

承 認 書

SPECIFICATION FOR APPROVAL

客 戶  
CUSTOMER

環隆電氣股份有限公司

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日 期  
DATE

2005 / 09 / 26

---

品 名  
DESCRIPTION

Mini 1.13 Cable Assembly (L203.2)  
With RP-SMA Bulkhead Jack & MHF

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客 戶 料 號  
CUSTOMER P/N

54-200340-02

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成 品 編 號  
Part NO.

MFW1341A1

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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

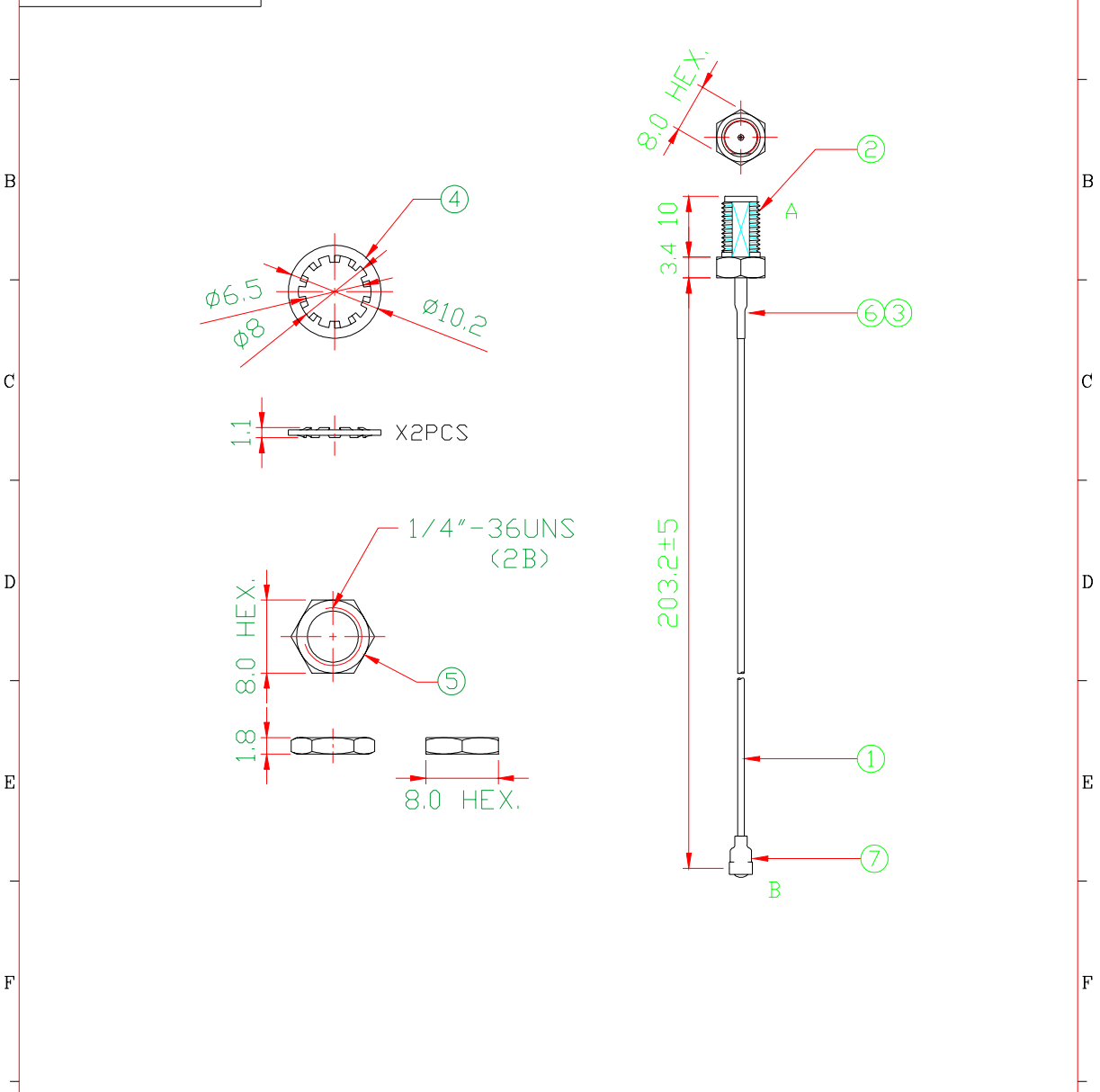
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# SPECIFICATION

- |                               |   |
|-------------------------------|---|
| 1. Description                | : Mini 1.13 Cable Assembly with<br>RP-SMA Bulkhead Jack & MHF |
| 2. Customer                   | : 環隆電氣股份有限公司  |
| 3. Part No.                   | : MFW1341A1   |
| 4. Coaxial Length             | : 203.2 mm (see Drawing)                                      |
| 5. Electrical Characteristics |   |
| Operating Frequency           | : 1~6 GHz   |
| Impedance                     | : 50 Ohm nominal  |
| Insertion Loss.               | : <1.1 dB below 2.45GHz                                       |
| .                             | : <1.8dB below 5.85GHz  |
| Return Loss                   | : <-24dB below 2.45GHz  |
| .                             | : <-13dB below 5.85GHz  |
| 6. Mechanical Characteristics |   |
| Connector                     | : RP-SMA Bulkhead Jack<br>: MHF                               |
| 7. Raw Material               |   |
| Coaxial Cable                 | : Mini 1.13   |
| Core                          | : N/A   |

TOLERANCES:		Ver	Date	ECR NO.	Drawing	Engineering Change Description
X	± 0.5					
X.X	± 0.3					
X.XX	± 0.1					
ANGULAR	± 5.0°					

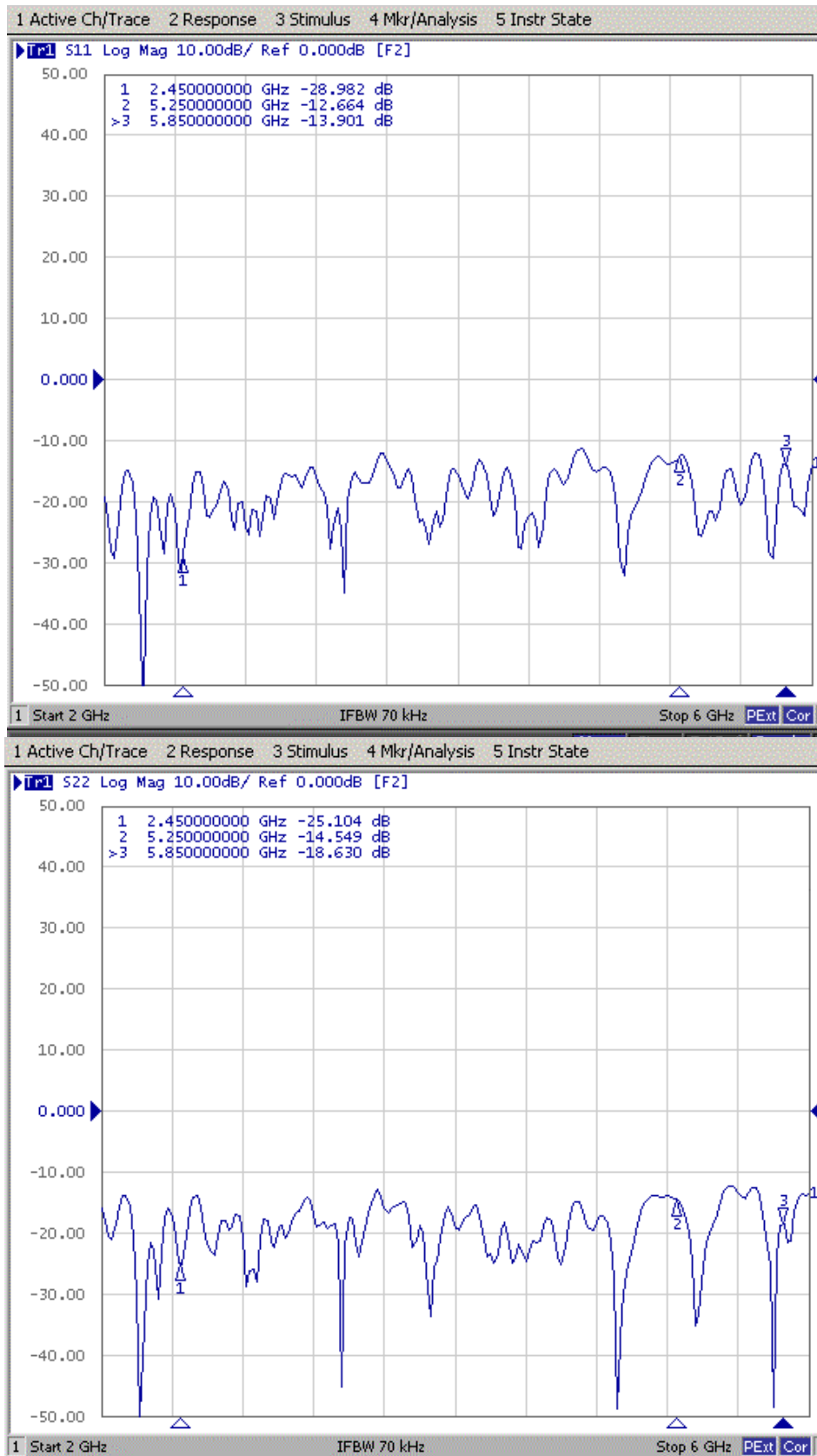


7	MHF Connector		20278-111R-13 (I-PEX)	Golden		1	or Equivalent
6	Heat Shrink Tube		@F34 2.0 黑 L=10mm	Black		1	or Equivalent
5	Nut		028922005 Nut Bulkhead Reverse SMA	Golden		1	or Equivalent
4	Washer		028922005 Washer Bulkhead Reverse SMA	Golden		2	or Equivalent
3	Bulkhead Reverse SMA Shaft		0270B Pin Bulkhead Reverse SMA Shaft	Golden		1	or Equivalent
2	Bulkhead Reverse SMA Body		0376A Body Bulkhead Reverse SMA	Golden		1	or Equivalent
1	MINI 1.13 Coaxial Cable		MINI OD:1.13灰 GY-193	Gray	208	1	or Equivalent
NO	Material	GM	Description	Color	Dim	Qty	Remark

Revised :		Data: 94/09/26		Customer Part No.	54-200340-02		
Page : 1/1	Approval	Checked	Drawed	Part Name	Mini 1.13 Cable Assembly with MHF (L=203.2)		
UNIT : mm	J. L. Lin	Sandy	Mandy	Part No.	MFW1341	REV A	VERSION 1
Scale : FREE							

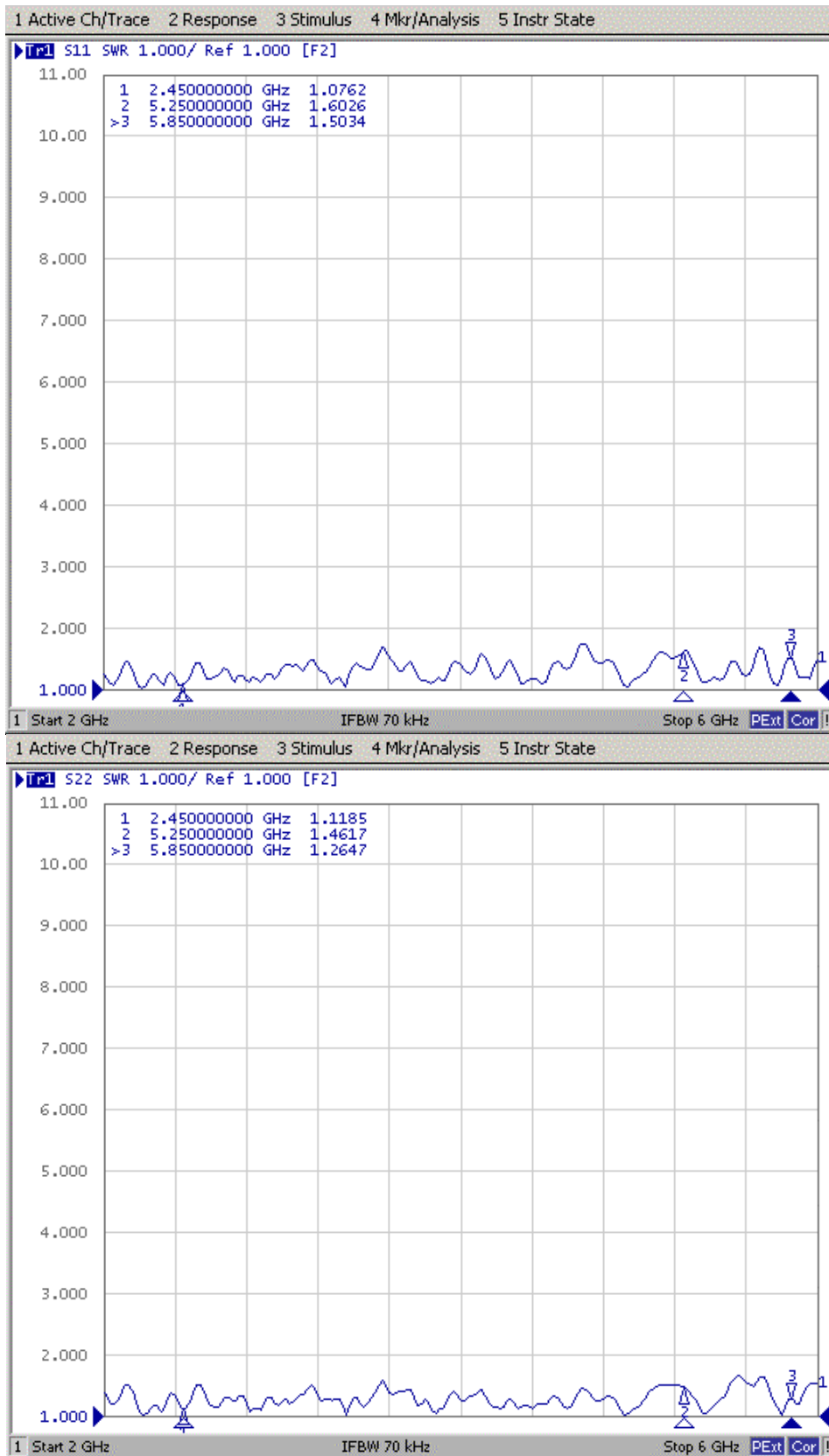
# Electrical Characteristic

## Return Loss



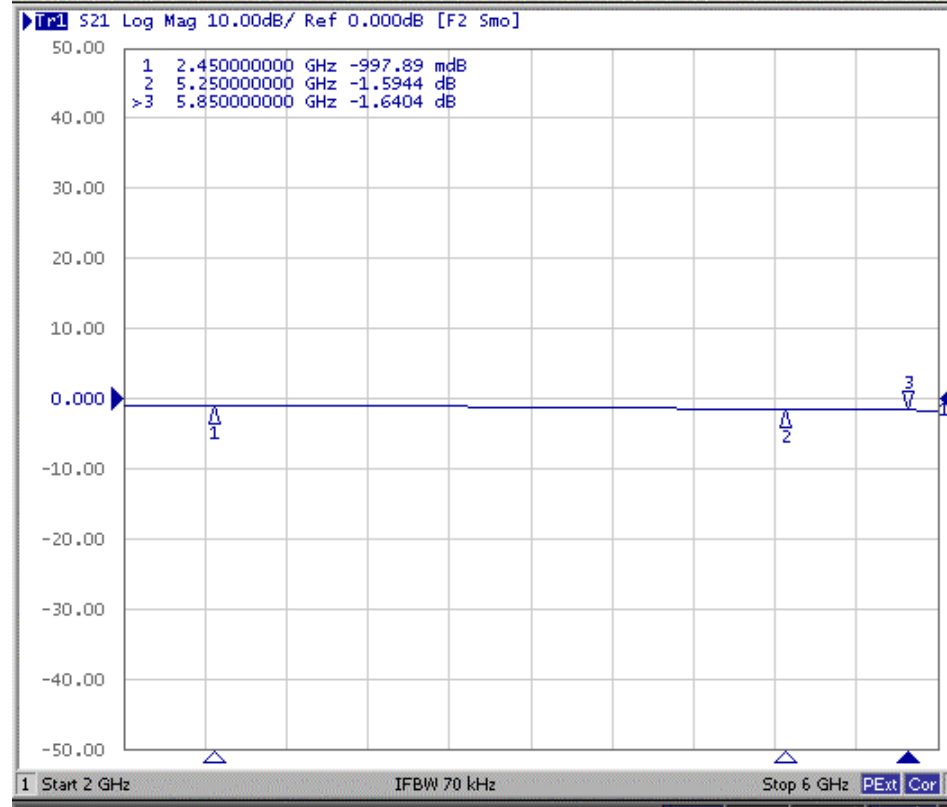
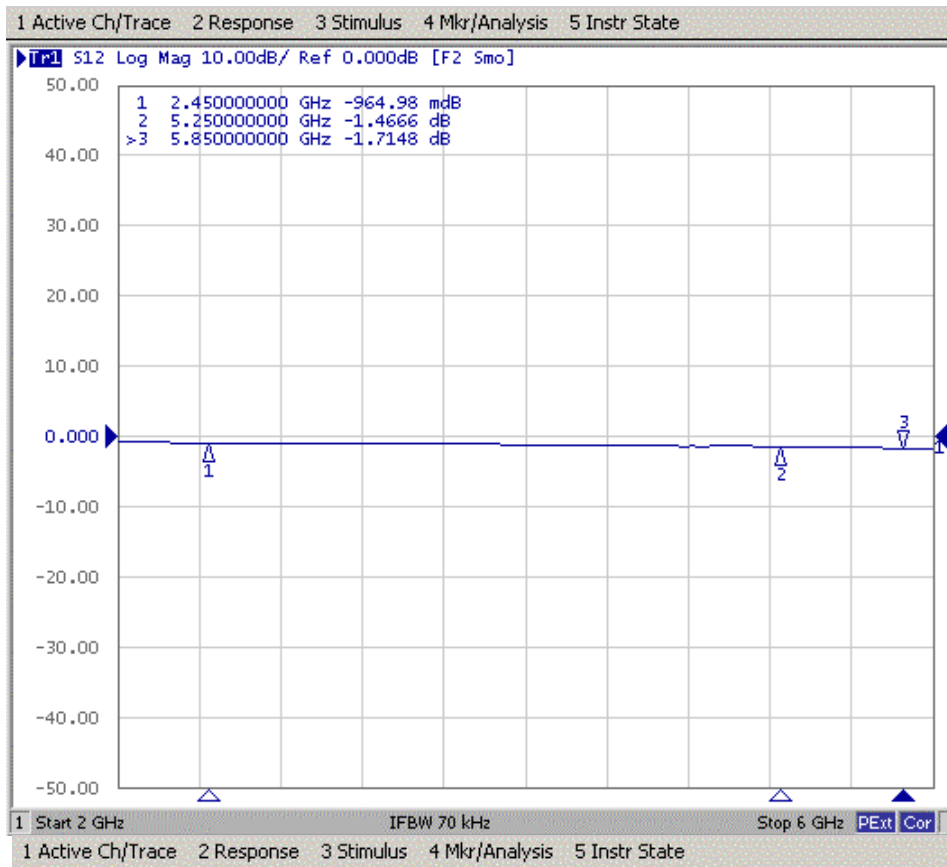
# Electrical Characteristic

## V.S.W.R



# Electrical Characteristic

## Attenuation



Material Data Sheet  
Mini-1.13 Coaxial Cable

SPECIFICATION FOR APPROVAL

DOCUMENT: A3132SP001

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STYLE : 200°C 30V

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SIZE: 32AWG×1C  
SP 7/0.080 1.13 mm

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RECOGNIZED:

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WONDERFUL HI-TECH CO.,LTD.

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

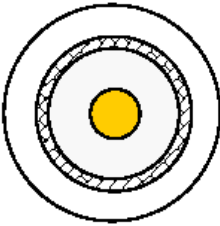
TEL : (02)22988033  
FAX : (02)22988031-2

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°C 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			

AK001/210X297/1.0

PAGE : 1

EDITION : 1.1

REVISED DATE :

MAKER :

CONFIRM :

APPROVAL :

**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 <sup>2</sup> )		
		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 <sup>2</sup> )		
		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

AK001/210X297/1.0

EDITION : 1.1

MAKER :

CONFIRM :

PAGE : 2

REVISED DATE :

APPROVAL :

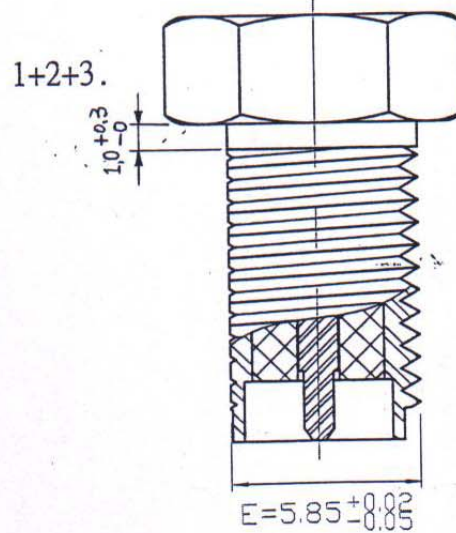
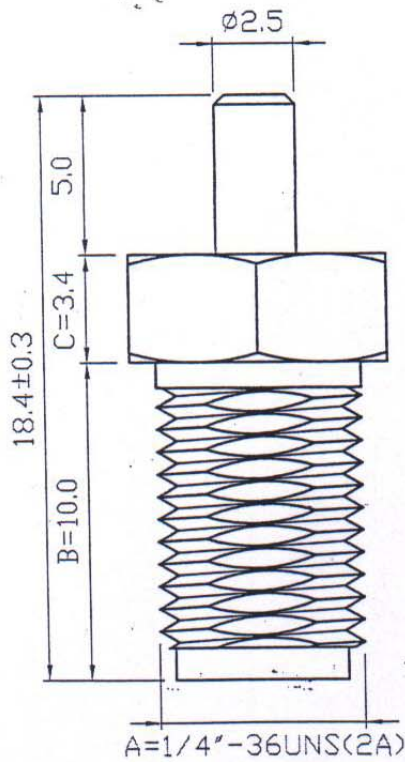
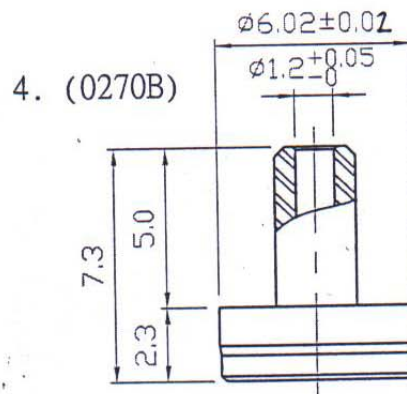
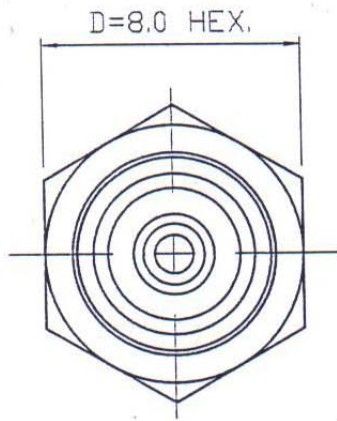
# Material Data Sheet

## RP-SMA Bulkhead Jack

圖號 0376A

主件品名材質一覽表

項次	品名	材質	處理
1	本體	銅	鍍金
2	PIN	銅	鍍金
3	絕緣	鐵氟龍	白色
4	連接軸	銅	鍍金

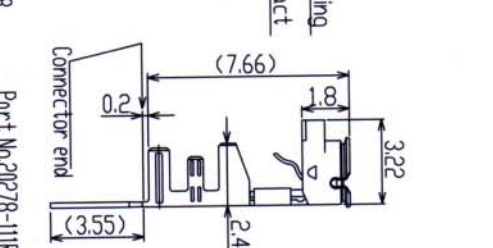
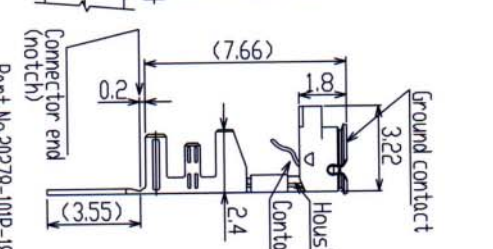
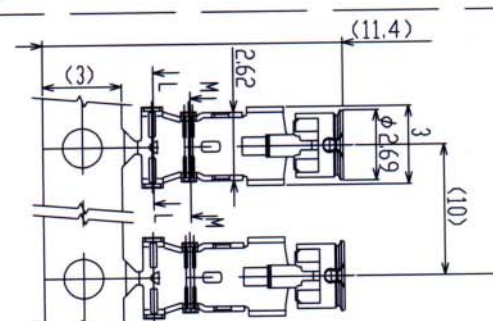
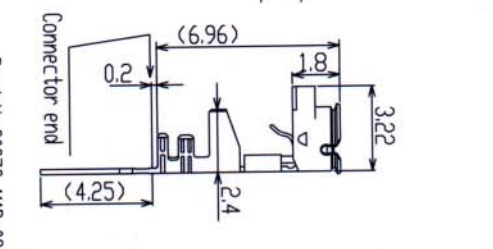
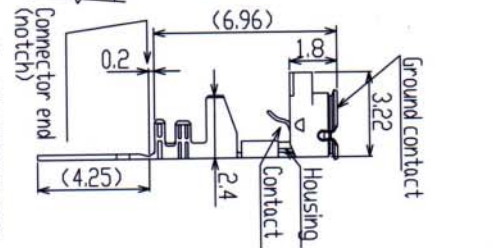
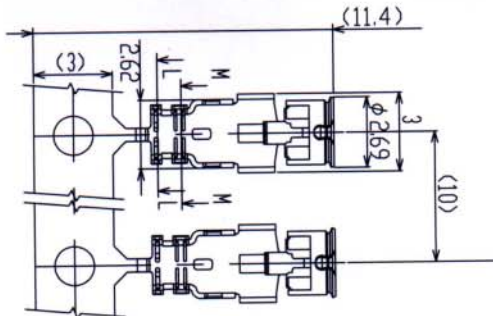
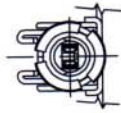


REV DESCRIPTION	UNIT: MM	MATERIAL:	NAME: RP-SMA Bulkhead Jack-10L For 1.13
△ x	SCALE: 5/1	FINISH:	PART NO: 0376A-承認書圖
△ x	TOLERANCES: X ±0.15 X.X ±0.1 X.XX ±0.05 ANGULAR ±1.0°	DRAWN:	DATE: 06.21.2004
△ x		DESIGN:	⊙ ⊞ REV: 01
△ x		APPROVE:	

# Material Data Sheet

## MHF Connector

PART NO.  
20278-11R-11



GENERAL TOLERANCE	
6 MAX.	±0.2
6 OVER MAX.30	±0.3
30 OVER MAX.120	±0.5
ANGLE	±2°

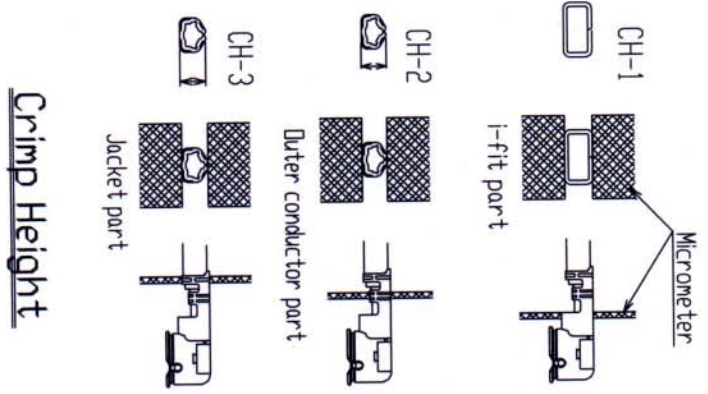
FORM REV.4

11C Z3041 K.D	Mg	24/03	K	4	Z2023	K.D	JAN	30/02	E	K
10C Z3014 K.D	JAN	31/03	K	3	Z1256	K.D	NOV	14/01	K	K
9C Z2239 K.D	NOV	15/02	K	2	Z1197	K.D	AUG	27/01	K	K
8C Z2224 K.D	OCT	17/02	K	1	Z1118	K.D	JUN	26/01	K	K
7B Z2180 K.D	JUL	29/02	K	0	Z1109	K.D	JUN	13/01		
6B Z2146 K.D	JUN	24/02	K							
5B Z2117	AH	MAY	17/02	K						
REV E CN	BY	DATE	APP	SERIES	No.					
					2814					

MAS T

DESIGNED BY	DATE		<b>I-PEX</b> Interconnect and Packaging Electronics TOKYO, JAPAN
K.Ishiyoshi	JUN/13/01		
CHK'D BY	DATE	TITLE	
		MHF series micro coaxial connector plug vertical (ground contact: gold plating)	
APP'D BY	DATE	SCALE	UNIT
Kaotabuchi	JUN/13/01	6/1mm	mm
CUSTOMER	PRELIECTION	DWG. No.	SHEET
CDP		20278	REV
			1/3

Part No.	20278-101R-08 20278-111R-08	20278-101R-13 20278-111R-13	20278-101R-32 20278-111R-32	20278-101R-18 20278-111R-18
Applicable cable nominal dimension				
Jacket				
Braded shield of Outer conductor 外部導体の編組				
P/N of hand tool	90187-008C	90187-013C	90187-032C	90233-018
P/N of semi auto termination machine	90213-008C	90213-013C	90213-032C	90232-018
Single / 1重編組	Single / 1重編組	Single / 1重編組	Double / 2重編組	Single / 1重編組
Diagrams				



**Crimp Height**

GENERAL TOLERANCE

6 MAX.	±0.2
6 OVER MAX.30	±0.3
30 OVER MAX.120	±0.5
ANGLE	±2°

DESIGN'D BY	DATE	CHK'D BY	DATE
APP'D BY	DATE	CUSTOMER COPY	PROJECTION
REV. REC'D	DATE	SCALE UNIT	1:1
REV. REC'D	DATE	DWG. No.	20278
SERIES No.	2814	SHEET	2/3

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

INTERCONNECT AND PACKAGING ELECTRONICS TOKYO, JAPAN

FORM REV.4

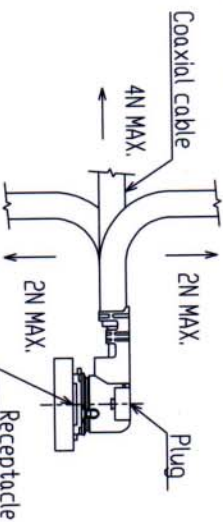
WAS T

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 Partner part No. : 20279-001E-01

1. 材料  
 (1) ハウジング : PBT, UL94V-0, 黒色  
 (2) コネクタ : りん青銅 : 金メッキ  
 (3) グランドコネクタ : りん青銅, 金メッキ  
 2. 梱包 : リール  
 3. かん合相手 part No. : 20279-001E-01

4. Permissible load of cable at mating



コネクタかん合後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. コネクタかん合時および抜去時の注意

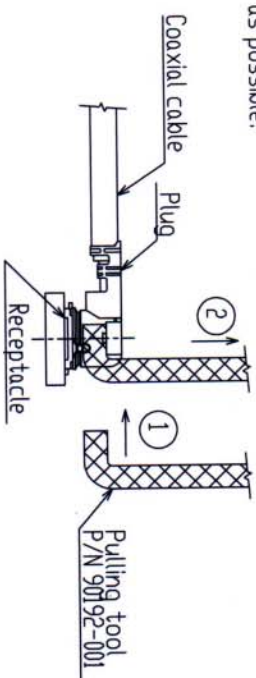
5-1 コネクタ挿入時  
 PlugとReceptacleのかん合軸を合わせ、できるだけ垂直に挿入して下さい。  
 極端な斜め挿入は行わないで下さい。  
 コネクタ破損の原因となりますので、過度なこじり挿抜は行わないで下さい。

5-2 Unmating.

(1) In case of unmating by pulling tool.  
 Please use the following drawing, tool as the following drawing, and please pull plug to vertical direction as directly as possible.

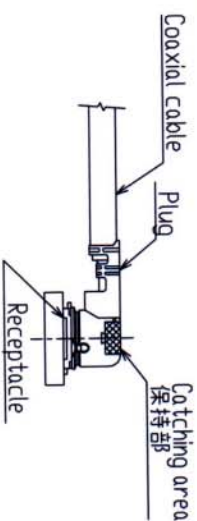
5-2 コネクタ抜去時

(1) 抜去ジグを用いる場合  
 下図のようにできるだけ垂直に引き抜いて下さい。

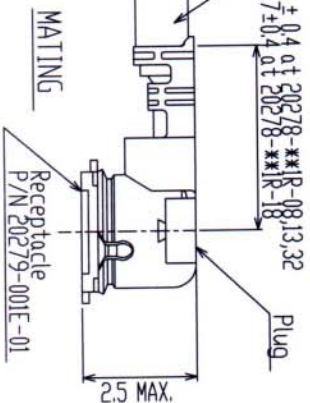


(2) In case of unmating directly by hand  
 Please catch the catching area of plug, and please pull plug to vertical direction as directly as possible.

(2) 手で直接引き抜く場合  
 下図の保持部をつかみ、できるだけ垂直に引き抜いて下さい。



GENERAL TOLERANCE	
6 MAX.	±0.2
6 OVER MAX.30	±0.3
30 OVER MAX.120	±0.5
ANGLE	±2°



DESIGNED BY	DATE	CHK'D BY	DATE	APP'D BY	DATE	TITLE
REVCN BY	DATE	REVCN BY	DATE	REVCN BY	DATE	I-PEX Interconnect and Packaging Electronics TKKYO, JAPAN
REVCN BY	DATE	REVCN BY	DATE	REVCN BY	DATE	
CUSTOMER COPY	2814	PROJECTION	SCALE	UNIT	DWG. No.	20278
SHEET	REV.	3/3	11C			