

## 適用

本仕様書は株式会社 IDY(以下、IDY)が AN0727-64DP5BSM に追加する仕様であり、IDY が供給する

AN0727-64DP5BSM-I

AN0727-64DP5WSM-I

AN0727-64DP5BSM-I-MB5

AN0727-64DP5WSM-I-MB5

にのみ適用される。

IDY が供給する本仕様に準拠したアンテナは **Wimax/Wimax2+**通信モジュールに接続するものである。

## 1. 仕様

- ・ 形名 AN0727-64DP5BSM-I (カラー:ブラック)
- AN0727-64DP5WSM-I (カラー:ホワイト)
- AN0727-64DP5BSM-I-MB5 (カラー:ブラック、基台 BS43D05BSM 付属)
- AN0727-64DP5WSM-I-MB5 (カラー:ホワイト、基台 BS43D05BSM 付属)

※その他仕様は AN0727-64DP5BSM 及び BS43D05BSM に準拠

## 2. 特性と信頼性試験

- ・ AN0727-64DP5BSM 及び BS43D05BSM に準拠

## 3. 外観仕様

- ・ AN0727-64DP5BSM 及び BS43D05BSM に準拠

## 4. シール仕様

- ・ 形名、ロットについては AN0727-64DP5BSM に準拠
- ・ IDY 供給品については下記のシールをアンテナ本体に貼付

サイズ:25mm × 7mm



## ○ お問い合わせ




株式会社IDY

〒101-0043

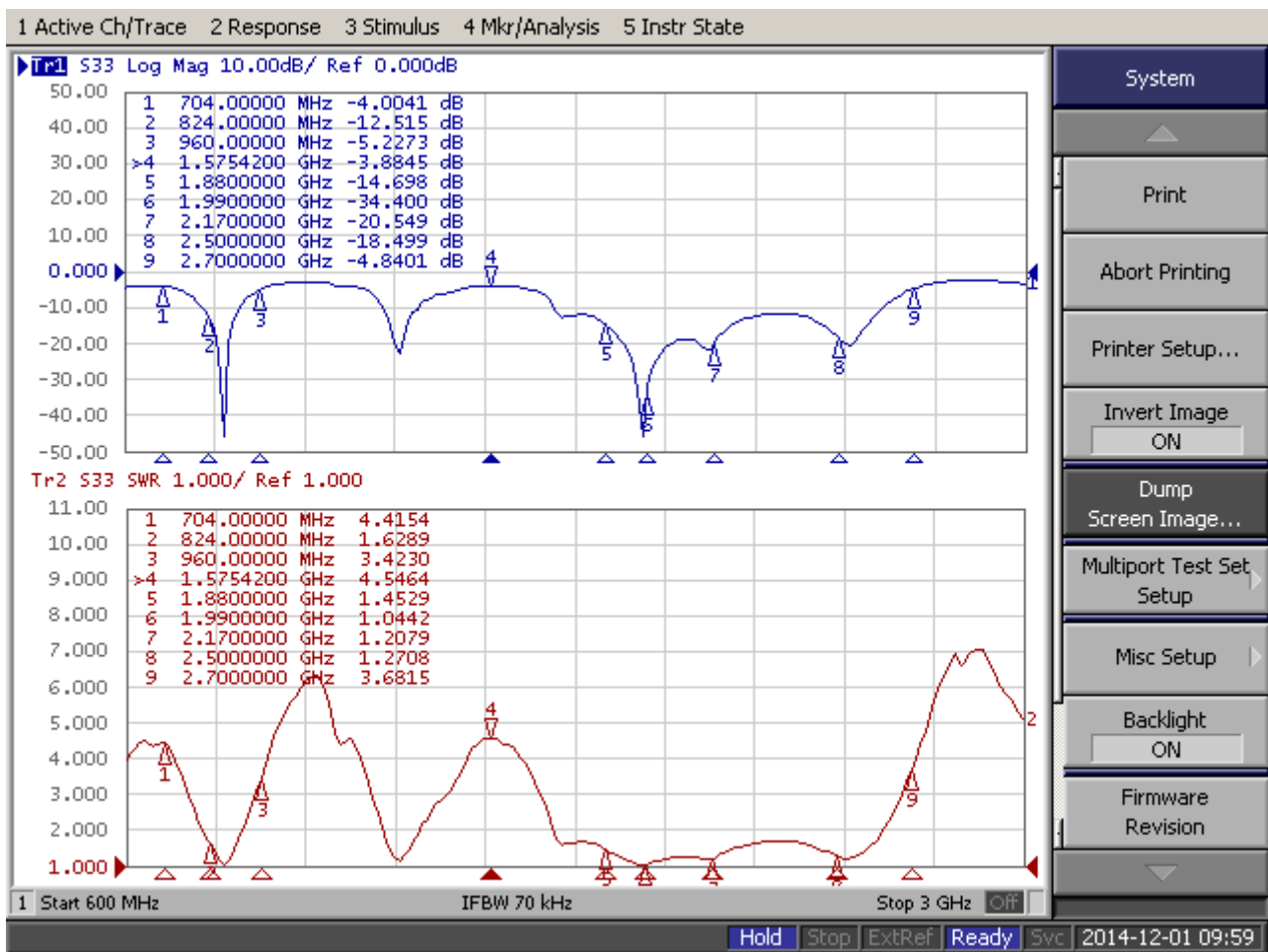
東京都千代田区神田富山町5-1 神田ビジネスキューブ5F

TEL:03-3527-1740 FAX:03-3527-1741

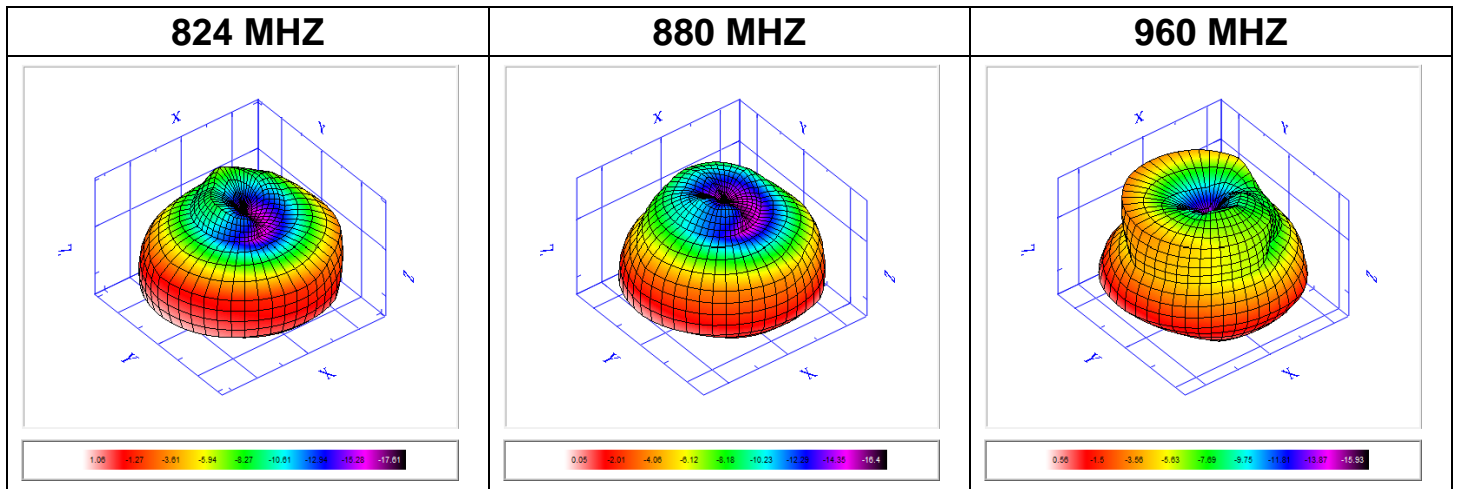
## % Specification

<b>Sample Photo</b>	
<p><b>AN64D</b></p> 	
<b>A. Electrical Characteristics</b>	
<b>Frequency</b>	700 ~ 960 MHz 1710 ~ 2700 MHz 1575.42 MHz
<b>S.W.R.</b>	<= 2.5 @ 824 MHz <= 2.0 @ 1880 ~ 2300 MHz <= 5.0 @ 1575.42 MHz
<b>Antenna Gain</b>	0.5 ± 0.7dBi @ 700 ~ 960 MHz 2.0 ± 0.7dBi @ 1710 ~ 2700 MHz 4.5± 0.7dBi @ 1575.42 MHz
<b>Efficiency (%)</b>	45 % @ 700 ~ 960 MHz 75 % @ 1710 ~ 2700 MHz 75 % @ 1575.42 MHz
<b>Polarization</b>	Linear
<b>Impedance</b>	50 Ohm
<b>B. Material &amp; Mechanical Characteristics</b>	
<b>Material of Radiator</b>	PCB
<b>Material of Plastic</b>	BODY: ABS HINGE:ABS
<b>Cable Type</b>	RG-178U-03
<b>Connector Type</b>	SMA Male
<b>C. Environmental</b>	
<b>Operation Temperature</b>	- 40 °C ~ + 65 °C
<b>Storage Temperature</b>	- 40 °C ~ + 80 °C
<b>Antenna Color Storage life</b>	< 2 year

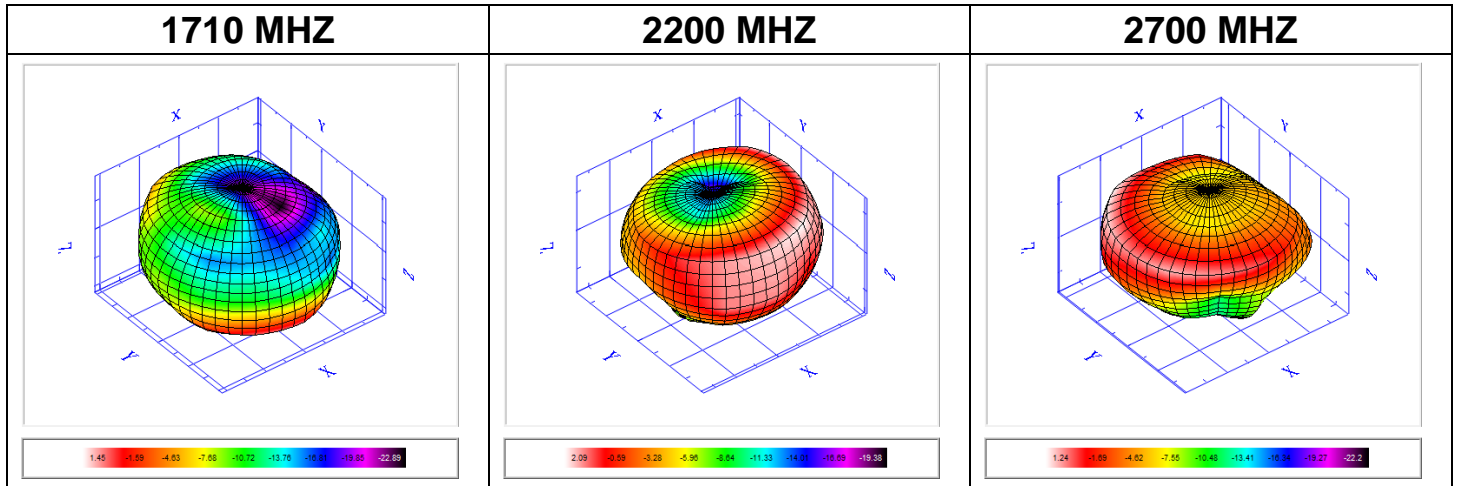
## & Antenna - S Parameter Test Data



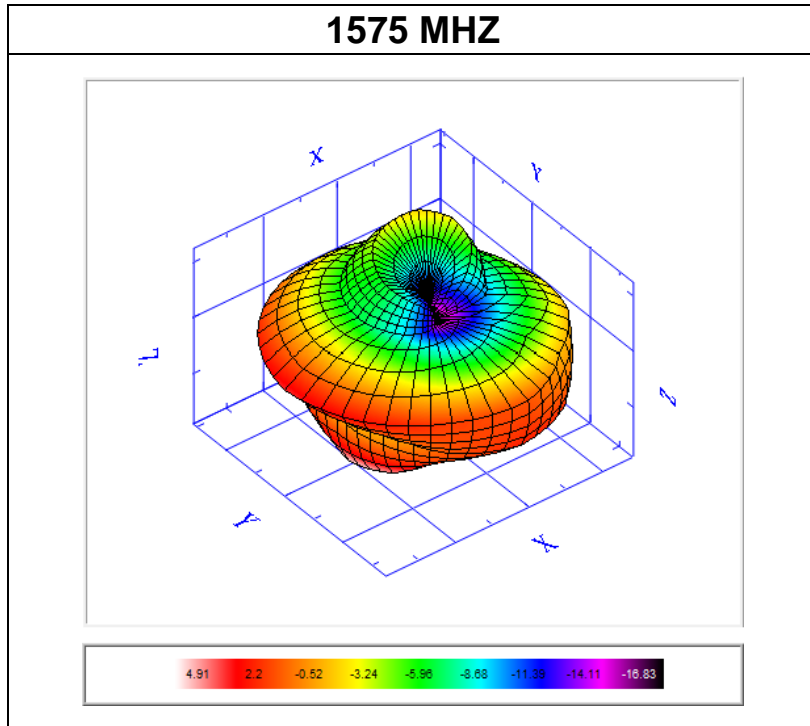
## ' . Antenna - Radiation Pattern Test Data



Frequency	704	824	880	960
TRP (dBm)	-3.27	-3.01	-3.96	-3.64
Peak EIRP (dBm)	0.82	1.06	0.05	0.56
NHPRP +/- 45 (degree)	-2.97	-2.79	-3.67	-3.26
NHPRP +/- 30 (degree)	-4.05	-3.81	-4.93	-5.16
E-Theta Peak Gain (dBi)	-10.24	-11.68	-10.04	-9.18
E-Phi Peak Gain (dBi)	0.73	0.92	-0.04	0.48
E-Total Peak Gain (dBi)	0.82	1.06	0.05	0.56
Directivity (dBi)	4.09	4.07	4.01	4.2
Efficiency (%)	47.09	49.99	40.21	43.25



Frequency	1710	1880	1990	2000	2100	2200	2300	2400	2500	2600	2700
TRP (dBm)	-1.99	-1.89	-0.86	-0.83	-0.49	-1.11	-1.72	-1.03	-0.51	-0.52	-3.19
Peak EIRP (dBm)	1.45	-0.11	1.18	1.23	2.9	2.09	1.96	2.88	2.9	2.9	1.24
NHPRP +/- 45 (degree)	-2.1	-2.22	-1.27	-1.24	-0.99	-1.47	-2.01	-1.22	-0.81	-0.92	-3.93
NHPRP +/- 30 (degree)	-3.55	-2.71	-1.52	-1.47	-1.35	-1.74	-2.15	-1.42	-0.8	-0.9	-3.97
E-Theta Peak Gain (dBi)	-12.34	-14.36	-13.22	-13.02	-11.67	-12.93	-11.03	-12.41	-10.45	-11.99	-12.22
E-Phi Peak Gain (dBi)	1.39	-0.81	1.16	1.21	2.89	2.09	1.86	2.85	2.9	2.9	1.1
E-Total Peak Gain (dBi)	1.45	-0.11	1.18	1.23	2.9	2.09	1.96	2.88	2.9	2.9	1.24
Directivity (dBi)	3.44	1.79	2.04	2.06	3.8	3.2	3.68	3.91	4.21	4.25	4.43
Efficiency (%)	63.21	64.65	81.97	82.62	89.42	77.37	67.28	78.95	88.83	88.8	47.93



Frequency	1570	1571	1572	1573	1574	1575	1576	1577	1578	1579	1580
TRP (dBm)	-1.21	-1.13	-1.09	-1.02	-0.94	-0.9	-0.88	-0.92	-0.94	-0.95	-1.05
Peak EIRP (dBm)	4.56	4.63	4.77	4.85	4.86	4.91	4.98	4.95	4.92	4.94	4.9
NHPRP +/- 45 (degree)	-0.74	-0.67	-0.62	-0.55	-0.47	-0.44	-0.41	-0.46	-0.48	-0.5	-0.6
NHPRP +/- 30 (degree)	-3.32	-3.24	-3.19	-3.14	-3.05	-3.03	-3.01	-3.06	-3.11	-3.13	-3.21
E-Theta Peak Gain (dBi)	-6.27	-6.28	-6.15	-6.24	-6.21	-6.14	-6.23	-6	-6.24	-5.96	-6.1
E-Phi Peak Gain (dBi)	4.4	4.46	4.6	4.7	4.72	4.78	4.84	4.82	4.79	4.81	4.75
E-Total Peak Gain (dBi)	4.56	4.63	4.77	4.85	4.86	4.91	4.98	4.95	4.92	4.94	4.9
Directivity (dBi)	5.77	5.76	5.85	5.86	5.8	5.82	5.86	5.87	5.86	5.9	5.95
Efficiency (%)	75.66	77.01	77.87	79.14	80.61	81.21	81.68	80.95	80.53	80.27	78.54

**( . Mechanical Drawing**

**See attached files**

**) . Material Description and RoHS Test Report**

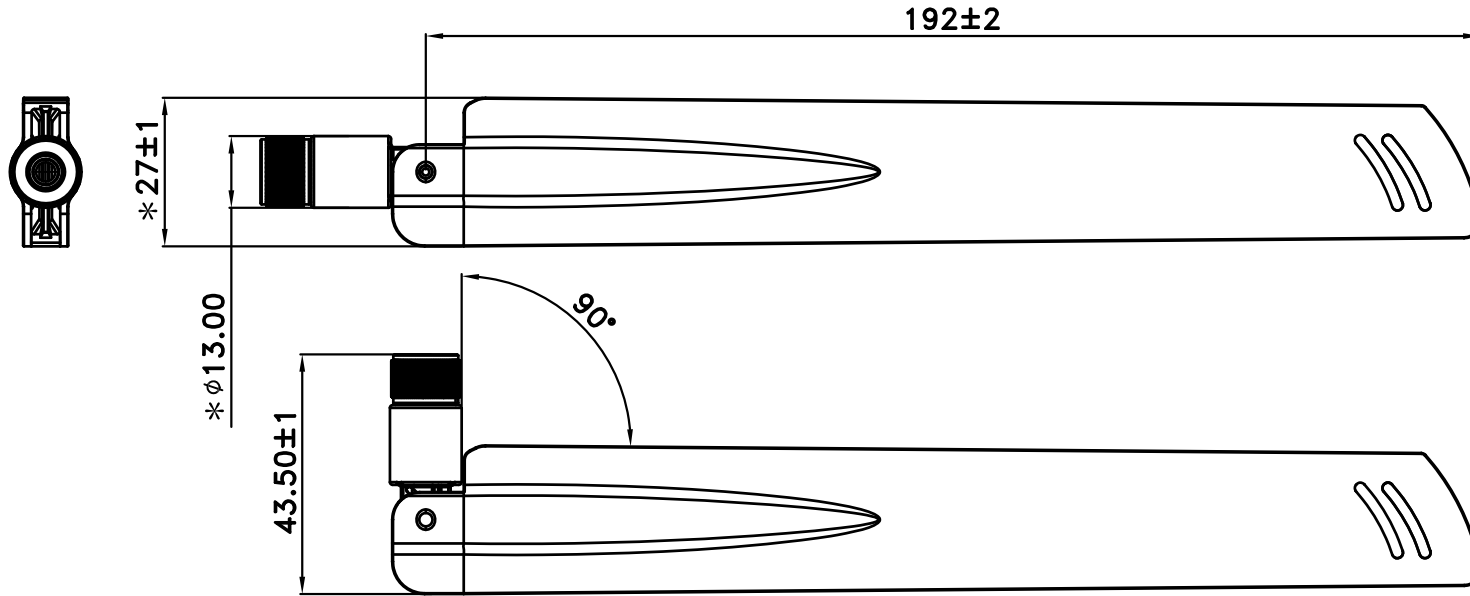
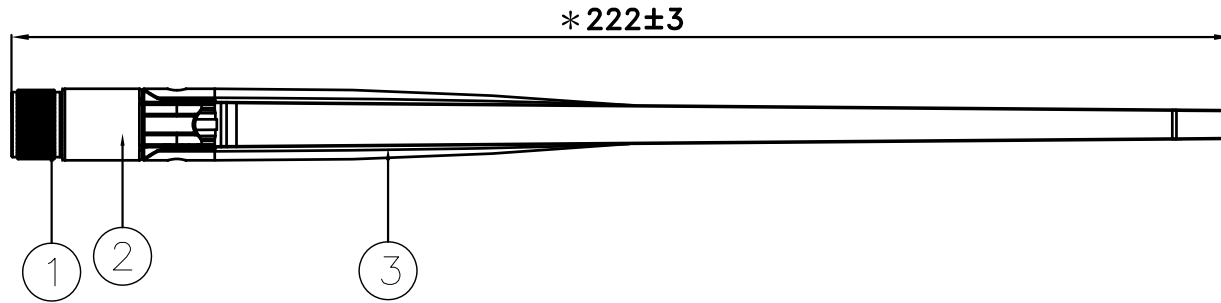
**See attached files**

# RoHS

Compatible



SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			



Note:

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

3	AN64D-P5-01B	Body	ABS	Black	1
2	Hinge-AN67-01B	Hinge	ABS	Black	1
1	SMA207-CCT5AN19-A	SMA公頭公針	Cu	Black	1
No.	Part Number	Name	Material	Finish	Q'ty

TITLE: AN64D Type LTE Antenna

PART NO.:		CUSTOMER P/N: /		
APP BY	CHK BY	RF BY	DES BY	 Tolerance X.X ±0.5 X.XX ±0.2 X° ±1
Grant	Jack	SiFei	LJHUA	
2013/12/03	2013/12/03	2013/12/03	2013/12/03	
UNITS: mm SCALE: / REVISION: A				

# 產品包裝規範

## PACKING CRITERION

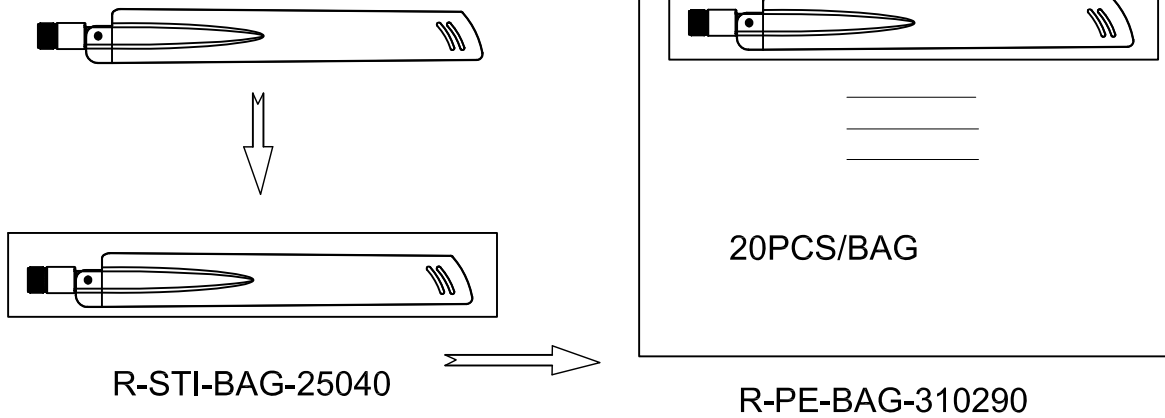


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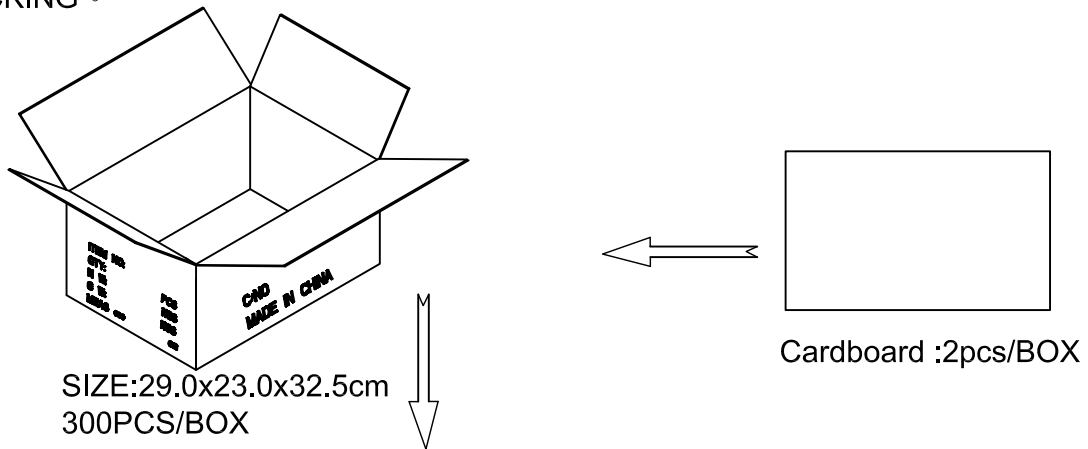
Page: 1 of 1

	Revision : A
Name: 700~960MHZ/1710~2700MHz Antenna	Customer :

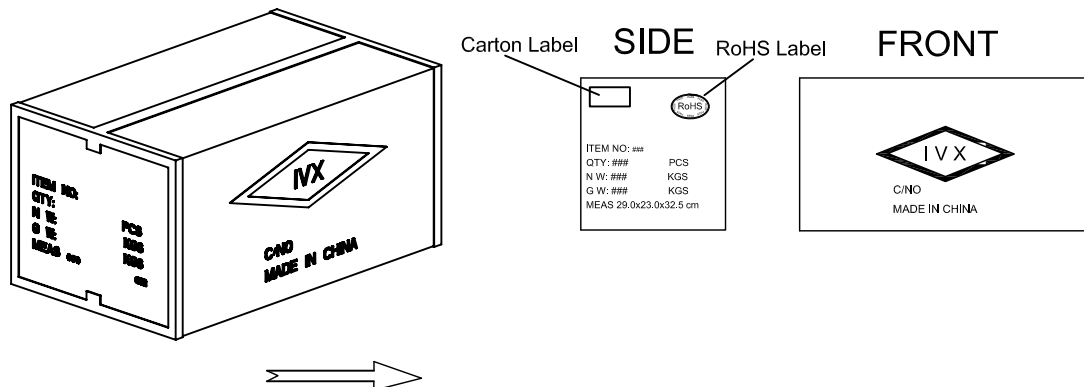
1. Enter PE bag.



2.PACKING .



3. SEALING.



APPROVED BY : Grant      CHECKED BY : Jack      DESIGNED BY : LJHUA



SGS 台灣網站 → [http://twap.sgs.com/sgsrsts/chn/cheres\\_tw.asp](http://twap.sgs.com/sgsrsts/chn/cheres_tw.asp)

SGS 大陸網站 → [http://rsts.cn.sgs.com/chn/cheres\\_cn.asp](http://rsts.cn.sgs.com/chn/cheres_cn.asp)

SGS 韓國網站 → [http://rohs.kr.sgs.com/sgsrsts/en/cheres\\_en.asp](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

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	Hinge-AN67-01B	Hinge	ABS	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	10044908 034	2014.01.02	ABS-757	TuvRheinland
2	AN64D-P5-01B	Body	黑色色母	N.D.	N.D.	N.D.	N.D.			A001T140306202002-2	2014.03.12	black white color masterbatch pigment	AOV
3	PB-AN64D-P5FB	PCB	FR4	N.D.	6	N.D.	N.D.	N.D.	N.D.	SHAEC1325611207	2014.01.06	Halogen free laminate	SGS
4	RG-178U-03	Cable	FEP	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ECL02G000368001E	2014.09.05	电线电缆料	CTI
5			PTFE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ECL02G000368002E	2014.09.05	电线电缆料	CTI
6			鍍錫銅	N.D.	12 mg/kg	N.D.	Negative			RHS06F003892002E	2013.12.20	鍍錫銅線	CTI
7			鍍銀銅絲	N.D.	N.D.	N.D.	Negative			SHAEC1407373515 A01	2014.05.13	SILVER-COATED	SGS
8	SMA207-CCT5AN19-A	SMA Male	銅	36	26662	N.D.	Negative			CANEC1408043401	2014.05.30	C3604 Copper bar	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%

**Index:**

- 1. Reliability Testing**
- 2. Specification**
- 3. Mechanical Drawing**
- 4. SGS Report**

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**1. Reliability Testing**

<b>Test Item</b>	<b>Procedure</b>	<b>Requirement</b>
<b>1. Visual inspection and Dimension Check</b>	Applicable methods using x5 magnification	follow specification
<b>2. Rapid Changing of Temperature</b>	-40°C (30minutes) to 80°C (30minutes); 24 cycles	After 2 hours recovery: 1. no visible damage 2. Freq. Tol.: < ±5%
<b>3. Damp Heat</b>	24 hours at 60°C; 90 ~ 95% RH	After 2 hours recovery: 1. no visible damage 2. Freq. Tol. : < ±5%
<b>4. Endurance</b>	24 hours at 80°C	After 2 hours recovery: 1. no visible damage 2. Freq Tol.: < ±5%

**2. Specification**

<b>A. Electrical Characteristics</b>	
Impedance	50 Ohm
<b>B. Material</b>	
Material of Radiator	Cu (Plated)
Material of Coaxial Cable	RG58 / 1000mm / Cable Loss: 0.9dB @ 2450MHz for 1 Meter
<b>C. Environmental</b>	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C

- 3. Mechanical Drawing**
- 4. SGS Report**

# 產品包裝規範

## PACKING CRITERION

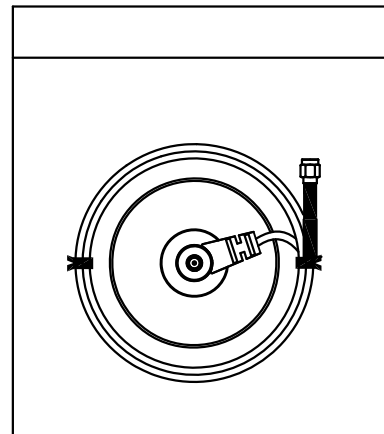
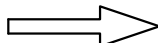
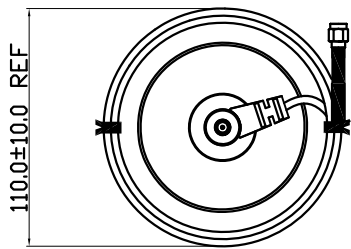


Date: 2015.03.31

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	Revision : A
Name: Magnetic Base	Customer : ALL

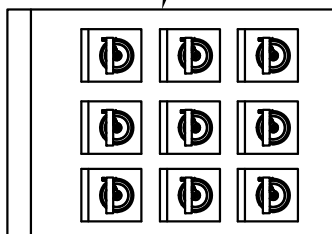
### 一. 1pcs產品裝入PE袋。



R-PE-BAG-150170

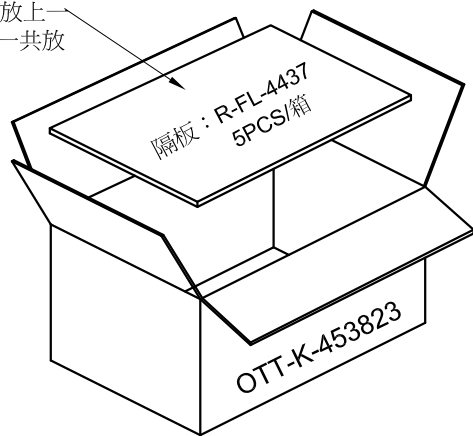
### 二. 裝外箱(36PCS/箱)

將裝有小的PE袋產品擺放成3排3列共9pcs裝進一個大的PE袋中，然後封口

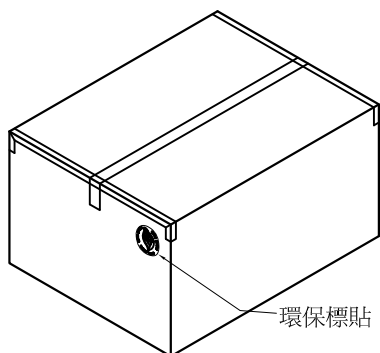


R-PE-BAG-400450  
9PCS/BAG

將外箱底部用封箱膠紙封好,放1PCS隔板在底箱內,將大PE袋共9PCS產品放在隔板上,再放上一層隔板,依次类推,每箱一共放置4層產品,总共36PCS.



### 三. 封箱並貼環保標貼



環保標貼

APPROVED BY : Grant

CHECKED BY : Jack

DESIGNED BY : WYJ

SGS 台灣網站 → [http://twap.sgs.com/sgsrsts/chn/cheres\\_tw.asp](http://twap.sgs.com/sgsrsts/chn/cheres_tw.asp)

SGS 大陸網站 → [http://rsts.cn.sgs.com/chn/cheres\\_cn.asp](http://rsts.cn.sgs.com/chn/cheres_cn.asp)

SGS 韓國網站 → [http://rohs.kr.sgs.com/sgsrsts/en/cheres\\_en.asp](http://rohs.kr.sgs.com/sgsrsts/en/cheres_en.asp)

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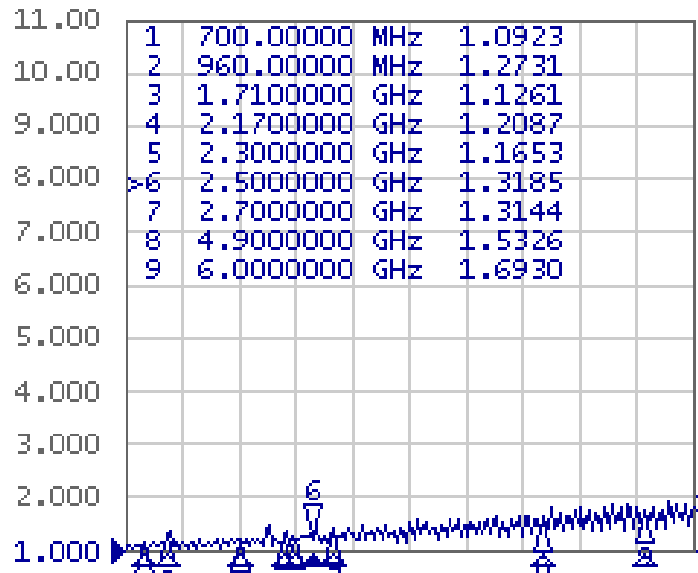
序號	物料型號	物料各構成名稱	各構成物料的材質	測試報告裡RoHS對應物質測試結果						檢測報告編號	測試日期	測試名稱	測試機構名稱
				Cd	Pb	Hg	Cr(VI)	PBBs	PBDEs				
1	R-AN62-08C	Metal Body	Iron	N.D.	N.D.	N.D.	Negative			CANEC1402559406	2014.03.11	单光铁料SPCC	SGS
2	R-RG-58B-02	Cable	外被PVC	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC1502724602	2015.03.09	BLACK PVC	SGS
3			PE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC1409066101	2014.06.17	HDPE/XLPE/FPE	SGS
4			裸銅線	N.D.	8 mg/kg	N.D.	Negative	N.D.	N.D.	ECL03G003675001E	2014.12.12	Bare Copper Wire	CTI
5	SMA946-CGR558-B SMA010-CGT558-A	SMA母頭母針 SMA公頭公針	銅	36	26662	N.D.	Negative			CANEC1408043401	2014.05.30	C3604 Copper bar	SGS
6			鍍金	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANML1410789606	2014.07.10	滾鍍:金溶液.	SGS
7	R-AN62-09 R-AN29-RU-1320	Rubber	橡膠	8	35	N.D.	N.D.	N.D.	N.D.	CANEC1401509117	2014.02.24	Environmental Protection rubber sheet	SGS
8	R-SMA-SLR-800	SMA Hat	硅膠	N.D.	10	N.D.	N.D.	N.D.	N.D.	SHAEC1402241106	2014.03.01	混煉胶	SGS
9	R-HSTUBE-006T	SHTUBE	PVC	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC1501457205	2015.02.02	HEAT SHRINKABLE	SGS
10	AB43-SR-SMA	SR	PVC	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC1502724602	2015.03.09	BLACK PVC	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

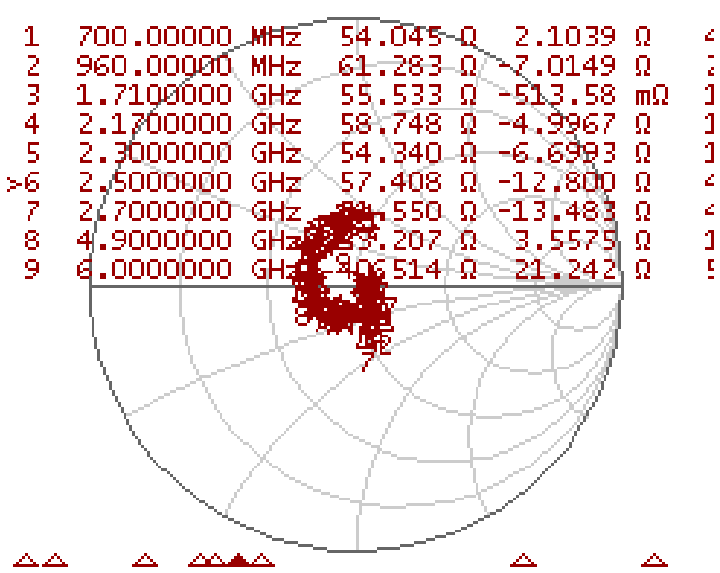
包裝材料中鉛、鎘、汞、六價鉻總含量不超過100ppm，鎘的允許濃度為5ppm

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%

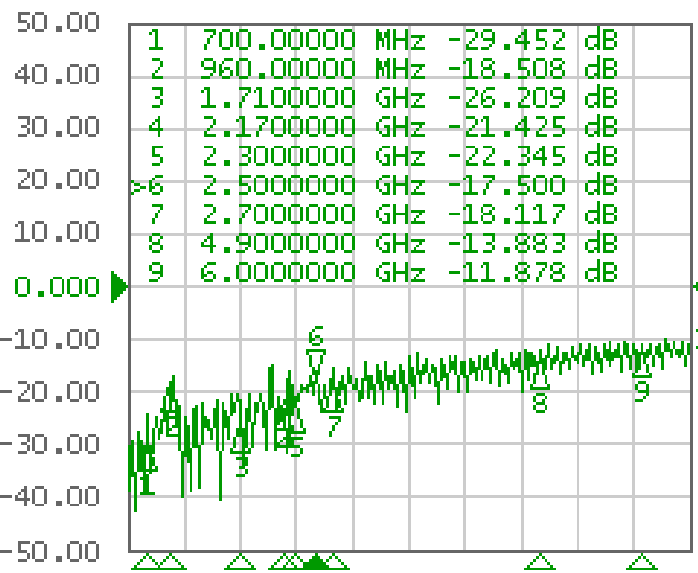
Tr1 S11 SWR 1.000/ Ref 1.000 [F2]



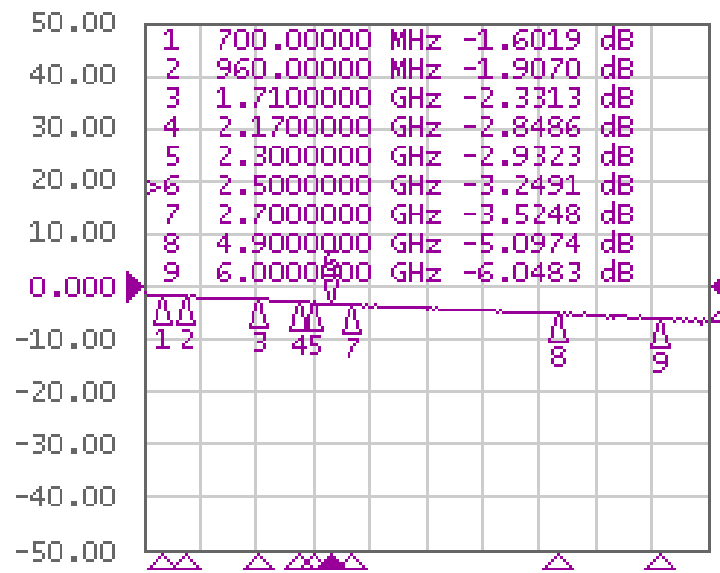
Tr2 S11 Smith (R+jX) Scale 1.000U [F2]



Tr3 S11 Log Mag 10.00dB/ Ref 0.000dB [F2]



Tr4 S21 Log Mag 10.00dB/ Ref 0.000dB [F2]



System

Print

Abort Printing

Printer Setup...

Invert Image  
ON

Dump  
Screen Image...

Multiport Test Set  
Setup

Misc Setup

Backlight  
ON

Firmware  
Revision