

## 產品承認書

### SPECIFICATION FOR APPROVAL

客戶 (CUSTOMER): 達創科技股份有限公司

Customer Part NO. :

Product Description: 802.11 a/b/g/n/ac Embedded Antenna

Lynwave Part NO. : **ALX18P-222AA1-01**

Product Weight : **3.51g**

客戶簽核(CSUTOMER APPROVAL)

客戶承認 Customer approval	核准 (Authorized)	檢驗 (Approved)
	日期： 107 年 7 月 3 日	

內部簽核 (Signature)

Approved by	Checked by	Tested by
<i>Dallas Wu</i>	<i>Jerry Hsieh</i>	<i>Zino Chen</i>

綠億科技股份有限公司

LYNwave Technology Ltd.

Taiwan: 新北市樹林區學成路 655 號 5 樓

5F., No.655, Xuecheng Rd., Shulin Dist., New Taipei City 23854, Taiwan

Tel: 02-35018700 Fax: 02-35019833

Email: service@lynwave.com

**Production Factory :**

**Well Green Technology Co., Ltd. (Kunshan)/** Tel : +86-512-57464028 ; Fax: +86-512-57464118

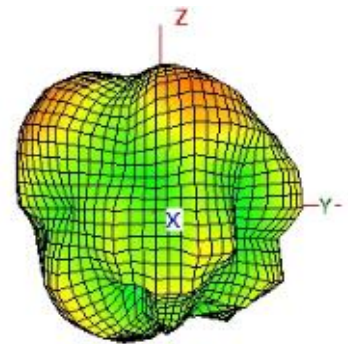
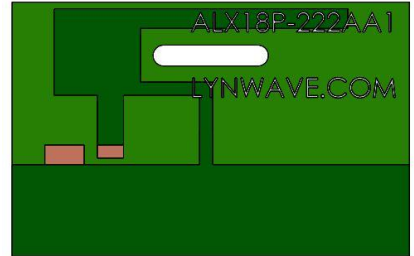
Address: No. 68 Song Nan Road Shi Pu Town Kunshan City, Jiangsu Province, China.

## Features

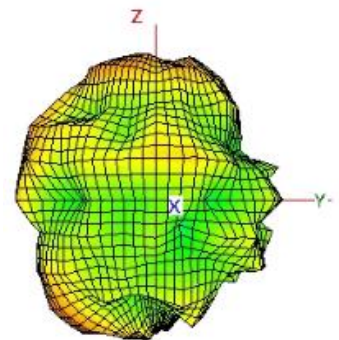
- Dual band IEEE 802.11 a/b/g/n/ac standard
- On board mount
- High efficiency
- Quick integration

## Specification(Preliminary)

Frequency (MHz)	2400 ~ 2500	5150 ~ 5825
Peak Gain (dBi)	2.6	5.2
VSWR	2.0:1	2.0:1
Power (Watts)	1	1
Impedance (Ohms)	50	50
Dimension (mm)	30.3 x 19.4 x 0.6	
Weight (g)	3.51	
Connector	IPEX	
Cable length (mm)	50	
Operating Temp (°C)	-40°C ~ +85°C	

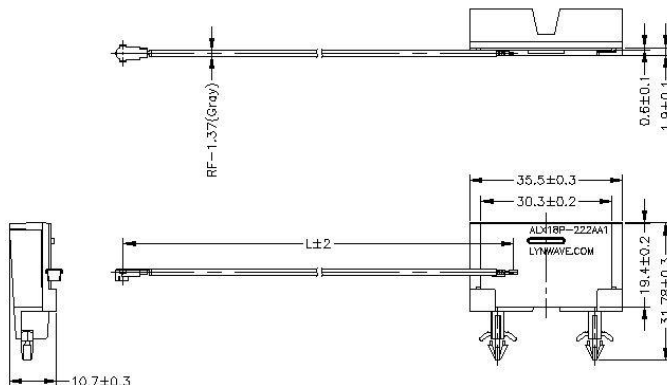


2.45GHz

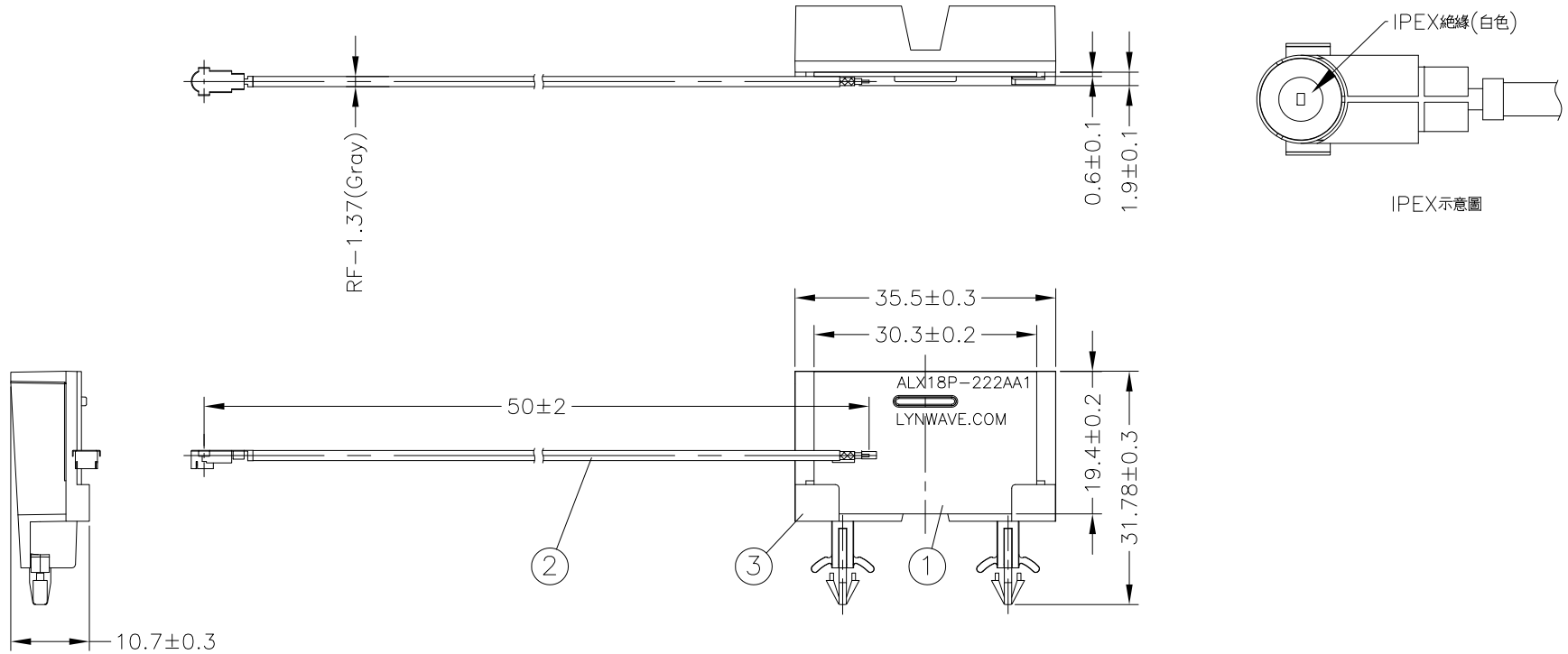


5GHz

## Mechanical Dimensions



Rev	Zone	Description	ENG	Approved	Date
A1		變更Holder造型與材質			2018/07/03



備註:  
1. IPEX有方向性,請依照圖面方向生產.

TOLERANCE	CUSTOMER	PART NO.	DESCRIPTION:	DWG NO.	REV.
XXX, ±1.0	----	----	Antenna	ALX18P-222AA1-01	A1

No.	Description	Specification	Qty	TOLERANCE	CUSTOMER	PART NO.	DESCRIPTION:	DWG NO.	REV.
3	Holder	PC, L35.5 x W10.7 x H31.78mm, COLOR: WHITE	1	XX, ±0.5	PROJECTION	UNIT	SCALE	SIZE	SHEET
2	Cable	DIA 1.37mm, SINGLE COAXIAL NORMAL CABLE, COLOR: GRAY	1	X, ±0.3	⊕	mm	1:1	A4	1/1
1	PCB	FR4, L30.3 x W19.4 x T0.6mm, COLOR: GREEN	1	.X, ±0.1	APPROVED:	DESIGNED:	DRAWN:		
				.XX, ±0.05	----	Daniel	Anna		



F

E

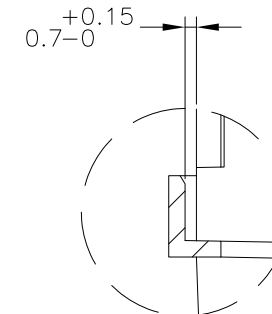
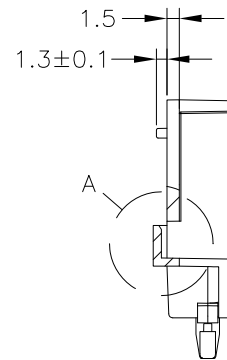
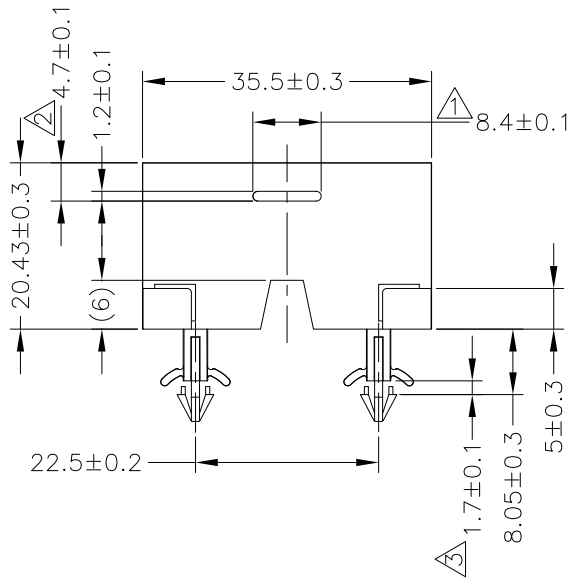
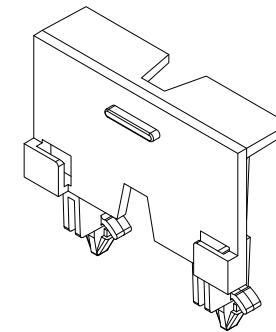
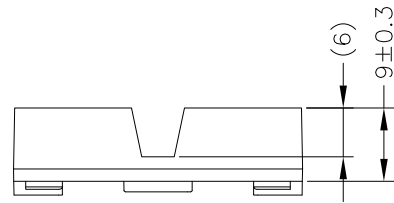
D

C

B

A


Rev	Zone	Description	ENG	Approved	Date
A1		變更材質,由ABS改為PC;變更外觀造型			2018/07/03



局部視圖A  
比例 2:1

備註:

- 1. 材質:PC(6485)
- 2. 表面處理:無
- 3. 顏色:白色

				TOLERANCE		CUSTOMER		PART NO.		DESCRIPTION:		DWG NO.		REV.	
				XXX. ±1.0		----		----		----		03-0016		A1	
				XX. ±0.5		PROJECTION		UNIT		SCALE		SIZE		SHEET	
				X. ±0.3		⊕		mm		1:1		A4		1/1	
				.X ±0.1		APPROVED:		DESIGNED:		DRAWN:		 <a href="http://www.lynwave.com">www.lynwave.com</a>			
No.		Description		Specification		-----		Bryan		Anna					
				.XX ±0.05											

F

E

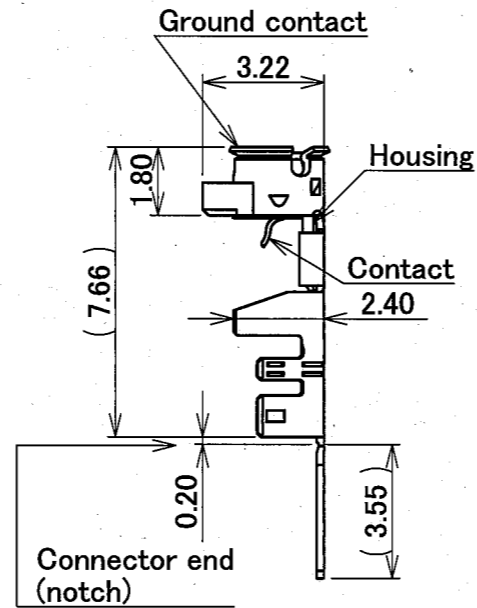
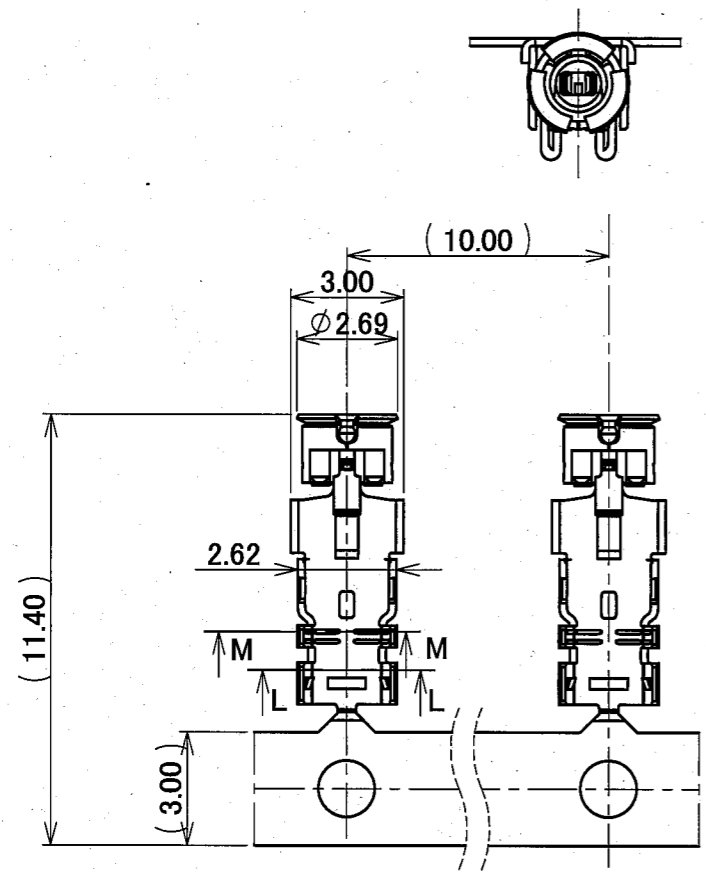
D

C

B

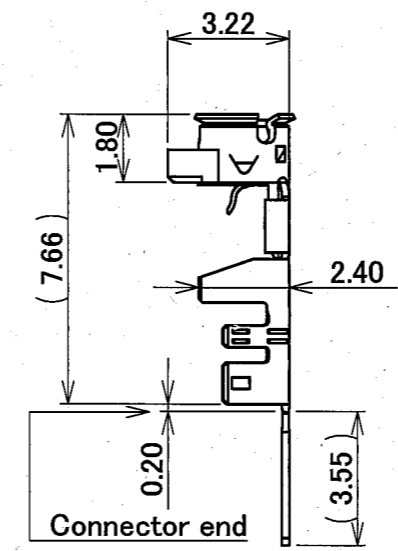
A

PART NO.  
20351-\*\*\*R-37



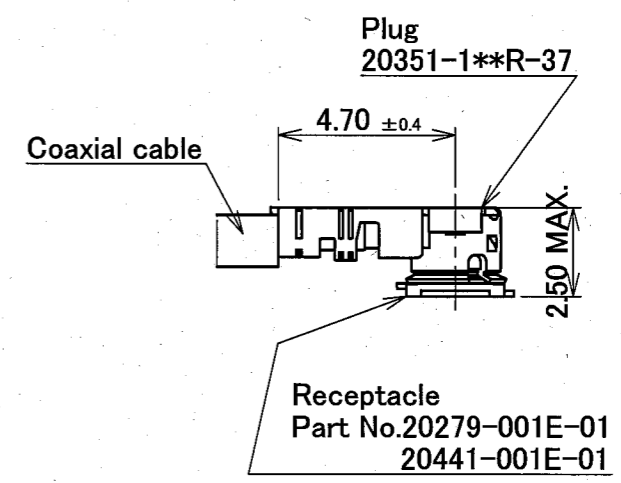
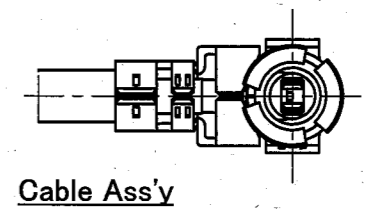
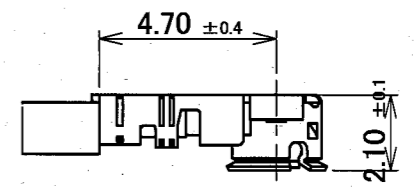
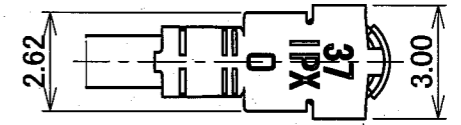
Part No. 20351-101R-37  
20351-102R-37

For hand tool  
(with notch)



Part No. 20351-111R-37  
20351-112R-37

For semi auto  
termination machine  
(without notch)



MATING

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

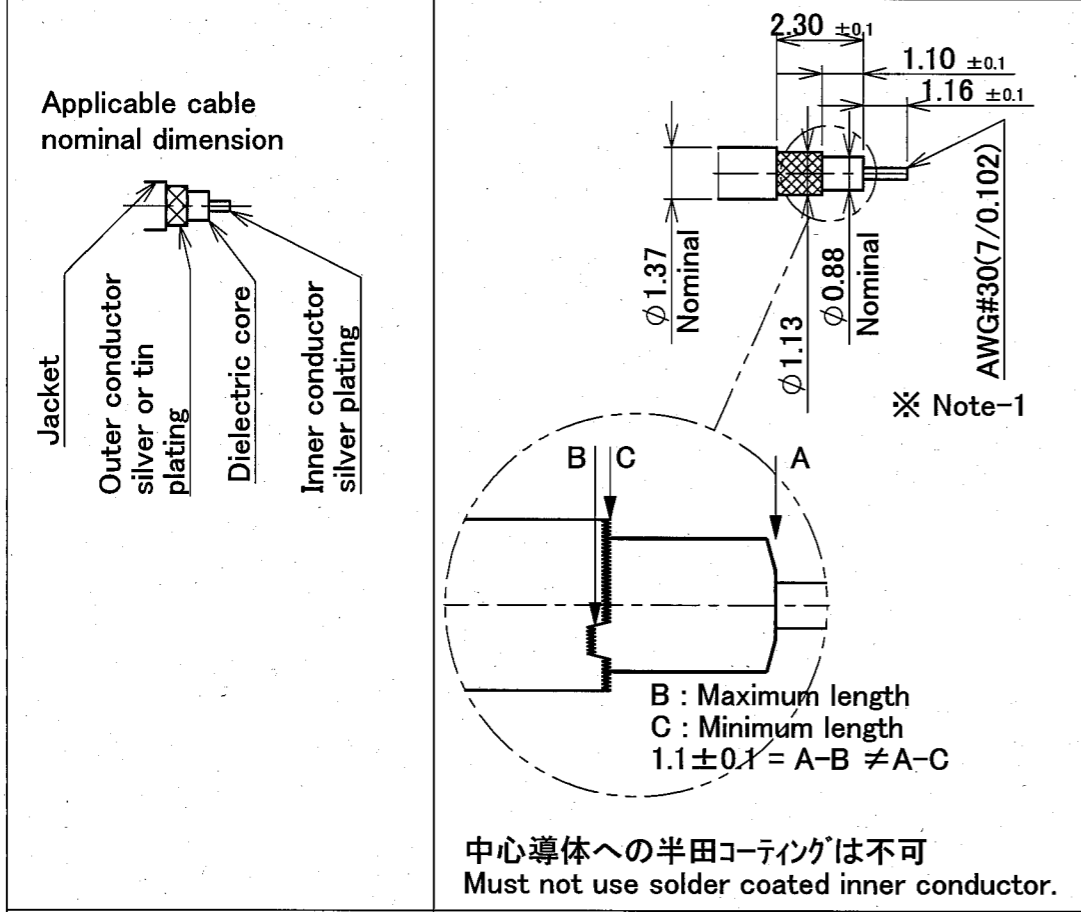
12	Z12832	H.M	Sep./27/12	T.M	DESIGN'D BY	DATE
11	Z08056	K.O	Feb./04/'08	E.K	T.Hirakawa	Sep./11/'03
10	Z07346	K.O	Jul./10/'07	E.K	CHK'D BY	DATE
9	Z06053	K.O	Feb./07/'06	E.K	T.Harada	Sep./11/'03
8	Z05233	K.O	May./18/'05	T.H	APP'D BY	DATE
REV	ECN	BY	DATE	APP	K.Katabuchi	Sep./11/'03
REV.RECORD					CUSTOMER COPY	PROJECTION
SERIES No.					5:1	mm

**I-PEX** DAHCHI SEIKO CO.,LTD.  
I-PEX Business Company

TITLE		MHF series micro coaxial connector plug vertical (ground contact : gold plating)	
SCALE	UNIT	DWG. No.	SHEET
5:1	mm	20351	1/3
REV.		12	

Part No. of non halogen free type      20351-101R-37      20351-111R-37

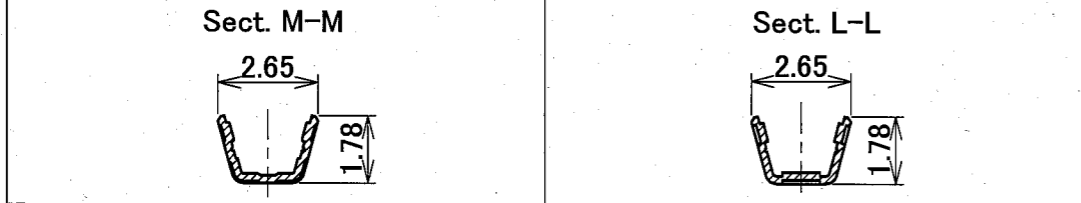
Part No. of halogen free type      20351-102R-37      20351-112R-37



Braided shield of Outer conductor  
外部導体の編組      Single / 1重編組

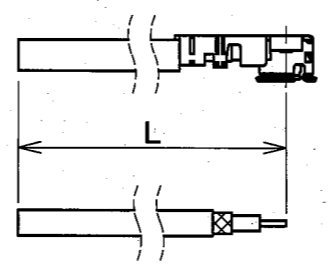
P/N of hand Tool      90233-037

P/N of semi auto termination machine      90232-037

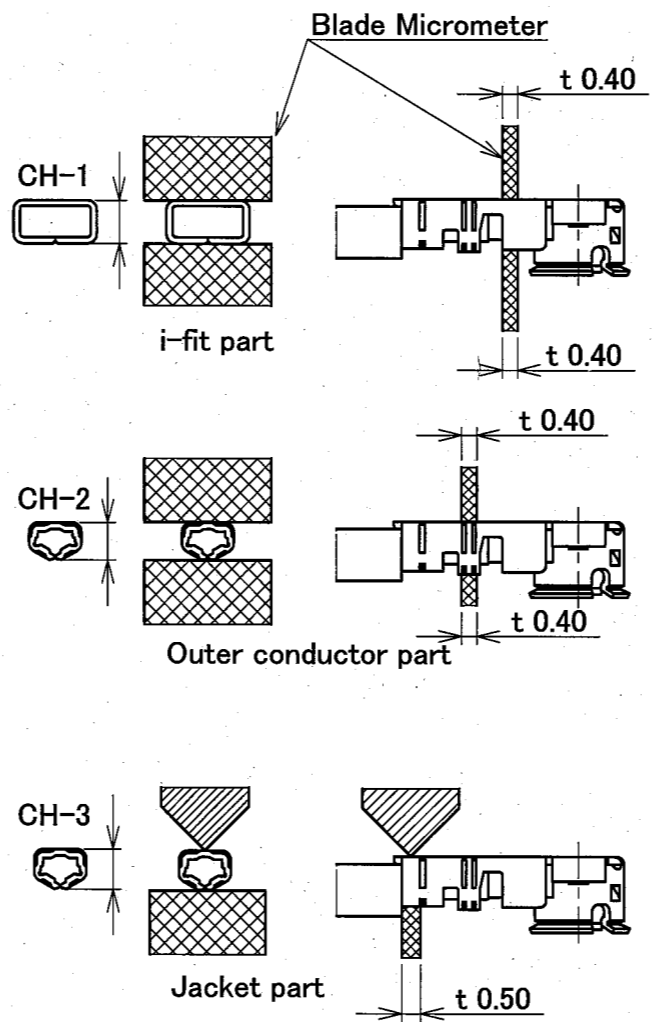


Crimp Height	CH-1	1.34 ~ 1.40
	CH-2	1.36 ~ 1.42
	CH-3	1.28 ~ 1.34

Cable cut length



Crimp Height



DESIGN'D BY	DATE			
CHK'D BY	DATE			
APP'D BY	DATE			
REV	ECN	BY	DATE	APP
REV.RECORD				
SERIES No.				

**I-PEX** DAI-ICHI SEIKO CO.,LTD.  
I-PEX Business Company

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

CUSTOMER COPY	PROJECTION	SCALE	UNIT	DWG. No.	SHEET	REV.
		5:1	mm	20351	2/3	12

Notes

1. Material

- (1) Housing : PBT , white, UL94V-0
- (2) Contact  
phosphor bronze  
gold plating 0.1 μm MIN.  
over nickel 1.27 μm MIN.
- (3) Ground contact  
phosphor bronze  
gold plating 0.05 μm MIN.  
over nickel 1.27 μm MIN.

2. Packing : reel

3. Mating partner part No.

: 20279-001E-01, 20441-001E-01

4. Permissible load of cable at mating

1. コネクタの材料

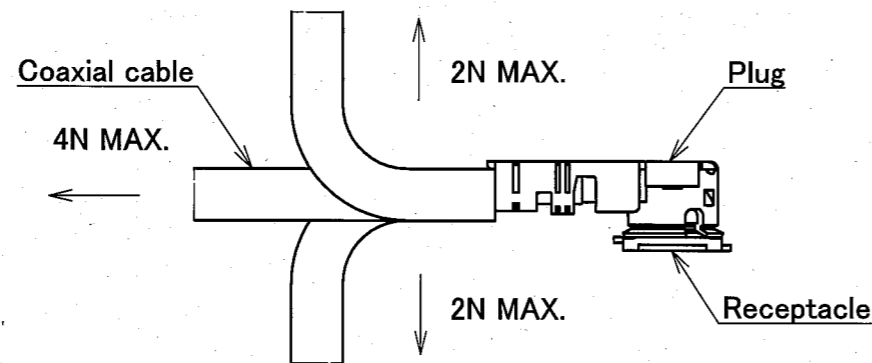
- (1) ハウジング : PBT, 白色, UL94V-0
- (2) コンタクト  
りん青銅  
金メッキ0.1 μm MIN.  
下地 ニッケル1.27 μm MIN.
- (3) グランドコンタクト  
りん青銅  
金メッキ0.05 μm MIN.  
下地 ニッケル1.27 μm MIN.

2. 梱包 : リール

3. かん合相手 part No.

: 20279-001E-01, 20441-001E-01

4. 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

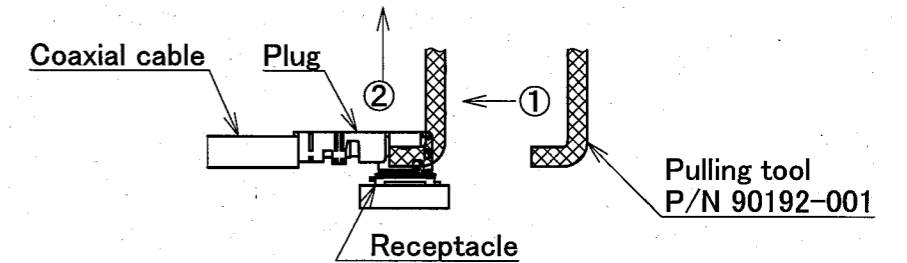
PlugとReceptacleのかん合軸を合わせ、できるだけ垂直に挿入して下さい。極端な斜め挿入は行わないで下さい。コネクタ破損の原因となりますので、過度なこじり挿抜は行わないで下さい。

5-2 Unmating.

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

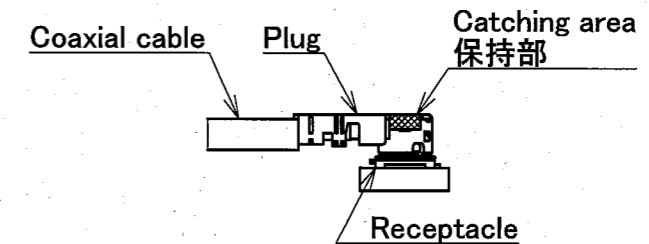
5-2 コネクタ抜去時

- (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。



5-3 Crimp over standards of outer conductor

Standards: Less than 10% from total numbers of outer conductor (Numbers of outer conductor's crimp over from outer conductor's barrel)

5-3 外部導体はみ出し量

外部導体はみ出し量規定  
: 外部導体トータル本数の10%以下  
(外部導体バレルの外にはみ出した量)

5-4 Caution about Heat shrinkage tubes

Please be careful not to melt housing when using heat shrinkage tubes. It will become cause of open circuit.

5-4 熱収縮チューブについての注意  
熱収縮チューブで外部導体を覆う場合は、導通不良の原因になりますので、熱によりハウジングを溶融させないように注意してください。

6. Tip of contact should be recessed of housing after crimped about mating area.

6. 圧着後、コネクタかん合部において、コンタクト先端がハウジングより飛び出さない事。

7. This is "Pb-free" connector.

7. 本コネクタは"Pb-free"である

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										
REV	ECN	BY	DATE	APP	TITLE	SCALE	UNIT	DWG. No.	SHEET	REV.	
REV.RECORD					CUSTOMER COPY	PROJECTION	5:1	mm	20351	3/3	12
SERIES No.											

**PRODUCT SPECIFICATION****製品規格****No. PRS- 1227****MHF series micro coaxial connector  
(Product No. Plug 20351, Rec. 20279)****Qualification Test Report No. TR-3033, TR-08021**

5	S11039	H.M	Mar./04/'11	EK	Prepared by	Reviewed by	Approved by
4	S09086	K.O	May/01/'09	E.K	K.Ohbayashi	T.Harada	K.Katabuchi
3	S08038	K.O	Feb/29/'08	E.K			
REV.	ECN	BY	DATE	APP.			
REVISION RECORD							

Form Rev.1

I-PEX Confidential III C

DOCUMENT CLASSIFICATION	TITLE	No.
PRODUCT SPECIFICATION	MHF Connector	PRS-1227

**1. 序言 / Scope**

MHF series micro coaxial connector は、AWG #30 同軸ケーブルの基板対ワイヤーコネクタである。  
MHF series micro coaxial connector is a wire to board connector for AWG#30 coaxial cable.

**2. 目的 / Objectives**

本規格は、MHF series micro coaxial connector の性能と試験条件について規定する。

This specification covers the requirements for product performance and test methods of MHF series micro coaxial connector

**3. 構成、材料及び仕上げ / Part No. , construction , material and finish**

(1) Part No. Plug : 20351-\*\*\*R-37, Receptacle : 20279-001E-01

(2) 構成、材料及び仕上げは、各図面に指定されている通りとする。

Construction, material and finish of the connector are covered as each drawings.

**4. 適合ケーブル / Applicable cable****(1) 構成**

中心導体: AWG#30 (7/0.102), 銀メッキ軟銅線または銀メッキすず入り銅線

誘電体 : フッ素樹脂, 外径 0.88mm, 標準厚さ 0.287mm

外部導体 : 16/5/0.05, 標準外径 1.13mm, すずメッキ軟銅線

ジャケット : フッ素樹脂, 外径 1.37mm, 標準厚さ 0.12mm

**(2) 仕様**

特性インピーダンス : 50±2Ω (TDR)

標準静電容量(参考値): 95pF/m

293K(20°C)時の中心導体導体抵抗(参考値): 330Ω/km

絶縁抵抗: 1,000MΩ・km 以上

耐電圧 : AC1,000V・1 分間にて絶縁破壊の無い事

**(1) Description**

Inner conductor : AWG#30(7/0.102)

Silver plating annealed copper wire or silver plating tin-copper alloy

Dielectric core : Fluoro-plastics ,diameter 0.88mm , nominal thickness 0.287mm

Outer conductor : 16/5/0.05 , nominal diameter 1.13mm , tin plating annealed copper wire

Jacket : Fluoro-plastics , diameter 1.37mm , nominal thickness 0.12mm

**(2) Requirements**

Characteristic impedance : 50(±2)Ω by TDR method

Nominal capacitance(Reference value): 95 pF/m

Conductor resistance of inner conductor at 293K (20°C)(Reference value) : 330 Ω/km

Insulation resistance : 1,000 M Ω ・km MIN.

Dielectric withstand voltage : no breakdown at AC1,000V for 1 minutes.

Form Rev.1



DOCUMENT CLASSIFICATION	TITLE	No.
PRODUCT SPECIFICATION	MHF Connector	PRS-1227

## 5. 定格 / Ratings

電圧	AC60Vrms
公称特性インピーダンス	50 Ω
周波数	DC~6GHz
VSWR	Plug: 0.1~3GHz 1.3 以下, 3~6GHz 1.5 以下 Receptacle: 0.1~3GHz 1.3 以下, 3~6GHz 1.4 以下
使用温度範囲	233K~363K (-40°C~90°C)
保管条件	温度: 248K~333K (-25°C~+60°C) 湿度: 85%以下(結露無き事)

Rated voltage	AC60Vrms
Nominal characteristic impedance	50 Ω
Frequency	DC~6GHz
VSWR	Plug: 1.3 Max at 0.1~3GHz, 1.5 Max at 3~6GHz Receptacle: 1.3 Max at 0.1~3GHz, 1.4 Max at 3~6GHz
Service Temperature	233K~363K (-40°C~90°C)
Storage condition	Temperature: 248K~333K (-25°C~+60°C) Humidity: 85% MAX. (No condensation)

## 6. 試験及び性能 / Test and Performance

## 試験条件

特に指定のない限り、測定と試験は、MIL-STD-202G に基づき以下の条件で行う。

温度 … 288K~308K (15°C~35°C)

湿度 … 45~75%R.H.

## Test Condition

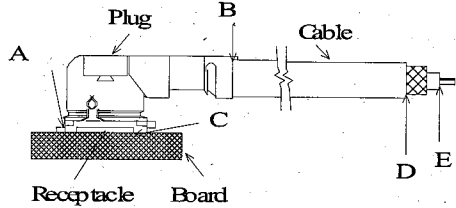
Unless otherwise specified, all tests and measurements shall be performed under the following conditions in accordance with MIL-STD-202G.

Temperature … 288K~308K (15°C~35°C)

Humidity … 45~75%R.H.

DOCUMENT CLASSIFICATION	TITLE	No.
PRODUCT SPECIFICATION	MHF Connector	PRS-1227

## 6-1 電気的性能 / Electrical Performance

No	項目 / Items	試験条件 / Test Conditions	規格 / Specifications
1	接触抵抗	テスト基板にリセプタクルコネクタを半田付けし、プラグコネクタと嵌合させ、Fig.1のように4端子法にて下記の条件で測定する。 MIL-STD-202 試験法 307 に準拠。 開回路電圧: 20mV 以下 試験電流: 10mA(DCもしくはAC1kHz) 中心導体 (A-E間の電気抵抗)-(B-E間の電気抵抗) 外部導体 (C-D間の電気抵抗)-(B-D間の電気抵抗)	中心導体 初期: 20mΩ 以下 試験後: 25mΩ 以下 外部導体 初期: 10mΩ 以下 試験後: 15mΩ 以下
	Contact Resistance	Solder the receptacle connector to the test board and mate the plug connector together, then measure the contact resistance as shown in Fig.1 by the four terminal method. Apply the low level condition in accordance with MIL-STD-202, Method 307. Open circuit voltage: 20mV MAX Circuit current: 10mA MAX. (DC or AC1kHz) Contact resistance of inner contact <resistance of A-E> - <resistance of B-E> Contact resistance of ground contact <resistance of C-D> - <resistance of B-D>	Contact resistance of inner contact Initial: 20mΩ Max. After testing: 25mΩ Max. Contact resistance of ground contact Initial: 10mΩ Max. After testing: 15mΩ Max.
 <p>Fig.1</p>			
2	絶縁抵抗	リセプタクル及びプラグコネクタを互いに嵌合させ、中心導体と外部導体の間にDC100Vを印加し、測定する。 MIL-STD-202 試験法 302 に準拠。	初期: 500MΩ 以上 試験後: 100MΩ 以上
	Insulation Resistance	Mate the plug and receptacle connector together, then apply DC 100 V between the inner contact and the ground contact in accordance with MIL-STD-202, Method 302.	Initial: 500 MΩ Min. After testing: 100 MΩ Min.

DOCUMENT CLASSIFICATION	TITLE	No.
PRODUCT SPECIFICATION	MHF Connector	PRS-1227

No	項目 / Items	試験条件 / Test Conditions	規格 / Specifications
3	耐電圧	リセプタクル及びプラグコネクタを互いに嵌合させ、中心導体と外部導体の間に AC200V (実効値)を1分間印加する。 MIL-STD-202 試験法 301 に準拠。	沿面放電、空中放電、絶縁破壊等の異常のないこと。
	Dielectric Withstanding Voltage	Mate the receptacle and plug connector together, then apply AC 200 Vrms between the inner contact and the ground contact for a minute in accordance with MIL-STD-202, Method 301.	No creeping discharge, flashover, nor insulator breakdown shall occur.
4	VSWR	ネットワークアナライザにて Fig.2 のように VSWR を測定する。	Plug 0.1~3GHz 1.3 Max. 3~6GHz 1.5 Max.
		Measure the VSWR as shown in Fig.2 by the network analyzer.	Receptacle 0.1~3GHz 1.3 Max. 3~6GHz 1.4 Max.

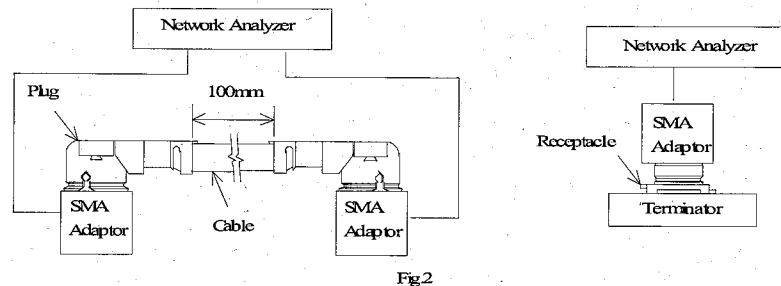


Fig.2

## 6-2 機械的性能 / Mechanical Performance

No	項目 / Items	試験条件 / Test Conditions	規格 / Specifications
1	抜去力	挿抜試験機を用いて、基板に半田付けしたリセプタクルとプラグを嵌合軸と平行に毎分 25±3mm の速度で挿抜する。	総合抜去力 初回 : 5N 以上, 30 回後 : 3N 以上 中心導体 初回: 0.15N 以上 30 回後: 0.10N 以上
	Un-mating force	Unmate the receptacle connector ( soldered to the test board) and plug at a speed 25±3mm/minutes along the mating by the push-on/pull-off machine.	Total unmating force Initial : 5N Min. After 30 cycles : 3N Min. Unmating force of inner contact Initial : 0.15N Min. After 30 cycles : 0.10N Min.

DOCUMENT CLASSIFICATION	TITLE	No.
PRODUCT SPECIFICATION	MHF Connector	PRS-1227

No	項目 / Items	試験条件 / Test Conditions	規格 / Specifications
2	引張強度	Fig.3 のように引張試験機を用いて、毎分 25±3mm の速度でケーブルを引張り、強度を測定する。	25N 以上
	Crimp strength	Pull the cable as shown in Fig.3 at a speed 25±3mm/minutes by tensile strength machine.	25N Min.

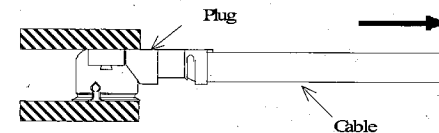


Fig.3

3	耐久性	挿抜試験機を用いて、基板に半田付けしたリセプタクルとプラグを嵌合軸と平行に毎分 25±3mm 速度で 30 回挿抜する。	接触抵抗: 6-1-1 項を満足する事
	Durability	Mate and unmate the receptacle connector ( soldered to the test board) and plug 30 cycles at a speed 25±3mm/minutes along the mating by the push-on/pull-off machine .	Contact resistance Shall meet "6-1-1"
4	ケーブルに荷重を加えた後の接触抵抗	Fig.4 のようにケーブルに力を加える。尚、試験中に DC100mA の電流を流して電氣的瞬断を確認する。	外観 部品のゆるみ、欠け、割れ、その他外観上の異常の無いこと。 電流瞬断 試験中、1μs を超える電氣的瞬断の無いこと。 接触抵抗 6-1-1 項を満足する事
	Contact resistance with force on the cable	Apply force on the cable as shown in Fig.4. During the testing, run 100mA DC to check electrical discontinuity.	Appearance Looseness between the parts, chipping, breakage or other abnormality shall not occur. Electrical discontinuity No electrical discontinuity greater than 1 μs shall occur. Contact resistance Shall meet "6-1-1"

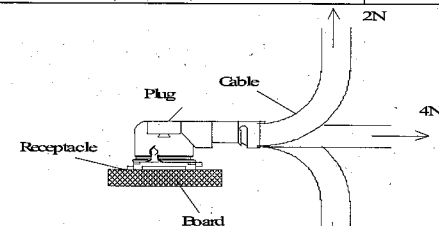


Fig.4

DOCUMENT CLASSIFICATION		TITLE	No.
PRODUCT SPECIFICATION		MHF Connector	PRS-1227
No	項目/ Items	試験条件/ Test Conditions	規格/ Specifications
5	振動	嵌合状態のコネクタを、下記の振動を加える。尚、試験中にDC100mAの電流を流して電氣的瞬断を確認する。 周波数：10Hz→100Hz→10Hz / 約15分間 片振幅,加速度：1.5mm or 59m/s <sup>2</sup> (6G) 方向,サイクル 3つの互いに直交な方向について各5サイクル(約75分)実施	外観 部品のゆるみ,欠け,割れ,その他外観上の異常の無いこと。 電流瞬断 試験中,1μsを超える電氣的瞬断の無いこと。 接触抵抗: 6-1-1項を満足する事
	Vibration	Apply the following vibration to the mating connector. During the testing, run 100mA DC to check electrical discontinuity. Frequency 10Hz→100Hz→10Hz / approx 15 minutes. Half amplitude ,Peak value of acceleration 1.5mm or 59m/s <sup>2</sup> (6G) Directions , cycle 3 mutually perpendicular direction 5 cycles(approx 75min )about each direction	Appearance Looseness between the parts, chipping, breakage or other abnormality shall not occur. Electrical discontinuity No electrical discontinuity greater than 1 μ s shall occur. Contact resistance Shall meet "6-1-1"
6	衝撃	嵌合状態のコネクタを、衝撃試験機に取り付け、下記の衝撃を加える。尚、試験中にDC100mAの電流を流して電氣的瞬断を確認する。MIN-STD-202 試験法 213 試験条件 B に準拠。 最大加速度：735m/s <sup>2</sup> (75G) 標準持続時間：11msec. 波形：半波正弦波 方向：直交する6方向、各3回	外観 部品のゆるみ,欠け,割れ,その他外観上の異常の無いこと。 電流瞬断 試験中,1マイクロ秒を超える電氣的瞬断の無いこと。 接触抵抗 6-1-1項を満足する事
	Shock	Apply the following vibration to the mating connector in accordance with MIL-STD-202, Method 213, Condition B. During the testing, run 100mA DC to check electrical discontinuity. Peak value of acceleration : 735m/s <sup>2</sup> (75G) Duration : 11msec Wave Form : half sinusoidal Directions, cycle 6 mutually perpendicular direction 3 cycles about each direction	Appearance Looseness between the parts, chipping, breakage or other abnormality shall not occur. Electrical discontinuity No electrical discontinuity greater than 1 micro-sec. shall occur. Contact resistance Shall meet "6-1-1"

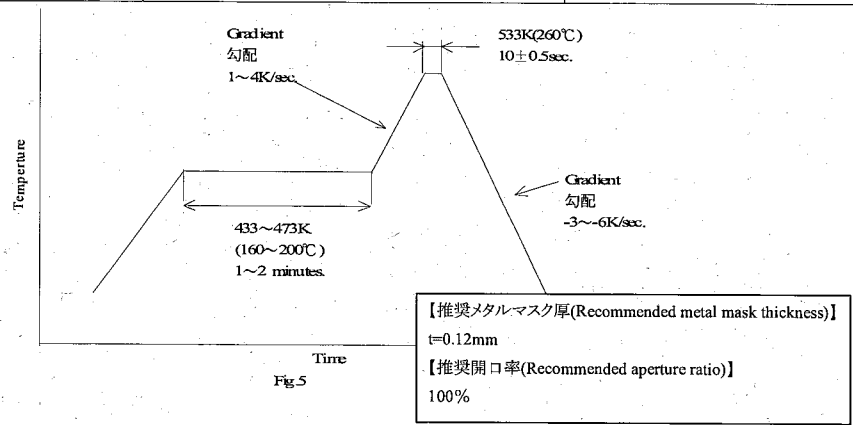
DOCUMENT CLASSIFICATION		TITLE	No.
PRODUCT SPECIFICATION		MHF Connector	PRS-1227
6-3 耐環境性能 / Environmental Performance			
No	項目/ Items	試験条件/ Test Conditions	規格/ Specifications
1	温度サイクル	嵌合状態のコネクタを、下記の雰囲気中に放置する。 1サイクルの条件 233K(-40°C)/30分→278~308K(5~35°C)/5分以下→363K(90°C)/30分→278~308K(5~35°C)/5分以下 実施サイクル: 5サイクル	外観 部品のゆるみ,欠け,割れ,その他外観上の異常の無いこと。 接触抵抗 6-1-1項を満足する事 絶縁抵抗 6-1-2項を満足する事
	Thermal Shock	Apply the following environment to the mating connector . Temperature ,duration 233K(-40°C)/30 minutes→278~308K(5~35°C)/5 minutes Max.→363K(90°C)/30 minutes→278~308K(5~35°C)/5 minutes Max. No. of cycles : 5 cycles	Appearance Looseness between the parts, chipping, breakage or other abnormality shall not occur. Contact resistance Shall meet "6-1-1" Insulation resistance Shall meet "6-1-2"
2	湿度 (定常状態)	嵌合状態のコネクタを、下記の雰囲気中に放置する。MIL-STD-202 試験法 103 条件 B に準拠。 温度：313±2K (40±2°C) 湿度：90~95%RH 時間：96時間	外観 部品のゆるみ,欠け,割れ,その他外観上の異常の無いこと。 接触抵抗 6-1-1項を満足する事 絶縁抵抗 6-1-2項を満足する事
	Humidity (Steady State)	Apply the following environment to the mating connector in accordance with MIL-STD-202, Method 103, Condition B . Temperature : 313 ± 2 K (40 ± 2°C) Humidity : 90 ~ 95%RH Duration : 96 hours	Appearance Looseness between the parts, chipping, breakage or other abnormality shall not occur. Contact resistance Shall meet "6-1-1" Insulation resistance Shall meet "6-1-2"
3	塩水噴霧	嵌合状態のコネクタを、下記の雰囲気中に放置する。 温度：308±2K (35±2°C) 塩水濃度：5±1% (重量比) 時間：48時間	外観 著しい腐食の無い事
	Salt Water Spray	Apply the following environment to the mating connector in accordance with MIL-STD-202, Method 101, Condition B. Temperature : 308 ± 2 K (35 ± 2°C) Salt water density by weight : 5 ± 1% Duration : 48 hours	Appearance No abnormality Adversely affecting the performance shall occur.

DOCUMENT CLASSIFICATION	TITLE	No.
PRODUCT SPECIFICATION	MHF Connector	PRS-1227

No	項目/ Items	試験条件/ Test Conditions	規格/ Specifications
4	高温	嵌合状態のコネクタを、下記の雰囲気中に放置する。 温度 : 363±2K (90±2°C) 時間 : 96 時間	外観 部品のゆるみ、欠け、割れ、その他 外観上の異常の無いこと。 接触抵抗 6-1-1 項を満足する事
	High Temperature Life	Apply the following environment to the mating connector. Temperature : 363 ±2K (90 ±2°C) Duration : 96 hours	Appearance Looseness between the parts, chipping, breakage or other abnormality shall not occur. Contact resistance Shall meet "6-1-1"

6-4 半田付け関連/ Soldering

No	項目/ Items	試験条件/ Test Conditions	規格/ Specifications
1	半田付け性	コンタクトの半田付け部を 518±5K(245±5°C)の半田槽内に 5±0.5 秒浸す。フラックスは、RMA 又は R 型を使用し 5~10 秒間浸すものとする。MIL-STD-202, 試験法 208 に準拠。	浸した面積の 95%以上に半田がむらなく付着すること。
	Solder ability	Dip the solder tine of the contact in the solder bath at 518±5(245±5°C) for 5±0.5 sec. After immersing the tine in the flux of RMA or R type for 5 to 10 seconds in accordance with MIL-STD-202, Method 208.	More than 95% of the dipped surface shall be evenly wet.
2	半田耐熱性	基板にリセプタクルコネクタを置き、Fig.5 の条件で 2 回リフローを行う。	外観 機能を損なう変形及び、欠陥の無い事。
	Soldering heat resistance	Put on the receptacle connector to PCB, apply the heat 2 cycles as shown in Fig.5	Appearance No abnormality adversely affecting the performance shall occur.



DOCUMENT CLASSIFICATION	TITLE	No.
PRODUCT SPECIFICATION	MHF Connector	PRS-1227

7. 試験順序及び評価数量/ Test Sequence and Sample Quantity

試験項目 Test Item	グループ/ Group													
	A	B	C	D	E	F	G	H	I	L	M	N	O	P
(1) 接触抵抗 Contact Resistance					1	1	1	1	1	1		1		
(2) 絶縁抵抗 Insulation resistance					3	3	3	3	4	4			3	
(3) 耐電圧 Dielectric withstanding voltage	1								2	2				
(4) VSWR		1							5	5				
(5) 抜去力 Unmating force			1											
(6) 引張強度 Crimp strength				1										
(7) 耐久性 Durability					2									
(8) ケーブルに荷重を加えた後の接触抵抗 Contact resistance with force on the cable					2									
(9) 振動 Vibration							2							
(10) 衝撃 Shock								2						
(11) 温度サイクル Thermal shock									3					
(12) 湿度 Humidity										3				
(13) 塩水噴霧 Salt water spray											1			
(14) 高温 High temperature life												2		
(15) 半田付け性 Solderability													1	
(16) 半田耐熱性 Reflow soldering heat resistance														1
試料数 Sample QTY pcs.	プラグ Plug	10	5	10	10	10	10	10	10	10	10	10	10	10
	リセプタクル Receptacle	10	5	10	----	10	10	10	10	10	10	10	10	10
基板 Test board	pcs.	10	5	10	----	10	10	10	10	10	10	10	10	10

### High Heat ABS POLYLAC® PA-777B

產品敘述: Medium heat, High impact

物性	ISO 測試方法	測試條件	單位	PA-777B
熔融指數	1133	220°C×10KG	ml/10 min	8.5
比重	1183	23 °C	g/cm <sup>3</sup>	1.03
拉伸強度	527	50 mm/min, yield	MPa	44
		50 mm/min, break	MPa	34
延伸率	527	50 mm/min	%	40
彎曲強度	178	2 mm/min	MPa	67
彎曲彈性模數		2 mm/min	GPa	2.2
IZOD 衝擊強度	180/1A	23 °C Notched	KJ/m <sup>2</sup>	21
		-30 °C Notched	KJ/m <sup>2</sup>	11
Charpy 衝擊強度	179	23 °C Notched	KJ/m <sup>2</sup>	22
		-30 °C Notched	KJ/m <sup>2</sup>	11
維氏軟化溫度	306	1 Kg,50 °C/hr	°C	114
		5 Kg,50 °C/hr	°C	106
熱變形溫度	75/A	1.8 MPa Unannealed	°C	86
		1.8 MPa Annealed	°C	106
線膨脹係數	11359	-	-	8.4 x 10 <sup>-5</sup>
燃燒等級	-	UL-94	-	1.5mm HB
成型收縮率	294-4	-	%	0.3~0.6
標記	1043	-	-	>ABS<

January 16, 2017

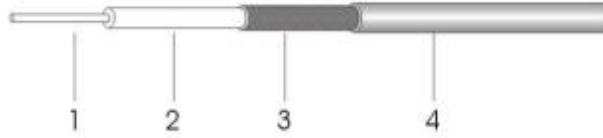
Notes : These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

The above statement is based on our current level of knowledge and covers the above products directly manufactured and supplied by CHI MEI CORPORATION at the date of issue. CHI MEI CORPORATION makes no warranties, whether express or implied, and assumes no liability in connection with any use of above information. Notwithstanding the foregoing, CHI MEI CORPORATION shall in no event be held obligated or liable for any claims due to or arising from (i) any customer provided, consigned, materials and/or parts, which are incorporated or adopted in the products; (ii) any combination of the products with material not provided or authorized by our company; (iii) any modifications to the products which are made or directed by customer; (iv) our compliance with the specifications, instructions, and/or designs provided by customer; (v) any anti-trust, unfair competition and/or other unlawful actions effected by customer; or (vi) any defects, infringement, breach and/or violation which are arising out of customer's faults or otherwise not solely and directly attributable to CHI MEI CORPORATION. In no event will CHI MEI CORPORATION be liable for any indirect, special, exemplary, punitive, or consequential damages (including lost profits) of any nature whatsoever whether arising out of the purchase, shipment, unloading, handling, or use of any product or otherwise.

# 江阴凯博通信科技有限公司

## RF-1.37 同轴电缆

结构图 Structure drawing



### 结构特性 Structure characteristics

结构 Structure	项目 Item	标准值 Standard value
①内导体 Inner conductor	材料 Material	镀锡铜线 Tinned copper
	组成:总根数/单根外径(mm) Makeup:total / O.D. of every wire(mm)	7/0.102±0.005
	(绞合)标称外径(mm) (Intertwist)NOM. O.D. (mm)	0.306±0.01
②绝缘层 Insulation	材料 Material	聚全氟乙丙烯 FEP
	标称外径(mm) NOM. O.D. (mm)	0.905±0.03
③外导体 Outer conductor	材料 Material	镀锡铜线 Tinned copper
	遮蔽率/ Shielding rate	≥90%
	标称外径(mm) NOM. O.D. (mm)	1.13±0.05
④护套层 Jacket	材料 Material	聚全氟乙丙烯 FEP
	标称外径(mm) NOM. O.D. (mm)	1.37±0.05

### 电性能特性 Electrical characteristics

项目 Item	标准值 Standard value	项目 Item	频率 Frequency	标准值 Standard value 单位 Unit: dB/m
电容 (pF/m) Capacitance (pF/m)	96	衰减 Attenuation	1GHz	≤1.75
速率 (%) rate	70		2GHz	≤2.57
阻抗 (Ω) Impedance (Ω)	50±3.0		3GHz	≤3.17
最大工作电压 (V) Max. operating voltage (V)	1000		4GHz	≤3.6
最大工作频率 / GHz Max. oper. frequency	6		5GHz	≤4.24
驻波比 Standing wave ratio	≤1.4@0~6GHz		6GHz	≤4.7

### 机械性能特性 Mechanical characteristics


项目 Item	单位 Unit	标准值 Standard value
最小弯曲半径 (一次) Min. bending radius static	mm	5
工作温度范围 Operating temperature	°C	-55~+200

### 应用 Application

广泛应用于无线信号传输，特别是电脑、手机、路由器及智能电视机等无线电设备。具有体积小、材料环保、传输信号优异、耐高温的特点。

Widely used in wireless signal transmission, especially computers, mobile phones, routers and smart TV and other radio equipment. With a small size, environmental protection materials, transmission signal excellent, high temperature characteristics.

# 包裝說明

綠億料號	ALX18P-222AA1-01				
客戶料號					
制定日期	2018/8/6	版本	A01	制定人	bryan
圖示			說明		
 (圖一)1袋   (圖二)900pcs/18袋/箱			一、包裝：(圖一) (1)袋裝： 每袋共計50pcs。 (2)封口方式：熱熔封口 (3)貼內標籤： 將每袋/包貼上標籤。  二、裝箱：(圖二) (1)數量： 每箱18袋，共900pcs。 (2)貼外標籤： 在外箱貼上標籤。		
修改日期	版本別	備註			
2018/8/6	A01	新版本發行			

## MATERIAL BOM LIST

Customers:

2018/6/6

Customer Model No. : X51209900417

Lynwave Model No. : ALX18P-222AA1-01

Product Description: 802.11 a/b/g/n/ac AP/Router panel antenna

NO	零件名稱	供應商	規格描述	防火等級
1	PCB(FR-4)	金安國紀科技有限公司	FR4 (D: 30.3 x 19.4 x 0.6)mm	V-0
2	Cable (RF-1.37)	凱博通信科技	∅1.37mm Coaxial Cable ; L=50mm ; Black	200 deg c, 30V Horizontal flame
3	Connector (20351-112R-37)	DAI-ICHI SEIKO CO., LTD.	MHF PLUG FOR ∅1.37 Coaxial Cable ; Housing : White ; Contact : Gold Plating	V-0
4	Holder	CHI MEI CORPORATION	L35.5 x W10.7 x H31.8 mm ;White	HB
5				
6				
7				