

承 認 書

SPECIFICATION FOR APPROVAL

客 戶
CUSTOMER

亞旭科技股份有限公司

日 期
DATE

92 年 7 月 4 日

品 名
DESCRIPTION

WPF001
2.4 GHz Wireless PIFA (L=120)
With MHF

客 戶 料 號
CUSTOMER P/N

3907-001100



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.

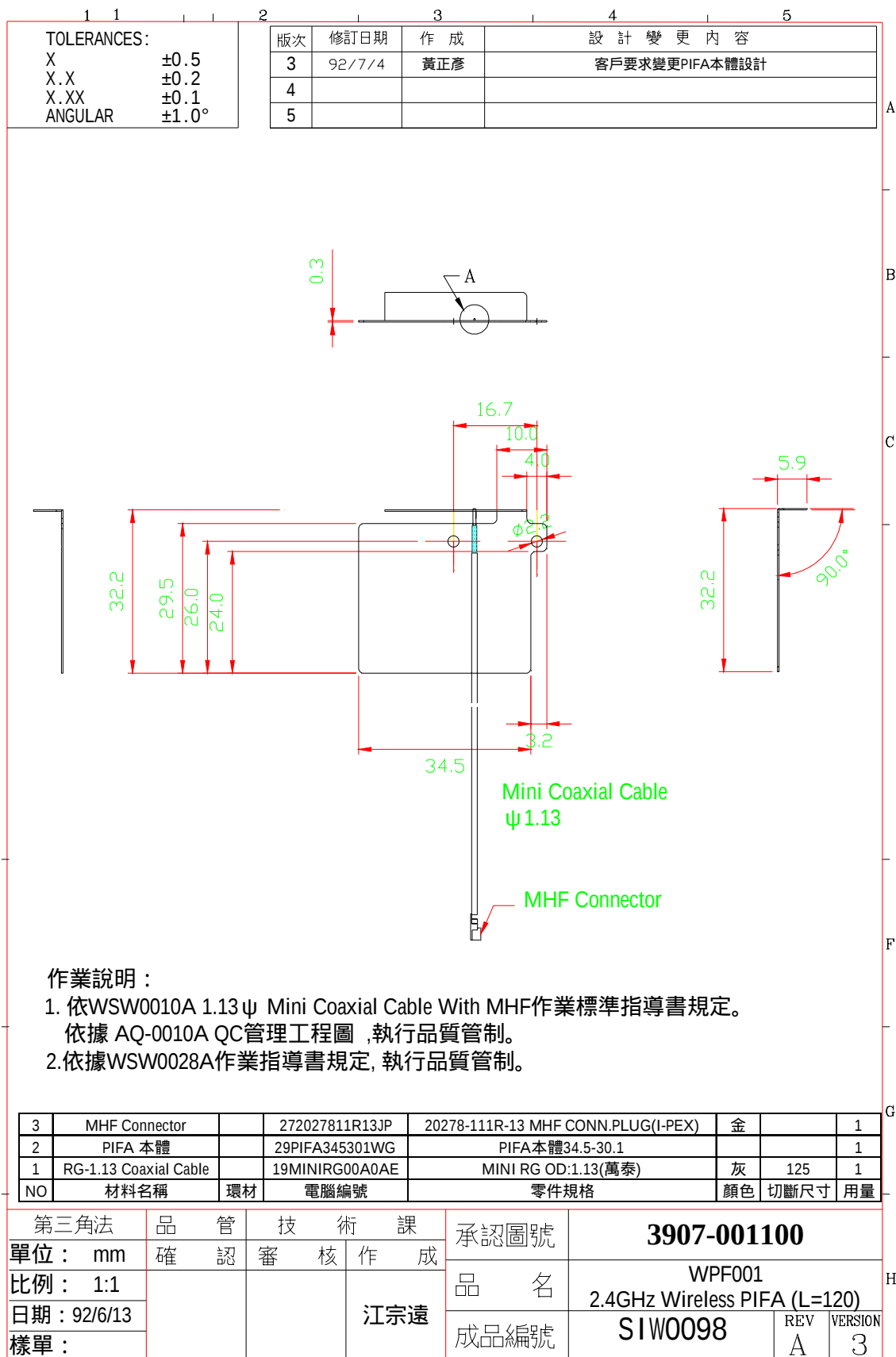
TEL : (02) 22988066 (5 LINE) FAX : (02)22981102

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SPECIFICATION

- | | |
|-------------------------------|------------------------------------|
| 1. Description | : WPF001 2400MHz PIFA with MHF |
| 2. Customer | : 亞旭科技股份有限公司 |
| 3. Model No. | : WPF001 |
| 4. Part No. | : SIW0098A |
| 5. Product Merits | : IEEE 802.11b 11Mbps Wireless LAN |
| 6. Antenna Profile | : 34.5*32.2*0.3 mm (see Drawing) |
| 7. Color | : N/A |
| 8. Electrical Characteristics | |
| Operating Frequency | : 2.4~2.5Ghz |
| Antenna Type | : PIFA |
| Polarization Type | : Linear |
| Type of Radiation | : Toroidal |
| Peak Gain | : 0 dBi Typical |
| Impedance | : 50 Ohm nominal |
| V.S.W.R. | : 2.0:1 Max. |
| 9. Mechanical Characteristics | |
| Lead Length | : 120 mm (see Drawing) |
| Connector | : IPEX MHF |
| Core | : N/A |
| Polyethylene Foam | : N/A |
| Acrylic Foam Tape | : N/A |
| 10. Raw Material | |
| Coaxial Cable | : 3.2AWG*1C SP7/0.080 1.13MM |
| Antenna Body | : SPTE Per JIS G3303 SPTE MR T-38A |

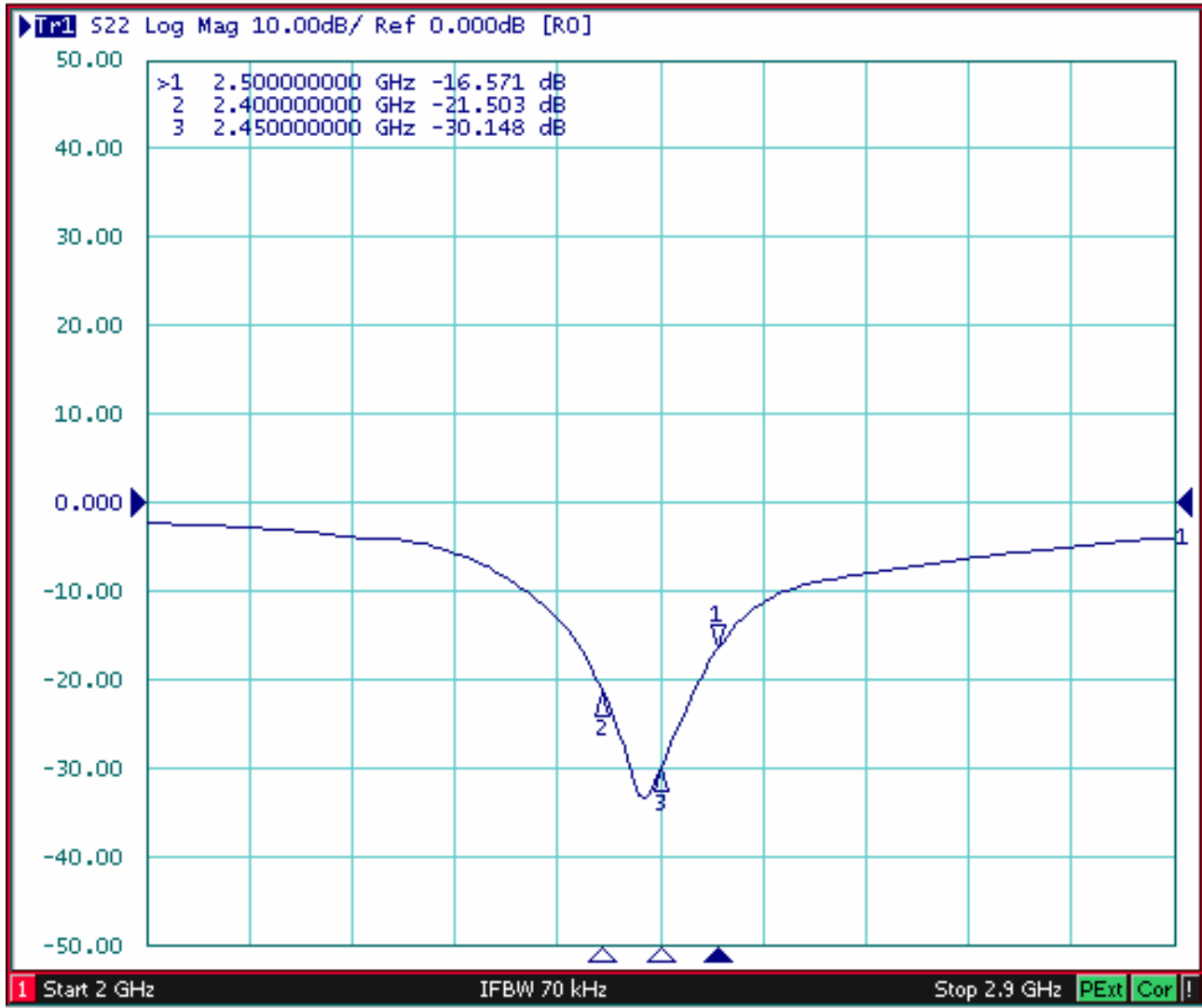


萬旭電業股份有限公司

文件編號：FMT-0513-B7

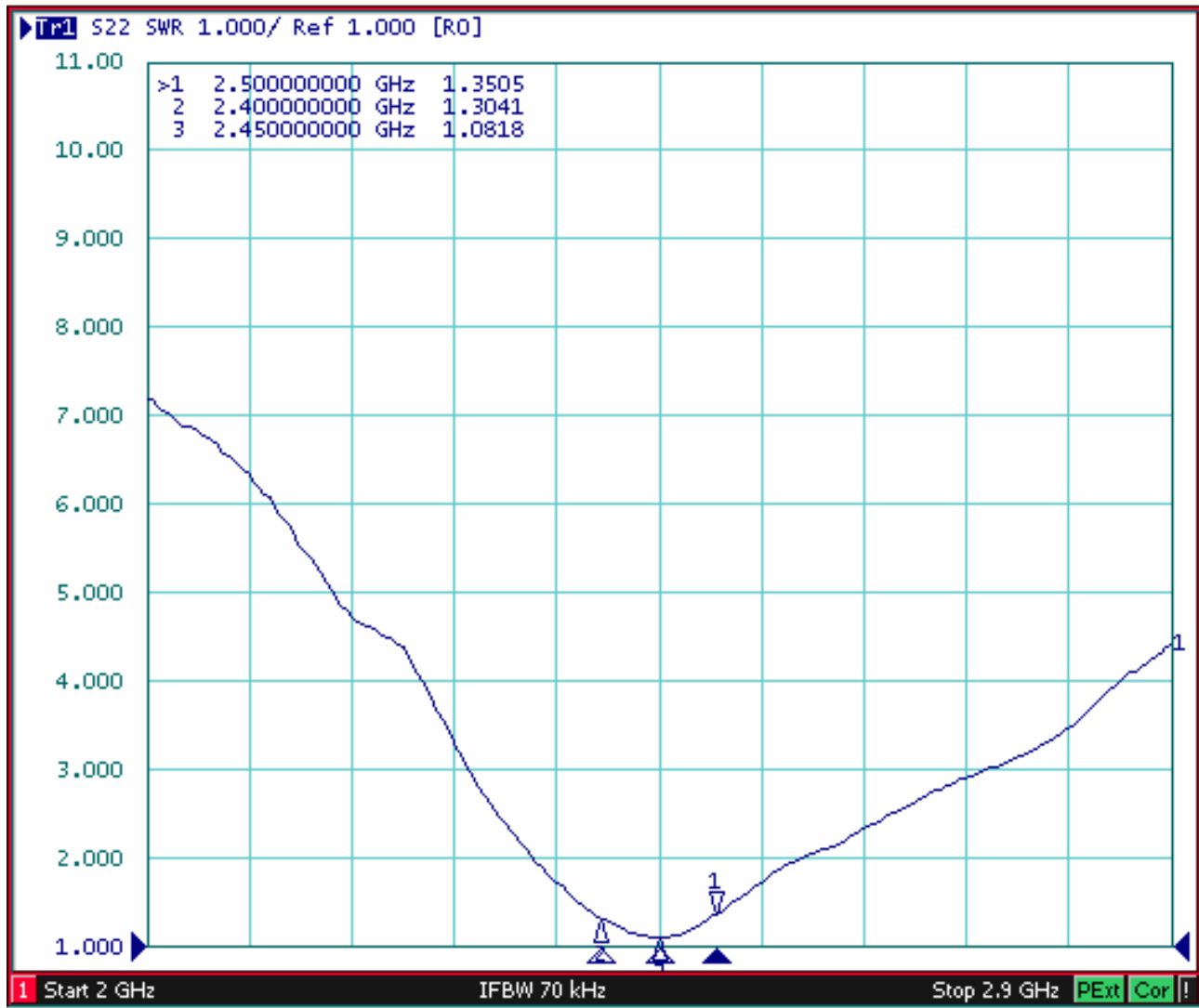
Electrical Properties

Return Loss



Electrical Properties

V.S.W.R



Electrical Properties

Radiation Pattern – YZ Plane(Horizontal)

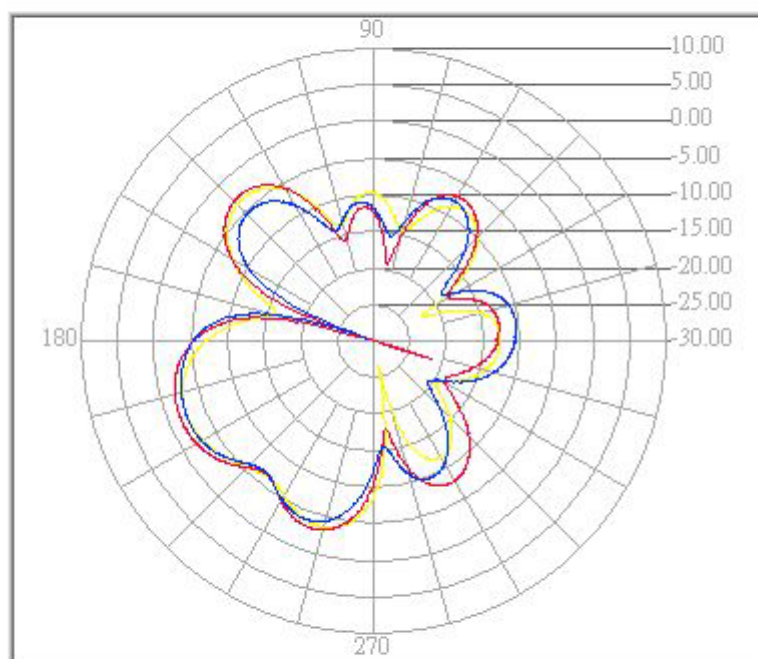


萬旭電業股份有限公司

Model No: PIFA 6

Antenna Position: Horizontal

Test Mode: YZ



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	-2.48	201.72	-7.91
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	-1.54	202.03	-7.22
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2490.00	-2.45	202.34	-8.14

Test engineer: _____

Test date: 2003/7/4 at PM 03:11

Electrical Properties

Radiation Pattern – YZ Plane (Vertical)

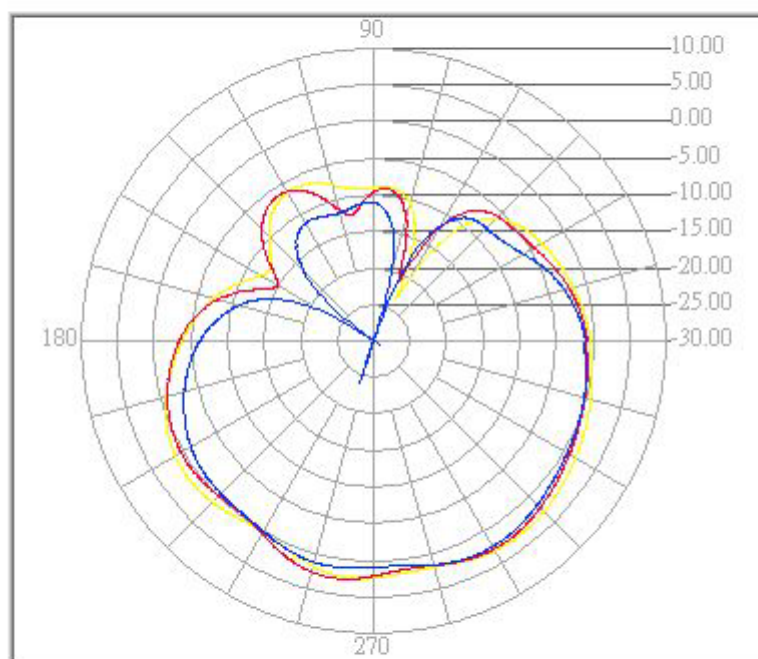


萬旭電業股份有限公司

Model No: PIFA 6

Antenna Position: Vertical

Test Mode: YZ



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	3.31	305.56	-0.81
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	2.92	302.73	-1.19
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2490.00	2.50	299.58	-2.07

Test engineer: _____

Test date: 2003/7/4 at PM 03:08

Electrical Properties

Radiation Pattern – XY Plane (Horizontal)

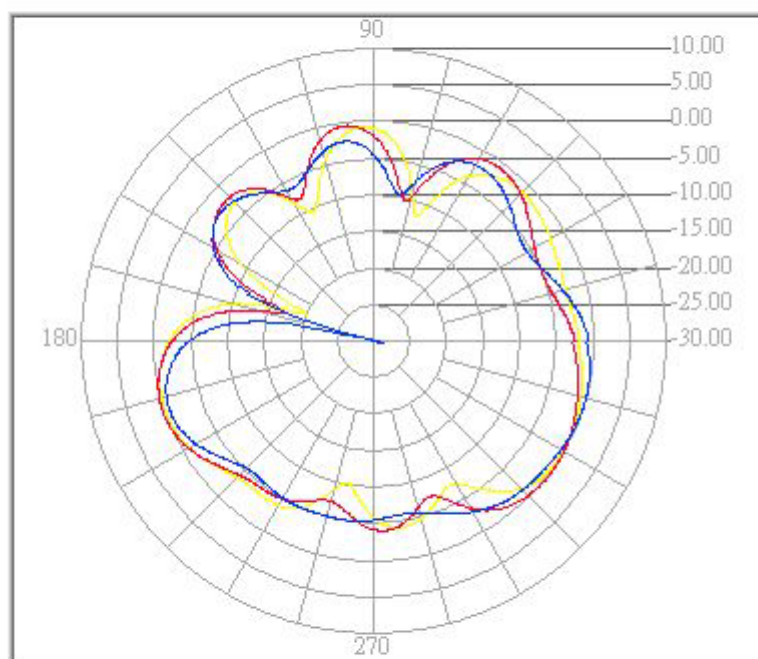


萬旭電業股份有限公司

Model No: PIFA 6

Antenna Position: Horizontal

Test Mode: XY



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	0.09	197.67	-3.08
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	0.42	198.30	-2.86
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2490.00	0.11	342.80	-3.31

Test engineer: _____

Test date: 2003/7/4 at PM 02:53

Electrical Properties

Radiation Pattern – XY Plane (Vertical)

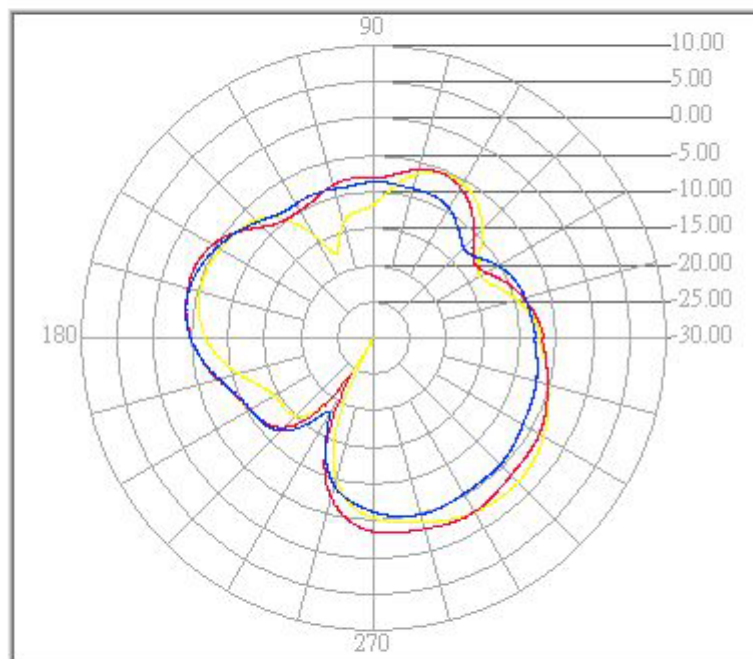


萬旭電業股份有限公司

Model No: PIFA 6

Antenna Position: Vertical

Test Mode: XY



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	-2.03	312.27	-6.84
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	-2.46	297.61	-6.20
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2490.00	-3.90	166.59	-7.49

Test engineer: _____

Test date: 2003/7/4 at PM 03:01

Electrical Properties

Radiation Pattern – XZ Plane (Horizontal)

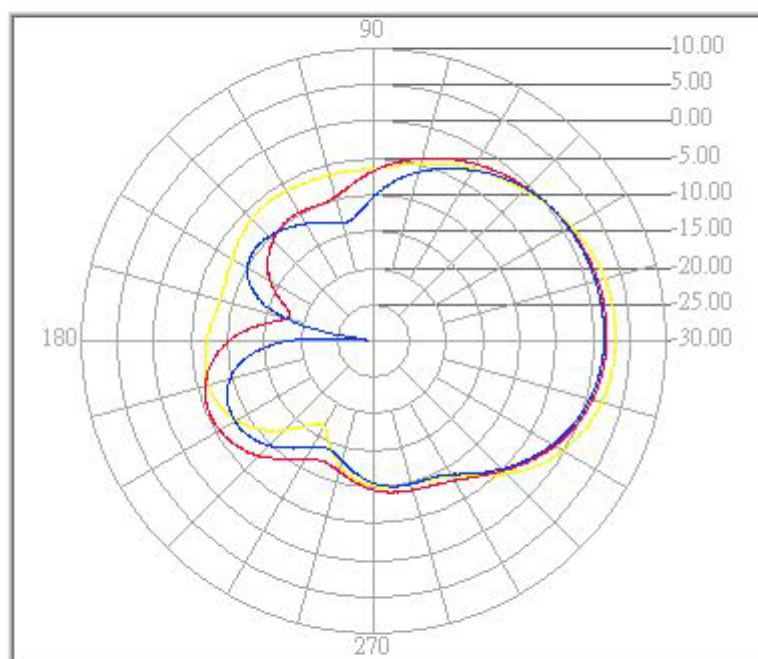


萬旭電業股份有限公司

Model No: PIFA 6

Antenna Position: Horizontal

Test Mode: XZ



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	3.09	3.41	-2.92
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	1.91	6.83	-3.63
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2490.00	1.54	7.76	-4.26

Test engineer: _____

Test date: 2003/7/4 at PM 03:19

Electrical Properties

Radiation Pattern – XZ Plane (Vertical)

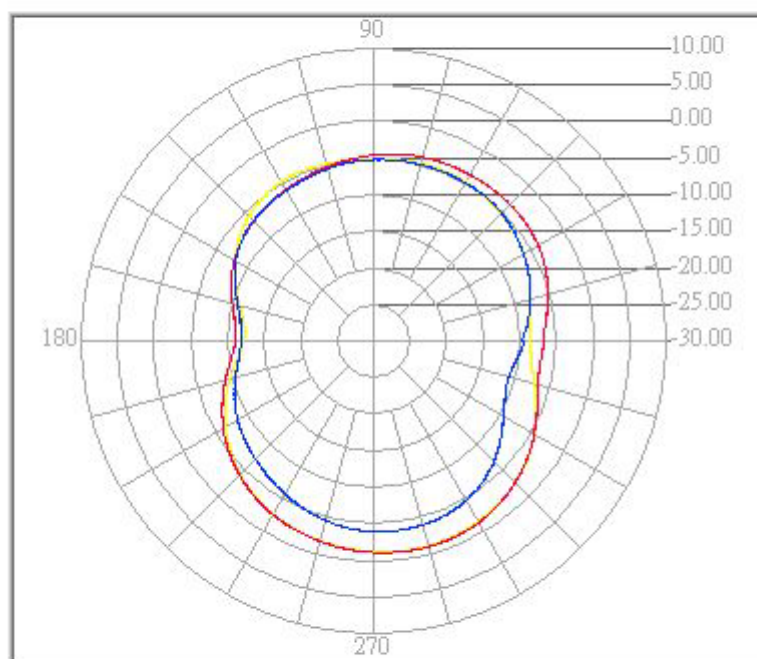


萬旭電業股份有限公司

Model No: PIFA 6

Antenna Position: Vertical

Test Mode: XZ



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	-1.00	283.34	-4.62
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	-0.86	283.34	-4.24
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2490.00	-3.87	274.97	-6.52

Test engineer: _____

Test date: 2003/7/4 at PM 03:23

Material Data Sheet

Mini-1.13 Coaxial Cable

SPECIFICATION FOR APPROVAL

DOCUMENT: A3132SP001

STYLE : 200°C 30V

SIZE: 32AWG×1C
SP 7/0.080 1.13 mm

RECOGNIZED:

WONDERFUL HI-TECH CO.,LTD.

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

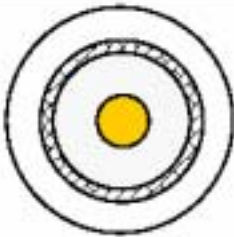
TEL : (02)22988033
FAX : (02)22988031-2

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	200℃ 30V COAXIAL	DOCUMENT NO : A3132SP001
SIZE	32AWG	ESTABLISHED DATE: 2003/01/16
STANDARD :		
Conductor	Size	AWG 32
	Material	---- Silver-Coated 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	---- Silver-Coated Copper
	Construction	mm 16 / 4 / 0.050
	Cross No.	---- 20
	Coverage	% 90
Jacket	Average Thickness	mm 0.13
	Diameter	mm 1.13 ± 0.05
	Material	---- FEP
	Color	---- According to custom
Marking	NON	
Drawing		

WONDERFUL HI-TECH CO., LTD.

SPECIFICATION

Electrical & Physical Properties						
Item		32AWG				
Rating Temp Voltage		200°C 30V				
Conductor Resistance		545 OHM/KM/20°C MAX.				
Insulation Resistance		100 MEGA OHM/KM MIN.				
Dielectric Strength		AC 1.0 KV/Minute				
Spark Test		0.5 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)		100MHZ	400MHZ	1.8GHZ	2.4GHZ	5.2GHZ
		0.60	1.25	2.23	2.70	4.15

SPT E

70:長谷川

品質證明書
CERTIFICATE OF QUALITY AND MASS

製造商 廣一實業股份有限公司
MANUFACTURER : TON YI INDUSTRIAL CO., LTD.
證明書編號 12612403
證明書日期 1994.11.21
DATE OF ISSUE

客戶編號
CUSTOMER :
客戶編號
CUSTOMER CONTROL NO : 00122

品名 鋼絲繩
CONTRACT NO :
品名 鋼絲繩
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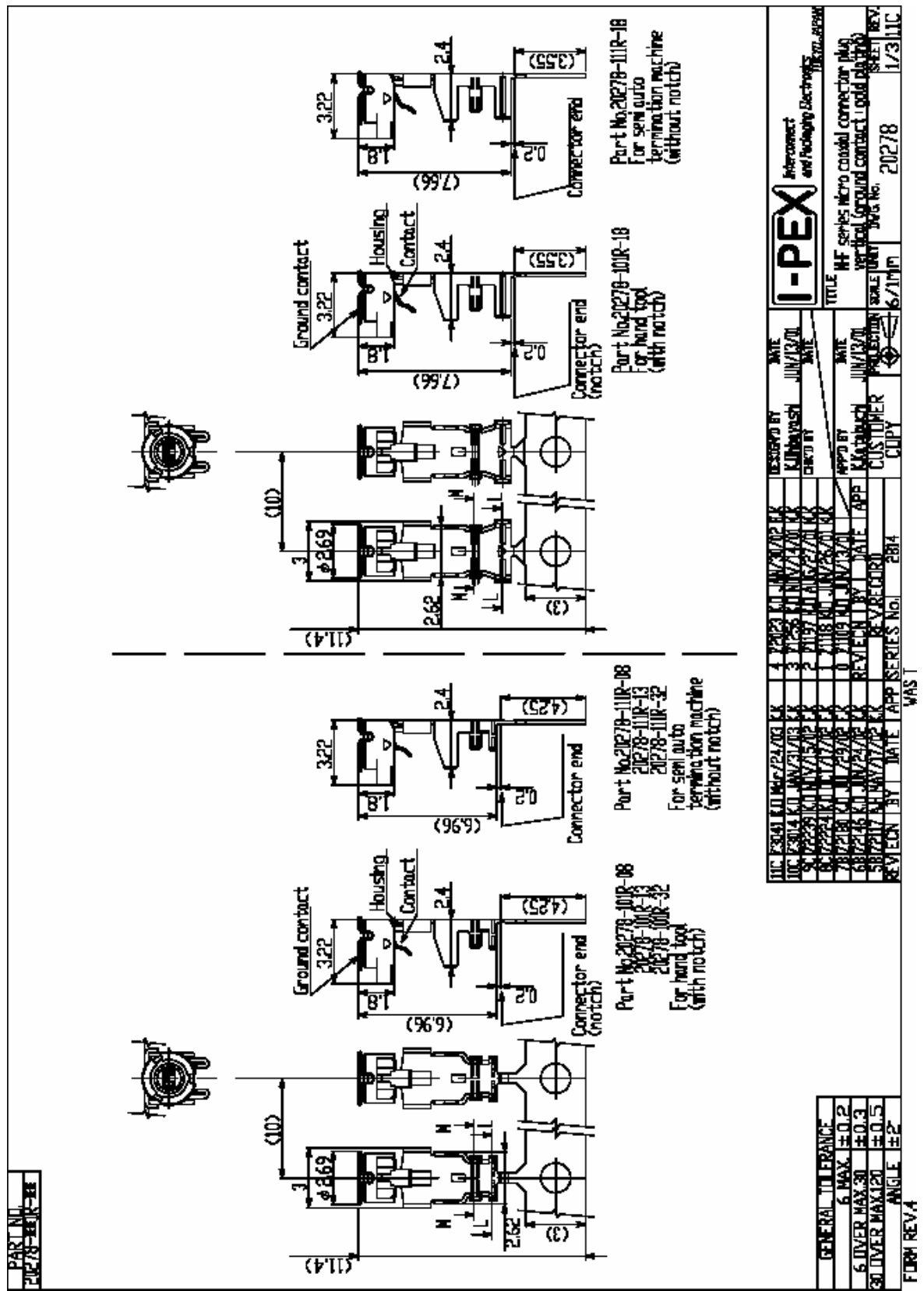
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品名 鋼絲繩
CONTRACT NO :

C. H. Lee
MANAGER
INSPECTION

茲證明本廠內所有檢驗結果均符合本公司檢驗科之規定標準，並
WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED
HEREIN HAS BEEN TESTED AND INSPECTED WITH THE
SATISFACTORY RESULTS IN ACCORDANCE WITH THE
REQUIREMENTS OF THE ABOVE SPECIFICATION.

品名 鋼絲繩
CONTRACT NO :
品名 鋼絲繩
CONTRACT NO :
品名 鋼絲繩
CONTRACT NO :
品名 鋼絲繩
CONTRACT NO :

MHF Connector



MHF Connector

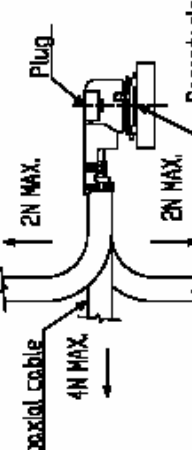
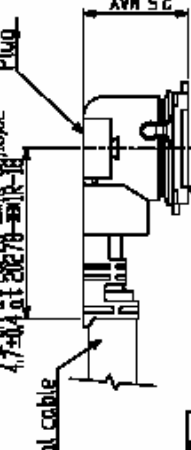
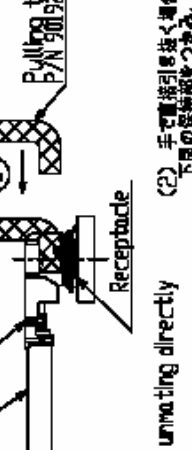
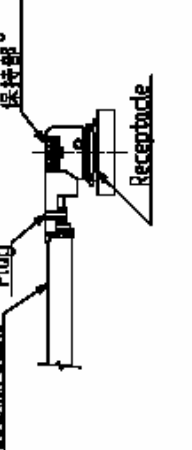
Part No.	20270-100R-08	20270-100R-09	20270-100R-13	20270-100R-22	20270-100R-38
Applicable cable nominal dimension	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)
Jacket	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)
Outer conductor	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)
Inner conductor	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)
Shield of outer conductor	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)
Shield of inner conductor	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)	2.09 ± 0.1 1.25 ± 0.1 1.16 ± 0.1 0.84 (NOMINAL) 0.84 (NOMINAL)
Hand Tool	90187-008C	90187-013C	90187-032C	90187-032C	90187-032C
Auto termination machine	90213-008C	90213-013C	90213-032C	90213-032C	90213-032C
Sect. M-M	1.68	2.24	2.29	2.29	2.29
Sect. L-L	1.72	2.28	2.37	2.37	2.37
Crimp Height	1.34 ~ 1.40	1.34 ~ 1.40	1.34 ~ 1.40	1.34 ~ 1.40	1.34 ~ 1.40
	0.76 ~ 0.84	1.06 ~ 1.14	1.20 ~ 1.30	1.20 ~ 1.30	1.20 ~ 1.30
	0.85 ~ 0.97	1.15 ~ 1.35	1.26 ~ 1.46	1.26 ~ 1.46	1.26 ~ 1.46

GENERAL TOLERANCE	6 MAX. ± 0.2
6 OVER MAX. 30 ± 0.3	30 OVER MAX. 120 ± 0.5
ANGLE ± 2°	
DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
REVIEW BY	DATE
RECORD BY	DATE
SERIES NO.	284
CUSTOMER	COPY
PROJECTION	
SCALE	1/10
TITLE	HF series micro coaxial connector plug
DATE	20278
REV	2/3
REV	1/1

FORM REV.4

Material Data Sheet

MHF Connector

Notes 1. Material (1) Housing: PBT, UL94V-0, black (2) Contact phosphor bronze gold plating (3) Ground contact phosphor bronze, gold plating 2. Packing: reel 3. Mating part No. 120279-001E-01	1. 材料 (1) ハウジング: PBT, UL94V-0, 黒色 (2) コネクタ : 金メッキ (3) グランドコネクタ : 金メッキ 2. 梱包 : リール 3. 対応する Mating part No. : 20279-001E-01	4. Permissible load of cable at mating コネクタから合装のケーブルに対する荷重 	5. Suggestions for mating & unmating operation. 5-1 Mating: Please mate the connector straightly to vertical direction as much as possible, adjusting the mating axis of plug and receptacle. As excessive slant angle mating may break the connector, please don't do it. 	5-2 Unmating: (1) In case of unmating by pulling tool. Please use the pulling tool as the following drawing, and please pull plug to vertical direction as directly as possible.  (2) In case of unmating directly by hand. Please catch the catching area of plug, and please pull plug to vertical direction as directly as possible. 
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