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Product Number: AB0727-88Y01BSM

Product Name: Antenna



1. Revision History

Revision	Date	Change Notification	Description
1.0			

Product Number: AB0727-88Y01BSM

Product Name: Antenna



2. Specification

Sample Photo	
 A photograph of the antenna, showing a black plastic base with a cable extending from it. The cable is connected to a thin metal rod that has two small loops or coils on it, and ends in a pointed tip.	
A. Electrical Characteristics	
Frequency	780 ~ 960 MHz 1710 ~ 1990 MHz 2300 ~ 2700 MHz
S.W.R.	≤ 2.5
Antenna Gain	- 0.5 ± 0.7 dBi @ 800 MHz - 1.0 ± 0.7 dBi @ 1900 MHz - 2.0 ± 0.7 dBi @ 2500 MHz
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Carbon Steel
Material of Plastic	Body: ABS
Cable Type	RG-174 // 2000mm
Connector Type	SMA Male
Connector Pull Test	≥ 3 Kg
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C

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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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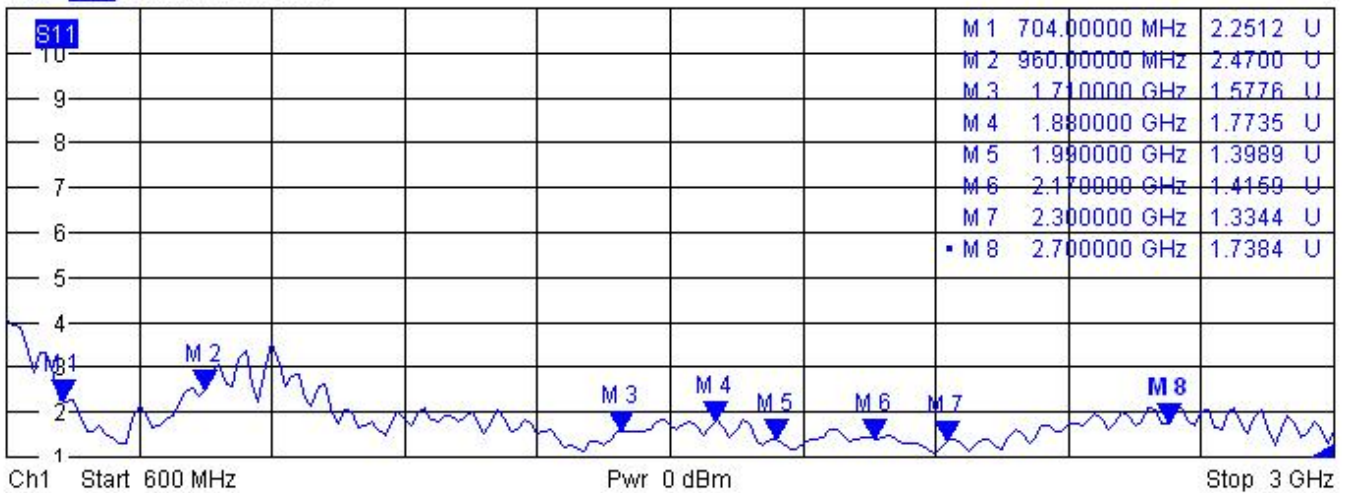


4. Antenna - S Parameter Test Data



Trc1 **S11** SWR 1 U / Ref1 U

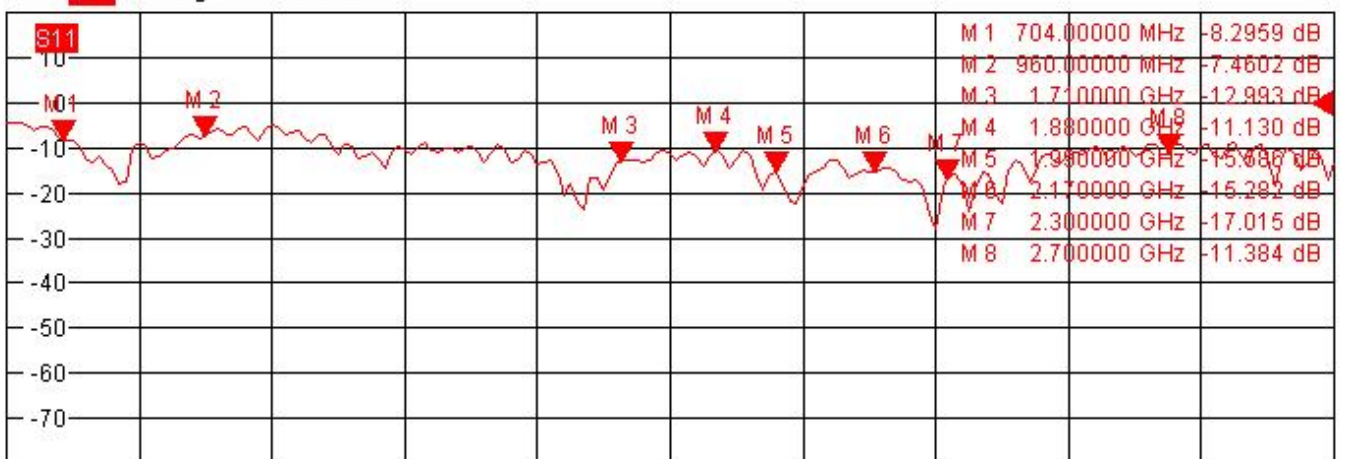
1



Ch1 Start 600 MHz Pwr 0 dBm Stop 3 GHz

Trc2 **S11** dB Mag 10 dB / Ref0 dB

2



Ch1 Start 600 MHz Pwr 0 dBm Stop 3 GHz

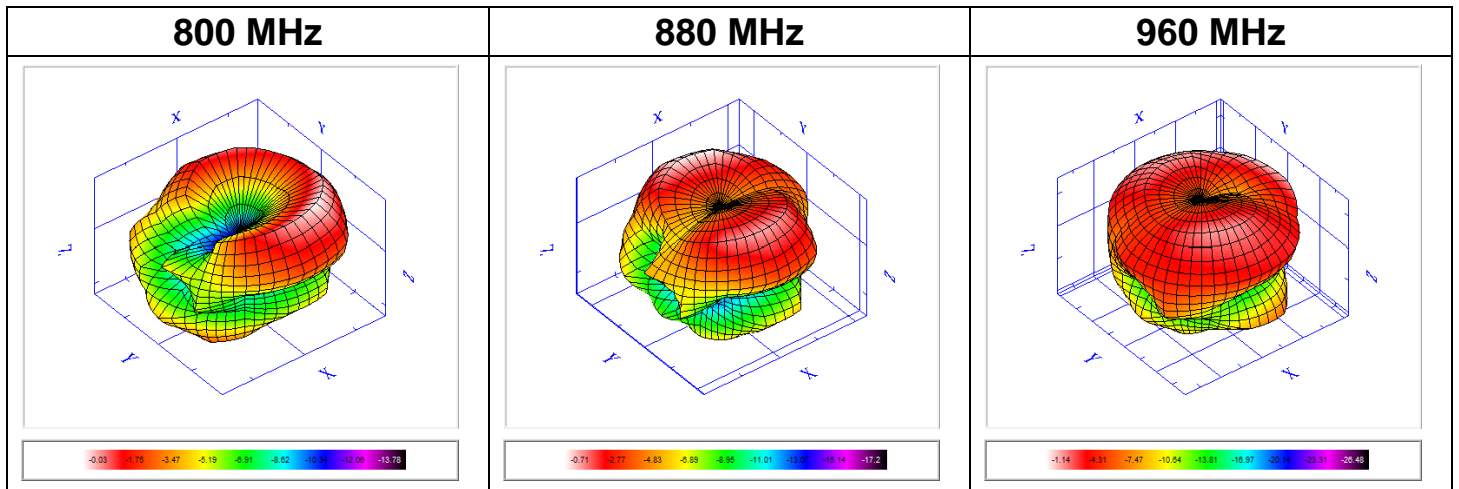
12/3/2013, 3:06 PM

Product Number: AB0727-88Y01BSM

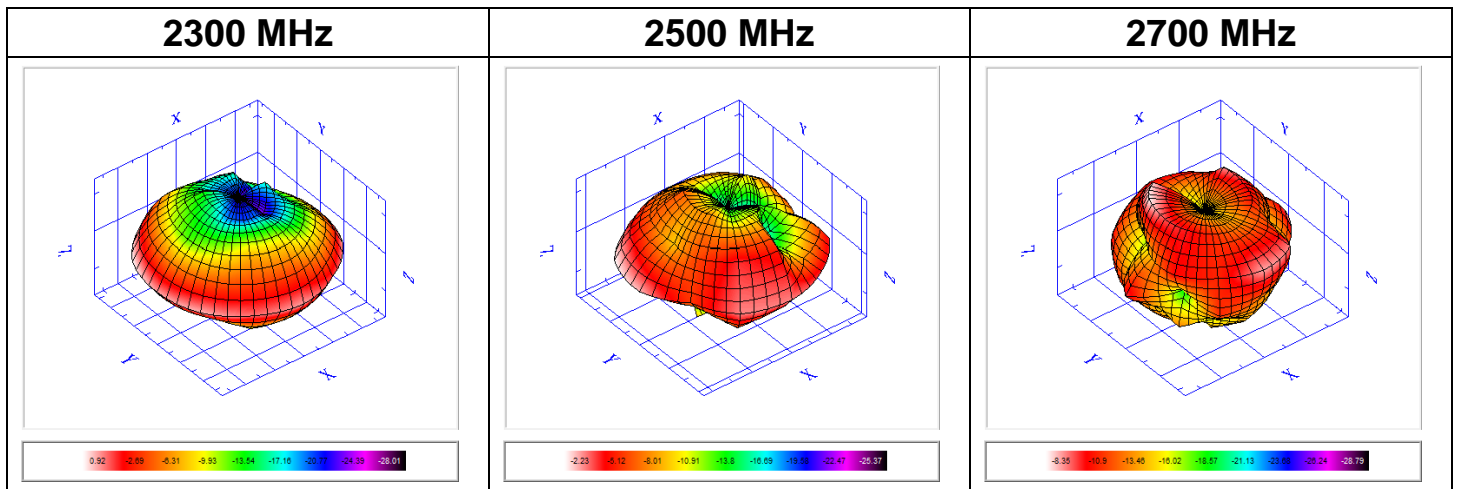
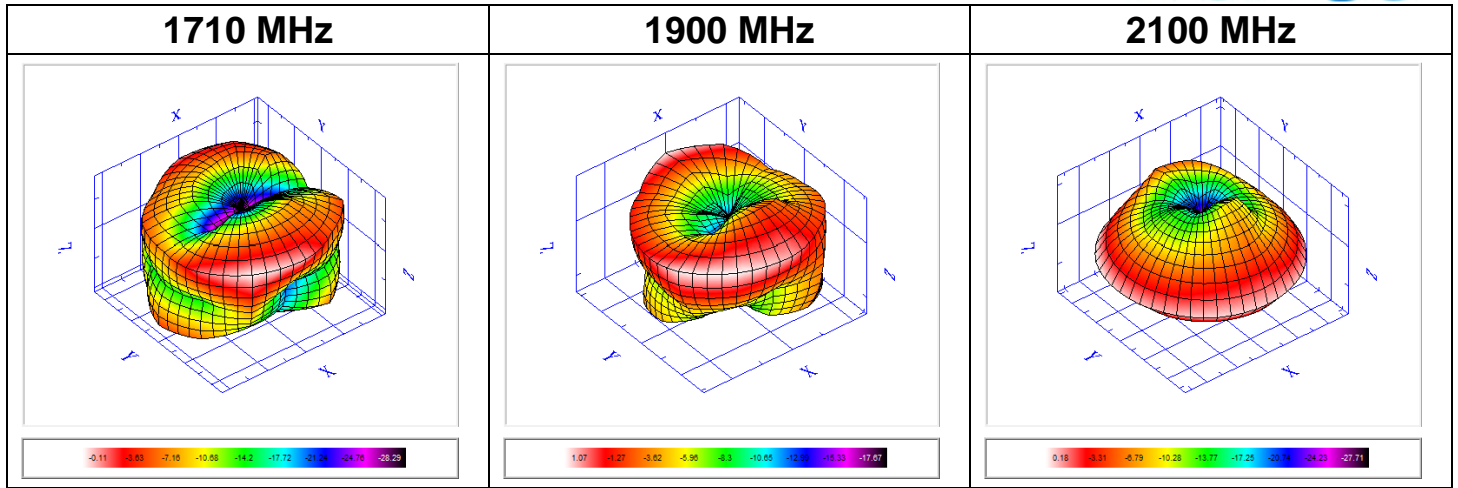
Product Name: Antenna



5. Antenna - Radiation Pattern Test Data



Frequency	700	720	740	760	780	800	824	850	880	900	925	960
TRP (dBm)	-5.77	-5.63	-5.05	-4.11	-3.83	-5.04	-5.44	-5.92	-6.2	-6.26	-6.42	-6.72
Peak EIRP (dBm)	-2.73	-2.36	-1.22	0.33	0.99	-0.03	-0.55	-1.01	-0.71	-0.73	-1.18	-1.14
NHPRP +/- 45 (degree)	-6.86	-6.78	-6.05	-5.06	-4.94	-6.2	-6.65	-7.32	-7.85	-7.95	-8.1	-8.24
NHPRP +/- 30 (degree)	-6.93	-6.98	-6.55	-5.85	-5.75	-7.02	-7.5	-8.05	-8.35	-8.33	-8.3	-8.28
E-Theta Peak Gain (dBi)	-6.51	-5.59	-4.45	-3.52	-2.72	-3.75	-3.9	-4.89	-5.79	-6.43	-7.32	-7.63
E-Phi Peak Gain (dBi)	-3.01	-2.72	-1.28	0.26	0.49	-0.85	-1.6	-1.47	-1.17	-1.07	-1.38	-1.73
E-Total Peak Gain (dBi)	-2.73	-2.36	-1.22	0.33	0.99	-0.03	-0.55	-1.01	-0.71	-0.73	-1.18	-1.14
Directivity (dBi)	3.04	3.27	3.84	4.43	4.81	5.01	4.89	4.91	5.5	5.53	5.23	5.58
Efficiency (%)	26.48	27.33	31.25	38.84	41.43	31.34	28.57	25.58	23.98	23.67	22.82	21.3



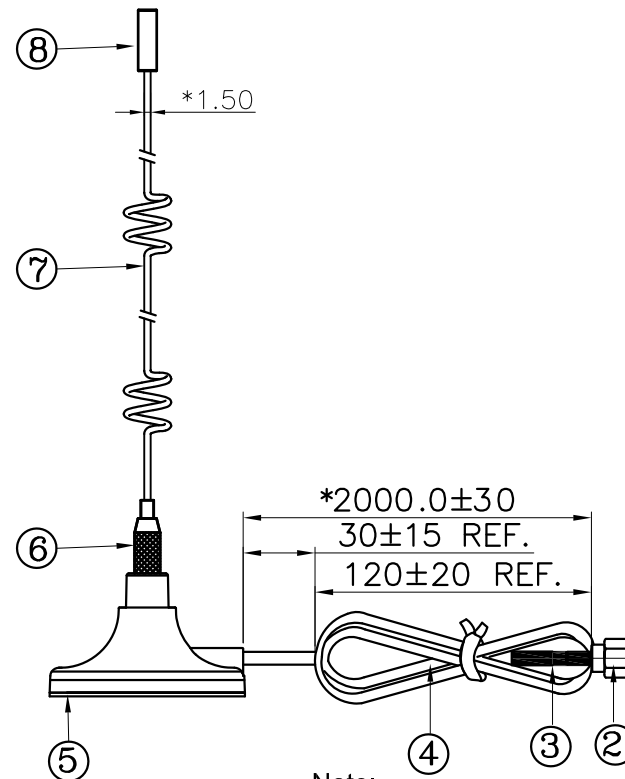
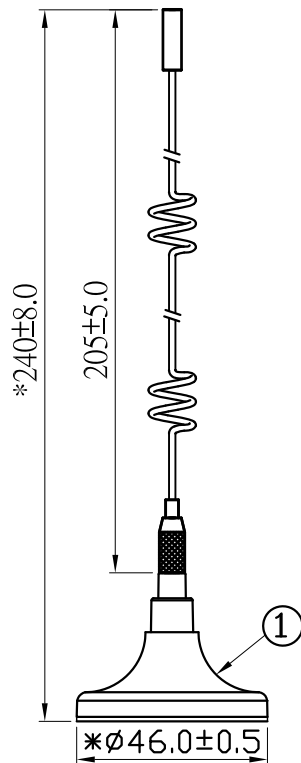
Frequency	1710	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700
TRP (dBm)	-5.26	-5.04	-4.59	-4.1	-5.42	-4.94	-4.77	-5.76	-7.84	-9.58	-12.41
Peak EIRP (dBm)	-0.11	0.82	1.07	0.76	0.18	1.02	0.92	0.62	-2.23	-4.28	-8.35
NHPRP +/- 45 (degree)	-5.89	-5.76	-5.28	-4.57	-5.73	-5.26	-5.04	-6.05	-8.33	-10.33	-13.34
NHPRP +/- 30 (degree)	-5.94	-5.56	-5.05	-4.34	-5.59	-5.18	-4.97	-6.01	-8.24	-10.37	-13.66
E-Theta Peak Gain (dBi)	-5.17	-4.73	-5.37	-5.78	-8.29	-7.38	-8.39	-9	-7.25	-8.57	-11.43
E-Phi Peak Gain (dBi)	-0.35	0.27	0.74	0.36	0.05	0.82	0.73	0.38	-2.25	-6.31	-8.39
E-Total Peak Gain (dBi)	-0.11	0.82	1.07	0.76	0.18	1.02	0.92	0.62	-2.23	-4.28	-8.35
Directivity (dBi)	5.14	5.86	5.66	4.86	5.61	5.96	5.69	6.38	5.61	5.3	4.06
Efficiency (%)	29.82	31.31	34.77	38.89	28.68	32.07	33.38	26.54	16.45	11.01	5.74

6. Mechanical Drawing
 See attached files

7. Material Description and RoHS Test Report
 See attached files

RoHS

Compatible



Note:

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

SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			

8	R-AN26-01	Hat	ABS	BLACK	1
7	SP-AB88-SE01	Spring	Steel	BLACK	1
6	R-AN26-04	Hinge	CU	BLACK	1
5	R-AN88-06	Bubble	Bubble	Black	1
4	R-RG174U	Cable	RG174	L=2030mm	1
3	R-HSTUBE-004T	Shrink Tube		∅4.0*20.0mm Black	1
2	SMA010-CGT574-A	SMA Male	Cu	Au Plated	1
1	R-AN88-01A	Body	PC+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: 磁盤底座			
PART NO.: AB0727-88Y01B5M		CUSTOMER P/N: AT5050-70-002-C	
APP BY	CHK BY	RF BY	DES BY
Grant	Jack		王偉
2013/12/16	2013/12/16		2013/12/16
		<small>UNITS: mm X.X ±0.5 SCALE: 1/1 X.XX ±0.2 REVISION: A X° ±1</small>	

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：AB0727-88Y01BSM

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 R-AN88-01A	Hat Body	ABS	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	KA/2012/C1575	2013.01.02	ACRYLONITRILE	SGS
2	SP-AB88-SE01	Spring	碳鋼	N.D.	N.D.	N.D.	Negative			SHAEC1302988801	2013.03.07	CARBON SPRING STEEL WIRE	SGS
3	R-AN26-04	Hinge	銅	66	31000	N.D.	Negative			CE201314616	2013.01.28	FREECUTTINGBRASSBAR	SGS
4	R-AB88--06	EVA	EVA+背膠	N.D.	62	N.D.	N.D.	N.D.	N.D.	CANEC1303102105	2013.03.19	EVA+gum.	SGS
5	R-RG-174U	Cable	外被PVC	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC1304137802	2013.04.03	PVC GRAIN	SGS
6			PE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	RHS01F007187001	2013.07.12	HDPE/XLPE/FPE	CTI
7			Bare Copper	N.D.	9	N.D.	Negative	N.D.	N.D.	CANEC1304043401	2013.04.02	BA	SGS
8			TINNED COPPER	N.D.	20	N.D.	Negative	N.D.	N.D.	CANEC1304043402	2013.04.02	TA	SGS
9	R-HSTUBE-004T	HSTUBE	EVA	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC1303661001	2013.03.28	HEAT SHRINKABLE	SGS
10	AB28-09	Magnet	鈹鐵硼	N.D.	N.D.	N.D.	Negative	N.D.	N.D.	CANEC1305117001	2013.04.19	NdFeB	SGS
11	SMA010-CGT574-A	SMA Male	銅	66	31000	N.D.	Negative			CE201314616	2013.01.28	FREECUTTINGBRASSBAR	SGS
12			鍍金	N.D.	10	N.D.	Negative			CANML1316491802	2013.10.25	Au terminal	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%