

零組件承認/申請報告書

編號 E10324

2007/8/23

Alpha P/N : 505900000610G		申請者 :		主管 :	
零組件品名 : ANTE / CON AC					
原製造廠商 : 電			原廠編號 : THW0157A		
代理商 : 電					
聯絡人 :			電話 : 02-22988066		
應用機種 :					
COMMENTS :					
<div style="border: 1px solid black; display: inline-block; padding: 5px;">結果</div>					
主管 :		<input type="checkbox"/> 承辦者 :		Panton No:	
				日期 : // : :	
結果	合格	審核			
			// : :		

承 認 書
SPECIFICATION FOR APPROVAL

客 戶
CUSTOMER

明泰科技股份有限公司

日 期
DATE

2007/8/7

品 名
DESCRIPTION

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

客 戶 料 號
CUSTOMER P/N

505900000610G

成 品 編 號
Part NO.

THW0157A
(符合環保材)

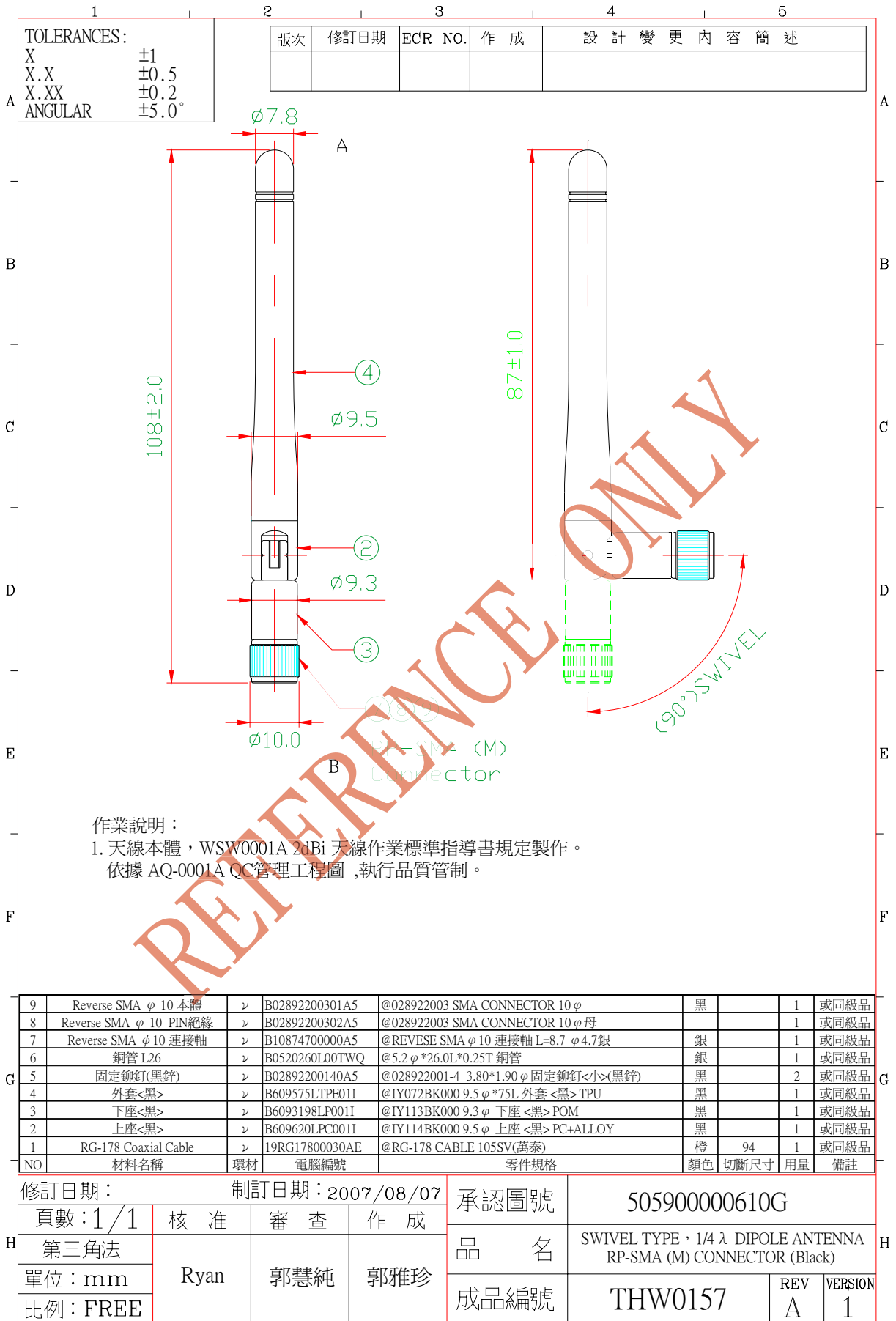
REFERENCE ONLY

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SPECIFICATION

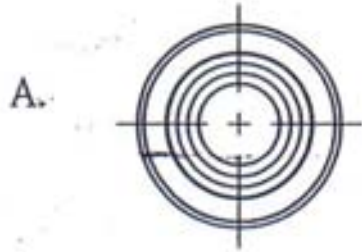
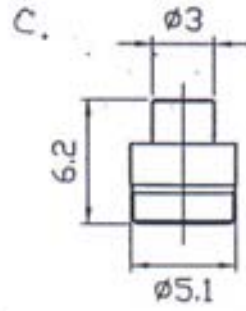
- | | |
|-------------------------------|--|
| 1. Description | : The antenna is a Swivel Type ,
Dipole Antenna |
| 2. Customer | : 明泰科技股份有限公司. |
| 3. Model No. | : WSS002 |
| 4. Part No. | : THW0157A |
| 5. Standard | : IEEE 802.11b/g Wireless LAN |
| 6. Antenna Profile | : 108 mm length (see Drawing) |
| 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 | : RG-178 |
| Housing | : TPU |
| Hinge | : PC+ALLOY/POM |



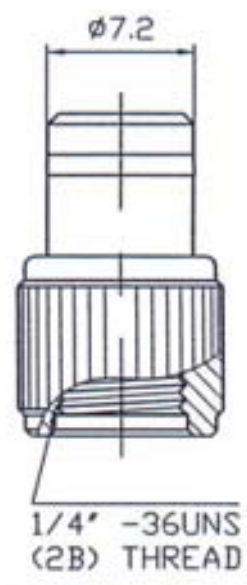
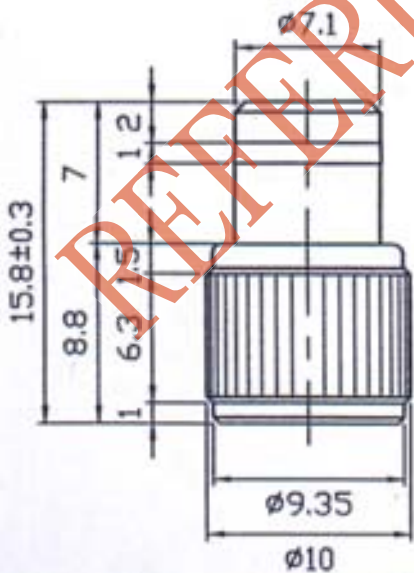
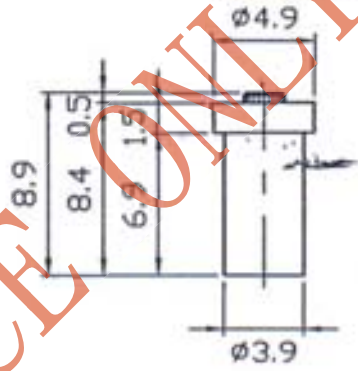
萬旭電業股份有限公司 文件編號：FMT-0513-D7

主件品名材質一覽表			
項次	品名	材質	處理
1	本體-1	銅	鍍黑鉻
2	本體-2	銅	鍍黑鋅
3	連接軸	銅	鍍銀
4	PIN	磷青銅	鍍金
5	絕緣	鐵氟龍	白色

圖號 0202B



B. PIN與絕緣先行組合
PIN針需縮口處理



REV	DESCRIPTION	UNIT:	MM	MATERIAL:	NAME: RP-SMA(M) ϕ 10.0mm
Δ x		SCALE:	3/1	FINISH:	PART NO: 0202B-承認書用
Δ x		TOLERANCES:		DRAWN:	DATE: 05.25.2003 REV: 00
Δ x		X	± 0.15	DESIGN:	
Δ x		X.X	± 0.1	APPROVE:	
Δ x		X.XX	± 0.05		
Δ x		ANGULAR	$\pm 1.0^\circ$		

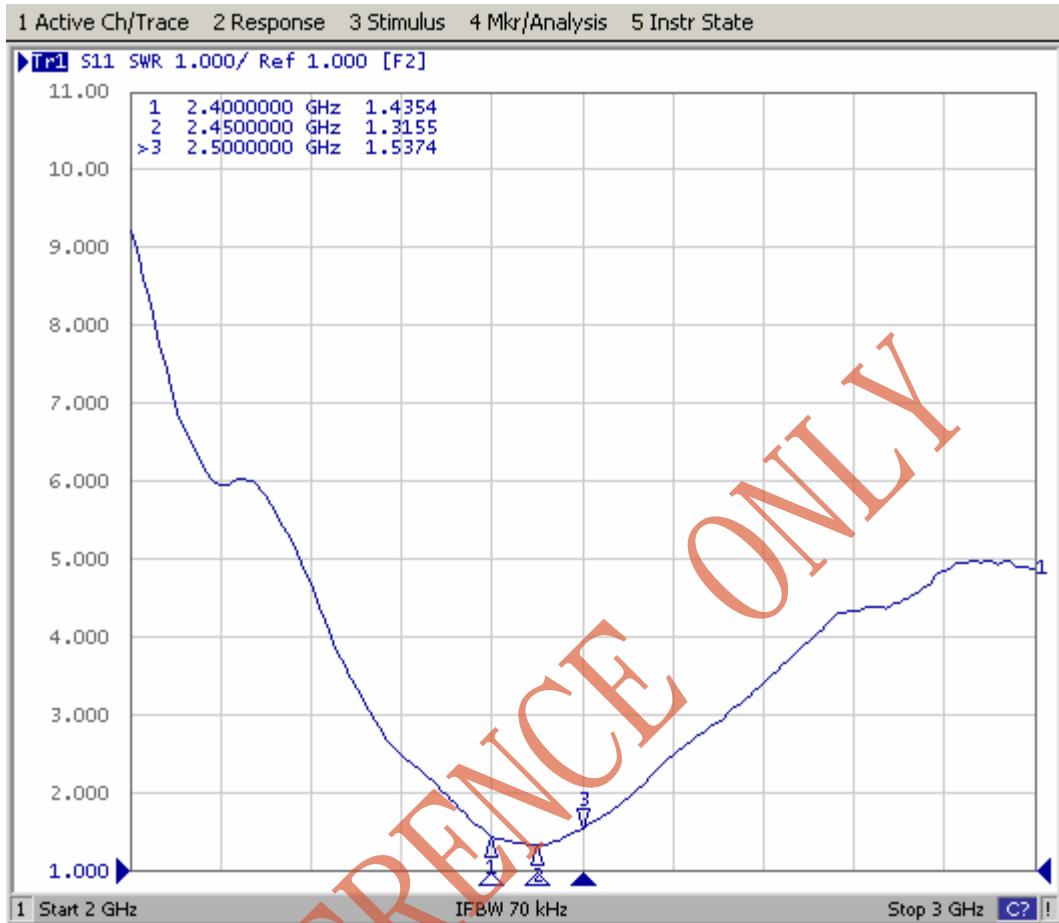
Electrical Properties

Return Loss



Electrical Properties

V.S.W.R



REFERENCE ONLY

Electrical Properties

Radiation Pattern – H Plane

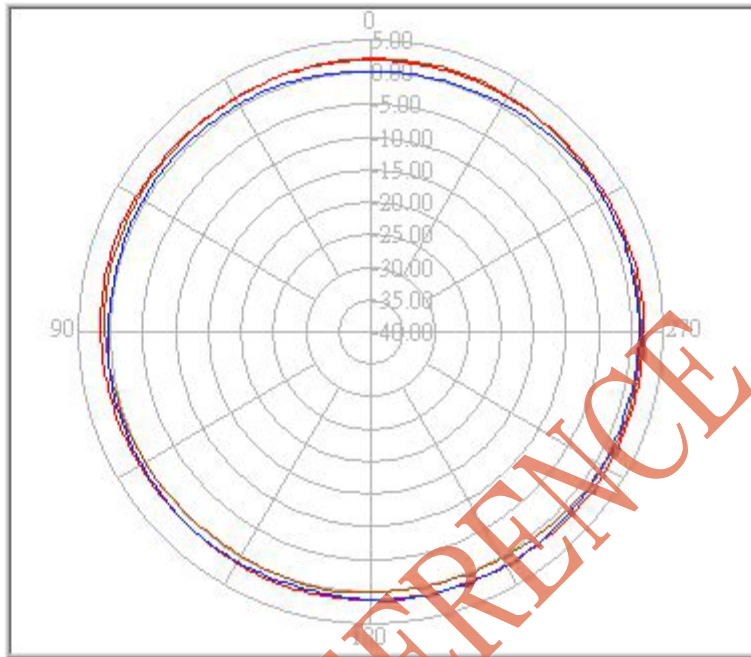


萬旭電業股份有限公司

Model No: 070412

Antenna Position: Vertical

Test Mode: H



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	2.24	13.42	1.12
2450.00	2.07	118.37	1.65
2500.00	1.65	151.32	0.89

REFERENCE

Electrical Properties

Radiation Pattern – E Plane

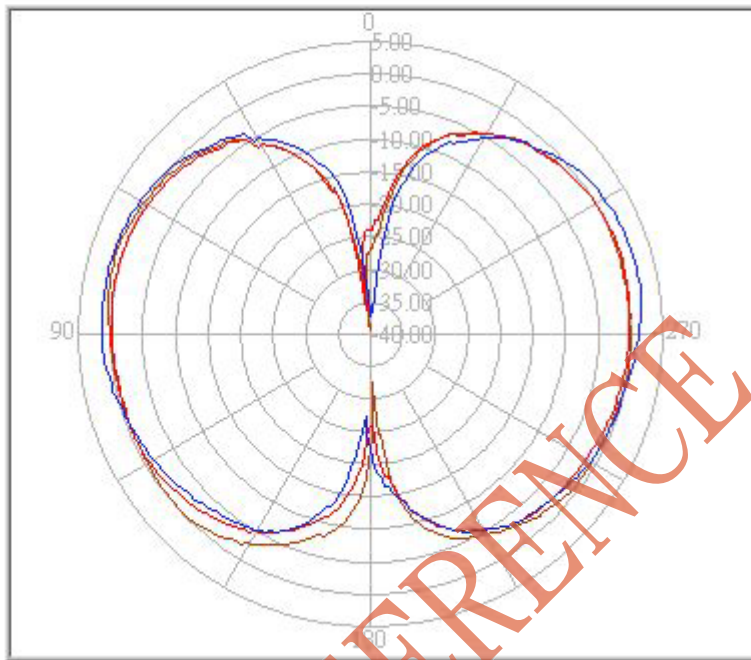


萬旭電業股份有限公司

Model No: 070412

Antenna Position: Horizontal

Test Mode: E



Freq (MHz)	peak (dBi)	Angle (o)	Avg (dBi)
2400.00	1.00	285.26	-2.03
2450.00	0.40	72.25	-2.55
2500.00	2.21	72.25	-1.70

Coaxial Cable Data Sheet
RG-178 Coaxial Cable

SPECIFICATION FOR APPROVAL

DOCUMENT: A30178B001

STYLE : 105°C 30V
RG-178B/U

SIZE: 7/0.102 SCCS

RECOGNIZED: UL 1979



WONDERFUL HI-TECH CO.,LTD

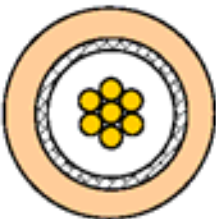
OFFICE : 72WU KONG 6TH ROAD,
WU KU IND. DISTRICT
TAIPEI HSIEN, TAIWAN

TEL : (02)22988033
FAX : (02)22988031-2

FACTORY : 17 PEI YUAN ROAD,
CHUNG-LI IND. PARK
TAIWAN, R.O.C.

TEL : (03)4527777
FAX : (03)4517214

 **WONDERFUL HI-TECH CO., LTD**
SPECIFICATION

STYLE	105°C 30V UL1979	DOCUMENT NO : A30178B001	
SIZE	RG-178B/U	ESTABLISHED DATE: 2004/03/22	
STANDARD : MIL-C-17			
Conductor	Size	AWG	30
	Material	----	Silver-Coated Copper Clad Steel
	Conductors No.	----	7
	Conductors Size	mm	0.102
	O.D.	mm	0.30
Insulation	Average Thickness	mm	0.28
	Diameter	mm	0.86 ±0.03
	Material	----	FEP
	Color	----	Clear
Braid	Material	----	Silver-Coated Copper
	Construction	mm	16 / 3 / 0.10
	Coverage	%	95
Jacket	Average Thickness	mm	0.25
	Diameter	mm	1.80 ±0.05
	Material	----	FEP
	Color	----	Brown
Marking			
Drawing			

AK001/210X297/1.0

PAGE : 1

EDITION : 1.2

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

APPROVAL : W.J.WANG

 **WONDERFUL HI-TECH CO., LTD.**
SPECIFICATION

Electrical & Physical Properties						
Item		RG-178B/U				
Rating Temp Voltage		105°C 30V				
Conductor Resistance		838 OHM/KM/20°C MAX.				
Insulation Resistance		3000 MEGA OHM/KM MIN.				
Dielectric Strength		AC 500V/Minute				
Spark Test		2.5 KV				
Insulation	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / m ²)			
		Elongation	200% MIN.			
	Aged	Tensile Strength	UNAGED MIN 75%(168HRS×232°C)			
		Elongation	UNAGED MIN 75%(168HRS×232°C)			
Jacket	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / m ²)			
		Elongation	200% MIN.			
	Aged	Tensile Strength	UNAGED MIN.75%(168HRS×232°C)			
		Elongation	UNAGED MIN.75%(168HRS×232°C)			
Nom. Impedance		50 Ohms				
Nom. Capacitance		95.8 pF/m				
Nom. Vel. of Prop.		69.5%				
VSWR (0 – 6 GHZ)		UNDER 1.3				
Attenuation (dB/100m)	100MHz	1GHz	1.8GHz	2.4GHz	5.2GHz	6GHz
	46	155	295	340	505	550

AK001/210X297/1.0

PAGE : 2

EDITION : 1.2

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

APPROVAL : W.J.WANG

Housing Material Data Sheet

- Housing – TPU



東莞瑞安高分子樹脂有限公司檢驗報告

DONG GUAN RAYAN POLYMER CO.,LTD. TEST REPORT

廣東省東莞市長安鎮霄邊工業區

Tel:(0769)5533620 Fax:(0769)5533635 Postcode:523850

http://www.dghontex.com.cn E-mail:hontex@pub.dgnet.gd.cn

品名 Product Name	TU60DG	制造批號 Lot No.	R51298005
送驗日期 Sample Received	2005/12/15	檢驗日期 Sample Tested	2005/12/15
檢驗項目 Test Items	標準值/測試條件 Spec./Test Method	檢驗結果 Test Results	
外觀 Appearance	/	白霧狀 Cloudy	
拉伸強度(kg/cm ²) Tensile Strength	>300	437	
延伸率(%) Elongation	>380	423	
100%模量(kg/cm ²) 100% modulus	>90	217	
硬度(ShoreD) Hardness	60±2	61	
熔融指數 (g/10min) MI	10kg/215°C	21.3	
熔融粘度(Pa.s) Melt Viscosity	10kg/215°C	2543	
透明性 Transparency	/	1.5mm較透明	
耐磨耗 Abrasion Loss	DIN	47.7	
INSPECTION RESULT		PASS	

主管:

(Handwritten Signature)

檢驗員:
(Inspector):

劉小寒

2006年2月14日

表單編號(List No.): QW-069-02-A

• Hinge(上座/下座) –PC+ALLOY/POM

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, Nanking East Road, Taipei, Taiwan Tel: 886-2-2507-0111 886-2-2507-1122 886-2-2507-1133 886-2-2507-1150 Fax: 886-2-2506-8347 886-2-2506-5563
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Technical Data

SHINBLEND [®] A724NA High Impact Grade / 高衝擊 AD4011
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		Unit	Test Method	Values		
Mechanical properties 機械性質						
Izod Impact(Notched) 23°C	衝擊強度	Kg-cm/cm	ASTM D256	85		
	-20°C 衝擊強度	Kg-cm/cm	ASTM D256	70		
	-40°C 衝擊強度	Kg-cm/cm	ASTM D256	65		
Tensile Strength	拉伸強度	Kg/cm ²	ASTM D638	540		
Elongation	拉伸率	%	ASTM D638	100		
Flexural Strength	彎曲強度	Kg/cm	ASTM D790	800		
Flexural Modulus	彎曲模數	Kg/cm ²	ASTM D790	20000		
Thermal properties 熱性質						
Heat Deflection Temperature	熱變形溫度		ASTM D648			
		66psi °C		-		
		264psi °C		100		
Flammability	防火性	-	UL94	-		
Melting Point	熔點	°C	DSC	223		
Electrical properties 電氣性質						
Dielectric Strength	介電強度	KV/MM	ASTM D149	-		
Dielectric Constant	介電常數	---	ASTM D150	-		
Volume Resistivity	體積電阻	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

"Nothing in this information shall be construed as a recommendation for any use that may infringe on any patent right or as an endorsement of any material supplied by Shinkong Synthetic Fibers Corporation. We do not guarantee the applicability or the accuracy of this information or the performance of our products in any specific situation. We recommend each user of our products make its own tests to determine if the material is suitable for a particular use. The data shown here are within the normal range of product properties, but they are NOT SPECIFICATION LIMITS. Additives of any kind alter some or all of the properties."

台灣鋼 共聚酯聚縮脲樹脂品別、用途、物性一覽表 (DOM)

品名	類別	FX025-				FX090-				FX270-		
		08	10	13	08	10	13	08	10	13		
特性		甲電防止	耐熱性優異 耐熱水性	高點度 低模量 伸出 厚斷面特出	甲電防止	耐熱性優異 耐熱水性	物理流動性 低模量	甲電防止	耐熱性優異 耐熱水性	高流動性 低模量 加工性優異		
用途		其他特出品 其他特出品			扣具皮扣 皿碟 零件及五金 電子零件 汽阻零件 家庭電器 轴承	齒輪 其他特出品		皮扣 皿碟 電子零件 汽阻零件 家庭電器 齒輪 其他小設備零件				
試驗項目	單位											
比重	萬分法 (ASTM)											
硬度 (Rockwell)	1 刻度											
	2 刻度											
抗折強度	kgf/cm ²											
	kgf/cm ²											
抗折彈性係數	kgf/cm ²											
	kgf/cm ²											
拉伸強度	降伏點											
	斷裂點											
延伸率	降伏點											
	斷裂點											
壓縮強度	1%變形											
	10%變形											
衝擊強度	凹面23°C 50XII											
	反面23°C 50XII											
吸水率	24小時浸漬											
	平衡, 50XII											
	平衡, 浸漬											

表中數據均係試驗方法測得之結果，僅供參考，實際應用時請參閱說明書。

零組件承認/申請報告書

編號 E24682

2007/8/27

Alpha P/N : 505960079610G	申請者 :	主管 :
零組件品名 : ANT CABLE Mini 1.13 L=80mm		
原製造廠商 : 電	原廠編號 : THW0796A	
代理商 : 電		
聯絡人 :	電話 : 02-22988066	
應用機種 :		
COMMENTS :		
結果		
號		
<div style="position: absolute; opacity: 0.3; font-size: 4em; transform: rotate(-15deg); pointer-events: none;">REFERENCE ONLY</div>		
主管 :	<input type="checkbox"/> 承辦者 :	Panton No: 日期 : // : :
結果	合格	審核
		// : :

承 認 書
SPECIFICATION FOR APPROVAL

客 戶 CUSTOMER	明泰科技股份有限公司
日 期 DATE	2006 / 08 / 09
品 名 DESCRIPTION	Mini 1.13 Cable Assembly (L=80)(K5A) With RP-SMA Bulkhead Jack & MHF
客 戶 料 號 CUSTOMER P/N	505960079610G
成 品 編 號 Part NO.	THW0796A (符合環保材)



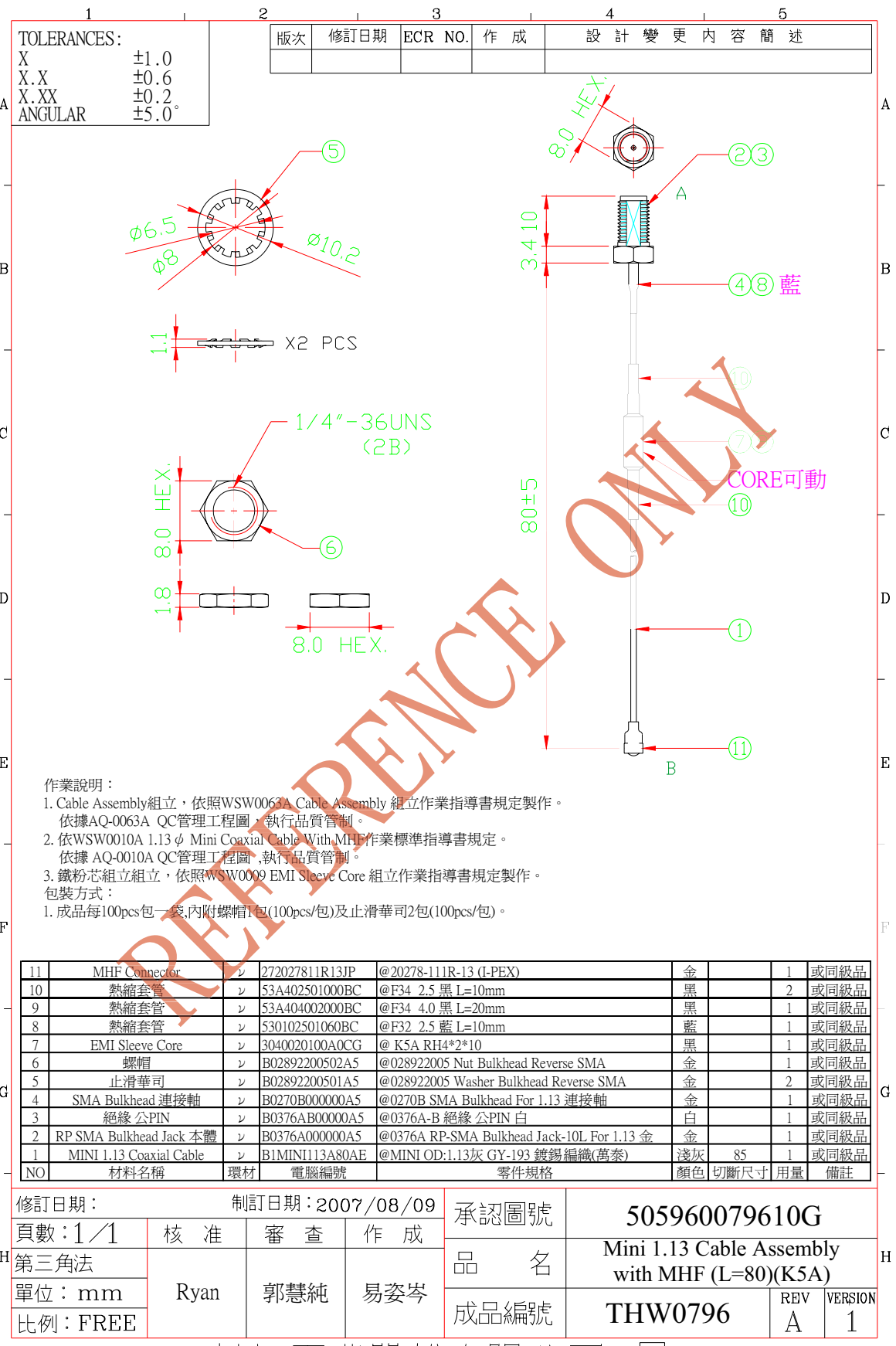
萬旭電業股份有限公司
WANSHIH ELECTRONIC CO., LTD.
台北縣五股鄉五工六路 72 號 3 樓
3F 72 WU KONG 6TH RD., WU KU INDUSTRIAL DISTRICT
TAIPEI HSIEN, TAIWAN, R.O.C.
TEL : (02) 22988066 (5 LINE) FAX : (02)22981102

Table of Contents

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RP-SMA Bulkhead Jack	10
MHF Connector	11-14
EMI Sleeve Core	15-17

SPECIFICATION

1. Description : Mini 1.13 Cable Assembly
with RP-SMA Bulkhead Jack & MHF
2. Customer : 明泰科技股份有限公司
3. Part No. : THW0796A
4. Coaxial Length : 80 mm (see Drawing)
5. Electrical Characteristics
 - Operating Frequency : 1~6 GHz
 - Impedance : 50 Ohm nominal
 - Attenuation. : -2.0dB Max.
6. Mechanical Characteristics
 - Connector : RP-SMA Bulkhead Jack
: MHF
7. Raw Material
 - Coaxial Cable : Mini 1.13
 - Core : K5A RH4*10*2



TOLERANCES:

X	±1.0
X.X	±0.6
X.XX	±0.2
ANGULAR	±5.0°

版次	修訂日期	ECR NO.	作成	設計變更內容簡述

作業說明：
 1. Cable Assembly組立，依照WSW0063A Cable Assembly 組立作業指導書規定製作。
 依據AQ-0063A QC管理工程圖，執行品質管制。
 2. 依WSW0010A 1.13 ϕ Mini Coaxial Cable With MHF作業標準指導書規定。
 依據AQ-0010A QC管理工程圖，執行品質管制。
 3. 鐵粉芯組立組立，依照WSW0009 EMI Sleeve Core 組立作業指導書規定製作。
 包裝方式：
 1. 成品每100pcs包一袋，內附螺帽1包(100pcs/包)及止滑華司2包(100pcs/包)。

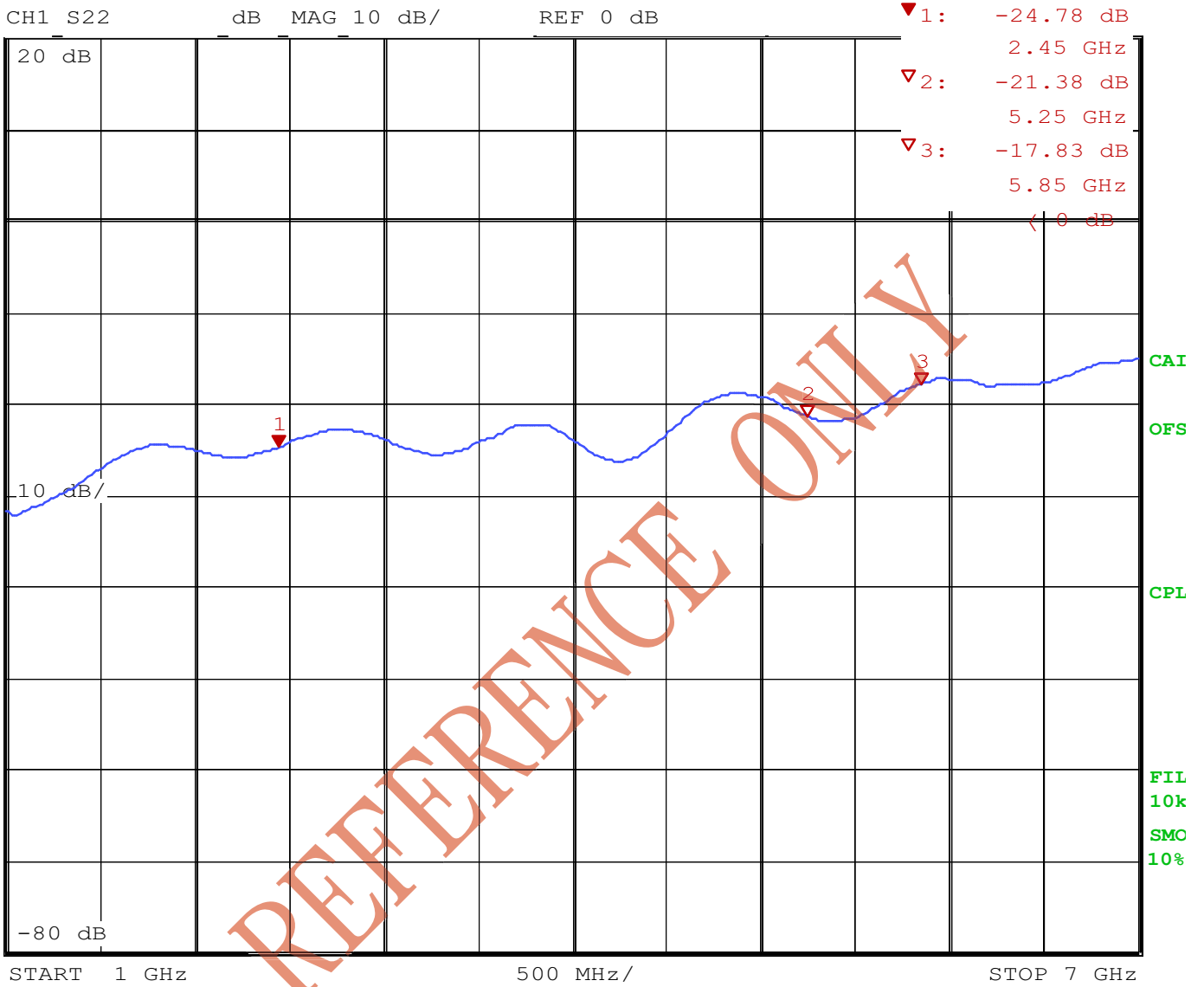
11	MHF Connector	272027811R13JP	@20278-111R-13 (I-PEX)	金	1	或同級品
10	熱縮套管	53A402501000BC	@F34 2.5 黑 L=10mm	黑	2	或同級品
9	熱縮套管	53A404002000BC	@F34 4.0 黑 L=20mm	黑	1	或同級品
8	熱縮套管	530102501060BC	@F32 2.5 藍 L=10mm	藍	1	或同級品
7	EMI Sleeve Core	3040020100A0CG	@ K5A RH4*2*10	黑	1	或同級品
6	螺帽	B02892200502A5	@028922005 Nut Bulkhead Reverse SMA	金	1	或同級品
5	止滑華司	B02892200501A5	@028922005 Washer Bulkhead Reverse SMA	金	2	或同級品
4	SMA Bulkhead 連接軸	B0270B000000A5	@0270B SMA Bulkhead For 1.13 連接軸	金	1	或同級品
3	絕緣 公PIN	B0376AB00000A5	@0376A-B 絕緣 公PIN 白	白	1	或同級品
2	RP SMA Bulkhead Jack 本體	B0376A000000A5	@0376A RP-SMA Bulkhead Jack-10L For 1.13 金	金	1	或同級品
1	MINI 1.13 Coaxial Cable	B1MINI113A80AE	@MINI OD:1.13灰 GY-193 鍍錫編織(萬泰)	淺灰	85	或同級品
NO	材料名稱	環材	電腦編號	零件規格	顏色	切斷尺寸 用量 備註

修訂日期：		制訂日期：2007/08/09		承認圖號	505960079610G		
頁數：1/1	核准	審查	作成	品名	Mini 1.13 Cable Assembly with MHF (L=80)(K5A)		
第三角法	Ryan	郭慧純	易姿岑		成品編號	THW0796	REV
單位：mm				A			1
比例：FREE							

萬旭電業股份有限公司 50文件編號：FMT-0513-D7

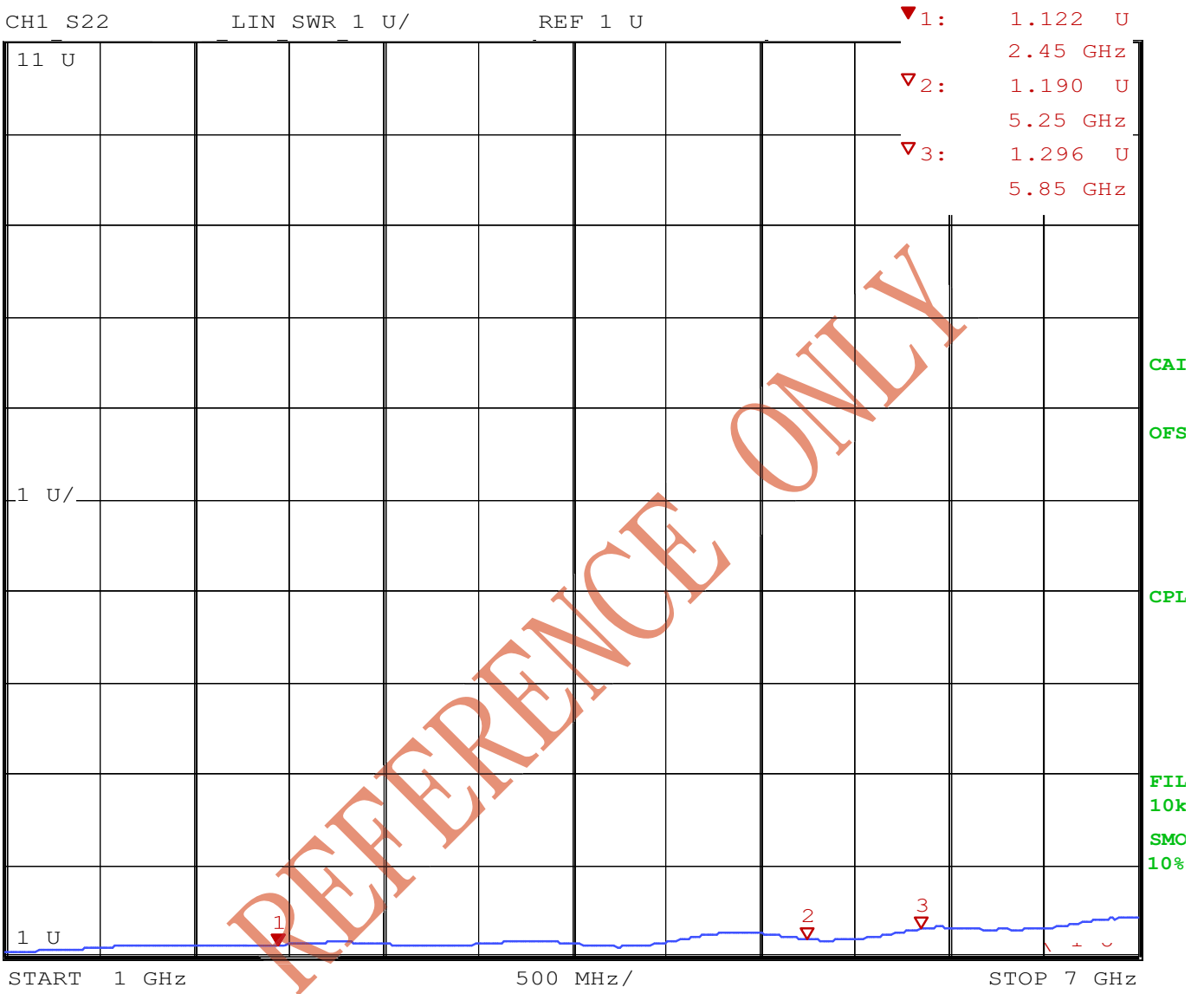
Electrical Characteristic

Return Loss



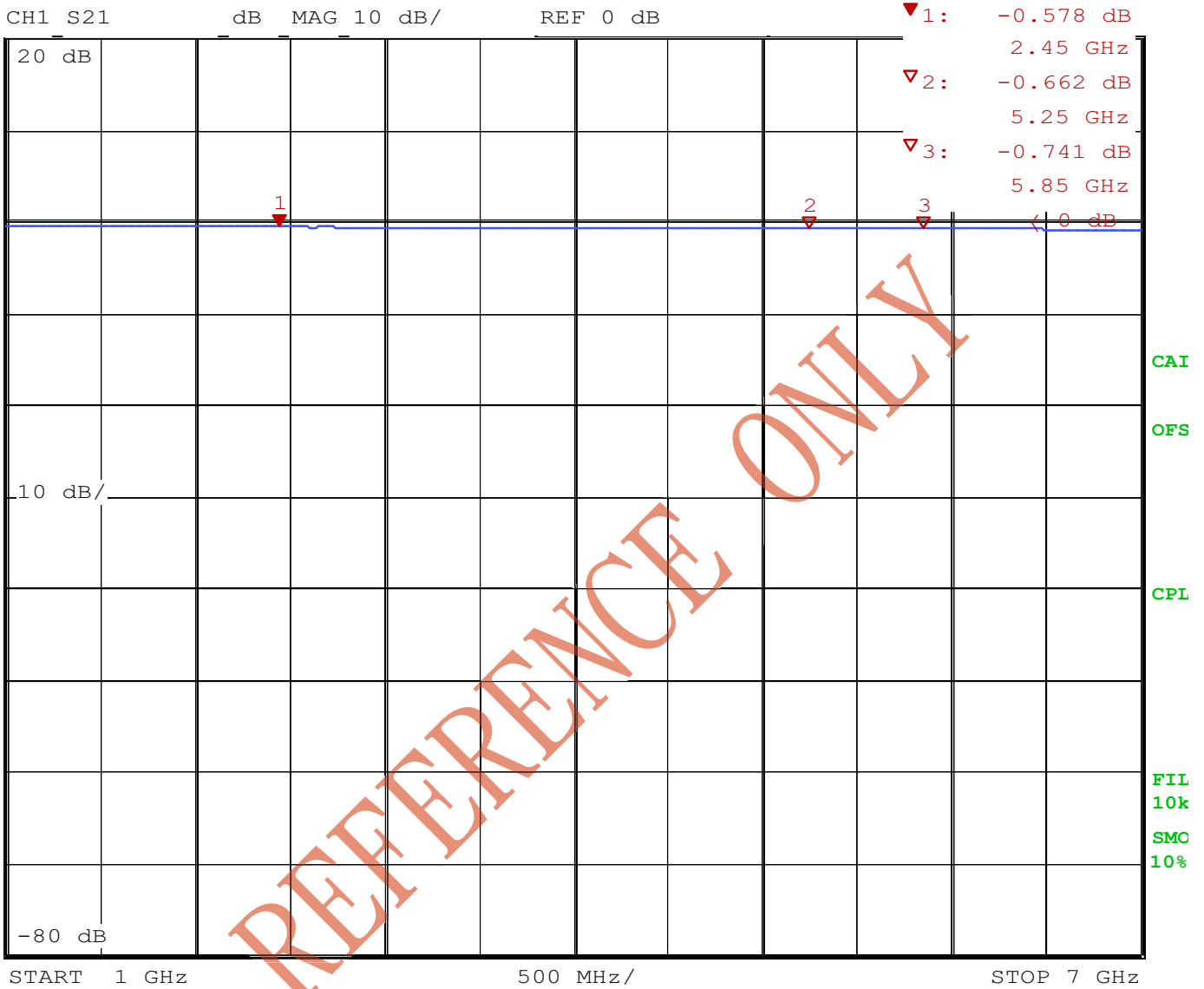
Electrical Characteristic

V.S.W.R



Electrical Characteristic

Attenuation



Material Data Sheet

Mini-1.13 Coaxial Cable

SPECIFICATION FOR APPROVAL

DOCUMENT: A3132TS001

STYLE : COAXIAL CABLE
105°C 30V

SIZE: 32AWG×1C
BRAID : TS

RECOGNIZED: UL 1979



WONDERFUL HI-TECH CO.,LTD.

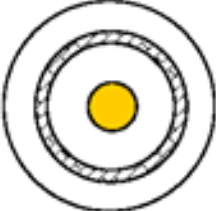
OFFICE : 72WU KONG 6TH ROAD,
WU KU IND. DISTRICT
TAIPEI HSIEN,TAIWAN

TEL : (02)22988033
FAX : (02)22988031-2

FACTORY : 17 PEI YUAN ROAD,
CHUNG-LI IND. PARK
TAIWAN, R.O.C.

TEL : (03)4527777
FAX : (03)4517214

WONDERFUL HI-TECH CO., LTD.
SPECIFICATION

STYLE	105°C 30V UL 1979	DOCUMENT NO : A3132TS001	
SIZE	32AWG	ESTABLISHED DATE: 2005/05/11	
STANDARD :			
Conductor	Size	AWG	32
	Material	----	Silver Cover Copper
	Conductors No.	----	7
	Conductors Size	mm	0.080
	O.D.	mm	0.240
Insulation	Average Thickness	mm	0.22
	Diameter	mm	0.68 ± 0.02
	Material	----	FEP
	Color	----	Clear
Braid	Material	----	Tinned Copper
	Construction	mm	16 / 4 / 0.050
	Coverage	%	90
Jacket	Average Thickness	mm	0.13
	Diameter	mm	1.13 ± 0.05
	Material	----	FEP
	Color	----	According to custom
Marking	Non		
Drawing			

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EDITION : 1.1

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

APPROVAL : W.J.WANG



WONDERFUL HI-TECH CO., LTD. SPECIFICATION

Electrical & Physical Properties					
Item		32AWG			
Rating Temp Voltage		105°C 30V			
Conductor Resistance		545 OHM/KM/20°C MAX.			
Insulation Resistance		1000 MEGA OHM/KM MIN.			
Dielectric Strength		AC 500 V/Minute			
Spark Test		2.5 KV			
Insulation	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / m m ²)		
		Elongation	200% MIN.		
	Aged	Tensile Strength	UNAGED MIN. 75%(168HRS×232°C)		
		Elongation	UNAGED MIN. 75%(168HRS×232°C)		
Jacket	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / m m ²)		
		Elongation	200% MIN.		
	Aged	Tensile Strength	UNAGED MIN.75%(168HRS×232°C)		
		Elongation	UNAGED MIN.75%(168HRS×232°C)		
Nom. Impedance		50 ± 3 Ohms			
Nom. Capacitance		96 ± 3 pF/m			
Nom. Vel. of Prop.		69%			
VSWR Test (0 – 6 GHZ)		Less 1.3			
Flame Test		VW-1 OK			
Attenuation (dB/1m)	2.0GHZ	2.4GHZ	2.5GHZ	5.0GHZ	6.0 GHZ
	2.80	3.10	3.15	4.85	5.20

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EDITION : 1.1

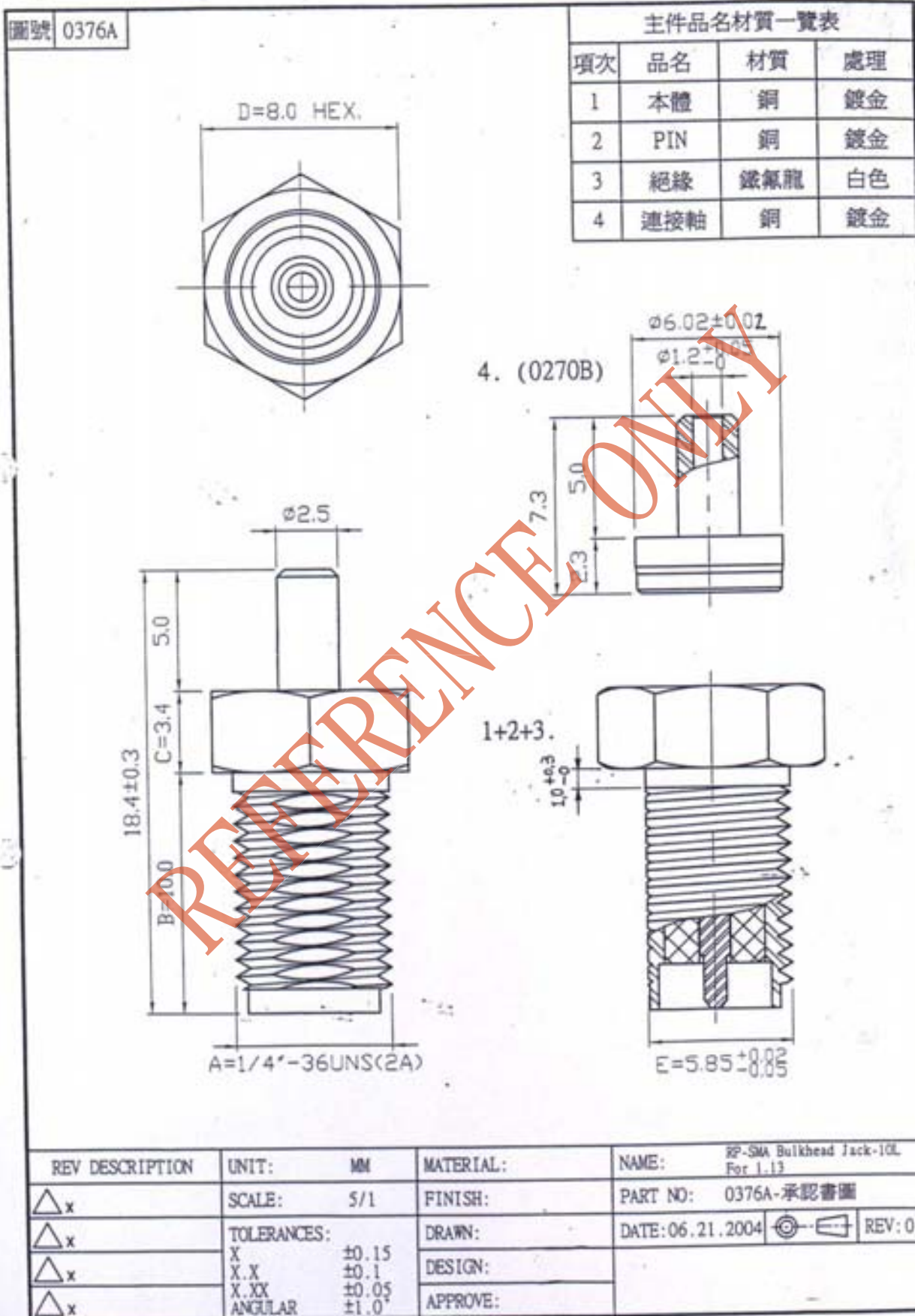
MAKER : C.Y.CHEN

CONFIRM :S.N.WONG

APPROVAL : W.J.WANG

Material Data Sheet

RP-SMA Bulkhead Jack



Material Data Sheet

MHF Connector

PART NO.
20278-11R-08

Plug
P/N 20278-11R-08
P/N 20278-11R-13
P/N 20278-11R-32

Receptacle
Part No. 20279-001E-01

Part No. 20278-111R-08
20278-111R-13
20278-111R-32

For semi auto termination machine (without notch)

Part No. 20278-101R-08
20278-101R-13
20278-101R-32

For hand tool (with notch)

GENERAL TOLERANCE

6 MAX. ± 0.2

6 OVER MAX. 30 ± 0.3

30 OVER MAX. 120 ± 0.5

ANGLE ± 2'

DATE JUN/13/01

DESIGN D BY K. O. (Habayashi)

CHK D BY K. O. (Habayashi)

DATE JUN/13/01

APP D BY K. O. (Habayashi)

DATE JUN/13/01

REV. RECORD

REV. NO. 2814

APP. SERIES NO.

CUSTOMER COPY

Interconnect of Panasonic Electronics TOKYO, JAPAN

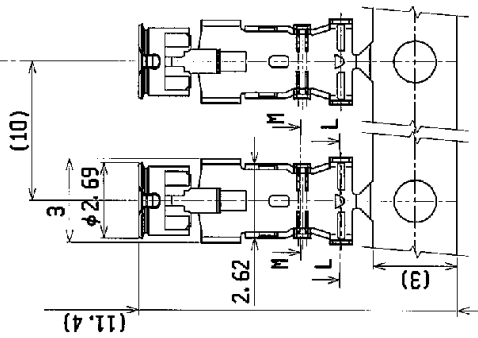
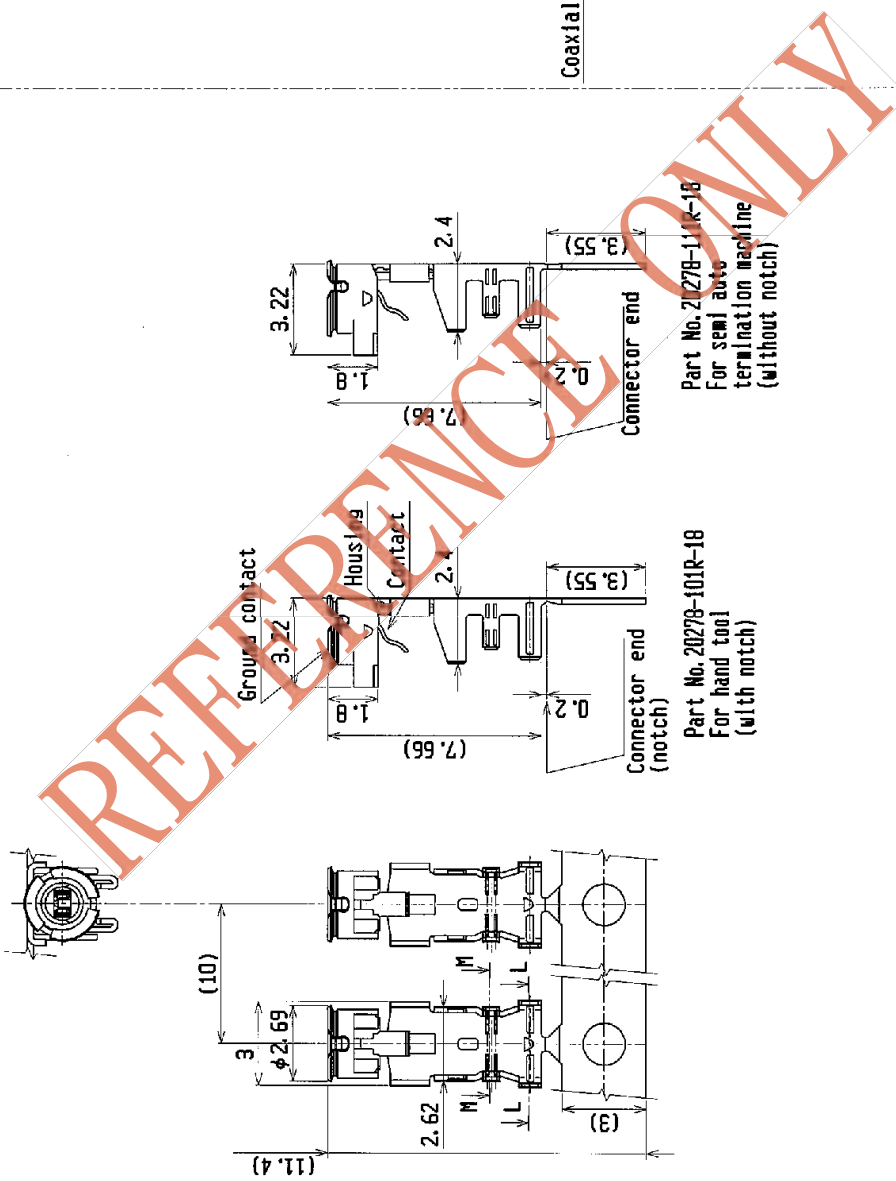
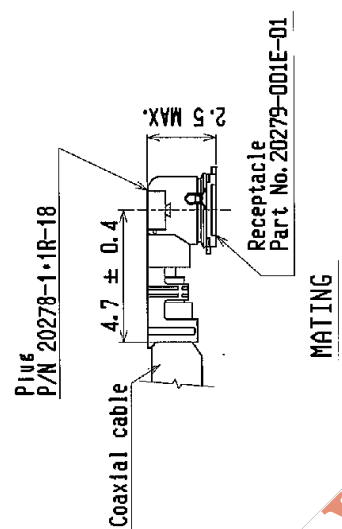
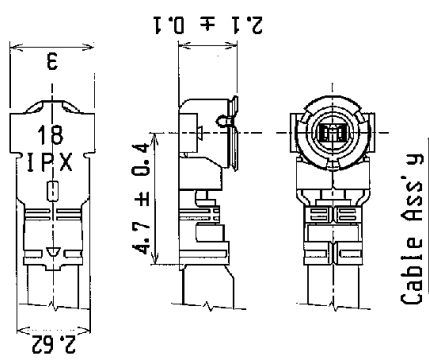
TITLE MHF series micro coaxial connector plug vertical (ground contact : gold plating)

SCALE UNIT: mm 6/1

DMG. No. 20278

SHEET REV. 1/4 17C

PART NO.
20278-11R-18



GENERAL TOLERANCE	
6 MAX.	±0.2
6 OVER MAX. 30	±0.3
30 OVER MAX. 120	±0.5
ANGLE	±

DESIGN'D BY		DATE	I-PEX Intersocket and Potassium Electroplating TOKYO, JAPAN	
CHK'D BY		DATE	TITLE MF series micro coaxial connector plug vertical (ground contact : gold plating)	
APP'D BY		DATE	SCALE UNIT 6/1 (MM)	
REV	ECN	BY	DATE	APP
REV. RECORD		PROJECTION		SHEET REV.
SERIES No. 2814		CUSTOMER COPY		DWG. No. 20278
				2/4, 17C

WAS T

FORM REV. 4