



M.gear

**WHA YU INDUSTRIAL CO., LTD.(HEAD OFFICE)
DONGGUAN AEON TECH CO.,LTD.(CHINA)
SUZHOU AEON TECH CO.,LTD.(CHINA)
AEON TECH (SHANGHAI) CO.,LTD(CHINA)
DONGGUAN PARNER TECH CO.,LTD.(CHINA)**

SPECIFICATION FOR APPROVAL

CUSTOMER: 明泰科技股份有限公司

產地: 大陸吳江市。東莞市

PART NAME: PIFA Antenna

產品單重: 2450mg

PART NO.:

REVISION:

W. Y. P/NO.: C037-511026-A (SSR-209371)

REV.: X2

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
APPROVED BY :	陳達新	
DATE :	09/12.10	

WHA YU GROUP

WHA YU INDUSTRIAL CO., LTD.(HEAD OFFICE)

譁裕實業股份有限公司

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蘇州華廣電通有限公司

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Address:Hupan Industrial District, Shida Road, Tai Ling Shan Town,

Dong Guan City, Guangdong, China

Tel:+86-769-81662366 Fax:+86-769-81602681

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PIFA Antenna Assembly

Specification

1. Electrical Properties (Free Space)

- 1.1 Frequency Range.....2.4GHz ~ 2.5GHz
- 1.2 Impedance50Ω Nominal
- 1.3 VSWR3.5:1 Max.
- 1.4 Return Loss.....- 5.1dB Max.
- 1.5 RadiationOmni-directional
- 1.6 Gain(peak).....-0.4dBi (excluding cable loss)
- 1.7 Cable Loss..... 0.3dB Max.
- 1.8 Polarization.....Linear ; Vertical
- 1.9 Admitted Power..... 1W
- 1.10 Cable.....Φ1.13mm Coaxial Cable
- 1.11 Connector.....MHF

2. Physical Properties :

- 2.1 Operating Temp.-10°C ~ +60°C
- 2.2 Storage Temp.-10°C ~ +70°C

A	B	C	D	E	F	G																																		
CG-					<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>REV</td> <td>DATE</td> <td>DESCRIPTION</td> </tr> <tr> <td>X1</td> <td>10/16/2009</td> <td>New Issue</td> </tr> <tr> <td>X2</td> <td>12/09/2009</td> <td>增加Core</td> </tr> </table>	REV	DATE	DESCRIPTION	X1	10/16/2009	New Issue	X2	12/09/2009	增加Core																										
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<p>GP標籤貼於紙箱兩側右上角(共2PCS) 外箱標籤貼於左上角1PCS 成品單重:2450±5%mg</p>																																								
<p>Packing : 1 pcs/bag (每10袋用釘書機訂起來)</p>																																								
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td rowspan="5">CUSTOMER'S SINGATURE</td> <td>XX.</td> <td>±5</td> <td>APPROVED</td> <td rowspan="5">DRAWING </td> <td colspan="2">CUSTOMER: 明泰</td> </tr> <tr> <td>X.</td> <td>±3.0</td> <td></td> <td colspan="2">PART NO : SSR-93081</td> </tr> <tr> <td>X.</td> <td>±1.0</td> <td>CHECKED</td> <td colspan="2">PARTNAME: PIFA Antenna</td> </tr> <tr> <td>XX</td> <td>±0.5</td> <td></td> <td colspan="2">W.Y P/NO : C037-511026-A</td> </tr> <tr> <td>XXX</td> <td>±0.1</td> <td></td> <td>REV</td> <td>UNIT</td> <td>FILE : SSR-93081</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>X2</td> <td>m/m</td> <td>SHEET : 1/1</td> </tr> </table>					CUSTOMER'S SINGATURE	XX.	±5	APPROVED	DRAWING 	CUSTOMER: 明泰		X.	±3.0		PART NO : SSR-93081		X.	±1.0	CHECKED	PARTNAME: PIFA Antenna		XX	±0.5		W.Y P/NO : C037-511026-A		XXX	±0.1		REV	UNIT	FILE : SSR-93081				X2	m/m	SHEET : 1/1		
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					<p>THIS DRAWING, AND ITS INHERANT DESIGN CONCEPTS, ARE THE PROPERTY OF WHA YU AND AS SUCH MAY NOT BE COPIED, REPRODUCED, OR GIVEN TO THIRD PARTIES WITHOUT THE WRITTEN CONSENT OF WHA YU.</p>																																			

譁裕實業股份有限公司
WHA YU INDUSTRIAL CO., LTD

BILL OF MATERIAL

CUSTOMER P/N: 明泰科技股份有限公司

W.Y.P/N:C037-511026-A

PART NAME:PIFA Antenna Assembly

DATE:2009.12.10

PART NO:SSR-209371

REV:X2

序號	零件名稱	供應商	規格描述	UL 防火等級
1	Cable	EVERNEW	Φ1.13mm Coaxial Cable,Black,50Ω,鍍錫線	60or80°C 30V
2	Connector	I-PEX	MHF Plug for Φ1.13 Coaxial Cable	V-0
3	PIFA	XINLILAI	(L)33.00*(W)9.0*(H)5.8 mm; 洋白銅; T=0.4mm	—
4	雙面背膠	SONY	泡棉雙面背膠 Sony G4000;21(L)*7(W)*0.15(T)mm	—
5	Sponge	SYUN-LI	泡棉雙面背膠 Sony G4000;21(L)*7(W)*0.15(T)mm	—
6	Core	KING Core	K5B;RH4*10*2mm	—
7	H.S Tube	HAMBURG	H.S TUBE V4 UL/CSA (T:0.15) Φ4.0*18mm; H-2 (T=0.18) Φ3.0 L=10mm; 收縮比例3:1; Black	125°C .150V
8	H.S Tube	WOER	H.S TUBE V4 UL/CSA (T:0.15) Φ4.0*18mm; H-2 (T=0.18) Φ3.0 L=10mm; 收縮比例3:1; Black	125°C .600V

變更履歷:

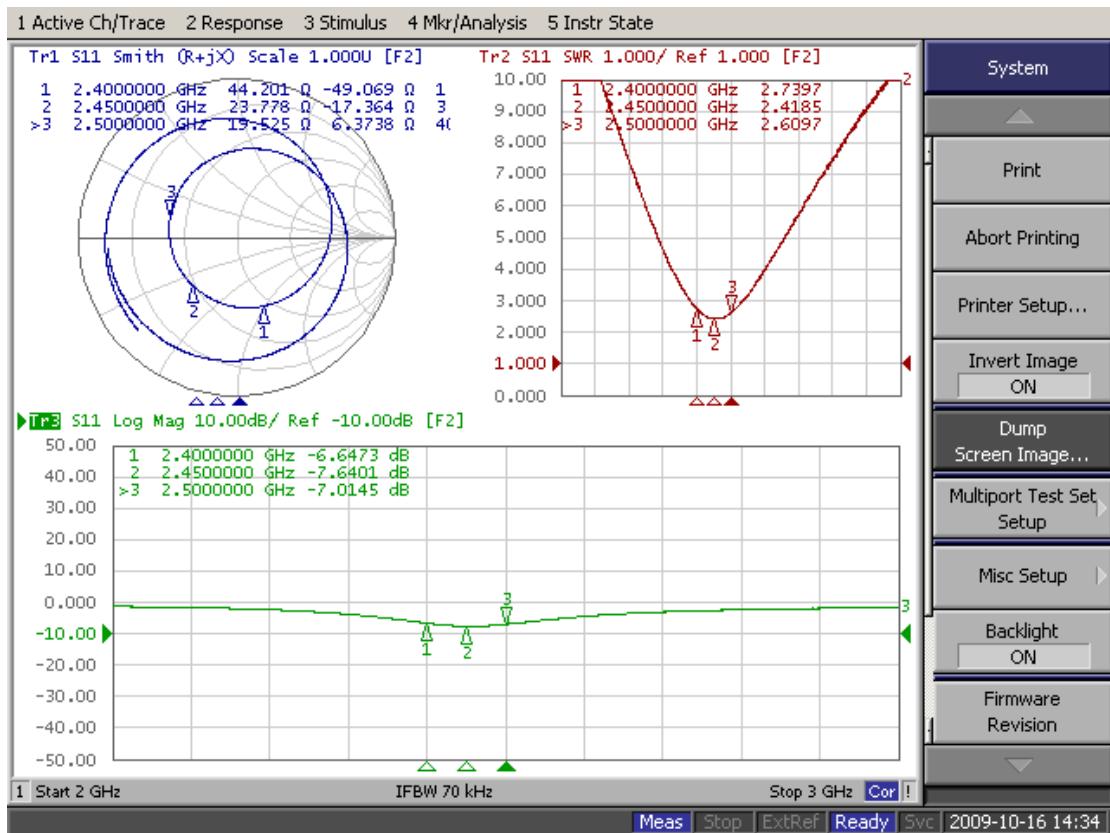
序號	變更依據	變更內容	變更日期	版本
1	依客戶需求	增加CORE	2009.12.10	X1=>X2

核 準		審 核		制 作	
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工程部'未經許可"不得複印"

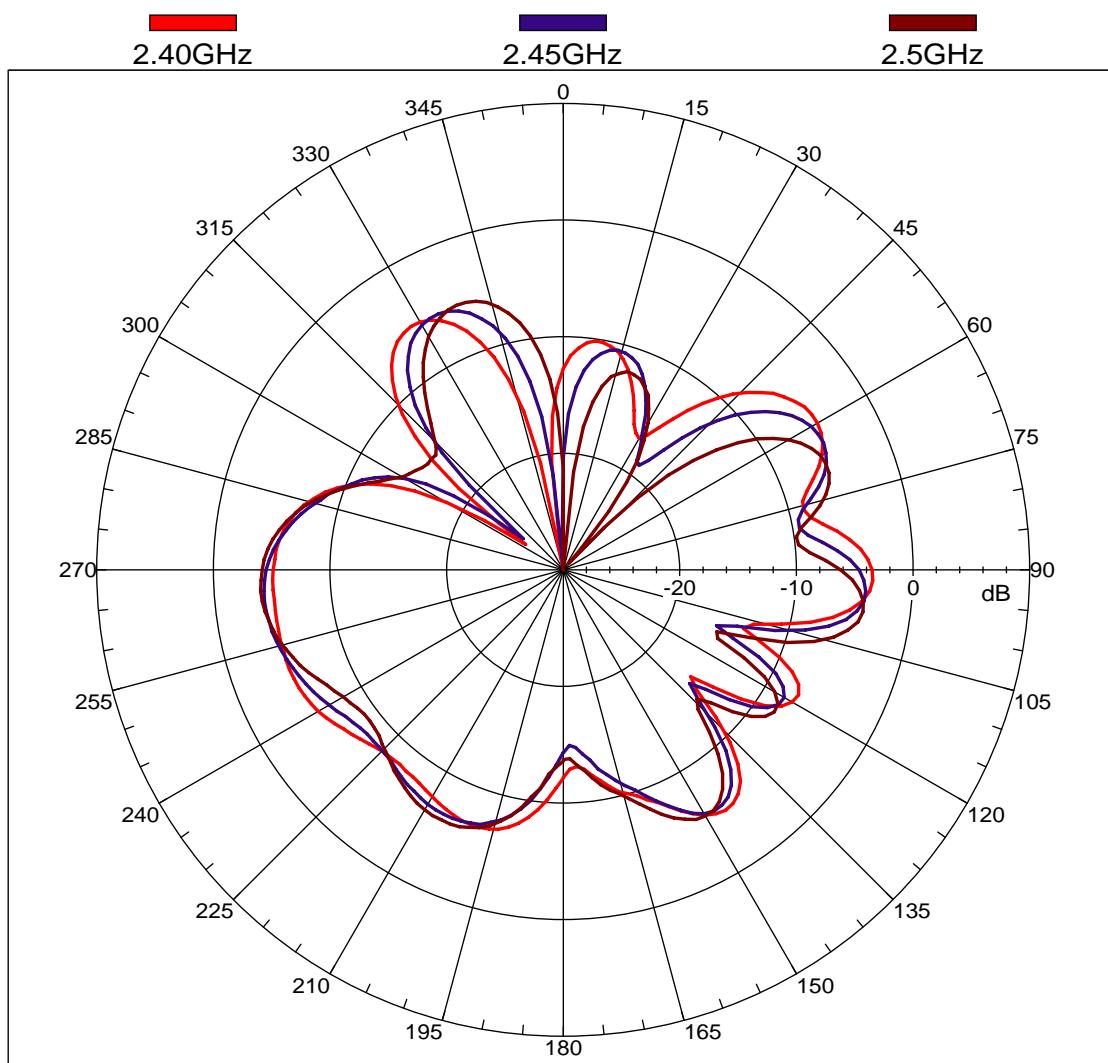
RF Antenna Assembly

P/NO : C037-511026-A(SSR-209371) SPEC :2.4~2.5GHz

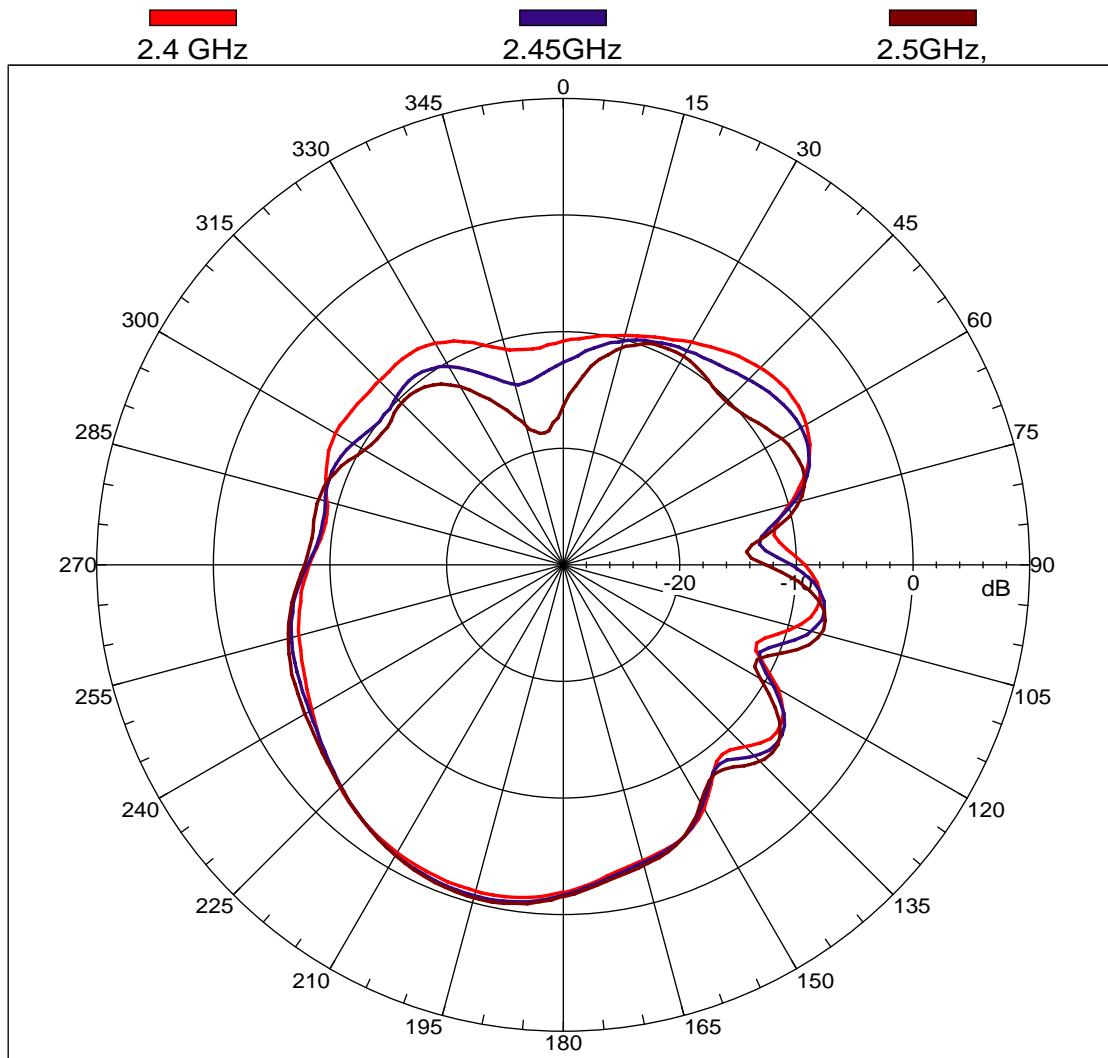


2009/10/16

Far-field amplitude of C037-511026-A SSR-209371-H.nsi



Far-field amplitude of C037-511026-A SSR-209371-V.nsi





EVERNEW WIRE & CABLE CO.,LTD.

6,Shang Shing Rd.,Shang Jeau Industrial District,
Chang An Town,Dongguan,Guangdong,China

Tel:86-769-5411045

Fax:86-769-5540257

APPROVED	CHECKED	ENGINEER
ELI	QF	ZQY

APPROVED BY CUSTOMER:_____

DOCUMENT NO.RF

REVISION NO. B/0

Product Specifications

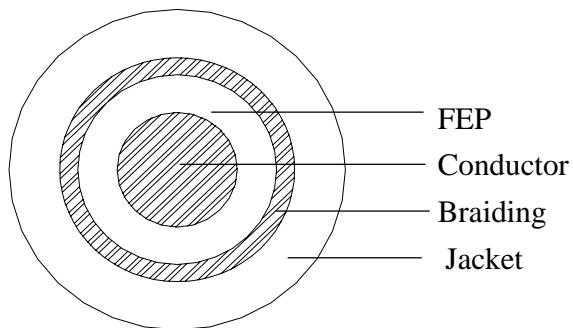
DATE: 07-10-2009

Construction & Material

Guests Part No.

Item	Unit	Specification
Product		RF
Conductor	Size	mm 32
	Number	C 1
	Material	Silver-Gilt Copper
	Construction	pcs / mm 7/0.084±0.005
	Diameter	mm 0.26
Insulation	Material	FEP
	Nom.thickness	mm 0.22
	Overall Diameter	mm 0.68±0.05
	Color	Transparent
Braiding	Material	Stranded Tinned Copper
	Construction	mm 4/0.05/16
Jacket	Material	FEP
	Nom.thickness	mm 0.12
	Overall Diameter	mm 1.13+0.1/-0.06
	Color	By Order
Marking	None Marking	

Cross - Section View :



NOTE : Please confirmed in two days , Or we will take it as confirmed.

FORM NO. EW-FOR-009C,C/1

電 氣 性 能

特性阻抗	50±2(TDR,250ps &500ps)	Ω
耐電壓 A.C	0.5/1	KV/min
最小絕緣電阻	1000(650V D.C)	MΩ-km
Attenuation(min)	Frequency(GHZ)	dB/m
	1.0	-2.2
	2.0	-3.0
	2.4~2.5	-3.3
	3.0	-3.9
	4.0	-4.8
	4.8~6.0	-5.3
	2.4G~2.5G	-20dB/m
反射損失(max)	4.8G~6.0G	-15.5dB/m



ONLINE CERTIFICATIONS DIRECTORY

AVLV2.E138922
Appliance Wiring Material - Component

[Page Bottom](#)

Appliance Wiring Material - Component

[See General Information for Appliance Wiring Material - Component](#)

EVERNEW WIRE & CABLE CO LTD
5TH FL
111 KEELUNG RD, SEC 2
TAIPEI, TAIWAN

E138922

Table of Recognized Styles					
Single-conductor, thermoplastic insulation.					
1007	1185	1208	1365	1533	1792
1061	1195	1354	1503	1777	
Multiple-conductor, thermoplastic insulation.					
2464	2725	2854	2960	20276	
2562	2835	2919	2990		

Marking: Company name, voltage rating, temperature rating, conductor size, conductor material if other than copper, and use.

[Last Updated](#) on 2008-10-23

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UNDERWRITERS LABORATORIES

APPLIANCE WIRING MATERIAL

Subj. 758

Section 1

Page 1354

Issued: 1964-02-19

Revised: 2009-04-30

Style 1354

Coaxial Cable.

Rating 60, 80 deg C, 30 Vac, Horizontal flame.

Conductor 44 AWG min., material not specified.

Insulation 2 mils minimum at any point, 125 mils maximum. The insulation may be: Extruded solid or cellular PE, FRPE, PP, PFA, FEP, ECTFE, PTFE, ETFE, or combination thereof with or without irradiation; or tape wrapped solid or cellular PTFE, PFA, or FEP. Applied as a spiral wrapped thread (5 mils minimum, 40 mils maximum) and enclosed in a tube of insulation.

Assembly Insulated conductor with optional inner covering, optional inner shield, optional middle covering, required outer shield and required outer covering.

Shield Optional. Outer Shield required.

Covering Optional Inner Covering - Extruded PVC, PFA, Polyamide, Polyester, PVDF, FEP, PTFE, ECTFE, ETFE, PE, XLPE, XLRPE or FRPE; lacquered braids; heat sealed PTFE, PFA or FEP tape; Polyester or Polyester-Polyethylene film. Thicknesses not specified. Optional Middle Covering - Extruded PVC, PFA, PP, Polyamide, Polyester, PVDF, FEP, PTFE, ECTFE, ETFE, PE, XLPE, XLRPE or FRPE; lacquered braids; heat sealed PTFE, PFA or FEP tape; Polyester or Polyester-Polyethylene film. Thicknesses not specified. Required Outer Covering - Extruded Irradiated PE, Irradiated PVC, Polyurethane, PVC, PFA, PP, Polyamide, Polyester, PVDF, FEP, PTFE, ECTFE, ETFE, PE, XLPE, XLRPE or FRPE; lacquered braids; heat sealed PTFE, PVC, PFA or FEP tape; Polyester or Polyester-Polyethylene film. Thicknesses not specified.

Standard Appliance Wiring Material UL 758.

Marking General.

Use Internal wiring of Class 2 circuits of
 electronic equipment or as insulated single
 in jacketed multiconductor cables.



譁裕實業股份有限公司

WHA YU INDUSTRIAL CO., LTD

Connector Material Data Sheet

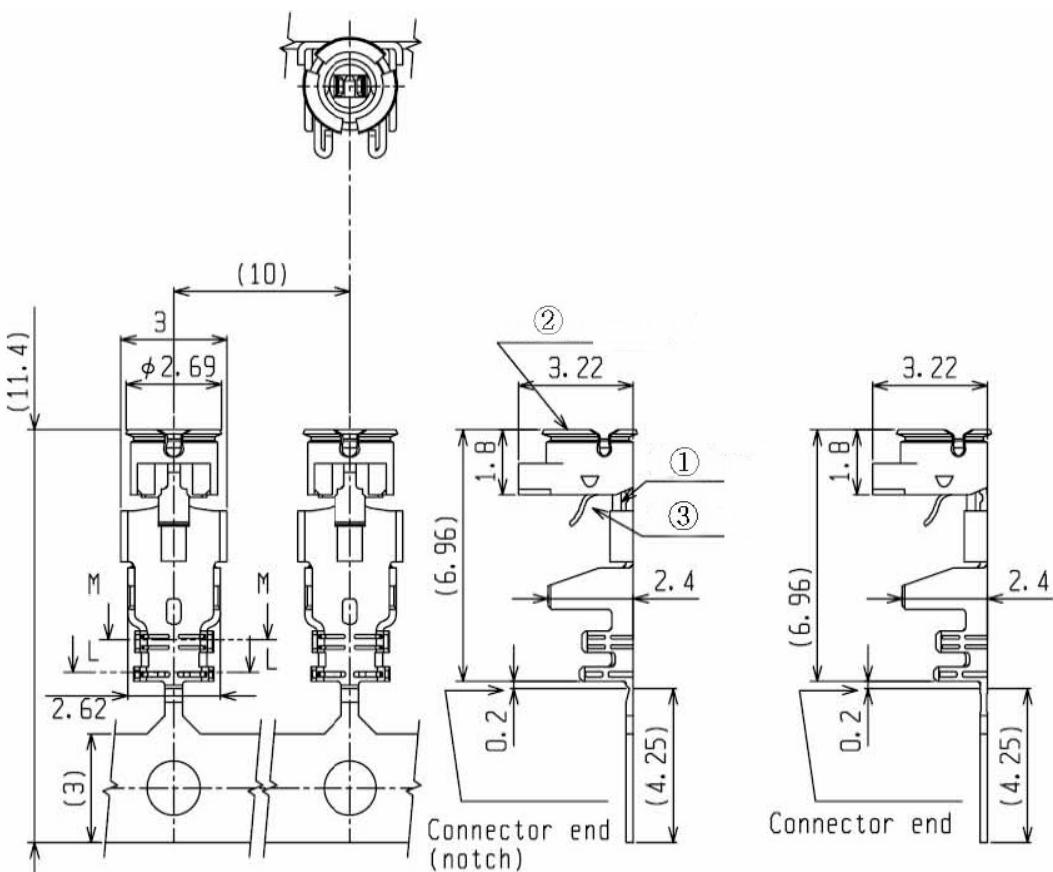
譁裕料號
Whayu P/N

Z101-02110002-B1

產品名稱
Product Name

MHF Plug for $\varphi 1.13$ Coaxial Cable

Structural Drawing



Material

Surface

1	Isolation	PBT	Polybutylene Terephthalate(UL 94V-0)						Black
2	Shell	Phosphor Bronze	Cu	Sn	P	Zn	Pb		Gold Plated 0.05 μm
3	Crimp Pin	Phosphor Bronze	Cu	Sn	P	Zn	Pb		Gold Plated 0.1 μm

Remark : 插拔次數 30 次



MICRO COAXIAL CONNECTOR

Applicable for
IEEE802.11a/b/g/n, UWB, WiMAX, Bluetooth, iBurst,
ZigBee and MIMO(Multiple Input and multiple output)

RoHS Compliance

Halogen - Free *1

MHF SERIES



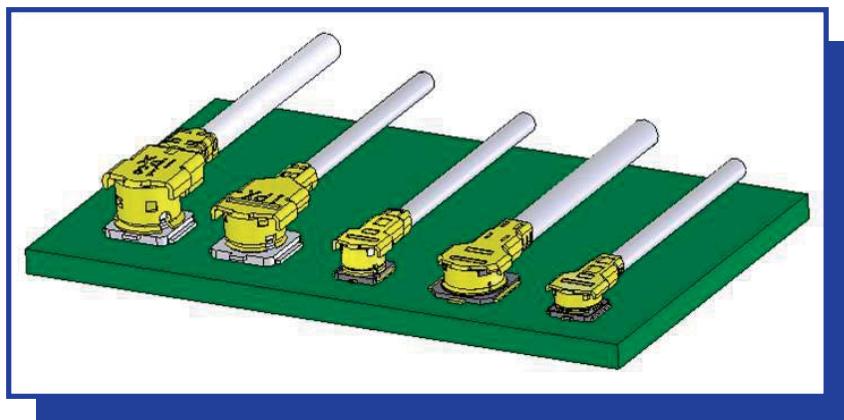
Easy Cable termination by “**i-Fit®**” Technology



Interconnect
and Packaging Electronics

I-PEX CO., LTD.

MHF SERIES MICRO COAXIAL CONNECTOR



【Major Application】

- Wireless LAN Antenna
 - Cellular Phone
 - Note Book Computer
 - Game Equipment
 - Digital Appliance
 - Access Point

【Key Features】

- SMT Receptacle and Mating Plug Cable Connector
- Small form factor and low profile : 1.2mm to 2.5mm MAX. Mating Height
- Applicable Cable :
 - O.D.0.64mm / 0.81mm / 0.98mm / 1.13mm / 1.32mm / 1.37mm and 1.8mm Coaxial Cable
- High productivity : Easy Cable termination by “**i-Fit®**” without soldering
- Applicable Technology :
 - IEEE802.11 a/b/g/n, UWB, WiMAX, iBurst, Zigbee, Bluetooth Wireless and MIMO

【Specifications】

- Frequency Range : DC up to 6GHz (V.S.W.R. : 1.3MAX at 0.1~3GHz, 1.4MAX at 3~6GHz)
- Characteristic Impedance : 50 ohm (Nominal)
- Temperature : -40°C to +90°C
- Rated Voltage : AC 60V
- Contact Resistance : 20m ohm MAX. (Signal) and 10m ohm MAX. (Ground)
- Withstand Voltage : AC 200V
- Insulation Resistance : 500M ohm MIN. / DC 100V

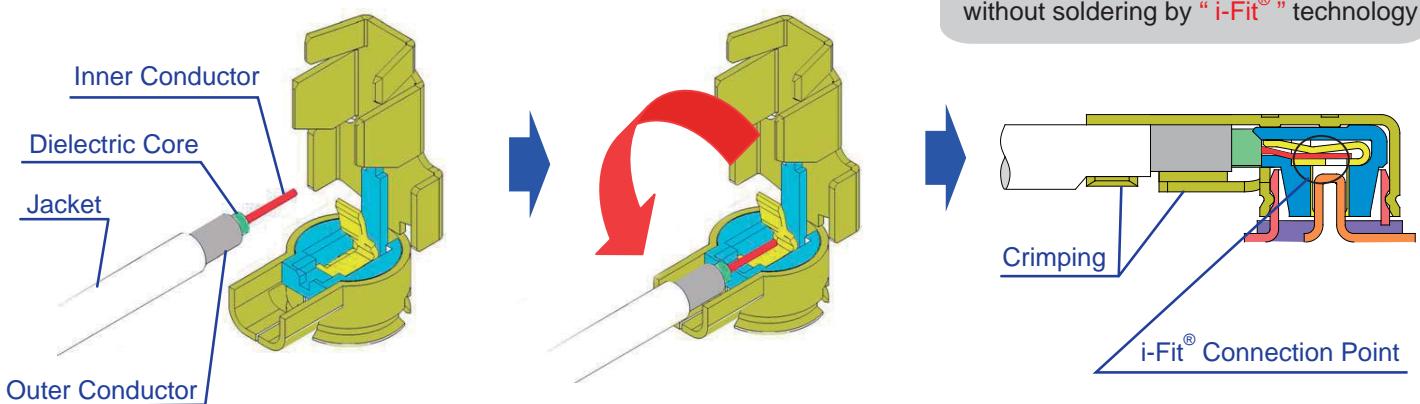
【Product Overview】

MHF type Plating (Center/ Ground)	MHF Receptacle			MHF III Receptacle	MHF-A Receptacle	MHF 4 Receptacle					
	MHF Plug	MHF II Plug	MHF III Plug			MHF-A13 Plug	MHF 4 Plug	MHF 4 SMT Plug			
Mating Height	2.5mm (MAX.)	2.1mm (MAX.)	1.6mm (MAX.)	1.45mm (MAX.)	1.2mm (MAX.)	1.2mm (MAX.)	1.2mm (MAX.)	1.2mm (MAX.)			
Gold / Gold	20279-001E-01 (3pads) 20441-001E-01 (4pads)	20278-1*2R-**	20351-1*2R-37	20311-011R-08	20369-001E	20367-001R	20429-001E	20428-001R	20407-001E	20448-001R-081	20462-001E
Gold / Silver	20314-001E-01 (3pads)	20308-1*2R-13 20308-1*2R-32	N/A	20312-011R-08 20312-011R-10	N/A	N/A	N/A	N/A	N/A	N/A	N/A

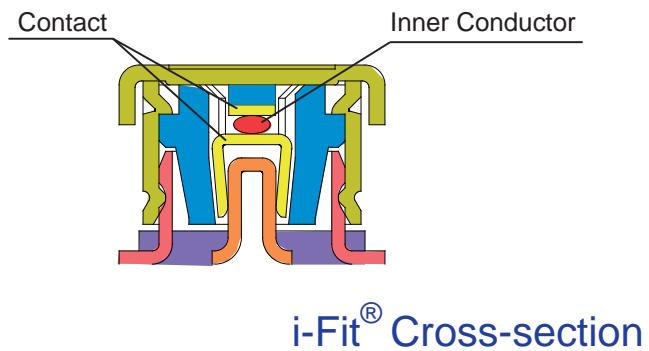
◆All Center contact are Gold Plated

Easy and Speedy Cable Connection of Center Conductor (i-Fit®) and Outer Conductor at **Only one operation** by our special assembling tool

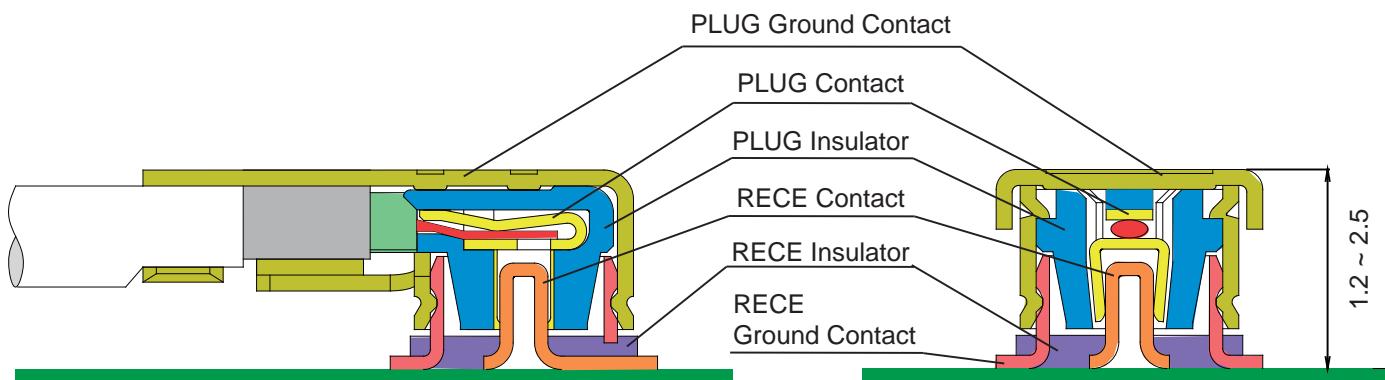
< i-Fit® Connection mechanism >



i-Fit® PATENT NO.
U.S.A. PAT.6,790,082
JAPAN PAT.4148339



< Product Mechanism >



MHF Receptacle

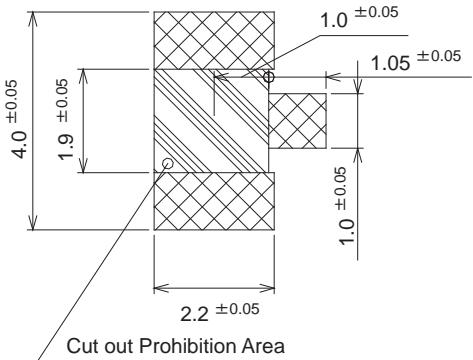
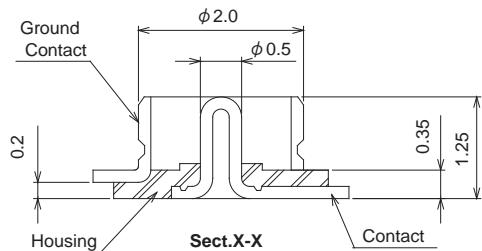
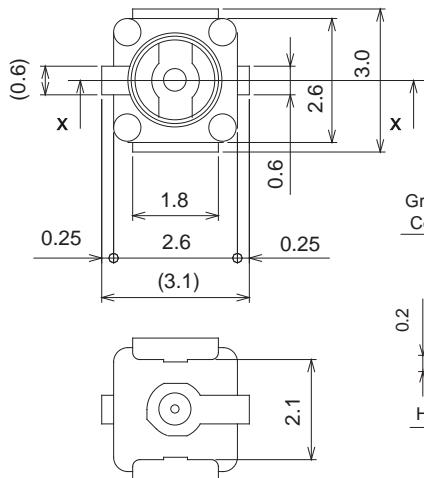
3pads type

[Part Number]

Ground Contact : Au Plating

20279-001 E- 01

Packing : Emboss Tape
1reel : 2,500pcs



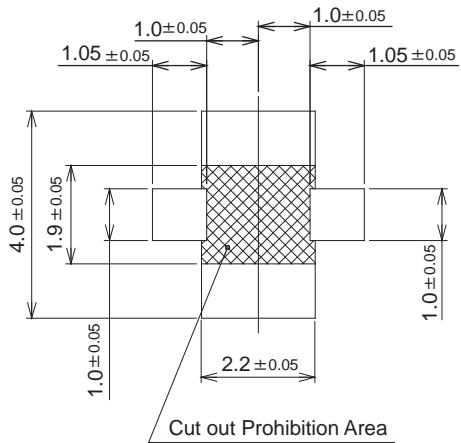
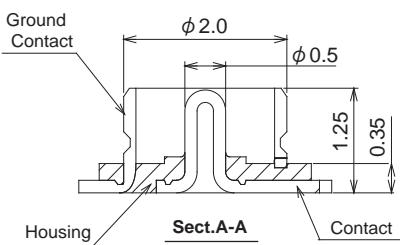
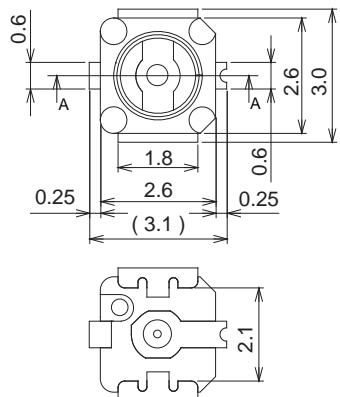
4pads type

[Part Number]

Ground Contact : Au Plating

20441-001 E- 01

※



[Material and Finish]

Parts	Material	Plating / Color (3pads)	Plating / Color (4pads)
HOUSING	LCP UL94V-0	NATURAL	BLACK
CONTACT	COPPER ALLOY	Au	Au
GROUND CONTACT	COPPER ALLOY	Au or Ag	Au

MHF Plug Cable Assembly

Mating Height : 2.5mm MAX

Applicable for Four kinds of Cable Size

【Part Number】

Ground Contact : Au Plating

20278-1 * 2 R- **

① ② ③

Ground Contact : Ag Plating

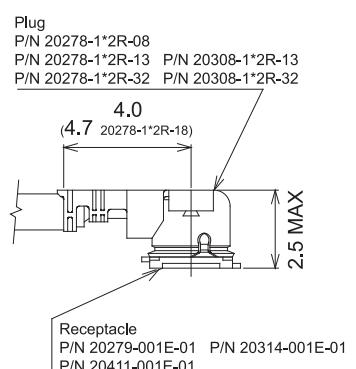
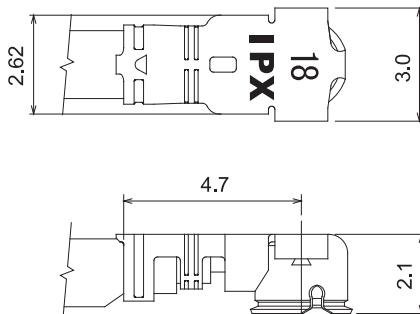
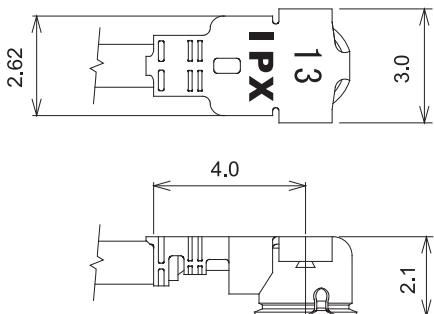
20308-1 * 2 R- **

① ② ③

①	TOOL	0	for Hand Tool (with Notch)
		1	for Semi-Auto (without Notch)
②	Packing	R	Reel 1reel : 2,000pcs
③	Applicable Cable Size	-	P/N 20278 : 08, 13, 32, 18 P/N 20308 : 13, 32

【Applicable Cable Size】

Part No. (Au)	20278-1**R-08	20278-1**R-13	20278-1**R-32	20278-1**R-18
Part No. (Ag)	-	20308-1**R-13	20308-1**R-32	-
	for AWG#36	for AWG#32	for AWG#32	for AWG#30
Applicable Cable Nominal Dimension				
Braided Shield of Outer Conductor	Single Braided Shield	Single Braided Shield	Double Braided Shield	Single Braided Shield



【Material and Finish】

MATED VIEW

Parts	Material	Plating / Color	Note
HOUSING	PBT UL94V-0	NATURAL or BLACK	Only Au 08, Au 18 is NATURAL
CONTACT	COPPER ALLOY	Au	
GROUND CONTACT	COPPER ALLOY	Au or Ag	

No.06027-1
Feb / 26/'08

材料証明書
MATERIAL CERTIFICATE

当社製品には下記の材料が使われている事を証明致します。

WE HEREBY CERTIFY THAT THE FOLLOWING MATERIALS ARE USED IN OUR PRODUCT.

PRODUCT NAME : MHF series micro coaxial connector PLUG & RECEPTACLE VERTICAL

Plug, Non halogen free type

Part No.	Contents	Housing	Contact	Ground contact
20278-101R-08	材質名/ Material	PBT	Phosphor bronze	Phosphor bronze
20278-111R-08				
20278-101R-13	型名/ Cat No.	DURANEX 3116	C5210R-H	C5191R-1/2H
20278-111R-13				
20278-101R-32	材料メーカー Manufacturer	WINTECH POLYMER LTD.	Nippon Mining & Metals Co.,Ltd.	HARADA METAL INDUSTRY Co.,Ltd.
20278-111R-32				
20278-101R-18	UL94難燃性	V-0	-----	-----
20308-101R-13	UL94 flame class			
20308-111R-13				
20308-101R-32				
20308-111R-32	UL file No.	E213445	-----	-----
20351-101R-37				
20351-111R-37				

添付資料：ULカード写し / UL CARD COPY

APPROVAL	CHECK	ORIGINATOR
T.Harada Feb/26/'08	T.Tagawa Feb/26/'08	K.Ohbayashi Feb/26/'08

FORM REV.0

Plug, Halogen free type

Part No.	Contents	Housing	Contact	Ground contact
20278-102R-08	材質名/ Material	PBT	Phosphor bronze	Phosphor bronze
20278-112R-08	型名/ Cat No.	XFR4840 GF10	C5210R-H	C5191R-1/2H
20278-102R-13	材料メーカー	WINTECH POLYMER LTD.	Nippon Mining & Metals Co.,Ltd.	HARADA METAL INDUSTRY Co.,Ltd.
20278-112R-13	Manufacturer	V-0	-----	-----
20278-102R-32	UL94難燃性			
20278-112R-32	UL94 flame class			
20278-102R-18	UL file No.	E213445	-----	-----
20351-102R-37				
20351-112R-37				

添付資料：ULカード写し / UL CARD COPY

Receptacle

Part No.	Contents	Housing	Contact	Ground contact
20279-001E-01	材質名/ Material	LCP	Brass	Phosphor bronze
20314-001E-01	型名/ Cat No.	VECTRA E130i	C2680R-o	C5191R-1/2H
	材料メーカー	Polyplastics Co.,Ltd	Nippon Mining & Metals Co.,Ltd.	HARADA METAL INDUSTRY Co.,Ltd.
	Manufacturer	V-0	-----	-----
	UL94難燃性			
	UL94 flame class			
	UL file No.	E 106764	-----	-----

添付資料：ULカード写し / UL CARD COPY

WINTECH POLYMER LTD

18-1 KONAN 2-CHOME MINATO-KU TOKYO 108-8280 JP

Material Designation: **3116(e)**

Product Description: Polybutylene Terephthalate (PBT), designated "Duranex" furnished as pellets.

Color	Min. Thick. (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	IEC GWIT	IEC GWFI								
ALL	0.75	V-0	4	0	130	-	130	-	-								
	1.5	V-0	3	0	130	120	130	-	-								
NC, BK	3	5VA	2	0	130	120	130	-	-								
CTI: 2	IEC CTI (V): -	HVTR: 3			D495: 6		IEC Ball Pressure (° C): -										
Dielectric Strength (kV/mm): 23		Volume Resistivity (10 ⁹ ohm-cm): 16			Dimensional Stability(%):0.0												
ISO Tensile Strength (MPa): -		ISO Flexural Strength (MPa): -			ISO Heat Deflection (C): -												
ISO Tensile Impact (kJ/m ²): -		ISO Izod Impact (kJ/m ²): -			ISO Charpy Impact(kJ/m ²): -												
(e)	Virgin and regrind from 1 to 50 by weight incl. have the same basic material characteristics (at a minimum thickness of 0.75 mm), except for 310EP which has a lower as received Tensile Impact value from 26 to 50 percent regrind.																
Report Date: 11/15/2000			Underwriters Laboratories IncR														
UL94 small-scale test data does not pertain to building materials, furnishings and related contents. UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.																	

REPORT OF MATERIAL TEST

Commodity: NICKEL SILVER C7521 R 品名 洋白铜				State: 状态 H			
Excutive Standard: JIS H 3110 Tough-Pitch Copper Sheets, Plates and Strips							
执行标准							

Chemical Analysis Test

Work No 产品编号	Size of Product 产品规格			Cu+Ni+Zn (%) Min. 99.10	Pb 含量 (%) Max. 0.10	Fe 含量 (%) Max 0.25	Mn 含量 (%) Max 0.50
	厚度 Thickness (mm)	宽度 Width (mm)	长度 Length (mm)				
	Standard						
20P625A	0.2	44	-----	≥99.10	< 0.01	≤0.25	≤0.50

Mechanical & Physical Test

Work No 产品编号	产品规格 Size of Product			尺寸检测 Dimension Test		张力测试 Tension Test		硬度 HardnessTest HV		
	厚度 Thickness (mm)	宽度 Width (mm)	长度 Length (mm)	厚度 Thickness (mm)	宽度 Width (mm)	抗拉强度 Tensile Strength (kgf/m²)	伸长率 Elongation (%)			
	标准 Standard			±0.01	+0.00 -0.10	44-60	10 以上			
20P625A	0.2	44	--	0.198	43.98	54.1	13.0	166	--	--

深圳市明鑫铜业制品有限公司

审核: 代支生

制表: 胡晨晖

2007年6月26日

鈦邦科技有限公司

241-59 台北縣三重市重新路五段 609 巷 20 號 2 樓之 10 (湯城工業區)

TEL : 886-2-2999-2277 FAX : 886-2-2999-7722



東莞市達邦電子有限公司

523073 廣東省東莞市南城區第一國際百安居 B 座 1507 號

TEL : 886-2-2999-2277 FAX : 886-2-2999-7722

昆山興登寶電子有限公司

215300 江蘇省昆山市陸家鎮禾豐東部開發區豐夏路 28 號

TEL : 86-512-8618-8168 FAX : 86-512-8618-8181

EVA 泡棉(材質證明)

EVA Foam Properties Table

Item No.	E-1020	E-1020-1	E-1025	E-1030	P-1035	N-1040	RE-1050	RE-1065	S-2030	MP-015	SM-25
Density (g/cm ³)	0.09~0.1	0.07~0.08	0.09~0.1	0.09~0.1	0.09~0.1	0.06~0.07	0.06~0.07	0.19~0.22	0.08~0.09	0.11~0.12	0.14~0.15
Density (lb/ft ³)	6.1~6.2	4.3~4.4	6.1~6.2	6.2~6.3	6.2~6.3	4.0~4.6	4.0~4.6	12.0~14.0	5.4~5.5	7.2~7.5	8.8~9.2
Compression Strength (PSI at 25%)	8	8	12	14	9	9	30	25	21	5	8
Compression Strength (PSI at 50%)	12	12	15	18	13	13	38	29	26	9	12
Water Absorption (% , by weight, room temp., 5 hrs)	1.4	1.4	0.5	0.4	0.4	0.4	0.3	0.3	0.7	0.5	0.5
Shore Hardness (type C)	20~25	25~30	20~25	25~30	35~40	40~45	45~50	60~65	25~30	15~20	25~30
Resin Type	EVA/LDPE	EVA/LDPE	EVA/LDPE	EVA/LDPE	EVA/LDPE						
Original Sheet Size (cm)	90x180	100x200	90x180	100x200	100x200	100x200	94x188 100x200	80x160	100x153	100x200	100x175
Original Sheet Size (inch)	35.4x70.9	39.4x78.7	35.4x70.9	39.4x78.7	39.4x78.7	39.4x78.7	37.0x74.0 39.4x78.7	31.5x63.0	39.4x60.2	39.4x78.7	39.4x64.9
Original Sheet Thickness (mm)	34	35	34	36	40/30	40	32 40	40	36	36	5.5/7





強力高性能両面接着テープ

G4000

★G4000は従来品であるT4000の特徴を継承しつつ、無溶剤型に発展させた次世代の基材入り両面接着テープです。

- 従来品に比べ接着力が強力な基材入りの両面接着テープです。「ULNo.MH15431取得」
- 初期接着性に優れています
- ウレタンフォームの凹凸に粘着剤が追従しよく接着します。
- 環境劣化に強く高度な実用特性を有します

□従来のように、塗工時に有機溶剤を使用しないため、地球環境への影響が少ない次世代の接着テープです

	名称	厚み
■	アクリル粘着剤 (約 55 μm)	
■	不織布 (約 40 μm)	
■	アクリル粘着剤 (約 55 μm)	
■	剥離紙 (約 120 μm)	

粘着剤主成分	アクリル系樹脂	粘着剤厚み (基材含む)	0.15mm
色	無色透明	形 状	抜き加工品
基 材	不織布		ロール品

□自動車・家電製品・コンピューターから携帯情報機器などにおける金属・プラスチックの銘板やアクリル窓等の各種材料の恒久接着テープとしてご使用頂けます。

SONY

特性

1. 剥離強度 (180度ピール)

- ・テープ幅 : 20mm
- ・圧着条件 : 2kgローラー 1往復
- ・常温 1日放置後
- ・測定雰囲気 : 23°C ± 5°C 65% ± 10%
- ・引張りスピード : 300mm/min
- ・パッキング材 : 25 μ mPET

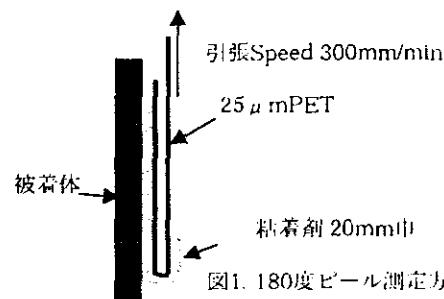
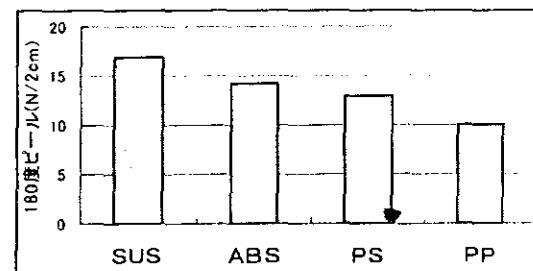


図1. 180度ピール測定方法

(N/2cm)

被着体	SUS	ABS	PS	PP
剥離強度	16.8	14.1	13.0	9.93



2. 保持力

- ・テープ貼付け面積 : 25 × 25 mm
- ・被着体 : SUS304
- ・圧着条件 : 2kgローラー 1往復
- ・荷重 : 1kg
- ・1時間後のズレ (mm) を測定

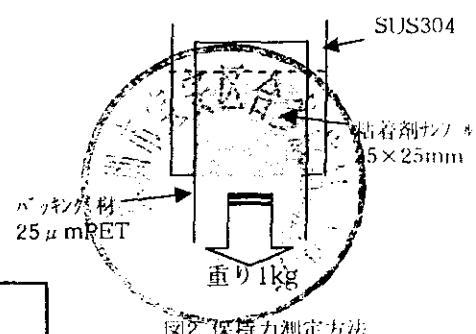


図2. 保持力測定方法

3. ボールタック (J. Dow法)

ボールタック (ボールNo.)	7~8
-----------------	-----

SONY

4. ウレタンフォームとの接着性：耐反発（180度折り曲げ接着）

- ・接着幅：20mm
- ・接着長さ：5mm、10mm
- ・試験温度：RT、50°C
- ・接着条件：80%圧縮
- ・被着体（支持体）：0.5mm厚AL板
- ・被着体：ウレタンフォーム 5mm厚（エーテル、エステル）

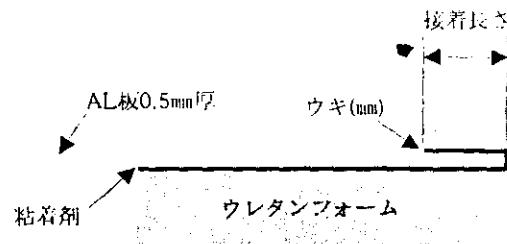
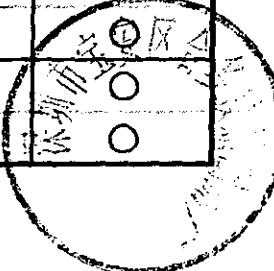


図3. ウレタンフォーム耐反発測定方法

ウキ高さ(mm) ○:0.5mm未満			常温放置	50°C放置
接着長さ 5mm	エーテル	3日後	○	○
		7日後	○	○
	エステル	3日後	○	0.5mm
		7日後	0.5mm	0.5mm
接着長さ 10mm	エーテル	3日後	○	○
		7日後	○	○
	エステル	3日後	○	○
		7日後	○	○



上記上のレポートは当社の信頼できる実験に基づいたものですが、記載内容通りの性能が保証されることを意味するものではありません。
使用者ご自身の責任において、当製品の使用目的、使用条件を充分ご検討の上、ご使用ください。よろしくお願いいたします。

ソニーケミカル株式会社

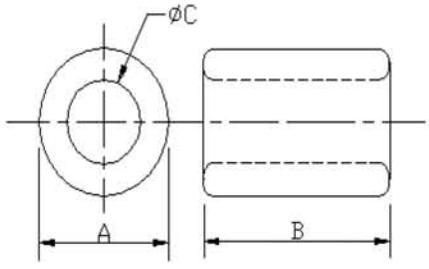
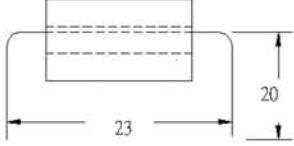
<http://www.scc.sony.co.jp/>本 社 〒141-0032 東京都品川区大崎1-11-2
ゲートシティ大崎イースタワー8F Tel.03-5435-3946 代)

鹿沼工場 〒322-8502 栃木県鹿沼市さつき町12-3 Tel.0289-76-0211 代)

2004年04月作成

G4000

SPECIFICATION

CUSTOMER:		CUST.P/N:		
ITEM:	K5B RH 4x10x2	K.C.P/N:	PS0404IA	
(1) SHAPE :				
		A	4±0.2 m/m	
		B	10±0.4 m/m	
		C	2±0.15 m/m	
		D	m/m	
		E	m/m	
		F	m/m	
		G	m/m	
(2) ELECTRICAL REQUIREMENTS:			(3) TEST CONDITIONS:	
Z ₁ =	37 ⁻⁰ OHM	AT	25 MHz	1 IMPEDANCE ANALYZER: HP4191A
Z ₂ =	63 ⁻⁰ OHM	AT	100 MHz	TEST FIXTURE: HP16092A
			2.WIRE:Φ0.65 T.C.W*63m/m1/2TS	
			3.DRAWING:	
				
(4) PACKING			(5) APPEARANCE	
<input checked="" type="checkbox"/> IN BULK	<input type="checkbox"/> VACUUM	<input type="checkbox"/> INSERTION	(1) AREA OF BREAK : <2 m/m ²	
2000 PCS/BAGS* 4	BAG/INNER BOX* 4	BOXES/CARTON = 32000 PCS	(2) SUM OF BREAKING AREA : <3 m/m ²	
PCS/PLATE*	PLATES/CARTON=	PCS	(3) DEPTH OF BREAK : <1 m/m	
PCS/TRAY*	TRAYS/CARTON=	PCS		
(6) REMARK:			Approved by	
			Checked by	
			Drawn by	
			DWG.NO.	

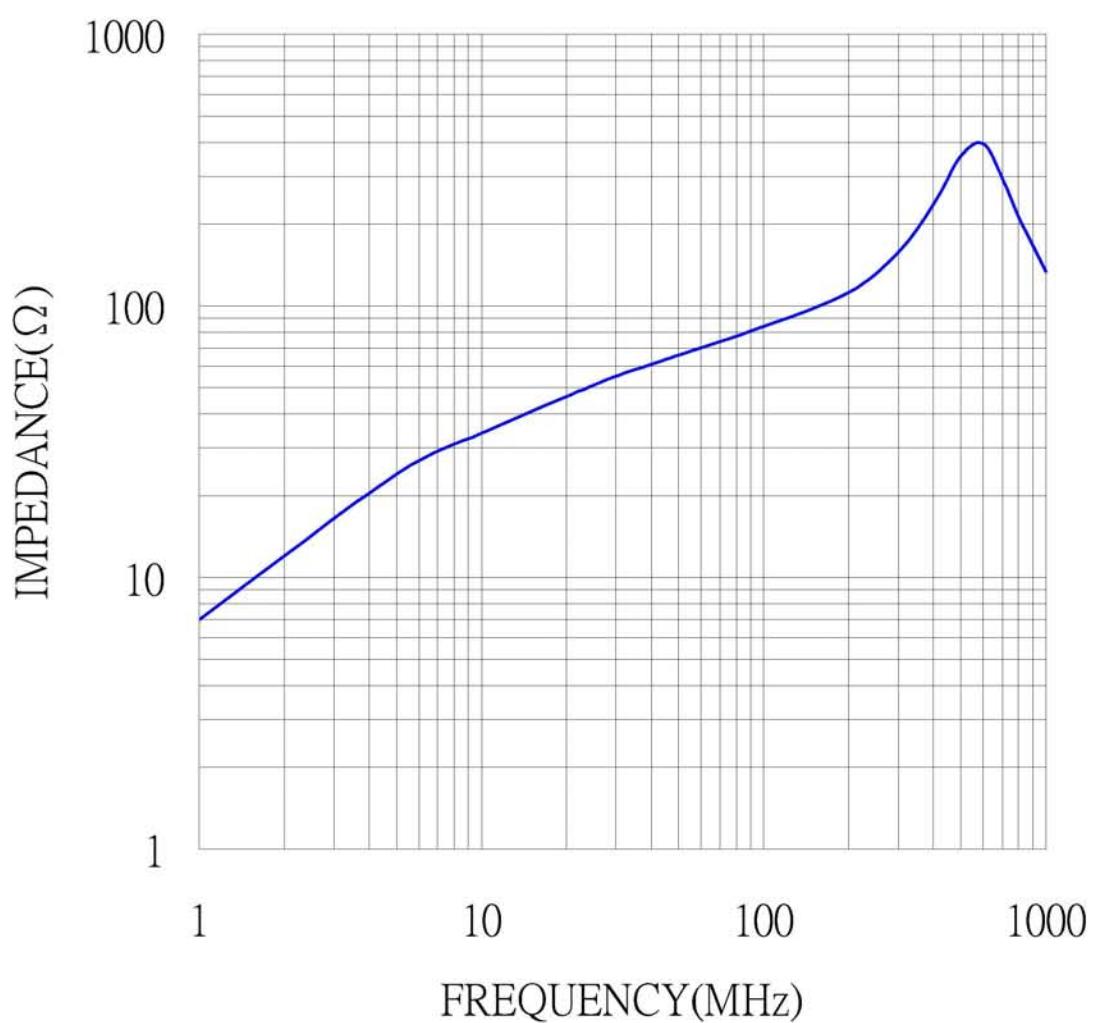


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ER011B

K5B RH 4x10x2

PS0404IA



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HAMBURG INDUSTRIES CO., LTD

6FL, No.12, Lane 270, Sec.3, Pei Shen Rd., Shen Keng Hsiang, Taipei Hsien, Taiwan 222

PRODUCT SPECIFICATION

HAMBURG H-2(CB) 環保阻燃熱收縮套管(薄品)

Environmentally friendly, flexible, ultra thin-wall, flame-retardant polyolefin tubing

應用

HAMBURG H-2(CB)系柔軟、阻燃、輻照交聯聚烯
烴複合物制成之環保超薄型熱收縮套管，通過 UL
及 CSA 認證。H-2(CB)系超薄設計，快速收縮，
特別適用於空間緊張和對溫度敏感的場合。例如，
高密度連接器的應力解除，輕、薄、小、熱敏元件
的絕緣保護等。H-2(CB)不含 PCBs、PCPs、
PBBs、PBBOs、PBBEs、PBDEs 等對環境有害
的物質、符合環保要求。

特點

收縮比 2 : 1
低溫收縮、快速收縮
柔軟、高阻燃
優異的物理、化學及電學性能
不含 PCBs、PCPs、PBBs、PBBOs、PBBEs、
PBDEs 等對環境有害的物質，符合歐洲 RoHS 環
保指令及 SONY SS00259 標準的要求。
可提供多種規格及顏色

溫度範圍

連續使用溫度：-55 ~125

最低起始收縮溫度：60

最低完全收縮溫度：100

認證 / 符合標準

UL224 E255394 125 300V VW-1

CSA C22.2 229705 125 150V VW-1

Application

HAMBURG H-2(CB) is environmentally friendly, flexible, ultra thin-wall, flexible, flame-retardant, irradiated crosslinking heat-shrinkable modified polyolefin tubing. It is designed for applications that require an ultra thin wall for rapid shrinking and space saving. Low shrink temperature further reduces installation time and the risk of damage to temperature-sensitive components.

Features/Benefits

Shrink ratio: 2:1
Low shrink temperature
Ultra thin-wall, rapid shrinking.
Very flexible, flame-retardant
Free of PCBs, PCPs, polybrominated biphenyls (PBBs), polybrominated biphenyl oxides and others (PBBOs, PBBEs, and PBDEs) and toxic heavy metal (Pb, Cd, Hg, Cr6+) compounds, which are classified as environmentally hazardous substances. Conforms to European RoHS environmental directive.
Wide range of sizes and colors

Operation Temperature Range

Operating temperature range: -55 ~125

Minimum shrink temperature: 60

Minimum full recovery temperature: 100

Standards/Approvals

UL224 E255394 125 300V VW-1

CSA C22.2 229705 125 150V VW-1

HAMBURG H-2 (CB)

For further information, please contact:

Tel: 886 2 2662 8882 Fax: 886 2 2662 7201~2 E-mail: Taipei@hamburg.com.tw URL: <http://www.hamburg.com.tw>



HAMBURG INDUSTRIES CO.,LTD

6FL, No.12, Lane 270, Sec.3, Pei Shen Rd., Shen Keng Hsiang, Taipei Hsien, Taiwan 222

性能指標 Specification values

特性	項目 Property	指標要求 Requirement	測試方法 Test method	曲型值 Typical data
物理特性 Physical	軸向收縮率	5%max	ASTM D 2671	5%
	同心度 Concentricity	70%min	ASTM D 2671	70%
	抗張強度 Tensile strength	10.4Mpa min	ASTM D 638	14.0MPa
	斷裂伸長率 Elongation	200%min	ASTM D 638	400%
	熱衝擊 Heat shock	無裂痕 No cracking	ASTM D 2671	通過 Pass
	低溫柔軟性(-55 ,4 小時) Low temperature flexibility-55 ,4hrs	無裂痕 No cracking	ASTM D 2671	通過 Pass
	熱老化 158 ,168 小時			通過 Pass
	老化后抗張強度 Tensile strength after aging	初始值的 70%以上 70% of original min	ASTM D 638	90%
	老化后斷裂伸長率 Elongation after aging	100%min	ASTM D 638	300%
電學特性 Electrical	絕緣耐壓和擊穿 Dielectric voltage withstand	2500V,60sec,不擊穿 No Breakdown	UL224	通過 Pass
	絕緣強度 Dielectric strength	19.7KV/mm min	ASTM D 2671	25KV/mm
	體積電阻率 Volume resistivity	10^{14} .cm min	ASTM D 876	10^{14} .cm
化學特性 Chemical	銅腐蝕 Corrosion	無裂痕 No cracking	ASTM D 2671	通過 Pass
	銅穩定性	伸長率 100%	ASTM D 2671	通過
	阻燃性 Flammability	VW-1	UL224	通過 Pass

HAMBURG H-2 (CB)

For further information,please contact:

Tel: 886 2 2662 8882 Fax: 886 2 2662 7201~2 E-mail: Taipei@hamburg.com.tw URL: <http://www.hamburg.com.tw>



HAMBURG INDUSTRIES CO.,LTD

6FL, No.12, Lane 270, Sec.3, Pei Shen Rd., Shen Keng Hsiang, Taipei Hsien, Taiwan 222

規格尺寸 Product sizes

規格 Size(mm)	收縮前(mm) As supplied		收縮后(mm) After recovery		包裝 Standard length (M/卷)
	內徑 Inside diameter	壁厚 Wall thickness	內徑 Inside diameter (max.)	壁厚 Wall thickness (min.)	
0.8	1.0 ± 0.2	0.10 ± 0.03	0.5	0.20	200
1.0	1.4 ± 0.2	0.10 ± 0.03	0.6	0.20	200
1.5	1.9 ± 0.2	0.10 ± 0.03	0.75	0.20	200
2.0	2.4 ± 0.2	0.12 ± 0.03	1.0	0.20	200
2.5	2.8 ± 0.3	0.13 ± 0.05	1.25	0.25	200
3.0	3.4 ± 0.3	0.13 ± 0.05	1.5	0.25	200
3.5	3.9 ± 0.3	0.13 ± 0.05	1.75	0.25	200
4.0	4.4 ± 0.3	0.15 ± 0.05	2.0	0.25	200
5.0	5.5 ± 0.3	0.15 ± 0.05	2.5	0.25	100
6.0	6.5 ± 0.3	0.15 ± 0.05	3.0	0.28	100
7.0	7.5 ± 0.3	0.15 ± 0.05	3.5	0.28	100
8.0	8.6 ± 0.4	0.15 ± 0.05	4.0	0.28	100
9.0	9.6 ± 0.4	0.15 ± 0.05	4.5	0.28	100
10.0	10.6 ± 0.4	0.15 ± 0.05	5.0	0.28	100
11.0	11.6 ± 0.4	0.18 ± 0.05	5.5	0.28	100
12.0	12.6 ± 0.4	0.20 ± 0.05	6.0	0.28	100
13.0	13.6 ± 0.4	0.20 ± 0.05	6.5	0.30	100
14.0	14.6 ± 0.4	0.20 ± 0.05	7.0	0.30	100
15.0	15.6 ± 0.5	0.20 ± 0.05	7.5	0.32	100
16.0	16.6 ± 0.5	0.20 ± 0.05	8.0	0.36	100
18.0	18.6 ± 0.5	0.22 ± 0.05	9.0	0.36	100
20.0	21.0 ± 1.0	0.25 ± 0.05	10.0	0.36	50
22.0	23.0 ± 1.0	0.25 ± 0.05	11.0	0.40	50
25.0	26.0 ± 1.0	0.25 ± 0.05	12.5	0.40	50

HAMBURG H-2 (CB)

Ordering Information

Color

Standard: Black (-BK), White(-WH), Red(-RD), Blue(-BL), Yellow(-YL), Green(-GR),

Nonstandard: Available upon request.

Nonstandard size: Special sizes are available upon request.

Standard packaging: On spools, Cut pieces are available upon request.

Ordering description: Specify product type, size(mm or inch)and color.

For further information,please contact:

Tel: 886 2 2662 8882 Fax: 886 2 2662 7201~2 E-mail: Taipei@hamburg.com.tw URL: <http://www.hamburg.com.tw>

UL Online Certifications Directory

YDPU2.E255394 Tubing, Extruded Insulating - Component

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Tubing, Extruded Insulating - Component

[See General Information for Tubing, Extruded Insulating - Component](#)

HAMBURG INDUSTRIES CO LTD

E255394

6TH FL

12 LANE 270 PEI SHEN RD, SEC 3

SHEN KENG HSIANG, TAIPEI HSIEN 222 TAIWAN

Cat. No.	Max V	Max Oper Temp	Shrinkdown Class	Col Recognized	Max Temp Rated Oil Resistance * C	VW-1 Rated #
Flexible Heat Shrinkable Polyolefin tubing.						
H-2(+)	600	125	I	All except CL	None	Yes##
H-2 (CB)	150	125	I	Black and White	None	Yes

#Tubing is considered to comply with the optional VW-1 flammability requirements only if it is so marked.

VW-1 flammability rating limited to Black color only.

+ in the designation represents CTMS/TMS.

(CB) - Indicates 150V rated thin-walled tubing with a wall thickness in accordance with UL 224.

Marking: Company name Recognized Component Mark, the catalog designation, temperature rating in degrees C, and voltage rating appear on tags attached to both ends of the tubing or on the shipping spool label or smallest unit container.

[Last Updated on 2006-06-30](#)

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Certificate of Compliance

Certificate: 229705

Project: 1661899M

Date Issued: April 28, 2005

Issued to: Hamburg Industries Co., Ltd.
6F., No. 12, Lane 270, Sec. 3,
Pei Shen Rd., Shen Keng Hsiang,
Taipei Hsien, Taiwan

The products listed below are eligible to bear the CSA Mark shown



A handwritten signature in black ink, appearing to read "JL" or "Fred Mark".

Authorized by: Fred Mark
Director, Far East Operation

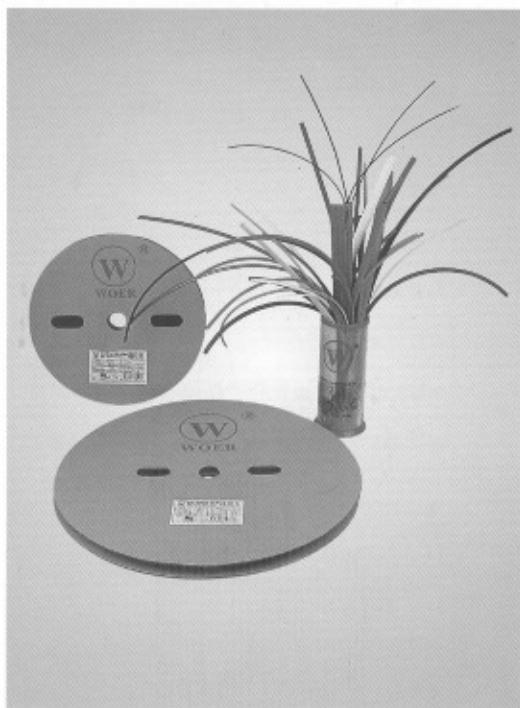
PRODUCTS

CLASS 9032 01 - INSULATING DEVICES AND MATERIALS Insulating Tubing and Sleeving

- Flexible, heat-shrinkable, Cross-linked polyolefin tubing:

Cat No	Voltage Rating (V)	Temp Rating (C)	Trade Size (mm)	Notes
HAMBURG H-2	600	125	1.0-30	1

Note: In all colours except clear or translucent.



安规标准: UL224 VW-1

C-UL CSA C 22.2 OFT

WOER RSFR (H) 系列 H无卤环保阻燃热收缩套管采用优质高聚物，经科学配方、机械共混成高聚物合金，产品成型后经电子加速器辐照交联、连续扩张而成。产品具有环保、柔软、阻燃、收缩快、性能稳定等优点。广泛应用于电线连接、焊点保护、电线端部、线束及电子元器件的防护和绝缘处理；健身器材零部件和钢结构表面防护；相关产品的防锈、防腐处理；电线和其它产品的标识等。

特点：

- ①八大有害元素、卤素元素通过SGS检测；
- ②不含有机锡化合物（三丁基锡类/三苯基锡类）、石棉（Asbestos）、烟雾剂（AzoCompounds）及限制其释放的物质—甲醛；
- ③适用范围：-55°C~125°C；
- ④起始收缩温度70°C，超薄型完全收缩温度110°C，普通型完全收缩温度120°C，轴向收缩率≤5%；
- ⑤柔软、阻燃；
- ⑥规格齐全，Φ0.6~Φ180，并可定制特殊规格；
- ⑦使用方便，用烘箱和热风枪加热即可收缩。
- ⑧环保性能符合Sony与欧盟RoHS等环保标准。

标准颜色：见标准颜色表，其中“+”表示比色卡颜色偏深，“-”表示比色卡颜色偏浅。黑、白、红、黄、绿、蓝色为基本颜色，常备库存，其它颜色不备库存，需定做。

H管标准颜色

标准颜色	黑色	白色	红色	黄色	绿色	蓝色	紫色	灰色	棕色	铁红
产品颜色标识			186U	114U	3288U	646U	2735U	427U	483U-	484U-
H管彩色颜色色标										

性能特性

性 能			测 试 方 法	性 能 指 标
物理特性	拉伸强度 (MPa)		GB/T1040	≥10.4
	断裂伸长率 (%)		GB/T1040	≥200
	热老化后拉伸强度 (MPa)		UL 224 158°C × 168hr	≥7.3
	热老化后断裂伸长率 (%)		UL 224 158°C × 168hr	≥100
	耐热冲击		UL 224 250°C × 4hr	不发粘 不龟裂
	抗冷弯曲		UL 224 -30°C × 4hr	不龟裂
电气特性	击穿强度 (kv/mm)		GB/T1408	≥15
	耐压	150V	UL 224	1500V不击穿
		600V	UL 224	2500V不击穿
化学特性	体积电阻率 (Ω.cm)		GB/T1410	≥1×10 ¹⁴
	抗腐蚀性		UL 224 158°C × 168hr	PASS
	铜安定性		UL 224 158°C × 168hr	PASS
	阻燃性		UL 224	VW-1

环保特性

有害元素名称	测 试 方 法	指 标 (mg/kg)	有害元素名称	测 试 方 法	指 标 (mg/kg)
镉 (Cd)	EN1122:2001Method B	≤5	硒 (Se)	EPA 3052	≤25
铅 (Pb)	EPA 3050 B	≤90	氟 (F)	EN 14582 Method B	≤200
锑 (Sb)	EPA 3050 B	≤60	氯 (Cl)	EN 14582 Method B	≤800
钡 (Ba)	EPA 3050 B	≤1000	溴 (Br)	EN 14582 Method B	≤800
铬 (Cr)	EPA 3050 B	≤5	碘 (I)	EN 14582 Method B	≤200
汞 (Hg)	EPA 3052	≤5	其中多溴联苯 (PBB)	EPA3540C或3550C	禁用
砷 (As)	EPA 3052	≤50	多溴联苯醚 (PBDE)	EPA3540C或3550C	禁用

H管(无卤环保阻燃热缩套管)产品规格

规格 (mm)	收缩前尺寸 (mm)		收缩后尺寸 (mm)		标准包装			适用范围 (mm)
	内径	壁厚	内径	壁厚	米/盘	盘/箱	包装箱规格(cm)	
Φ0.6	0.9±0.2	0.15±0.05	≤0.40	0.22±0.10	200	23	31×31×44.5	0.5~0.7
Φ0.8	1.1±0.2	0.15±0.05	≤0.50	0.22±0.10	200	23	31×31×44.5	0.6~0.8
Φ1.0	1.5±0.2	0.15±0.05	≤0.65	0.28±0.10	200	16	31×31×44.5	0.75~0.9
Φ1.5	2.0±0.2	0.18±0.05	≤0.85	0.32±0.10	200	12	31×31×44.5	0.95~1.4
Φ2.0	2.5±0.2	0.18±0.05	≤1.00	0.35±0.10	200	15	46×46×44.5	1.1~1.8
Φ2.5	3.0±0.2	0.18±0.05	≤1.30	0.38±0.10	200	13	46×46×44.5	1.4~2.3
Φ3.0	3.5±0.2	0.18±0.05	≤1.50	0.40±0.10	200	11	46×46×44.5	1.6~2.7
Φ3.5	4.0±0.2	0.22±0.05	≤1.80	0.42±0.10	200	9	46×46×44.5	1.9~3.2
Φ4.0	4.5±0.2	0.25±0.05	≤2.00	0.45±0.10	200	7	46×46×44.5	2.1~3.6
Φ4.5	5.0±0.2	0.25±0.05	≤2.30	0.50±0.10	100	10	46×46×44.5	2.4~4.0
Φ5.0	5.5±0.2	0.25±0.05	≤2.5	0.55±0.10	100	9	46×46×44.5	2.6~4.5
Φ5.5	6.0±0.2	0.25±0.05	≤2.75	0.55±0.10	100	8	46×46×44.5	2.85~5.0
Φ6.0	6.5±0.2	0.28±0.05	≤3.0	0.55±0.10	100	7	46×46×44.5	3.1~5.4
Φ7.0	7.5±0.3	0.28±0.05	≤3.5	0.55±0.10	100	14	46×46×31	3.7~6.3
Φ8.0	8.5±0.3	0.28±0.05	≤4.0	0.60±0.10	100	13	46×46×31	4.2~7.2
Φ9.0	9.5±0.3	0.30±0.08	≤4.5	0.60±0.10	100	12	46×46×31	4.7~8.0
Φ10	10.5±0.3	0.30±0.08	≤5.0	0.60±0.10	100	11	46×46×31	5.2~9.0
Φ11	11.5±0.3	0.30±0.08	≤5.5	0.60±0.10	100	11	46×46×31	5.7~10
Φ12	12.5±0.3	0.30±0.08	≤6.0	0.60±0.10	100	10	46×46×31	6.2~11
Φ13	13.5±0.3	0.35±0.10	≤6.5	0.65±0.10	100	9	46×46×29.5	6.7~12
Φ14	14.5±0.3	0.35±0.10	≤7.0	0.65±0.10	100	9	46×46×31	7.3~13
Φ15	15.5±0.4	0.40±0.12	≤7.5	0.70±0.10	100	8	46×46×29.5	7.8~14
Φ16	16.5±0.4	0.40±0.12	≤8.0	0.70±0.10	100	8	46×46×31	8.3~15
Φ17	17.5±0.4	0.40±0.12	≤8.5	0.70±0.10	100	7	46×46×29.5	8.8~16
Φ18	19.0±0.5	0.40±0.15	≤9.0	0.80±0.15	100	7	46×46×29.5	9.3~17
Φ20	21.0±0.5	0.40±0.15	≤10.0	0.80±0.15	100	6	46×46×29.5	10.4~19
Φ22	23.0±0.5	0.40±0.15	≤11.0	0.80±0.15	100	6	46×46×31	11.4~21
Φ25	26.0±0.5	0.50±0.15	≤12.5	0.90±0.15	50	6	46×46×31	12.9~24
Φ28	29.0±0.5	0.50±0.15	≤14.0	0.90±0.15	50	5	46×46×29.5	14.4~27
Φ30	31.5±1.0	0.50±0.15	≤15.0	0.95±0.15	50	5	46×46×31	16~29
Φ35	36.5±1.0	0.50±0.15	≤17.5	1.00±0.15	50	4	46×46×29.5	18~34
Φ40	41.5±1.0	0.55±0.15	≤20.0	1.00±0.15	50	4	46×46×31	21~39
Φ45	46.5±1.0	0.55±0.15	≤22.5	1.00±0.15	25	5	31×31×40.5	23.5~44
Φ50	≥50	0.55±0.15	≤25.0	1.00±0.15	25	5	31×31×44.5	26~49
Φ60	≥60	0.60±0.15	≤31.0	1.30±0.20	25	4	31×31×42	35~55
Φ70	≥70	0.65±0.15	≤36.0	1.30±0.20	25	3	31×31×37	40~65
Φ80	≥80	0.65±0.15	≤41.0	1.46±0.20	25	3	31×31×42	45~75
Φ90	≥90	0.65±0.15	≤46.0	1.46±0.20	25	2	31×31×32	50~85
Φ100	≥100	0.65±0.20	≤51.0	1.46±0.20	25	2	31×31×34.5	55~95
Φ120	≥120	0.65±0.20	≤61.0	1.56±0.20	15	2	31×31×40.5	65~115
Φ150	≥150	0.65±0.20	≤76.0	1.56±0.20	15	2	31×31×49.5	80~145
Φ180	≥180	0.65±0.30	≤91.0	1.56±0.20	15	1	31×31×31	95~175

H管(无卤环保阻燃热缩套管)产品规格(英制)

英寸 Inch	规格 (mm)	收缩前尺寸 (mm)		收缩后尺寸 (mm)		标准包装			适用范围 (mm)
		内径	壁厚	内径	壁厚	米/盘	盘/箱	包装箱规格(cm)	
3/64	Φ0.8	1.1±0.2	0.15±0.05	≤0.50	0.22±0.10	200	23	31×31×44.5	0.6~0.8
1/16	Φ1.0	1.5±0.2	0.15±0.05	≤0.65	0.28±0.10	200	16	31×31×44.5	0.75~0.9
3/32	Φ2.0	2.5±0.2	0.18±0.05	≤1.00	0.35±0.10	200	15	46×46×44.5	1.1~1.8
1/8	Φ3.0	3.5±0.2	0.18±0.05	≤1.50	0.40±0.10	200	11	46×46×44.5	1.6~2.7
3/16	Φ4.5	5.0±0.2	0.25±0.05	≤2.30	0.50±0.10	100	10	46×46×44.5	2.4~4.0
1/4	Φ6.0	6.5±0.2	0.28±0.05	≤3.0	0.55±0.10	100	7	46×46×44.5	3.1~5.4
3/8	Φ9.0	9.5±0.3	0.30±0.08	≤4.5	0.60±0.10	100	12	46×46×31	4.7~8.0
1/2	Φ12	12.5±0.3	0.30±0.08	≤6.0	0.60±0.10	100	10	46×46×31	6.2~11
3/4	Φ18	19.0±0.5	0.40±0.15	≤9.0	0.80±0.15	100	7	46×46×29.5	9.3~17
1	Φ25	26.0±0.5	0.50±0.15	≤12.5	0.90±0.15	50	6	46×46×31	12.9~24
1-1/4	Φ28	29.0±0.5	0.50±0.15	≤14.0	0.90±0.15	50	5	46×46×29.5	14.4~27
1-1/2	Φ40	41.5±1.0	0.55±0.15	≤20.0	1.00±0.15	50	4	46×46×31	21~39
2	Φ50	≥50	0.55±0.15	≤25.0	1.00±0.15	25	5	46×46×44.5	26~49
3	Φ80	≥80	0.65±0.15	≤41.0	1.46±0.20	25	3	31×31×42	45~75
4	Φ100	≥100	0.65±0.20	≤51.0	1.46±0.20	25	2	31×31×34.5	55~95
5	Φ120	≥120	0.65±0.20	≤61.0	1.56±0.20	15	2	31×31×40.5	65~115



H-CB管(无卤环保阻燃超薄型热缩套管)产品规格

规格 (mm)	收缩前尺寸 (mm)		收缩后尺寸 (mm)		标准包装			适用范围 (mm)
	内径	平均壁厚	最大内径	平均壁厚	米/盘	盘/箱	包装箱规格(cm)	
Φ1.0CB	1.40±0.2	0.13±0.05	≤0.65	0.20±0.10	200	19	31×31×44.5	0.7~1.0
Φ1.5CB	1.90±0.2	0.13±0.05	≤0.85	0.20±0.10	200	13	31×31×44.5	0.9~1.4
Φ2.0CB	2.40±0.2	0.13±0.05	≤1.00	0.22±0.10	200	18	46×46×44.5	1.1~1.8
Φ2.5CB	2.90±0.2	0.13±0.05	≤1.30	0.25±0.10	200	15	46×46×44.5	1.4~2.3
Φ3.0CB	3.40±0.2	0.13±0.05	≤1.50	0.28±0.10	200	13	46×46×44.5	1.6~2.7
Φ3.5CB	3.90±0.2	0.13±0.05	≤1.80	0.28±0.10	200	10	46×46×44.5	1.9~3.2
Φ4.0CB	4.40±0.2	0.15±0.05	≤2.00	0.30±0.10	200	8	46×46×44.5	2.1~3.6
Φ4.5CB	4.90±0.2	0.15±0.05	≤2.30	0.30±0.10	100	10	46×46×44.5	2.4~4.0
Φ5.0CB	5.50±0.2	0.15±0.05	≤2.5	0.32±0.10	100	10	46×46×44.5	2.6~4.5
Φ6.0CB	6.50±0.2	0.15±0.05	≤3.0	0.32±0.10	100	8	46×46×44.5	3.1~5.4
Φ7.0CB	7.5±0.3	0.15±0.05	≤3.5	0.32±0.10	100	20	31×31×44.5	3.7~6.3
Φ8.0CB	8.5±0.3	0.15±0.05	≤4.0	0.32±0.10	100	18	31×31×44.5	4.2~7.2
Φ9.0CB	9.5±0.3	0.15±0.05	≤4.5	0.35±0.10	100	18	31×31×44.5	4.7~8.0
Φ10.0CB	10.5±0.3	0.15±0.05	≤5.0	0.35±0.10	100	16	31×31×44.5	5.2~9.0
Φ11.0CB	11.5±0.3	0.18±0.05	≤5.5	0.40±0.10	100	15	31×31×44.5	5.7~10.0
Φ12.0CB	12.5±0.3	0.20±0.05	≤6.0	0.40±0.10	100	10	46×46×31	6.2~11.0
Φ13.0CB	13.5±0.3	0.20±0.05	≤6.5	0.40±0.10	100	9	46×46×29.5	6.7~12.0
Φ14.0CB	14.5±0.3	0.20±0.05	≤7.0	0.40±0.10	100	9	46×46×29.5	7.3~13.0
Φ15.0CB	15.5±0.4	0.20±0.05	≤7.5	0.40±0.10	100	8	46×46×29.5	7.8~14.0
Φ16.0CB	16.5±0.4	0.22±0.05	≤8.0	0.40±0.10	100	8	46×46×31	8.3~15.0
Φ17.0CB	17.5±0.4	0.22±0.05	≤8.5	0.40±0.10	100	8	46×46×29.5	8.8~16.0
Φ18.0CB	18.5±0.4	0.22±0.05	≤9.0	0.42±0.10	100	7	46×46×29.5	9.3~17.0
Φ20.0CB	20.5±0.5	0.25±0.05	≤10.0	0.45±0.10	100	6	46×46×29.5	10.5~19.0
Φ22.0CB	22.5±0.5	0.25±0.05	≤11.0	0.45±0.10	100	6	46×46×29.5	11.5~20.5
Φ25.0CB	25.5±0.5	0.25±0.05	≤12.5	0.45±0.10	50	6	46×46×31	13.0~24.0

H-CB管(无卤环保阻燃超薄型热缩套管)产品规格(英制)

英寸 Inch	规格 (mm)	收缩前尺寸 (mm)		收缩后尺寸 (mm)		标准包装			适用范围 (mm)
		内径	平均壁厚	内径	平均壁厚	米/盘	盘/箱	包装箱规格(cm)	
1/16	Φ1.0 CB	1.40±0.20	0.13±0.05	≤0.65	0.20±0.10	200	19	31×31×44.5	0.7~1.0
3/32	Φ2.0 CB	2.40±0.20	0.13±0.05	≤1.00	0.22±0.10	200	18	46×46×44.5	1.1~1.8
1/8	Φ3.0 CB	3.40±0.20	0.13±0.05	≤1.50	0.28±0.10	200	13	46×46×44.5	1.6~2.7
3/16	Φ4.5 CB	4.90±0.20	0.15±0.05	≤2.30	0.30±0.10	100	10	46×46×44.5	2.4~4.0
1/4	Φ6.0 CB	6.50±0.20	0.15±0.05	≤3.0	0.32±0.10	100	8	46×46×44.5	3.1~5.4
3/8	Φ9.0 CB	9.50±0.30	0.15±0.05	≤4.5	0.35±0.10	100	18	31×31×44.5	4.7~8.0
1/2	Φ12.0 CB	12.5±0.30	0.20±0.05	≤6.0	0.40±0.10	100	10	46×46×31	6.2~11.0
3/4	Φ18.0 CB	18.5±0.40	0.22±0.05	≤9.0	0.42±0.10	100	7	46×46×29.5	9.3~17.0
1	Φ25.0 CB	25.5±0.50	0.25±0.05	≤12.5	0.45±0.10	50	6	46×46×31	12.5~25.5



YDPU8.E203950

Tubing, Extruded Insulating Certified for Canada - Component

[Page Bottom](#)**Tubing, Extruded Insulating Certified for Canada - Component**[See General Information for Tubing, Extruded Insulating Certified for Canada - Component](#)

SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD
 XINWEI INDUSTRIAL PARK, WOER MANSION
 NANSHAN DISTRICT, XILI
 SHENZHEN, GUANGDONG 518052 CHINA

E203950

Cat. No.	Max V	Max Temp C	Col Recognized	Max Temp Rated Oil Resistance C	VW-1 Rated #
Heat-Shrinkable Polyolefin Tubing					
RSFR-x	600	125	Black	None	Yes
RSFR-x	600	125	White	None	Yes
WKZM-x-yz	600	125	White	None	No
RSFR-H	600	125	All except Clear	None	Yes
RSFR(CB)	300	125	All except Clear	None	Yes
Not Heat-Shrinkable PTFE Tubing					
WF	600	200	Natural	None	Yes
Heat-Shrinkable Polyolefin Tubing with Meltable Liner					
SBRS	600	105	All except Clear	None	Yes
Not Heat-Shrinkable Standard Wall Silicone Tubing					
WST-600	600	150	White	None	@

x - Designated tubing expanded ID. For Black color tubing, x represents expanded ID of 2 mm - 8 mm. For White color tubing, x represents expanded ID of 1mm - 50 mm.

yz - Represents any alpha and/or numeric combination for internal client code.

- Tubing is considered to comply with the optional VW-1 flammability requirements only if it is so marked.

@ - VW-1 rated for internal diameter sizes 6.50 - 15.00 mm only.

Marking: Company name or file number "E203950", catalog number, voltage rating, temperature rating in degrees C, inside diameter (before and

after recovery), date of manufacture and the Recognized Component Mark for Canada  on tags attached to both ends of the tubing or on the shipping spool label or smallest unit container.

Last Updated on 2007-09-25

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樣品檢驗記錄表

編號:SSR-209371

諱裕料號/ 專案代號		C037-511026-A		品名/規格	RF Cable Assembly					數量	5pcs	日期	09.12.10	
檢驗 項目	Item	公差	樣品編號										量測 工具	判定
			1	2	3	4	5	6	7	8	9	10		
尺寸	1	110	±3	110	110	111	110	110					A	<input type="checkbox"/> OK <input type="checkbox"/> NG
	2													<input type="checkbox"/> OK <input type="checkbox"/> NG
	3													<input type="checkbox"/> OK <input type="checkbox"/> NG
	4													<input type="checkbox"/> OK <input type="checkbox"/> NG
	5													<input type="checkbox"/> OK <input type="checkbox"/> NG
	6													<input type="checkbox"/> OK <input type="checkbox"/> NG
	7													<input type="checkbox"/> OK <input type="checkbox"/> NG
	8													<input type="checkbox"/> OK <input type="checkbox"/> NG
外觀	1	咬花	樣品或規格											目視 <input type="checkbox"/> OK <input type="checkbox"/> NG
	2	配色	樣品或規格											目視 <input type="checkbox"/> OK <input type="checkbox"/> NG
	3	印刷	樣品或規格											目視 <input type="checkbox"/> OK <input type="checkbox"/> NG
	4	亮霧度	樣品或規格											目視 <input type="checkbox"/> OK <input type="checkbox"/> NG
電氣 特性	1	VSWR		2.4185										NA <input type="checkbox"/> OK <input type="checkbox"/> NG
	2	S1P S21		-6.6473dB										NA <input type="checkbox"/> OK <input type="checkbox"/> NG
	3	Gain												chamber <input type="checkbox"/> OK <input type="checkbox"/> NG
零件組 配性		各零件組配 性狀況	樣品或規格											<input type="checkbox"/> OK <input type="checkbox"/> NG
材料選 用確認		是否依照成 品圖之材料												<input type="checkbox"/> OK <input type="checkbox"/> NG
備註:														

※量測工具: a游標卡尺 b塞規 c深度規 d工具顯微鏡 e厚薄規 f分厘卡 g扭力計 h拉拔測試機 i組配

尺寸檢驗: 標注在附圖Mark表示

核準: 1.0 % ok

審核: /

工程師: 王志 3.26.09

