
Quiet Zone: 600mm @1 GHz

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

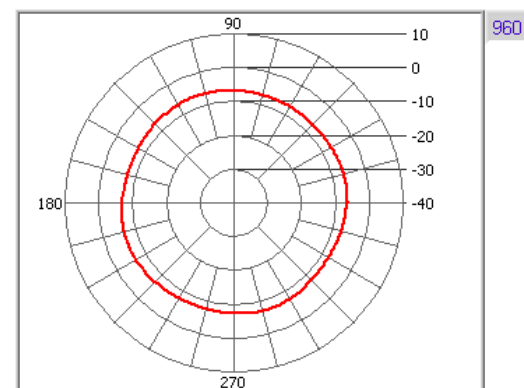
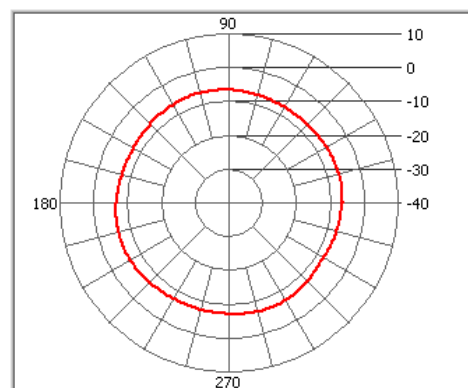
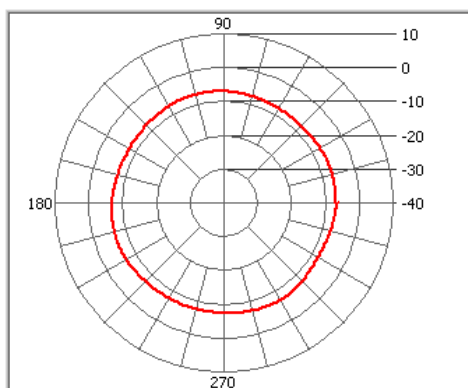
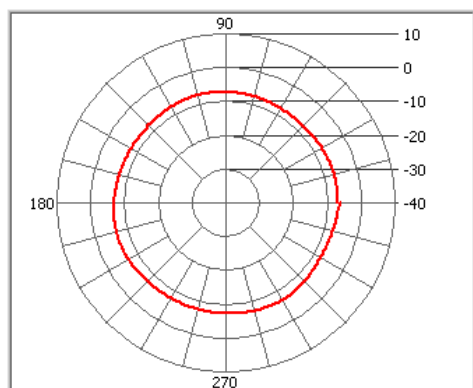
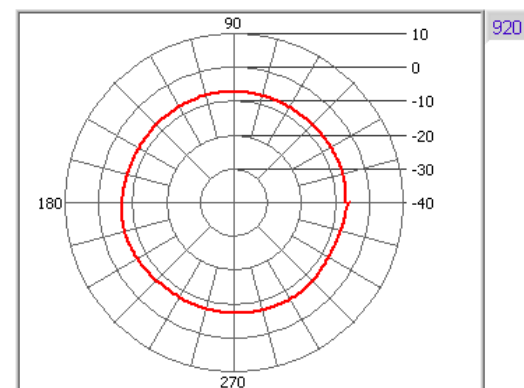
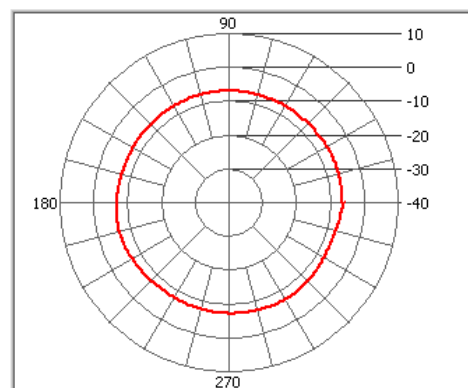
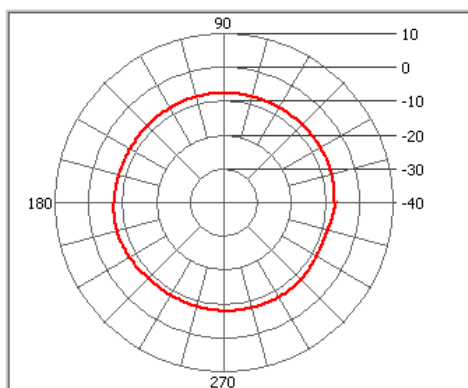
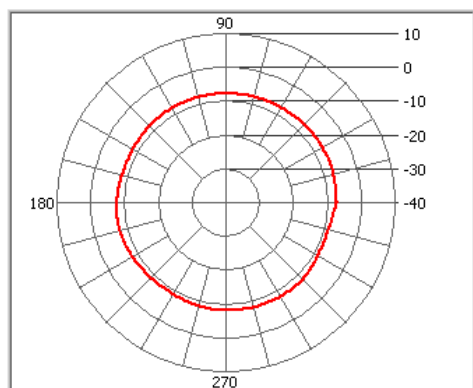
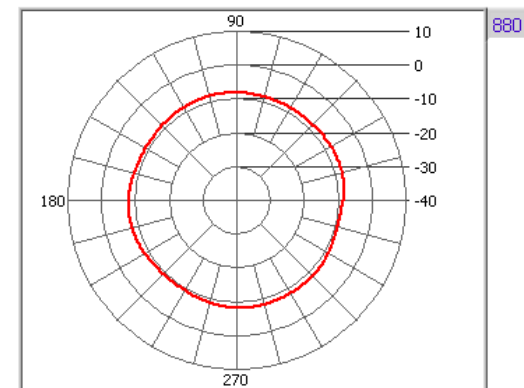
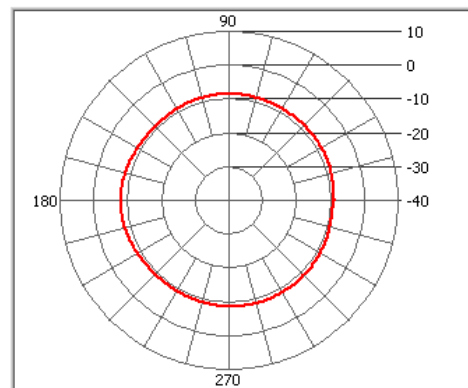
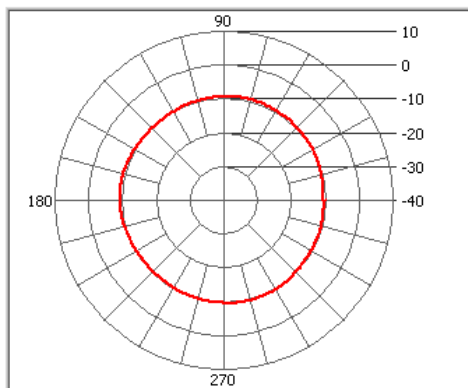
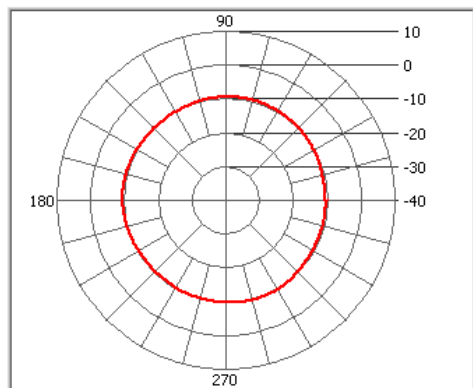
Model : AN8921F-37
 Remark : H-Plane // V-Pol
 Tested by : CORTEC Antenna Lab // Zhao Yao Rong

Location: **Chamber**
 Temperatur (°C): **22.00**

Date: **2009/12/10**
 Humidity (%): **55.00**

Time: **下午 02:10:02**
 Approved by:

Freq. (MHz)	824	830	850	880	900	910	915	920	930	940	950	960
Peak Gain (dBi)	-9.3	-9.17	-8.01	-7.66	-6.93	-6.9	-6.09	-6.25	-6.31	-6.49	-6.16	-6.24
Peak Degree	69	76	184	17	17	359	360	359	359	205	202	7
AV Gain (dBi)	-9.85	-9.72	-8.67	-8.41	-7.9	-7.71	-7.02	-7.2	-7.2	-7.2	-6.87	-7.01





Model : AN8921F-37
Remark : H-Plane // V-Pol
Tested by : CORTEC Antenna Lab // Zhao Yao Rong

Location: **Chamber**

Date: **2009/12/10**

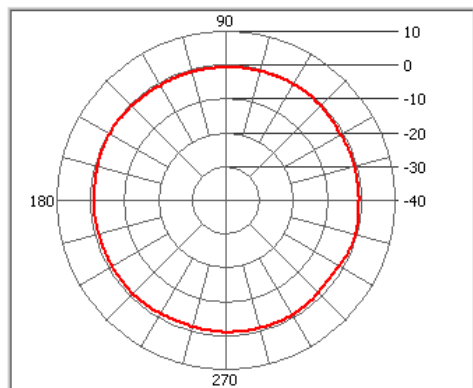
Time: **下午 02:10:02**

Temperatuer (°C): **22.00**

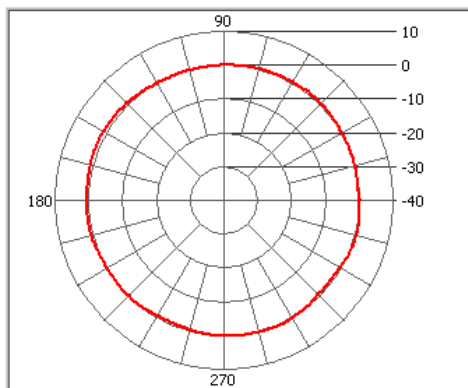
Humidity (%): **55.00**

Approved by:

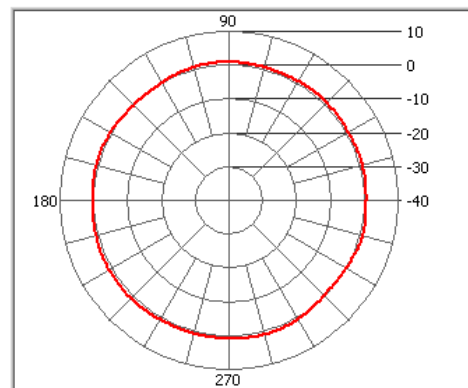
Freq. (MHz)	1710	1730	1770	1800	1850	1880	1900	1950	1990	2010	2050	2170
Peak Gain (dBi)	-0.21	1.12	1.08	1.03	-0.69	-2.94	-3.49	-5.72	-6.75	-7.07	-7.15	-8.63
Peak Degree	347	151	284	346	277	10	203	126	210	217	227	185
AV Gain (dBi)	-0.8	0.21	0.63	0.36	-1.63	-3.82	-4.45	-6.73	-8.39	-8.32	-8.27	-9.43



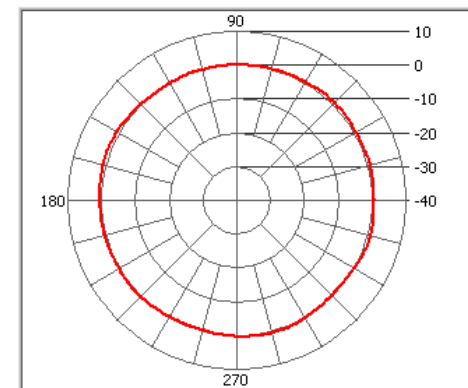
1710



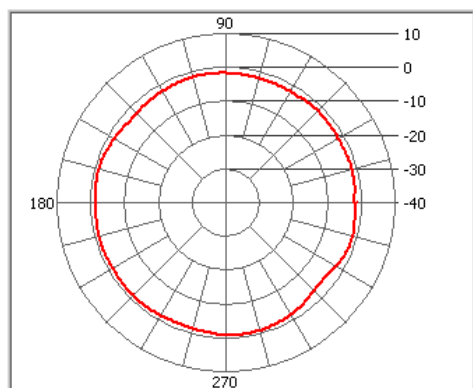
1730



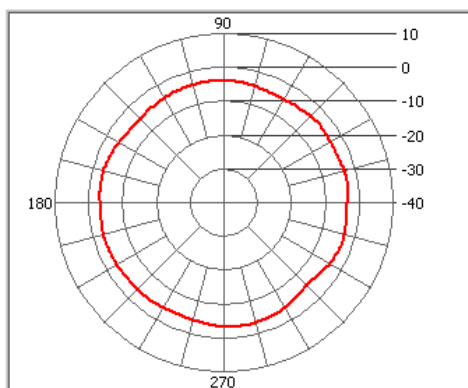
1770



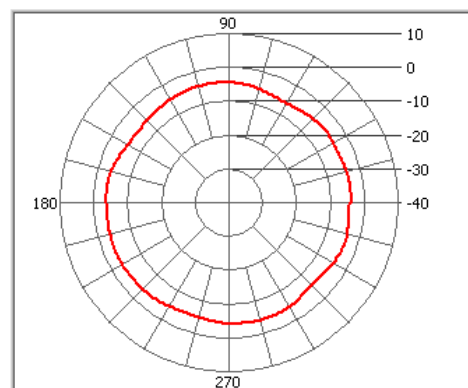
1800



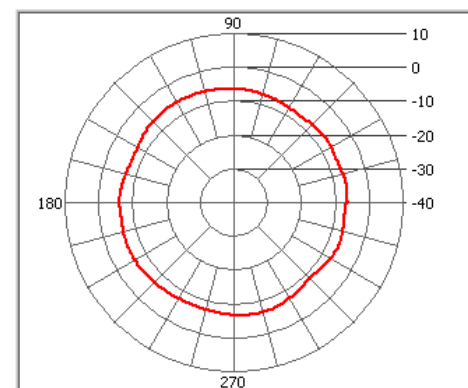
1850



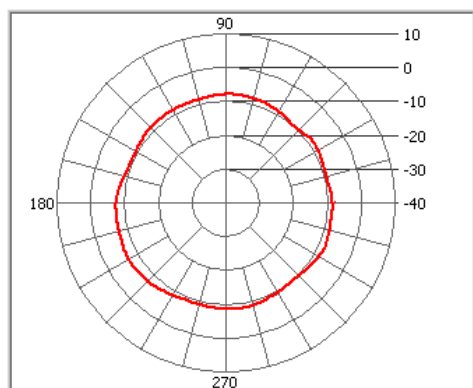
1880



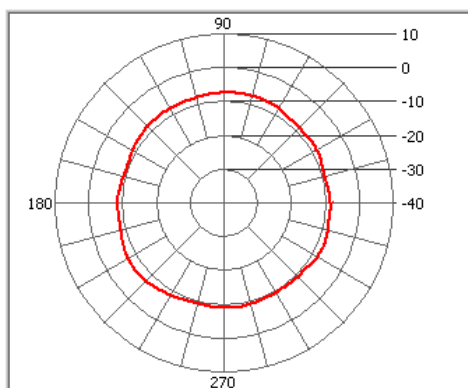
1900



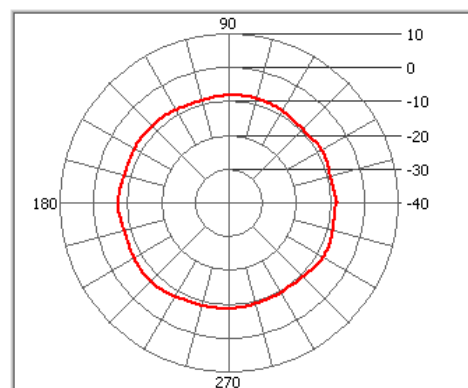
1950



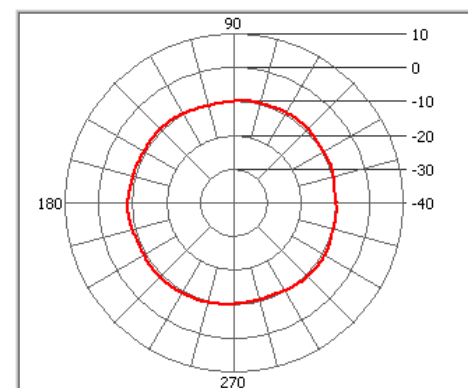
1990



2010



2050



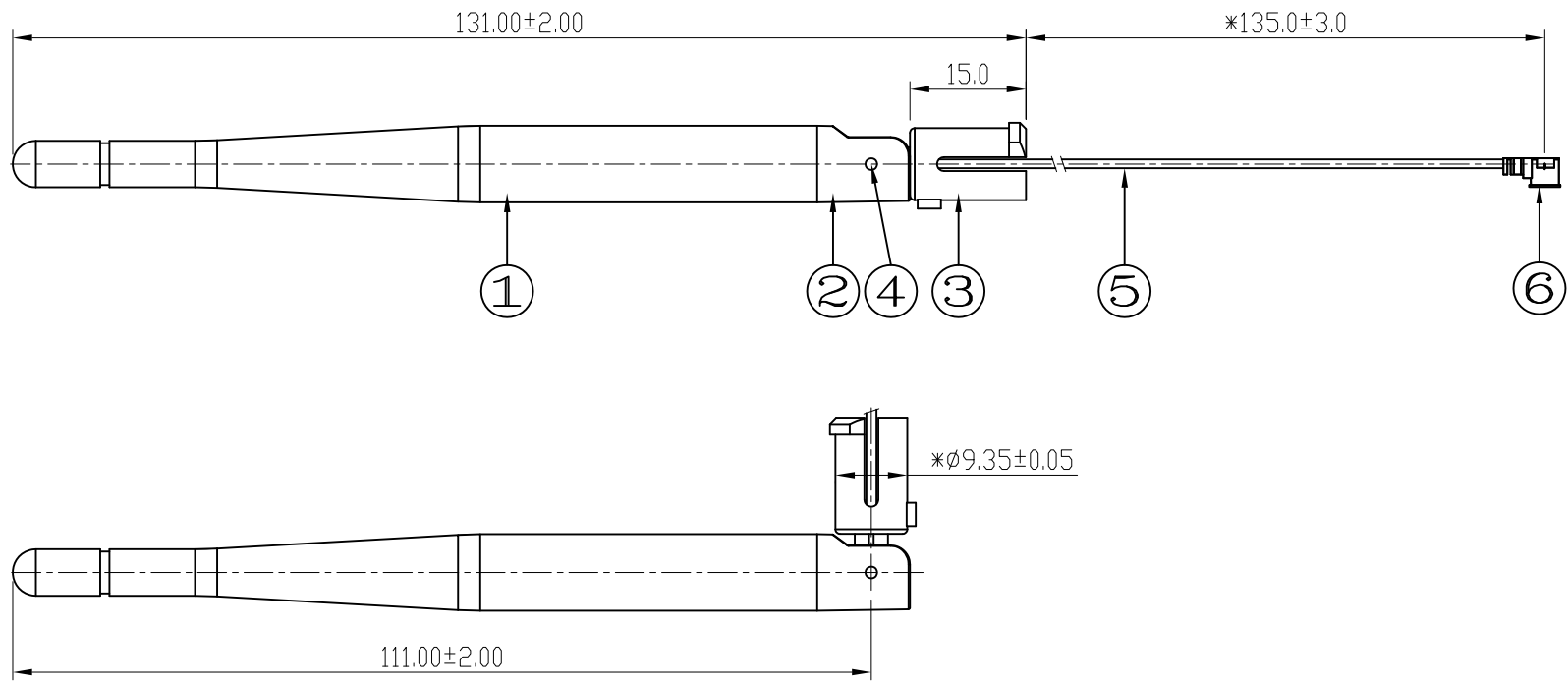
2170

RoHS

Compatible

★★★★☆

SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			



- 備註：
1. 未注公差請參照標準公差。
 2. 標 * 的尺寸為重點控制尺寸。

No.	Part Number	Description	Material	Finish	Q'ty
6	CR-113	Mini conn	Cu	Mini conn	1
5	R-CB-113G	Cable		Gray	1
4	RVT-AN55-01PB	Hinge Pin	POM	Black	2
3	BASE-AN37-07B	Body3	PC	Black	1
2	HINGE-AN48-01B	Body2	ABS	Black	1
1	AN48A-01B	Body1	TPEE	Black	1

Invax System Group.

Cortec

Cortec Technology Inc.
 Http://www.invaxsystem.com Tel:886-2-27885218
 E-mail: info@invax.com.tw Fax:886-2-27831658

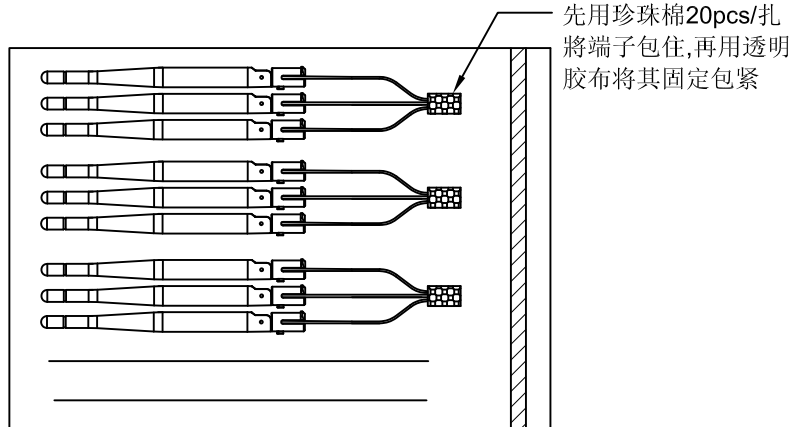
TITLE : 3G ANTENNA

PART NO.: AN8921F-48A05BGX

APP BY	CHK BY	RF BY	DES BY	Tolerance	
Grant	Jack	SF	WYJ		UNITS: mm X.X ±0.5
2015.05.15	2015.05.15	2015.05.15	2015.05.15		SCALE: X.XX ±0.2
				REVISION: A X° ±1°	

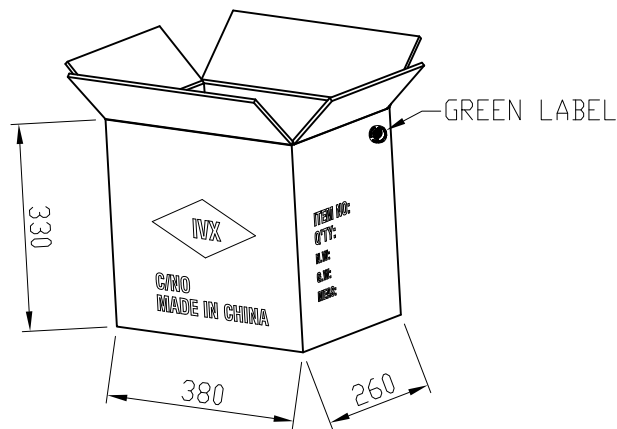
Part Number : AN8921F-48A05BGX	Revision : A
Name: ANTENNA-880-960/1710-1880MHz	Customer : ALL

一. WITH THE ANT INTO THE PE BAG



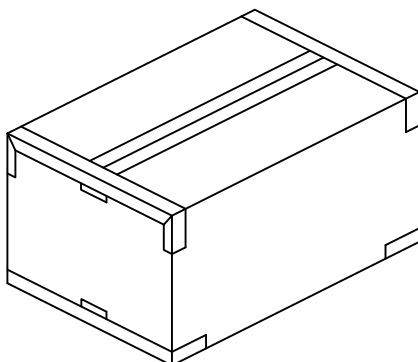
R-PE-BAG-280360
100 PCS/PE BAG

二. PACKING



1000PCS / CARTON

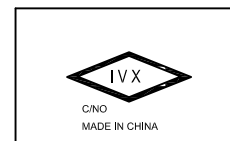
三. SEALING



SIDE



FRONT



UNITS: mm

SGS 台灣網站 → http://twap.sgs.com/sgsrsts/chn/cheres_tw.asp
 SGS 大陸網站 → http://rsts.cn.sgs.com/chn/cheres_cn.asp
 SGS 韓國網站 → http://rohs.kr.sgs.com/sgsrsts/en/cheres_en.asp

COR/F-G-47a

請輸入以下報告正確資料及檢查碼以便查核

1. 報告編號
2. 報告日期 (YYYY/MM/DD)
3. 產品名稱 (輸入前 10 個字不含空白)
4. 圖示檢查碼 (依指示畫面)



物料中HSF對象物質含量調查表

康捷電子有限公司	
填表：	時麗
部門：	研發部
職務：	文員

物料名稱：AN8921F-48A05BGX

序號	物料型號	物料各構成名稱	各構成物料的材料	測試報告裡RoHS對應物質測試結果						檢測報告編號	測試日期	測試名稱	測試機構名稱
				Cd	Pb	Hg	Cr(VI)	PBBs	PBDEs				
1	AN48A-01B	Body1	TPEE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CE/2014/C5918	2014.12.31	THERMOPLASTIC	SGS
2	HINGE-AN48-01B	Body2	ABS	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0114030352d3 001	2014.12.16	PA-757	TuvRheinland
3	BASE-AN37-07B	Body3	PC	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANML1421267601	2014.12.29	PC	SGS
4	RVT-AN55-01PB	Hinge Pin	POM	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANML1504465301	2015.04.04	POM	SGS
5	R-CB-113G	Cable	灰色色母	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	HKGEC1400859511	2014.08.25	FCM H 1374 GRAY	SGS
6			FEP	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	NGBML1404508713	2015.01.15	FLUORINATED	SGS
7			鍍錫銅	N.D.	N.D.	N.D.	Negative			SHAEC1419882402	2014.10.24	鍍錫絲	SGS
8			鍍銀銅絲	N.D.	N.D.	N.D.	Negative			SHAEC1407373515 A01	2014.05.13	SILVER-COATED	SGS
9	ASM-TUBE-441838	Tube	銅	N.D.	10	N.D.	Negative	N.D.	N.D.	SHAEC1503733501	2015.03.14	BRASS TUBE.	SGS
10	R-ANS08-50-265	Spring	碳鋼	N.D.	N.D.	N.D.	Negative			CANEC1500118101	2015.01.09	Carbon spring	SGS
11	CR-113	Mini Connector	PBT	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CE201481585	2014.08.22	MHFIPLUGHOUSING	SGS
12			銅	N.D.	14	N.D.	Negative			XMNEC1400388204	2014.11.11	錫磷青銅 (C5210).	SGS
13			鍍金層	N.D.	N.D.	N.D.	Negative	N.D.	N.D.	ECL01G003980001E	2014.07.17	金鍍層	CTI

根據測試報告如實填寫鉛、鎘、汞、六價鉻、PBBs和PBDEs六項禁用物質的含量

包裝材料中鉛、鎘、汞、六價鉻總含量不超過100ppm，鎘的允許濃度為5ppm

歐盟ROHS指令豁免條款2009/95/BC、鋼中合金元素中的鉛含量達0.35%、鋁含量達0.4%、銅合金中的鉛含量達4%