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Product Number: AB0821F-2655BSM

Product Name: Antenna



1. Revision History

Revision	Date	Change Notification	Description
1.0			

Product Number: AB0821F-2655BSM

Product Name: Antenna



2. Specification

Sample Photo	
 A photograph of the antenna assembly. It consists of a black plastic base with a SMA connector, a spring steel radiator, and a long black cable with a SMA connector at the other end. The antenna is shown against a plain white background.	
A. Electrical Characteristics	
Frequency	824 ~ 960 MHz 1710 ~ 2170 MHz
S.W.R.	≤ 2.0
Antenna Gain	- 1.0 \pm 0.7 dBi @ 824~960MHz 0.5 \pm 0.7 dBi @ 1710~2170 MHz
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Spring Steel
Material of Plastic	Body: ABS
Connector Type	SMA Male
Connector Pull Test	≥ 3 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 2002/95/EC
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: AB0821F-2655BSM

Product Name: Antenna

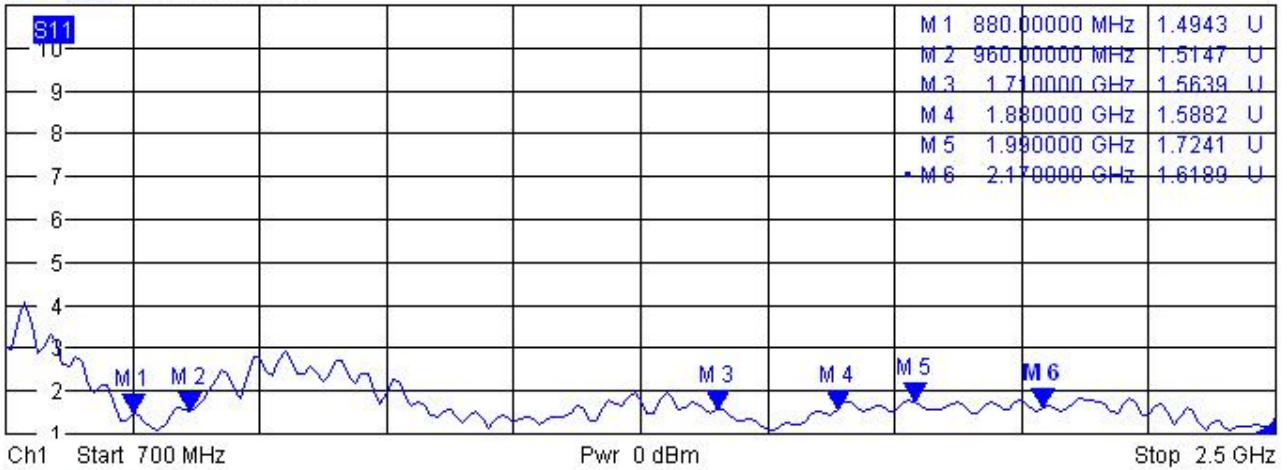


4. Antenna - S Parameter Test Data



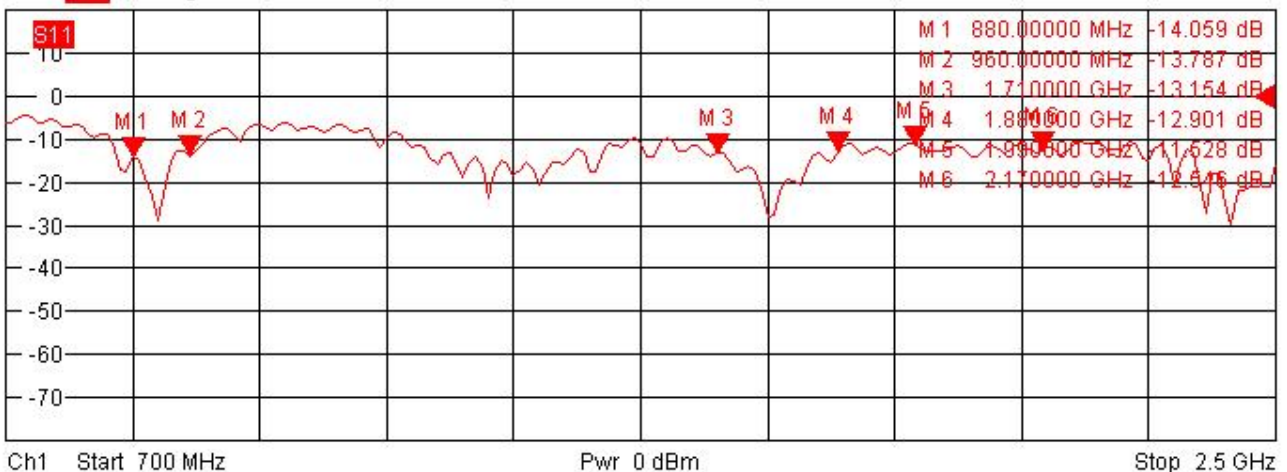
Trc1 S11 SWR 1 U / Ref1 U

1



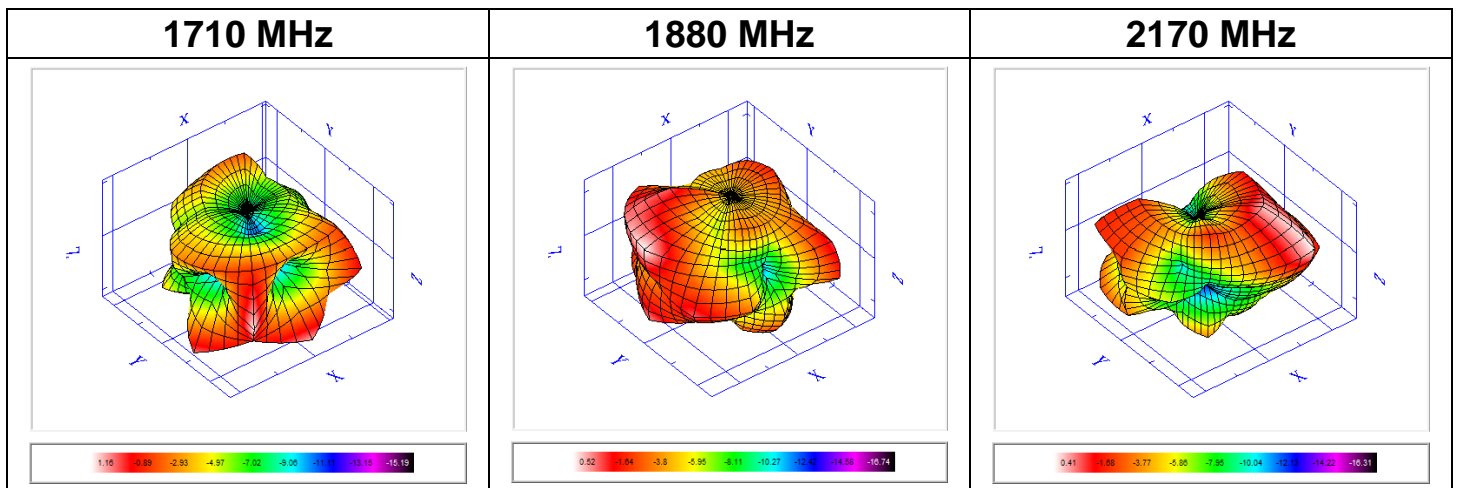
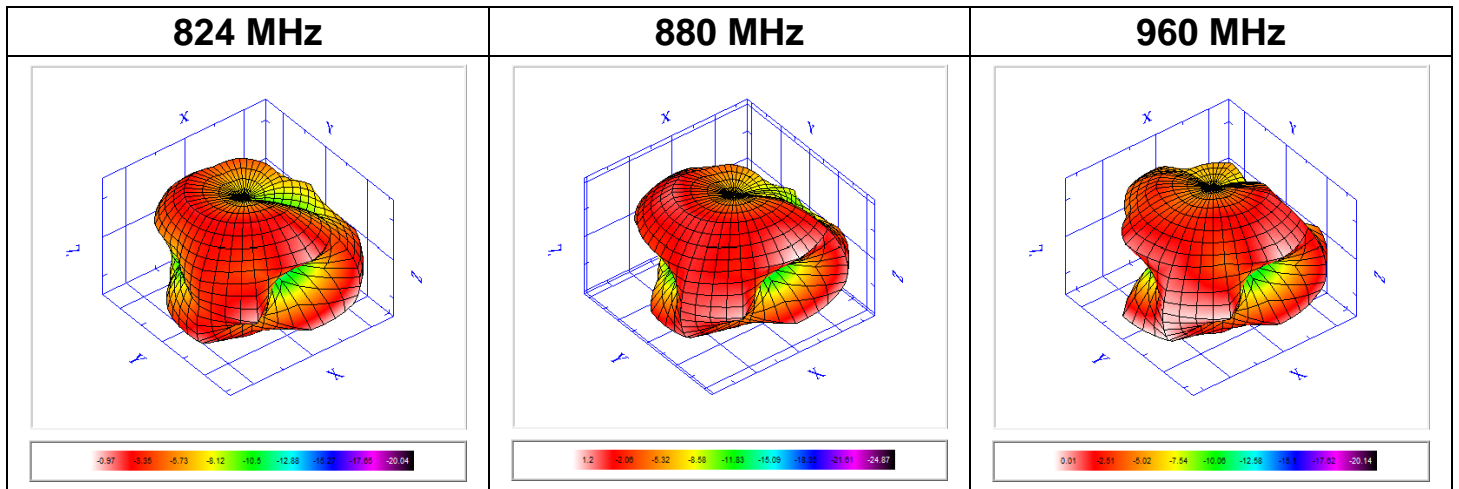
Trc2 S11 dB Mag 10 dB / Ref0 dB

2



12/4/2013, 3:59 PM

5. Antenna - Radiation Pattern Test Data



Frequency	824	880	960	1710	1880	2170
TRP (dBm)	-5.02	-3.41	-4.34	-4.26	-4.58	-5.56
Peak EIRP (dBm)	-0.97	1.2	0.01	1.16	0.52	0.41
NHPRP +/- 45 (degree)	-5.41	-3.81	-4.76	-4.61	-5.22	-6.57
NHPRP +/- 30 (degree)	-6.66	-4.89	-5.85	-5.13	-5.92	-7.12
E-Theta Peak Gain (dBi)	-1.53	0.54	-0.26	1.11	-0.37	-0.04
E-Phi Peak Gain (dBi)	-2.91	-0.71	-2.93	-0.07	-0.92	-1.09
E-Total Peak Gain (dBi)	-0.97	1.2	0.01	1.16	0.52	0.41
Directivity (dBi)	4.05	4.61	4.35	5.42	5.1	5.97
Efficiency (%)	31.48	45.65	36.85	37.47	34.81	27.79

6. Mechanical Drawing See attached files

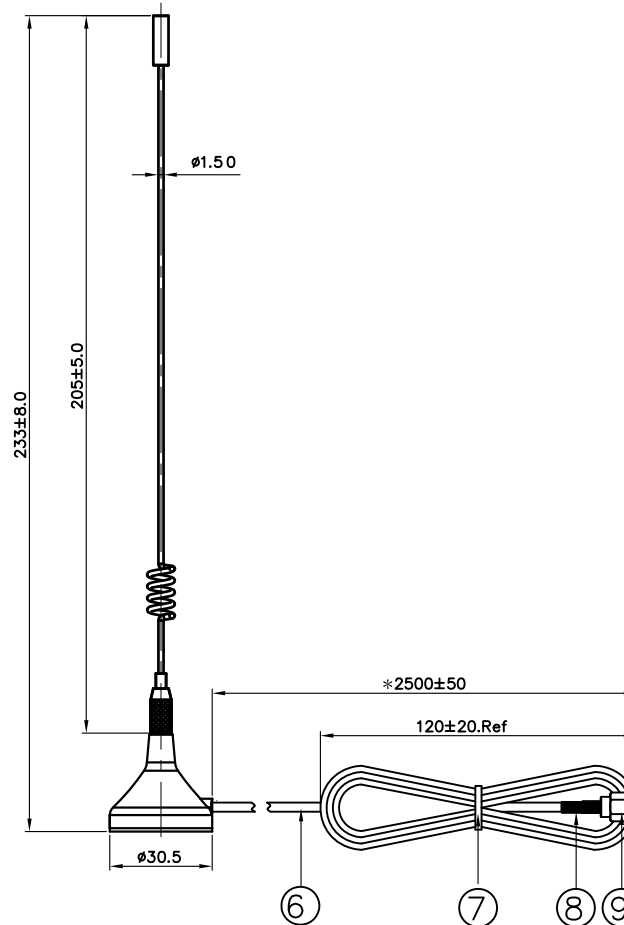
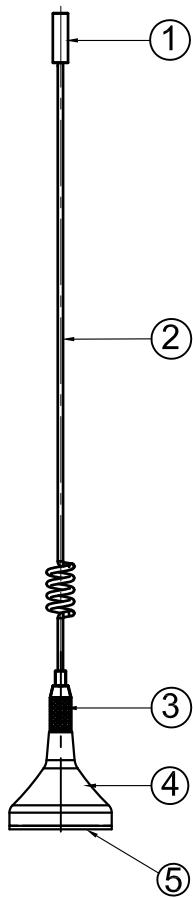
7. Material Description and RoHS Test Report See attached files

RoHS

Compatible



SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			



備註:

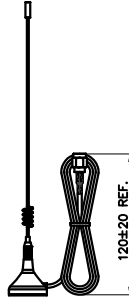
- 1.帶 * 為重點管控尺寸。
- 2.公差未標注公差請參考標準公差。

9	SMA010-CGT574-A	SMA Male Reverse	Brass	Au Plated	1
8	R-HSTUBE-004T	Heat Shrink TUBE		$\phi 4.0*20.0\text{mm}$	1
7	R-CB-PL-F80B	Bundle	PET	L=80mm	1
6	R-RG-174U	Cable	RG174U	L=1030mm	1
5	R-GS-SP296001	Bubble	EVA	Black	1
4	R-AN26-03B	Plastic Body	ABS	Black	1
3	R-AN26-04	Hinge	Cu	Black	1
2	R-AN26-07	Antenna Body	Spring Line	Black	1
1	R-AN26-01	Antenna Hat	ABS	Black	1
No.	Part Number	Name	Material	Finished	Q'ty

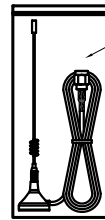
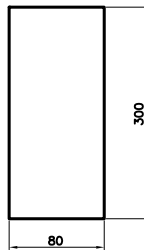
Invax System Group.		Cortec Technology Inc.	
Cortec		<small>Http://www.invaxsystem.com Tel :886-2-27885218 E-mail:info@invax.com.tw Fax:886-2-27831658</small>	
TITLE: Antenna			
PART NO.: AB0821F-2655BSM		CUSTOMER P/N: /	
APP BY	CHK BY	RF BY	DES BY
Grant	Jack		王偉
2013/12/06	2013/12/06		2013/12/06
		UNITS: mm SCALE: 1/1 REVISION: A	
		Tolerance X.X ±0.5 X.XX ±0.3 X° ±1	

Part Number : AB0821F-2655BSM	Revision : A
Name: Antenna	Customer : ALL

1. The Product

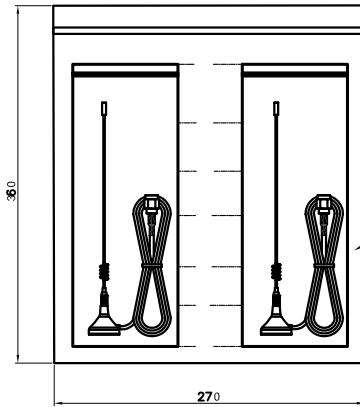


2. 1PCS/per Bag



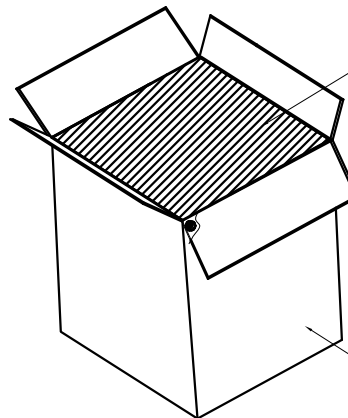
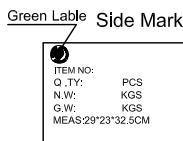
R-PE-BAG-80300

3. 20PCS/per Bag



P/N:R-NIP-BAG-270360

4. 100PCS/per Carton



Clapboard:R-FL-2821
6PCS/Carton

Carton :29*23*32.5CM
P/N:R-OTT-C-2923325

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：AB0821F-2655BSM

序號	物料型號	物料各構成名稱	各構成物料 的材質	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	R-AN26-01 AB26-03B	天線上帽 塑膠本體	ABS	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	KA/2012/C1575	2013.01.02	ACRYLONITRILE	SGS
2	R-AN26-07	天線本體	碳鋼	N.D.	N.D.	N.D.	Negative			SHAEC1302988801	2013.03.07	CARBON SPRING STEEL WIRE	SGS
3	R-AN26-04	金屬邊接筒	銅	66	31000	N.D.	Negative			CE201314616	2013.01.28	FREECUTTINGBRASSBAR	SGS
4	R-HSTUBE-004T	熱縮套管	EVA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC1303661001	2013.03.28	HEAT SHRINKABLE	SGS
5	R-AN40-05	磁鐵	鈹鐵硼	N.D.	N.D.	N.D.	Negative	N.D.	N.D.	CANEC1305117001	2013.04.19	NdFeB	SGS
6	R-RG-174U	Cable (RG-174)	PVC (黑)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC1304137802	2013.04.03	PVC GRAIN	SGS
			PE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	RHS01F007187001	2013.07.12	HDPE/XLPE/FPE	CTI
			裸銅線	N.D.	9	N.D.	Negative	N.D.	N.D.	CANEC1304043401	2013.04.02	BA	SGS
			鍍錫銅	N.D.	20	N.D.	Negative	N.D.	N.D.	CANEC1304043402	2013.04.02	TA	SGS
7	SMA010-CGT574-A	SMA公頭公針	銅	66	31000	N.D.	Negative			CE201314616	2013.01.28	FREECUTTINGBRASSBAR	SGS
			鍍金	N.D.	10	N.D.	Negative			CANML1316491802	2013.10.25	Au terminal	SGS
8	R-GS-SP296001	泡棉	EVA+背膠	N.D.	62	N.D.	N.D.	N.D.	N.D.	CANEC1303102105	2013.03.19	EVA+gum.	SGS

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%