



權億科技股份有限公司
Master Wave Technology Co., Ltd.

承認書

APPROVAL SHEET

Customers: 凱碩科技股份有限公司

Customer Model No.:

Master Wave Model No. 98617MIPF004

Product Description: 8617 Flying Lead Ant.

Issue Date: 2016/1/28

REV.: 00

客戶承認用印		權億承認用印	
			
核准 Approve	主管 Chief	承辦 Responsible	
Hero	Matt	Mango	

MASTER WAVE TECHNOLOGY CO., LTD.

權億科技股份有限公司

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Shengyih Electronic Plastic Co. Ltd (Shou Zhou)

聲億電子塑膠有限公司(蘇州廠)

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聲億電子塑膠製品廠(東莞廠)

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1. Drawing

2. Test Report

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 - Pattern test
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3. Material Certifications

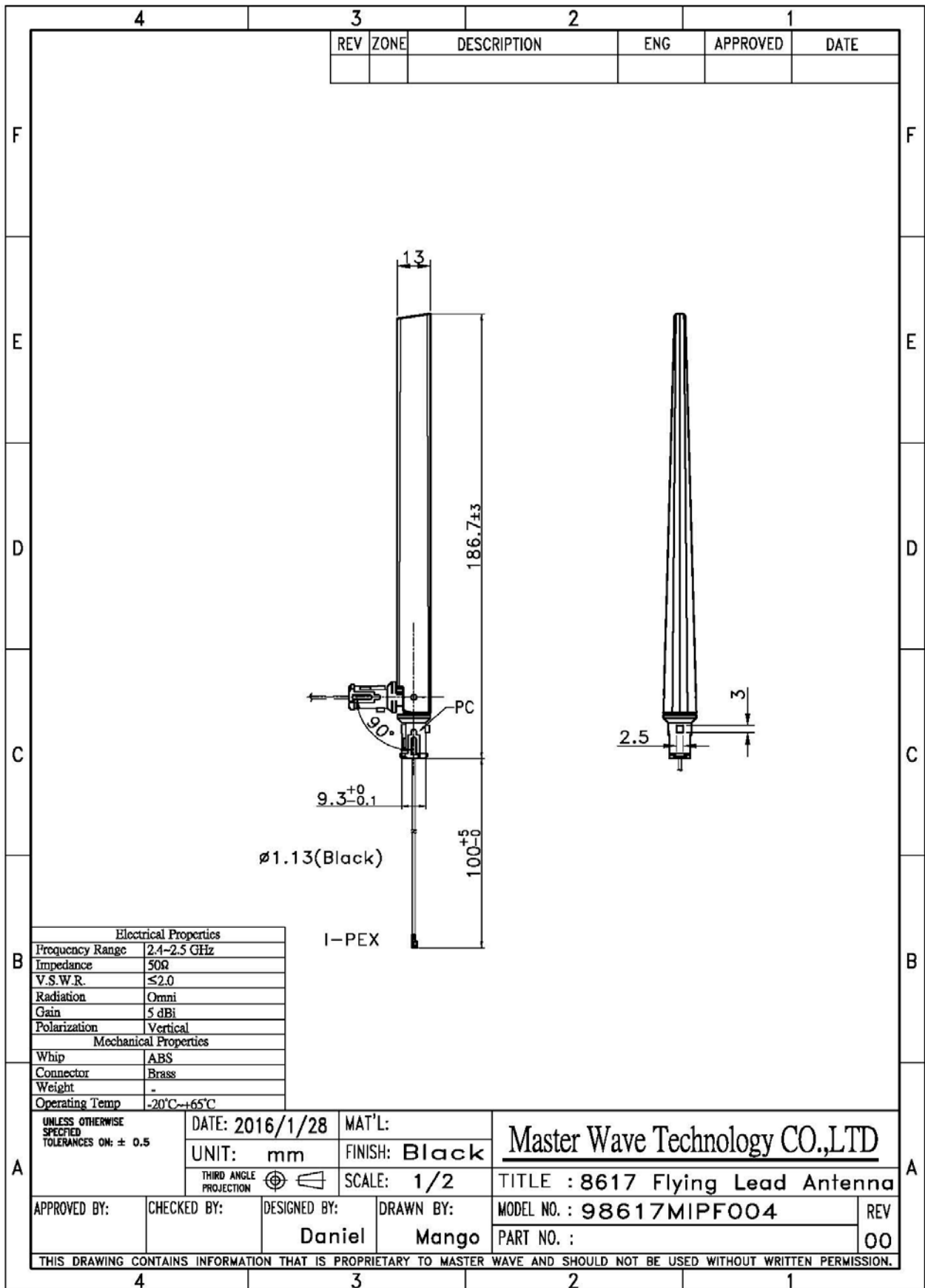
- Connector
 - Cable
-

4. Packing

- PE Bag
- Carton

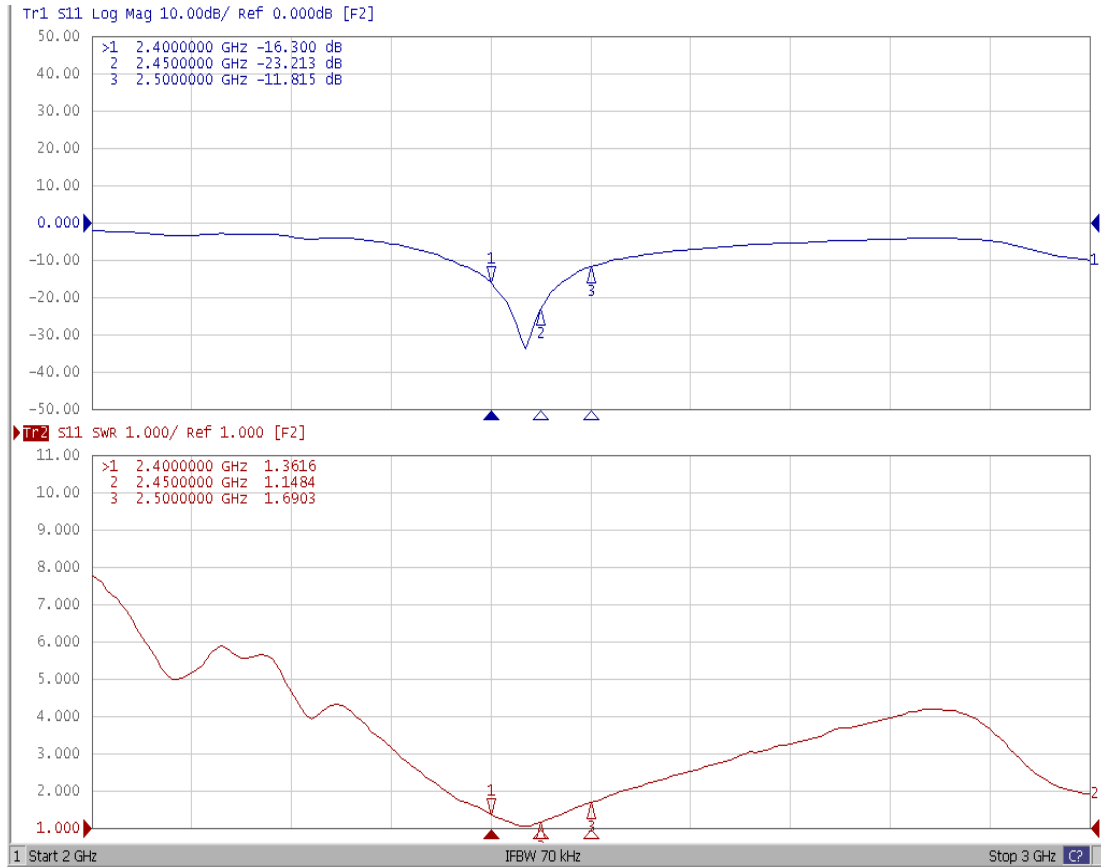
Modification History:

REV.	Date	Content
00	2016/1/28	



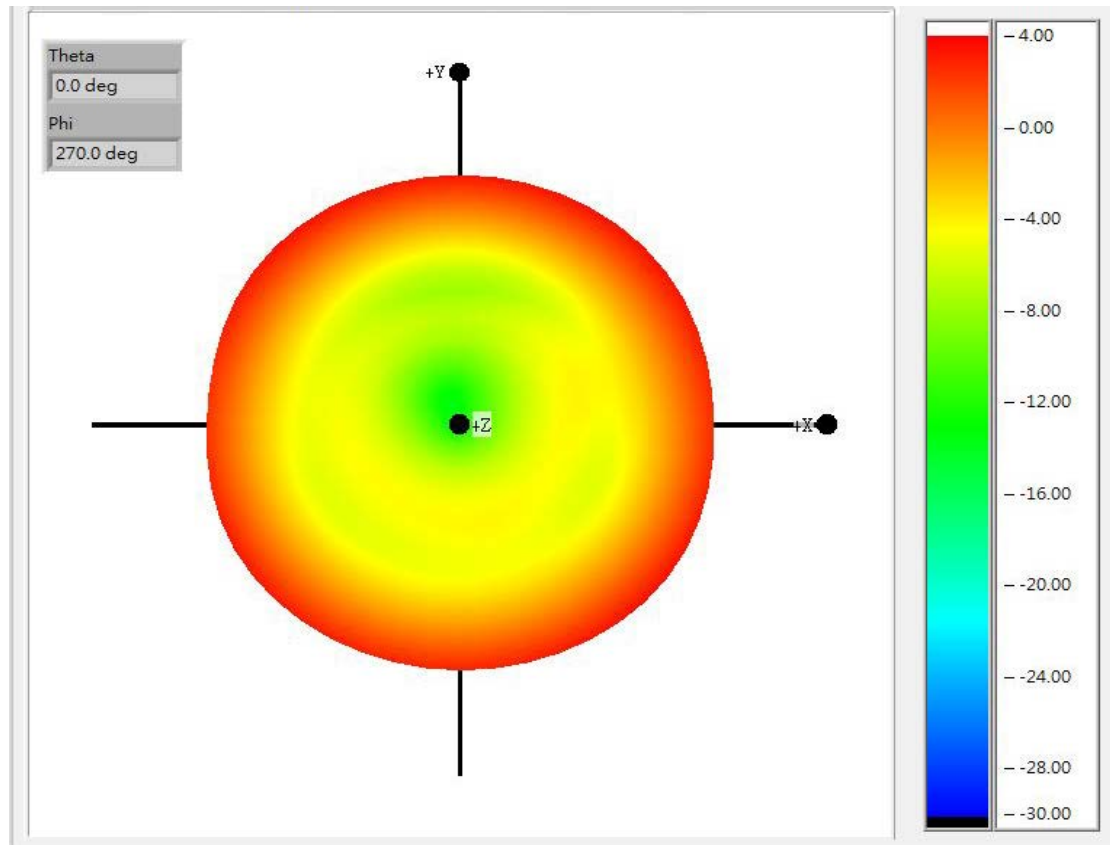


Electrical Test



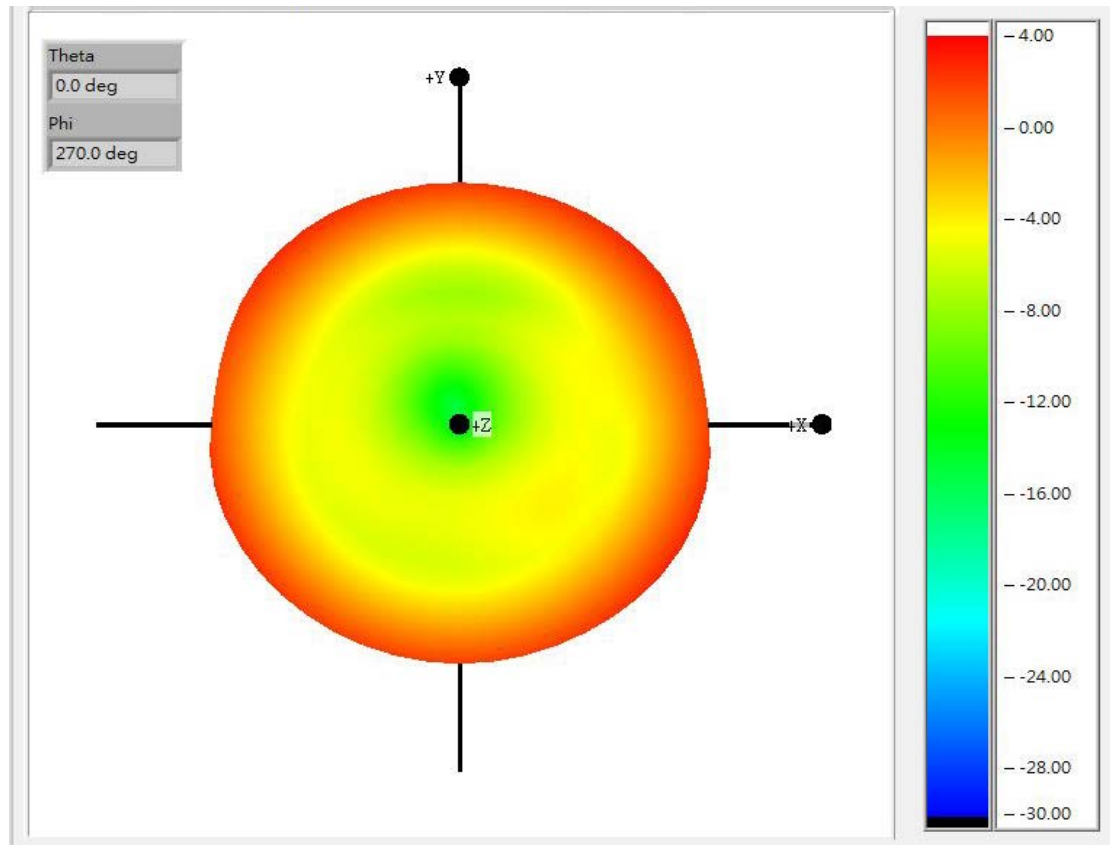


3D Radiation Pattern 2.4 GHz



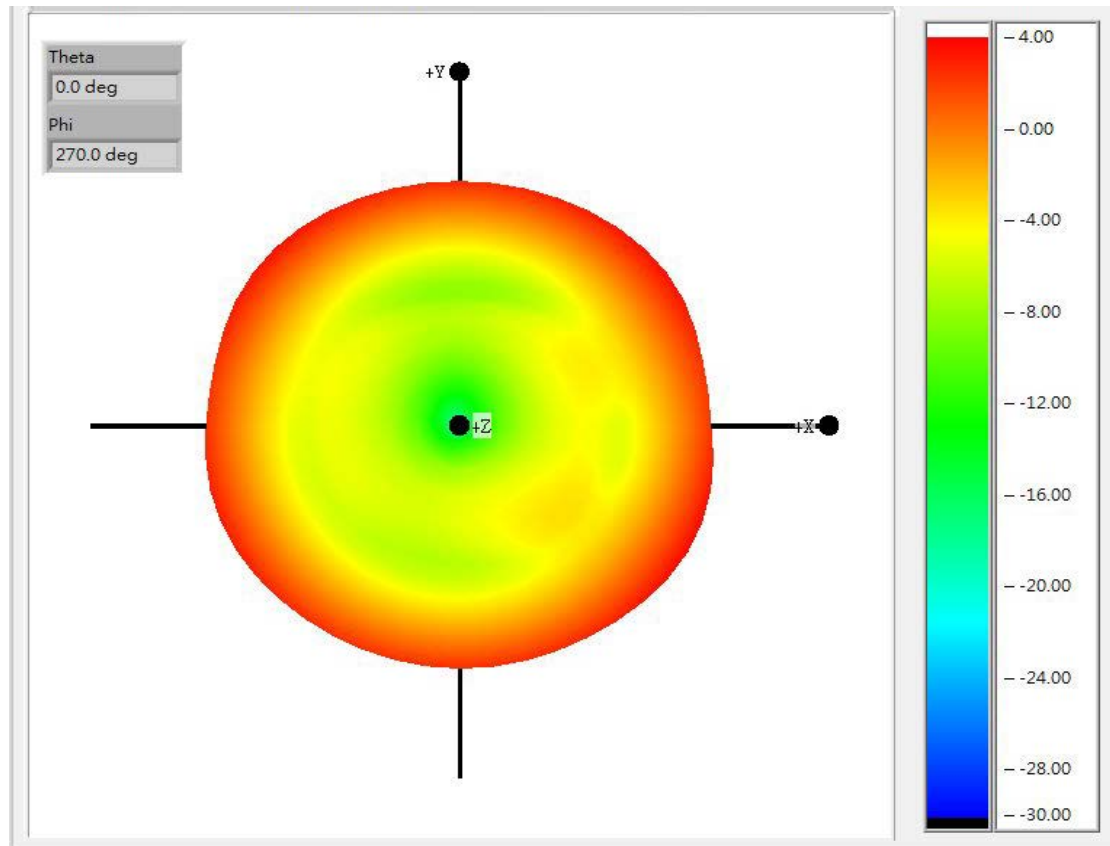


3D Radiation Pattern 2.45 GHz





3D Radiation Pattern 2.50 GHz





Antenna Efficiency

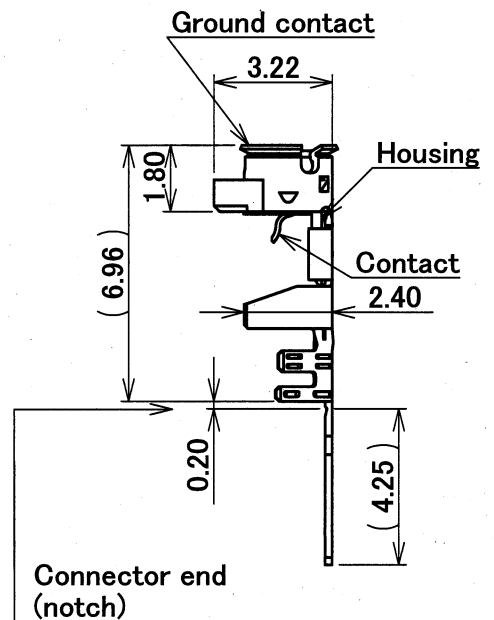
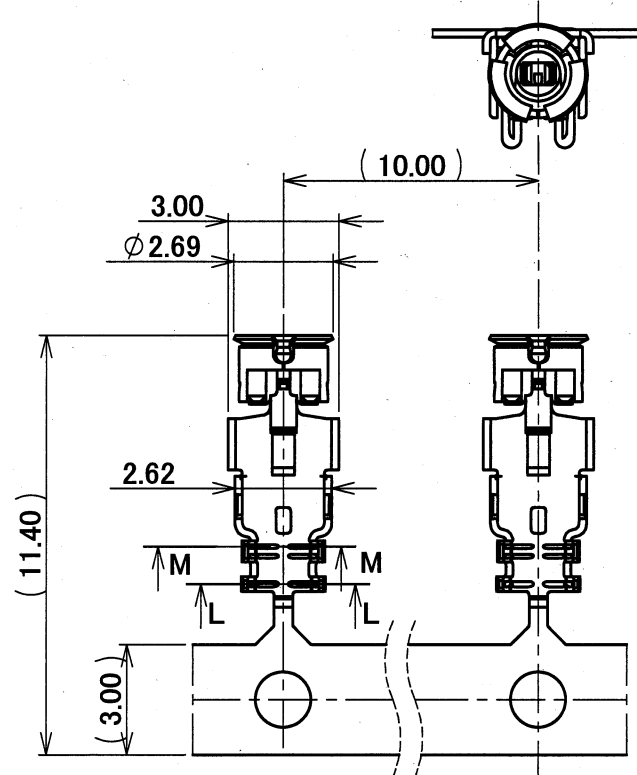
Frequency (MHz)	2400	2450	2500
Peak Gain (dBi)	4.43	4.08	4.16
Directivity (dBi)	5.71	6.0	5.94
Efficiency (dB)	-1.28	-1.92	-1.78
Efficiency (%)	74.32	64.18	66.24

Recommended P/N 20278-112R-**

PART No.
20278-***R-**

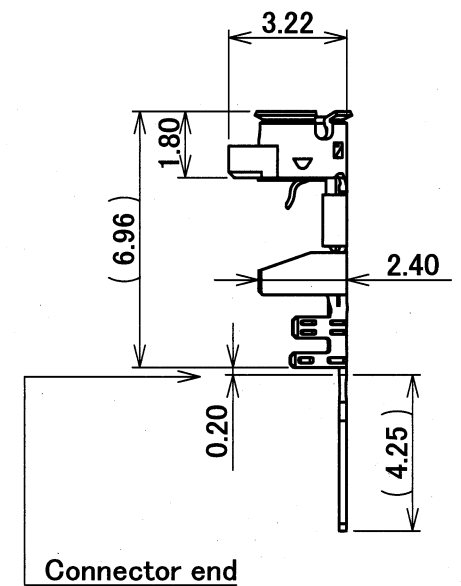
20278-***R-**

- Cable type
- 1 Non halogen free type
- 2 Halogen free type
- 0 With notch
- 1 Without notch
- 1 Au Plating



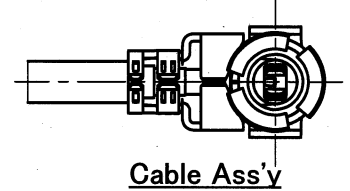
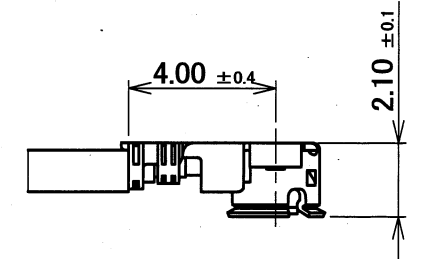
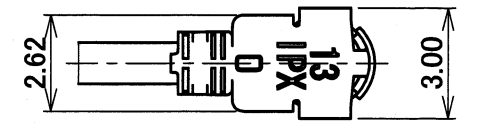
- Part No. 20278-101R-08
20278-102R-08
20278-101R-13
20278-102R-13
20278-101R-32
20278-102R-32

For hand tool
(with notch)

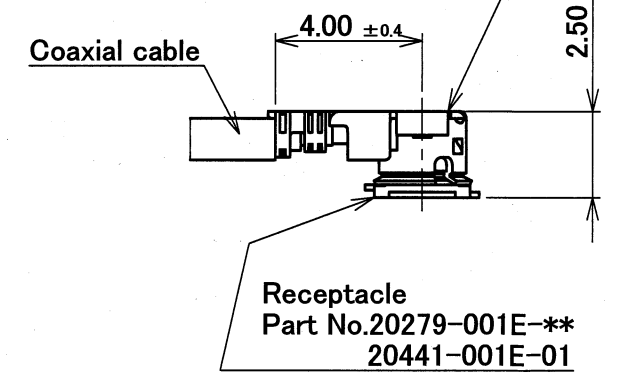


- Part No. 20278-111R-08
20278-112R-08
20278-111R-13
20278-112R-13
20278-111R-32
20278-112R-32

For semi auto
termination machine
(without notch)



- Plug
20278-1**R-08
20278-***R-13
20278-1**R-32



MATING

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

23	Z150949	K.T	Aug./31/'15	Tom	DESIGN'D BY	DATE
22	Z150615	Tad	Jun./04/'15	Tom	K.Oobayashi	Jul./13/'01
21	Z131052	T.S	Nov./15/'13	Tom	CHK'D BY	DATE
20	Z12832	H.M	Sep./27/'12	Tom		
19	Z08056	K.O	Feb./04/'08	E.K	APP'D BY	DATE
REV	ECN	BY	DATE	APP	K.Katabuchi	Jul./13/'01
REV.RECORD					CUSTOMER COPY	PROJECTION
SERIES No.		R14				

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

TITLE				SCALE	UNIT	DWG. No.	SHEET	REV.
MHF PLUG ASS'Y (Au TYPE)				5:1	mm	20278	1/4	23

Confidential III C

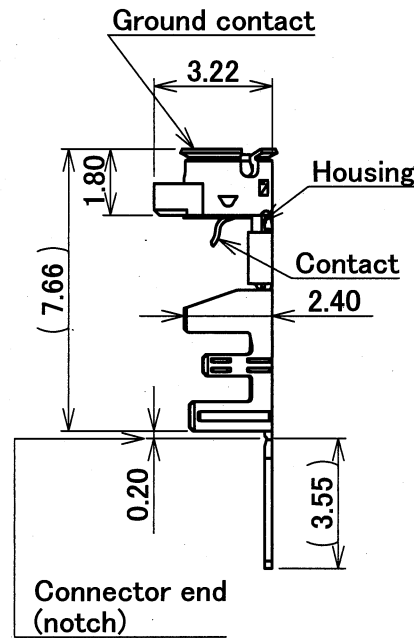
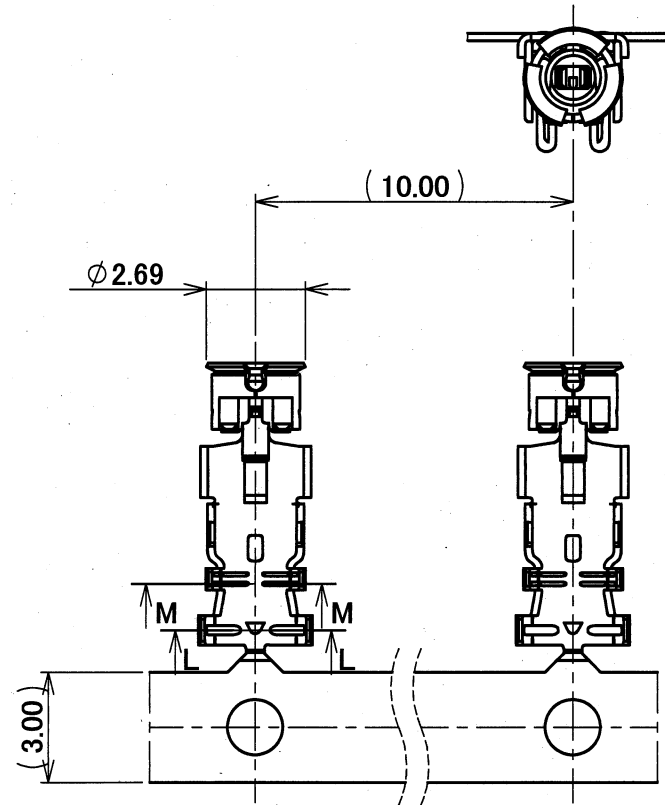
Recommended P/N

20278-112R-**

PART No.
20278-***R-**

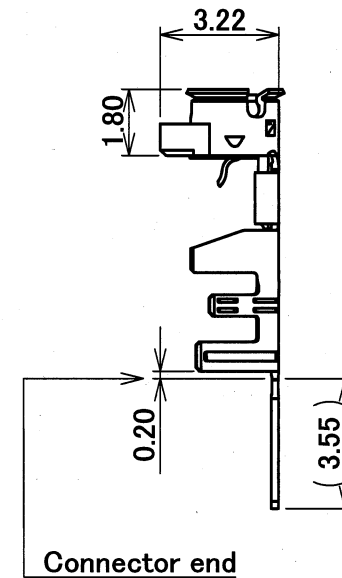
20278-***R-**

- Cable type
- 1 Non halogen free type
- 2 Halogen free type
- 0 With notch
- 1 Without notch
- 1 Au Plating



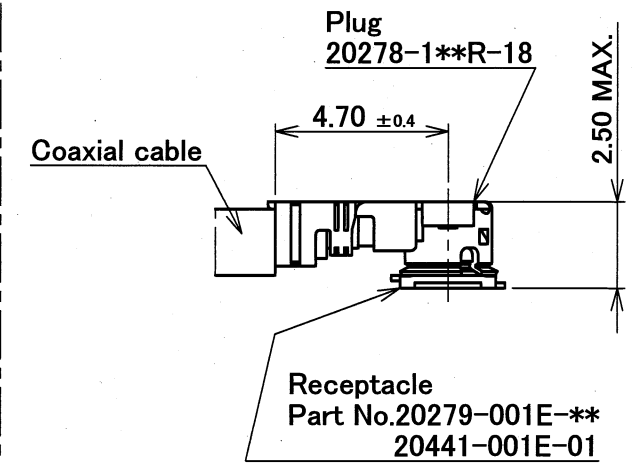
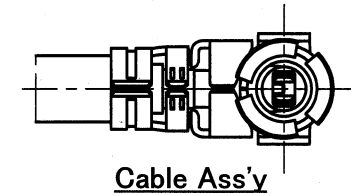
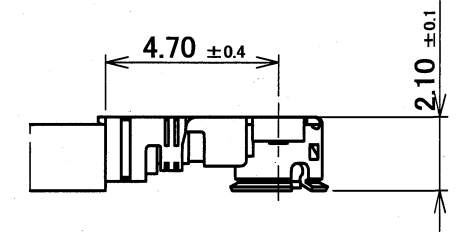
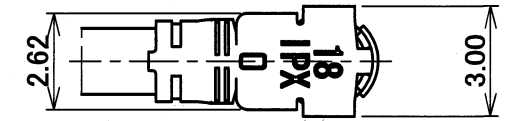
Part No. 20278-101R-18
20278-102R-18

For hand tool
(with notch)



Part No. 20278-111R-18
20278-112R-18

For semi auto
termination machine
(without notch)



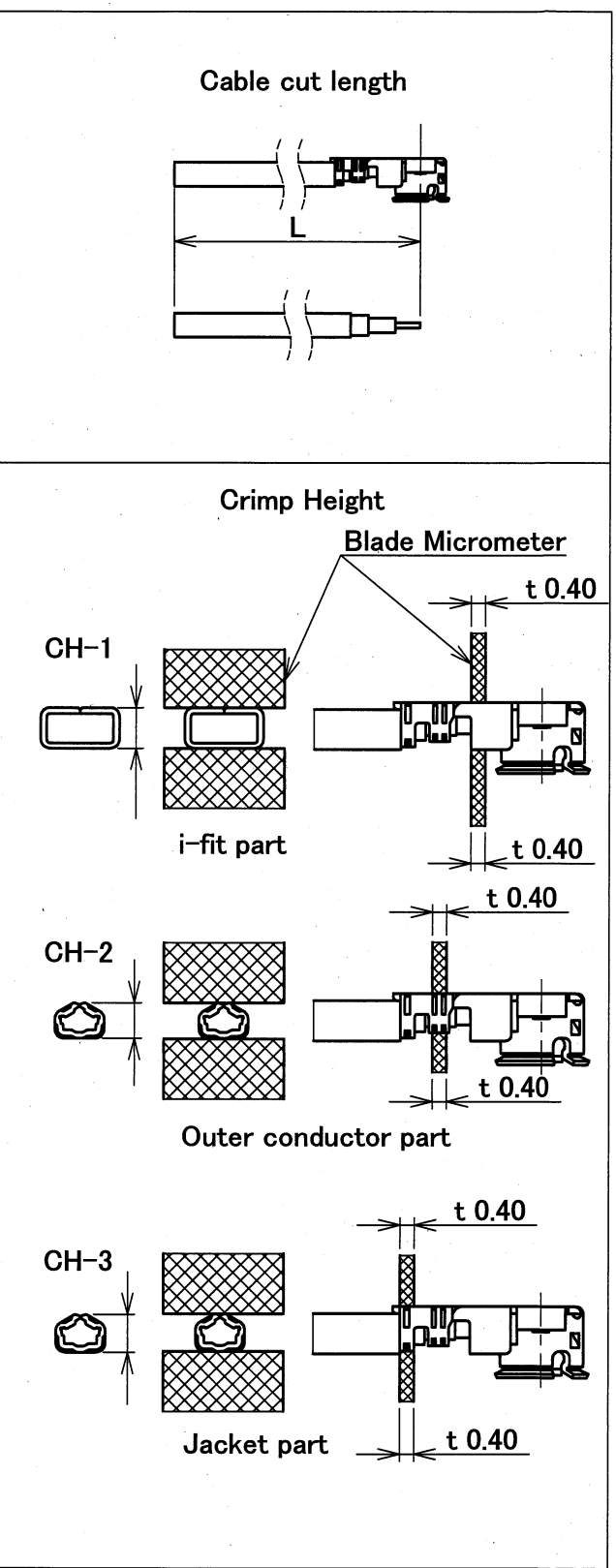
MATING

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

Confidential III C

DESIGN'D BY	DATE					
CHK'D BY	DATE					
APP'D BY	DATE					
TITLE		MHF PLUG ASS'Y (Au TYPE)				
CUSTOMER COPY	PROJECTION	SCALE	UNIT	DWG. No.	SHEET	REV.
		5:1	mm	20278	2/4	23

Part No. of non halogen free type	20278-101R-08 20278-111R-08	20278-101R-13 20278-111R-13	20278-101R-32 20278-111R-32	20278-101R-18 20278-111R-18
Part No of halogen free type	20278-102R-08 20278-112R-08	20278-102R-13 20278-112R-13	20278-102R-32 20278-112R-32	20278-102R-18 20278-112R-18
Housing color	Natural	Black	Black	Natural
Applicable cable nominal dimension	 2.09 ±0.1 1.25 ±0.1 1.16 ±0.1 Nominal AWG#36(7/0.05) ※ Note-1	 2.09 ±0.1 1.25 ±0.1 1.16 ±0.1 Nominal AWG#32(7/0.08) ※ Note-1	 2.09 ±0.1 1.25 ±0.1 1.16 ±0.1 Nominal AWG#32(7/0.08) ※ Note-1	 RG178 B/U 2.09 ±0.1 1.25 ±0.1 1.16 ±0.1 Nominal AWG#30(7/0.102) ※ Note-1
Braided shield of Outer conductor 外部導体の編組	Single / 1重編組	Single / 1重編組	Double / 2重編組	Single / 1重編組
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
Sect. M-M				
Sect. L-L				
Crimp Height	CH-1	1.34~1.40	1.34~1.40	1.34~1.40
	CH-2	0.76~0.84	1.06~1.14	1.20~1.30
	CH-3	0.85~0.97	1.15~1.35	1.26~1.46



Note-1
中心導体、外部導体への半田コーティングは不可
Must not use solder coated inner conductor and outer conductor.

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

DESIGN'D BY	DATE	I-PEX DAI-ICHI SEIKO CO.,LTD. I-PEX Business Company
CHK'D BY	DATE	
APP'D BY	DATE	
TITLE		MHF PLUG ASS'Y (Au TYPE)
CUSTOMER COPY	PROJECTION	SCALE UNIT DWG. No. SHEET REV.
		mm 20278 3/4 23

Notes

1. Material

- (1) Housing : PBT , UL94V-0
- (2) Contact
phosphor bronze : Au over Ni
- (3) Ground contact
-20278-1**R-**
phosphor bronze : Au over Ni

2. Packing : reel

3. Mating partner part No.

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

4. Permissible load of cable at mating

1. コネクタの材料

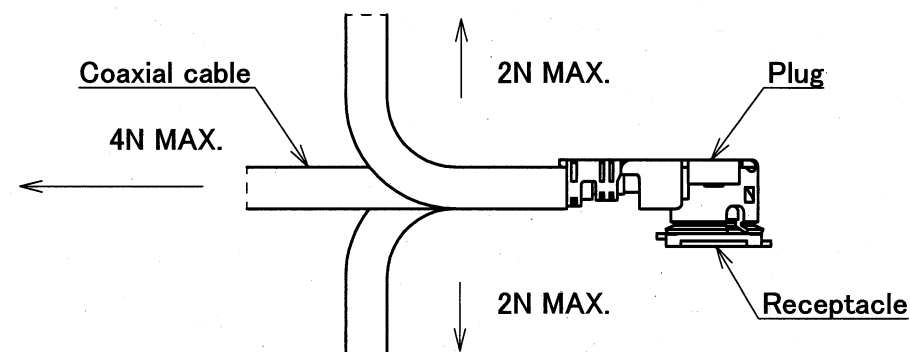
- (1) ハウジング : PBT, UL94V-0
- (2) コンタクト
りん青銅 : 金メッキ、下地 ニッケルメッキ
- (3) グランドコンタクト
-20278-1**R-**
りん青銅 : 金メッキ、下地 ニッケルメッキ

2. 梱包 : リール

3. かん合相手 Part No.

: 20279-001E-**, 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.

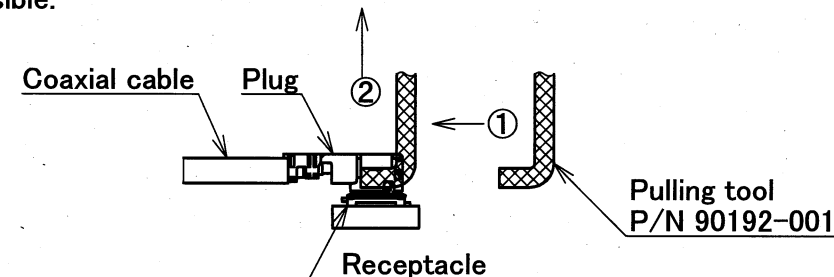
5. コネクタかん合時および抜去時の注意

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.

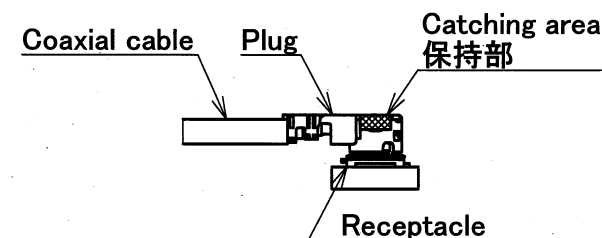
(1) In case of unmating by pulling tool. Please use the pulling tool as the following drawing, and please pull plug to vertical direction as directly as possible.



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 (外部導体パ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. This is "Pb-free" connector.

6. 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		TITLE			
CHK'D BY	DATE		MHF PLUG ASS'Y (Au TYPE)			
APP'D BY	DATE		SCALE	UNIT	DWG. No.	SHEET
CUSTOMER COPY	PROJECTION	---	mm	20278	4/4	23



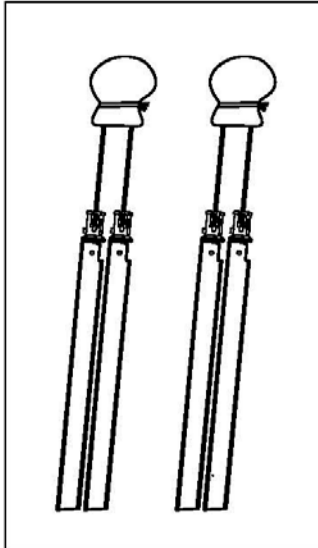
線材規格

CABLE SPECIFICATION

SPECIFICATION: 1.13mm CABLE		CONSTRUCTION D.W.G																								
ITEM	SPECIFICATION																									
CONDUCTOR	MATERIAL	Silver-coated Copper Wire																								
	Composition(No./mm)	7/0.080																								
INSULATION	NOM.O.D	0.24±0.03																								
	Material	FEP(Natural)																								
BRAIDING	Nom.Thick.(mm)	0.23																								
	NOM.O.D	0.70±0.03																								
JACKET	MATERIAL	Tinned annealed copper wire																								
	Composition	Single Braid of 0.05																								
JACKET	MATERIAL	FEP(*color)																								
	Nom.Thick(mm)	0.1																								
JACKET	Nom.O.D(mm)	1.13±0.08																								
	Color	White、Black、Brown、Gray、Blue																								
Electrical Properties(at 20 °C)																										
Item	Unit	Details																								
Conductor Resistance	Ω/km	Max.581																								
Insulation Resistance	MΩ.km	Min.200																								
Dielectric Strength	V(AC)/min	1000																								
Capacitance	pF/m	105																								
REMARK																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Characteristic Impedance</td> <td>Ω</td> <td>50±2.0</td> </tr> <tr> <td rowspan="6">Attenuation</td> <td rowspan="6">dB/m</td> <td>1GHz</td> <td>2.20</td> </tr> <tr> <td>2GHz</td> <td>3.10</td> </tr> <tr> <td>3GHz</td> <td>3.90</td> </tr> <tr> <td>4GHz</td> <td>4.50</td> </tr> <tr> <td>5GHz</td> <td>5.00</td> </tr> <tr> <td>6GHz</td> <td>5.50</td> </tr> <tr> <td>Temperature range</td> <td>°C</td> <td>-55~150</td> </tr> <tr> <td>Standing wave(0-6GHz)</td> <td>/</td> <td>≦ 1.35</td> </tr> </table>				Characteristic Impedance	Ω	50±2.0	Attenuation	dB/m	1GHz	2.20	2GHz	3.10	3GHz	3.90	4GHz	4.50	5GHz	5.00	6GHz	5.50	Temperature range	°C	-55~150	Standing wave(0-6GHz)	/	≦ 1.35
Characteristic Impedance	Ω	50±2.0																								
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Standing wave(0-6GHz)	/	≦ 1.35																								
MASTER WAVE TECHNOLOGY CO., LTD.																										
CHECKED	Charlene	DATE	2012/11/29																							
DRAWING	Charlene	REV	00																							




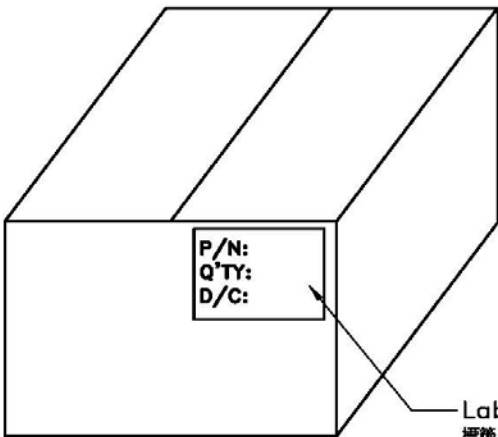
4	3	2	1			
REV		ZONE	DESCRIPTION	ENG	APPROVED	DATE




25PCS ANTENNA / 綁一束

50PCS ANTENNA / 1PE BAG





Label
標籤Label貼於外箱側邊

	DATE:	MAT'L:	Master Wave Technology CO.,LTD
	UNIT: mm	FINISH:	
<small>THIRD ANGLE PROJECTION</small>		SCALE: -	
APPROVED BY:	CHECKED BY:	DESIGNED BY:	TITLE : 8617 Flying Lead Antenna Packing
		DRAWN BY:	MODEL NO. :
			PART NO. :
<small>THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MASTER WAVE AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.</small>			REV 00

4	3	2	1
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