

零組件承認/申請報告書

編號 : R13981 2005/12/28

Alpha P/N : 505924142810G		申請者 : 顧崇輝	主管 : 張世宗
零組件品名 : ENG ANT 2.4G 2 dBi THW1428A1			
零組件品名2 :			
原製造廠商 : (505780) 萬旭電業股份有限公司		原廠編號 : THW1428A1	
在台代理商 : 萬旭			
聯絡人 : 洪世澤		電話 : 02-22988066-481	
應用機種 :			
COMMENTS :			
測試結果 : SGS 測報超過期限 , 申請暫時料號 檢驗重點 1.外觀 2.尺寸 3.型號			
承辦人 : 周禎義		日期 : 2005/12/23	
結果	☒ 合格 ☐ 否決 ☐ 其他	審核	王椅楠 2005/12/23

承 認 書
SPECIFICATION FOR APPROVAL

客 戶
CUSTOMER

明泰科技股份有限公司

日 期
DATE

94 年 12 月 15 日

品 名
DESCRIPTION

印 D-Link Swivel Type , 1/4λ Dipole
Antenna with RP-SMA(M) (Black)

客 戶 料 號
CUSTOMER P/N

成 品 編 號
Part NO.

THW1428A1



萬旭電業股份有限公司

WANSHIH ELECTRONIC CO., LTD.

台北縣五股鄉五工六路 72 號 3 樓

3F 72 WU KONG 6TH RD., WU KU INDUSTRIAL DISTRICT

TAIPEI HSIEN, TAIWAN, R.O.C.

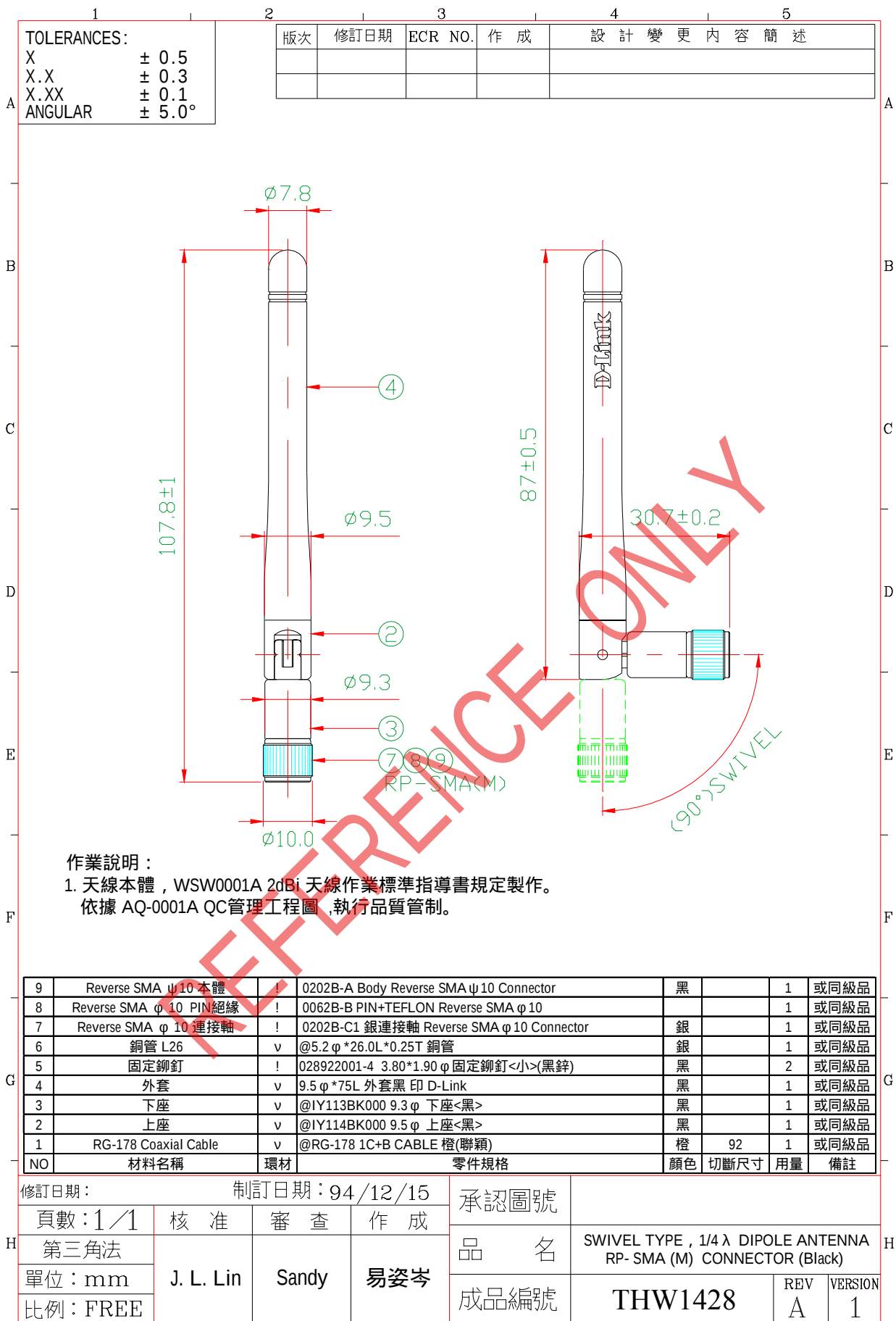
TEL : (02) 22988066 (5 LINE) FAX : (02)22981102

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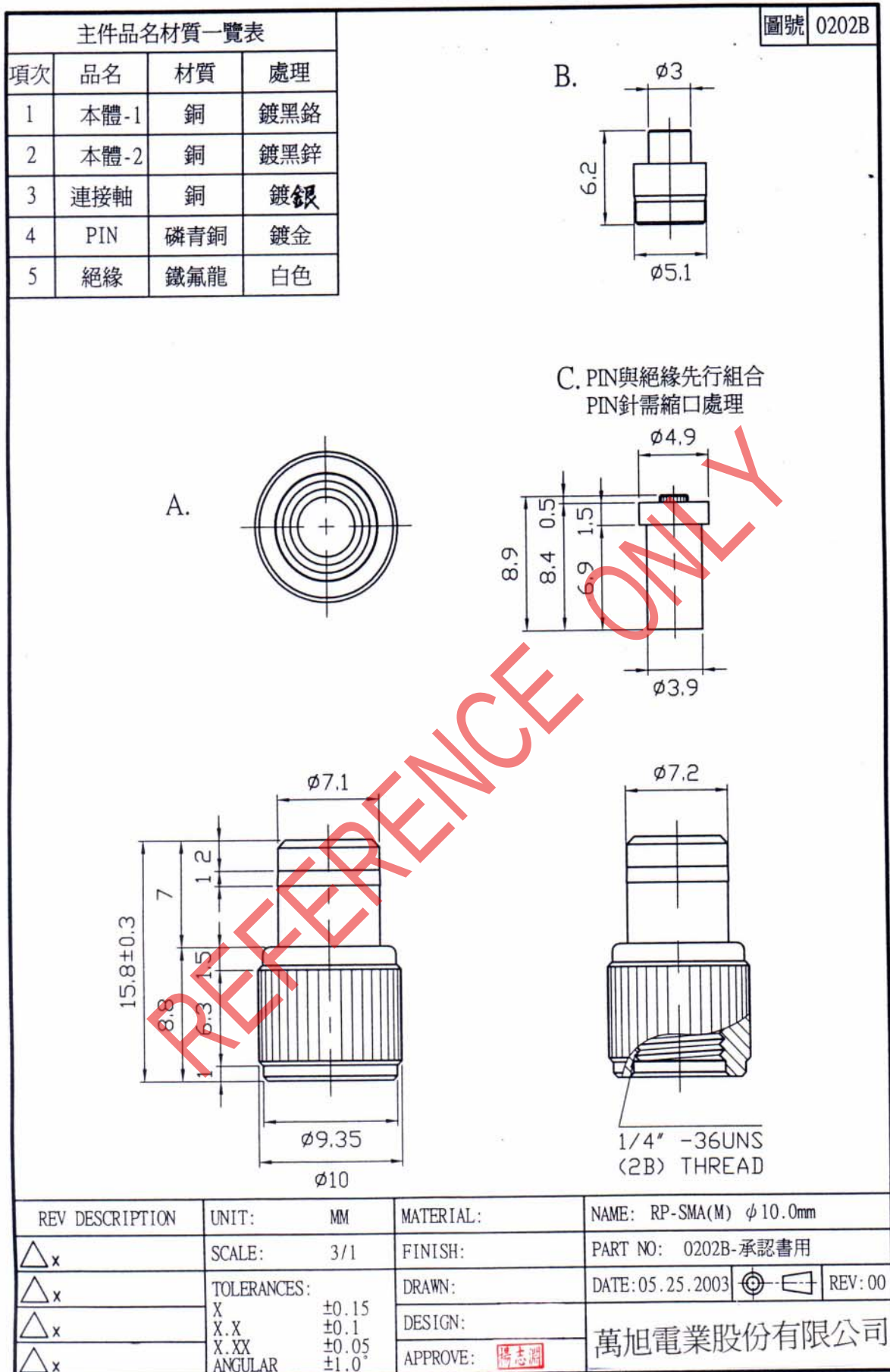
SPECIFICATION

- | | |
|-------------------------------|--|
| 1. Description | : The antenna is a Swivel Type ,
Dipole Antenna |
| 2. Customer | : 明泰科技股份有限公司 |
| 3. Model No. | : WSS002 |
| 4. Part No. | : THW1428A1 |
| 5. Standard | : IEEE 802.11b/g Wireless LAN |
| 6. Antenna Profile | : 108 mm length (see Drawing) |
| 7. Color | : Black |
| 8. Electrical Characteristics | |
| Operating Frequency | : 2.4~2.5GHz |
| Antenna Type | : 1/4λ Dipole Sleeve |
| Polarization Type | : Linear |
| Type of Radiation | : Toroidal |
| Peak Gain | : 2.0 dBi Typical |
| Impedance | : 50 Ohm nominal |
| V.S.W.R. | : 2.0:1 Max. |
| 9. Mechanical Characteristics | |
| Action | : Swivel Type |
| Connector | : RP-SMA(M) |
| Core | : N/A |
| 10. Raw Material | |
| Coaxial Cable | : MIL-C-17 RG-178 B/U |
| Housing | : TPU |
| Hinge | : PC+ALLOY |



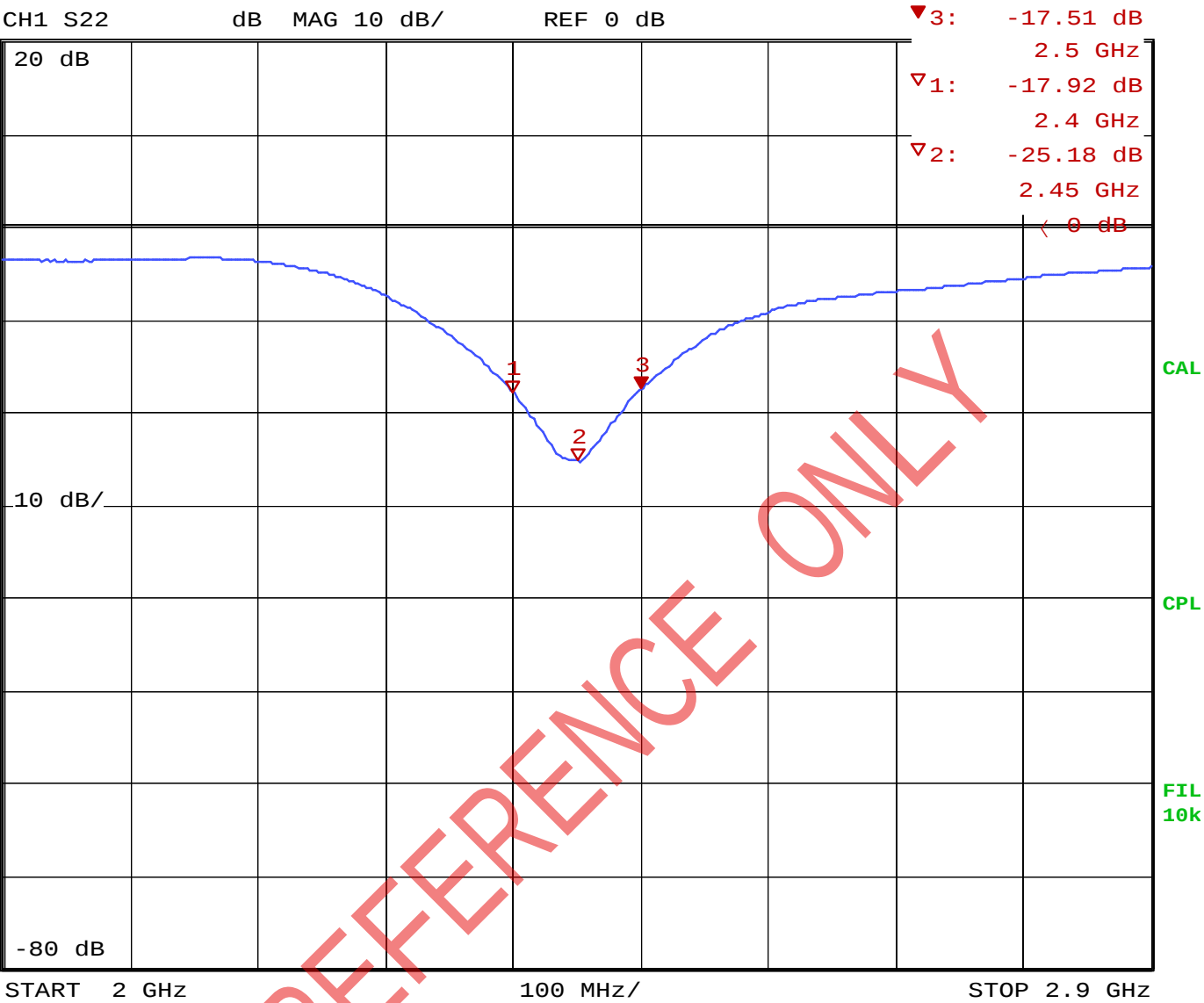
萬旭電業股份有限公司

文件編號：FMT-0513-C7



Electrical Properties

Return Loss



Electrical Properties

V.S.W.R



Electrical Properties

Radiation Pattern – H Plane

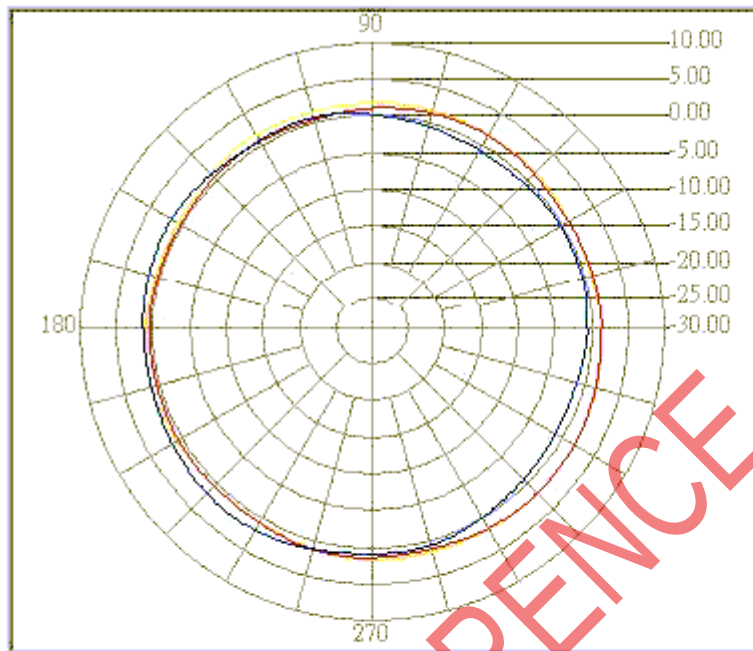


萬旭電業股份有限公司

Model No:

Antenna Position: Vertical

Test Mode: H-PLANE



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	2.04	313.07	1.40
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	2.02	322.95	1.11
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2490.00	2.10	231.56	0.62

Electrical Properties

Radiation Pattern – E Plane

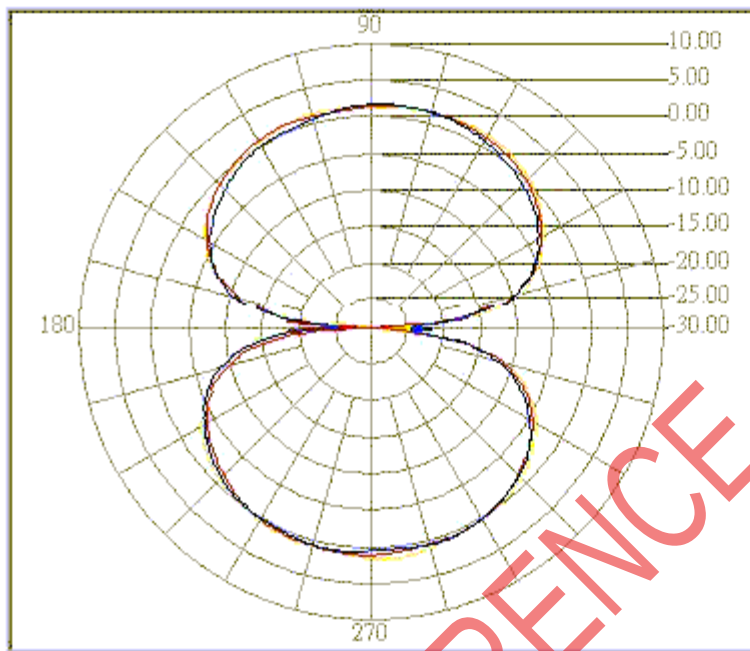


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Model No:

Antenna Position: Horizontal

Test Mode: E-PLANE



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	1.86	66.19	-1.03
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	1.77	76.70	-1.27
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2490.00	1.78	84.74	-1.49

Coaxial Cable Data Sheet

RG-178

COPARTNER WIRE& CABLE MFG.CORP

SPECIFICATION

Xintang Road 68#, Changling Industrial Area, Xin tian Village, Fuyong County,
Baoan District of Shenzhen, Guangdong, China
TEL: 86-755-2731-2988, 2731-2746 FAX: 86-755-2731-2736

CUSTOMER: 萬 旭

STYLE: COAXIAL CABLE

SPEC.: 1C+B RG178B/U

PART NO.: 3870130130

CUSTOMER CODE:

DATE : 2004/5/7

REVISION: A

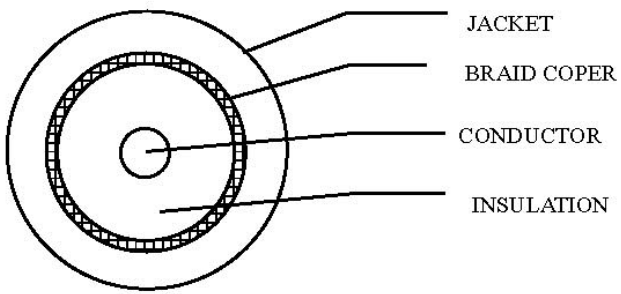
TOTAL PAGES: 3

COPARTNER SIGNATURE	CUSTOMER APP CUSTOMER P/N
PREPARED BY:LXY	CHECKED BY:
CHECKED BY:	APPROVED BY:
APPROVED BY :	DATE:

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CABLE CONSTRUCTION(電纜結構):

ITEM(結構項目)		SPECIFICATION(規格說明)
CONDUCTOR 導體	AWG(線規)	30AWG
	MATERIAL(材質)	SCCS
	COND.SIZE(尺寸)	7/0.102±0.008 mm
INSULATION 絕緣體	MIN.AVG THICK(最小厚度)	0.20 mm
	MATERIAL(材質)	FEP LOW TOXIC
	O . D(外徑)	0.86±0.05 mm
	N O.(線數)	1C
AL.MYLAR 鋁箔	COVERAGE(遮蔽率)	/
	OVERLAP(重疊率)	/
MYLAR 麥拉	COVERAGE(遮蔽率)	/
	OVERLAP(重疊率)	/
DRAIN 地線	AWG(線規)	/
	MATERIAL(材質)	/
	SIZE(尺寸)	/
BRAID 編織 COPPER	MATERIAL(材質)	TINNED COPPER
	SIZE(尺寸)	16×3/0.10±0.008 mm
SPIRAL 纏繞 COPPER	MATERIAL(材質)	/
	SIZE(尺寸)	/
COVERING 被覆體	MIN.AVG THICK(最小厚度)	/
	MATERIAL(材質)	/
	O.D(外徑)	/
	NO.(線數)	/
FILLER 填充	MATERIAL(材質)	/
LAYER 集合	DIRECTION(絞向)	/
	PITCH(絞距)	/
FOAMED PP TAPE 發泡 PP 膜	COVERAGE(遮蔽率)	/
	OVERLAP(重疊率)	/
AL.MYLAR 鋁箔	COVERAGE(遮蔽率)	/
	OVERLAP(重疊率)	/
PAPER 紙	COVERAGE(遮蔽率)	/
	OVERLAP	/
DRAIN 地線	AWG(線規)	/
	MATERIAL(材質)	/
	SIZE(尺寸)	/
BRAID(編織) COPPER	MATERIAL(材質)	/
	SIZE(尺寸)	/
SPIRAL(纏繞) COPPER	MATERIAL(材質)	/
	SIZE(尺寸)	/
JACKET 被覆體	MIN.AVG THICK(最小厚度)	0.20 mm
	MATERIAL(材質)	FEP
	COLOUR(顏色)	ORANGE LOW TOXIC
	O . D(外徑)	1.80±0.10 mm
MARKING 印字	MARKING 印字	/

CONSTRUCTION(構造)	
	
COLOR CODE:(顏色代碼)	
NATURAL	
PHYSICAL PROPERTY & TRANSMISSION PERFORMANGE SPECIFICATIONS	
Electric Characters(電氣特性) 1.Attenuation (normal): at 400MHz 29.0dB/100FT ; 2.Impedance test : 50 ±3Ω @TDR 3.DC-R: Conductor resistance:846 Ω/km at 20℃ MAX	

Housing Material Data Sheet

• Housing - TPU

TPU

熱塑性聚胺酯

BAYER

拜耳

Desmopan®

Items 項目	Test Methods 試驗方法		Unit 單位	192	385	588	KU 2-8600
	DIN	ISO		8092	8085		
Mechanical Properties 機械特性							
Tensile Yield Strength 拉伸屈服強度	53504	37	MPa	45	40	30	40
Elongation at Break 延伸率	53504	37	%	450	450	500	500
Compression Set 壓縮變形 70 hr st 22°C	53517	-	%	25	30	30	25
	53517	-	%	60	55	65	42
Physical Properties 物理特性							
Shore A Hardness 硬度	53505	868	-	94	85	88	82
Shire D Hardness 硬度	53505	868	-	42	32	33	31
Modulus of Elasticity	53455	-	MPa	45	15	30	12
Abrasion Resistance(Loss)	53516	4649	mm³	30	30	60	20
Rebound Resilience	53512	4662	%	30	42	36	45
Tear Propagation Resistance	53515	-	kN/m	90	70	55	50
Density 密度	53479	1183	g/cm³	1.23	1.20	1.15	1.11
Electrical Properties 電氣特性							
Dielectric Strength 耐電率 (50Hz,0.5kV/s) 1. Dry 2. 4 days at 80% r.h. 3. 24 h immersion in water	EC 243. VDE 0303/part 2		kV/mm				
	95mm Ø•1mm			14.8 13.7 13.9	17.5 17.6 17.7	20.2 20.0 20.1	NA NA NA
Surface Resistivity 1,000V, 1-minute Value 1. Dry 2. 2.4 days at 80% r.h. 3. 24 h immersion in water	IEC 93. VDE 0303/part 3		Ohm				
	Standard test piece			1•10 ¹² 2•10 ¹¹ 2•10 ¹¹	5•10 ¹¹ 8•10 ¹¹ 5•10 ¹¹	6•10 ¹¹ 7•10 ¹⁰ 7•10 ¹⁰	NA NA NA
Insulation Between Plug Electrodes 1,000V, 1-minute Value 1. Dry 2. 4 days at 80% r.h. 3. 24 h immersion in water	IEC 167. VDE 0303/part 3		Ohm				
	Standard test piece			5•10 ¹² 1•10 ¹² 2•10 ¹¹	4•10 ¹¹ 7•10 ¹⁰ 7•10 ¹⁰	1•10 ¹² 1•10 ¹¹ 1•10 ¹⁰	NA NA NA
Volume Resistivity 1,000V, 1-minute Value 1. Dry 2. 4 days at 80% r.h. 3. 24 h immersion in water	IEC 93. VDE 0303/part 3		Ohm•cm				
	95mm Ø•1mm			5•10 ¹² 7•10 ¹² 2•10 ¹¹	8•10 ¹¹ 2•10 ¹¹ 1•10 ¹¹	3•10 ¹² 2•10 ¹¹ 8•10 ¹⁰	NA NA NA
Dielectric Constant 1. At 50Hz 2. At 1kHz 3. At 1MHz 4. At 1GHz	IEC 250. VDE 0303/part 4						
	95mm and 50mmØ•1mm			6.6 6.3 5.1 3.6	6.5 6.4 5.6 3.8	6.3 6.1 5.0 3.4	NA NA NA NA
Dissipation factor tan 1. At 50Hz 2. At 1kHz 3. At 1MHz 4. At 1GHz	IEC 250. VDE 0303/part 4						
	95mm and 50mmØ•1mm			0.025 0.034 0.075 0.022	0.029 0.018 0.060 0.032	0.024 0.025 0.084 0.024	NA NA NA NA
Comparative Tracking Index(CTI) (test solution A)	IEC 112. VDE 0303/part 1 20mm•15mm•4mm		Grading	600	600	600	NA
Raw Material Groups 原料分類				Ester		Special Ether	Ether

UL File No.:E41613(M)

The data are intended as a general guide only makes no guarantee of results and assumes no obligation or liability. 上列數據僅供參考，並不為此承擔任何責任和保證。

011-7

• Hinge(上座/下座) - PC+ALLOY

SHINBLEND® ALLOY ENGINEERING PLASTIC DIVISION	SHINKONG SYNTHETIC FIBERS CORPORATION 新光合成纖維股份有限公司 8th Fl., 123, Sec.2, Nankong East Road, Taipei, Taiwan Tel: 886-2-2507-0131, 886-2-2507-1234 (0 Lines), 886-3-4932131-1730 Fax: 886-2-2506-8047, 886-3-491-3763

Technical Data

SHINBLEND®
A724NA

High Impact Grade / 超韌級 AD4011

	Unit	Test Method	Values
Mechanical properties 機械性質			
Izod Impact(Notched) 23°C	Kg-cm/cm	ASTM D256	85
-20°C	Kg-cm/cm	ASTM D256	70
-40°C	Kg-cm/cm	ASTM D256	65
Tensile Strength	Kg/cm ²	ASTM D638	540
Elongation	%	ASTM D638	100
Flexural Strength	Kg/cm ²	ASTM D790	800
Flexural Modulus	Kg/cm ²	ASTM D790	20000
Thermal properties 熱性質			
Heat Deflection Temperature		ASTM D648	
66psi	°C		-
264psi	°C		100
Flammability	防火性	UL94	-
Melting Point	熔點	DSC	223
Electrical properties 電氣性質			
Dielectric Strength	KV/MM	ASTM D149	-
Dielectric Constant	...	ASTM D150	-
Volume Resistivity	Ω-CM	ASTM D257	-
Other properties 其它性質			
Specific Gravity	比重	ASTM D792	1.19
Water Absorption	吸水率	ASTM D570	0.14
Mold Shrinkage	成形收縮率	ASTM D955	
Flow	流動方向	%	0.4~0.6
Cross Flow	垂直方向	%	0.5~0.7

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2002/6