

MICRO COAXIAL CONNECTOR

Applicable for

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

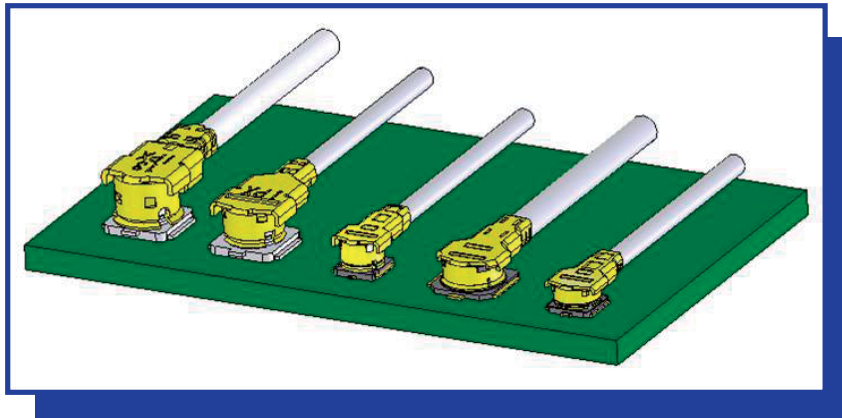
RoHS Compliance

Halogen - Free *1

MHF SERIES

Easy Cable termination by "i-Fit[®]" Technology

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

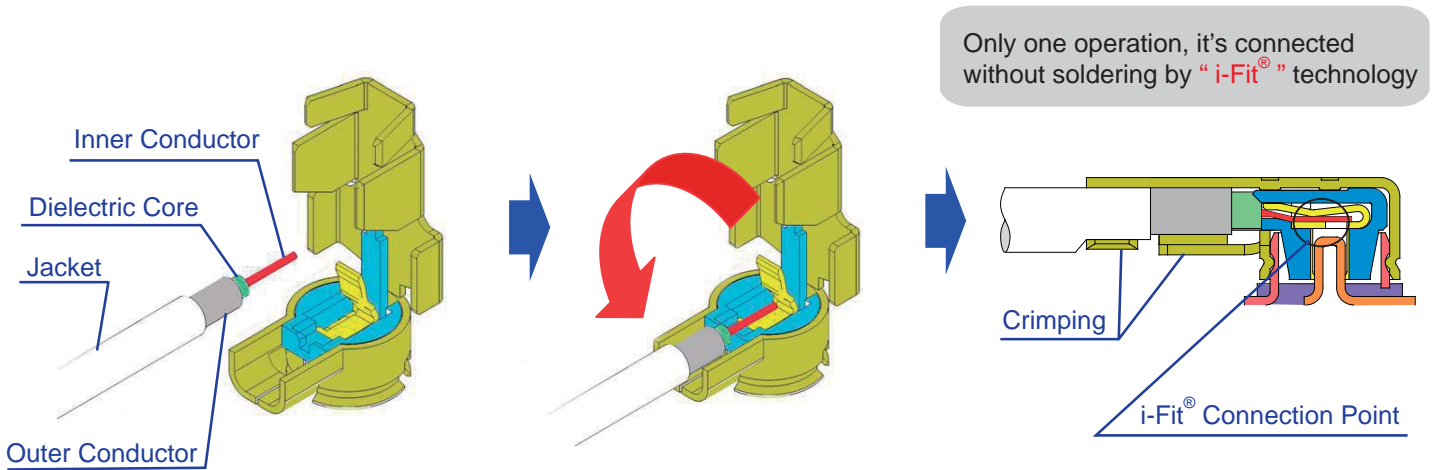
【Product Overview】

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.)					
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

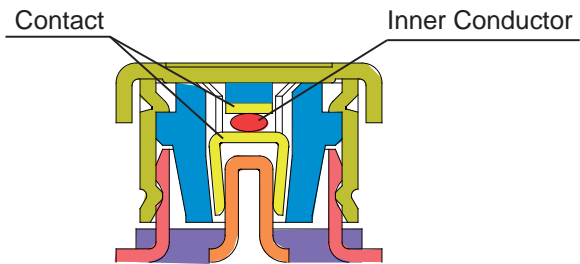
◆All Center contact are Gold Plated

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 >

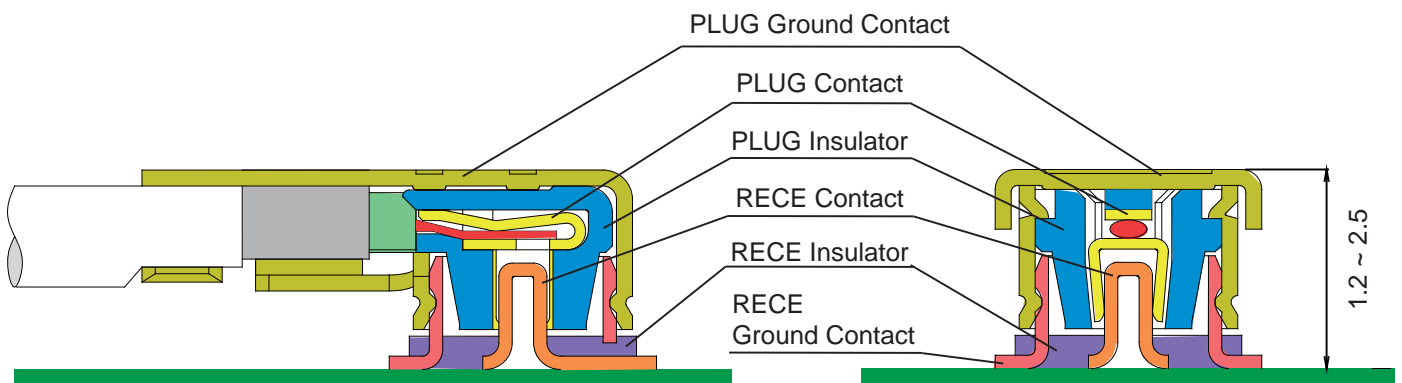


i-Fit[®] PATENT NO.
U.S.A. PAT.6,790,082
JAPAN PAT.4148339



i-Fit[®] Cross-section

< Product Mechanism >



MHF Receptacle

3pads type

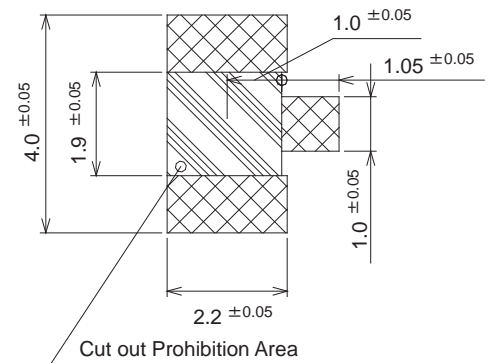
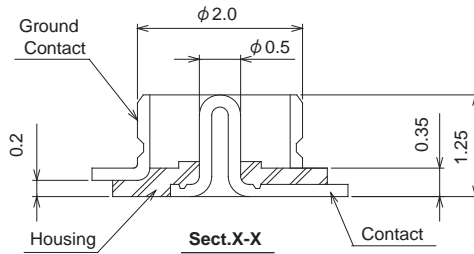
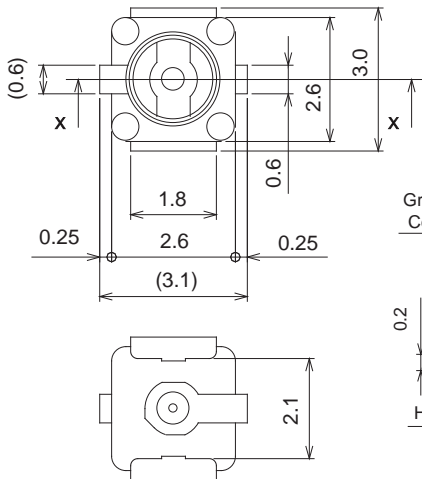
【Part Number】

Ground Contact : **Au Plating**
20279-001 E- 01

Packing : Emboss Tape
 1 reel : 2,500pcs

Ground Contact : **Ag Plating**
20314-001 E- 01

Packing : Emboss Tape
 1 reel : 2,500pcs



RECOMMENDED FOOTPRINT PATTERN

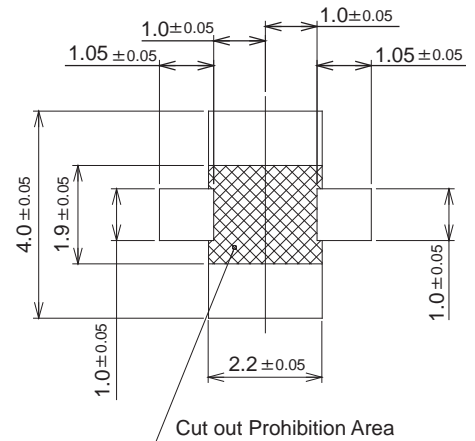
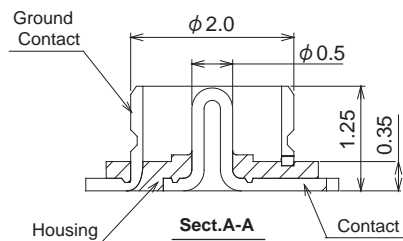
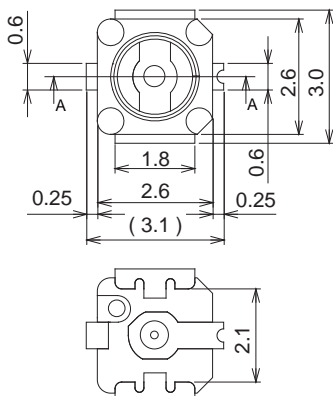
4pads type

【Part Number】

Ground Contact : **Au Plating**
20441-001 E- 01

※

※ Packing : Emboss Tape
 1 reel : 5,000pcs



RECOMMENDED FOOTPRINT PATTERN

【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

Ground Contact : **Ag** Plating

20278-1 * 2 R- * *

20308-1 * 2 R- * *

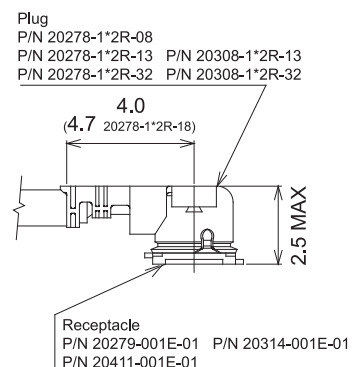
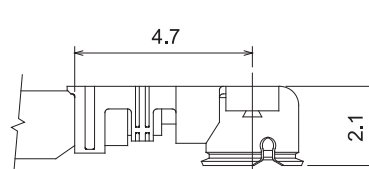
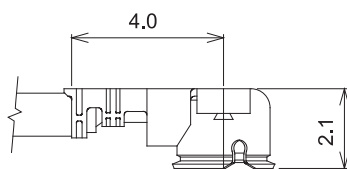
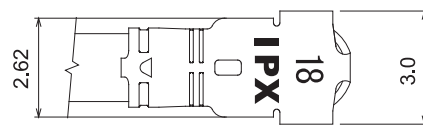
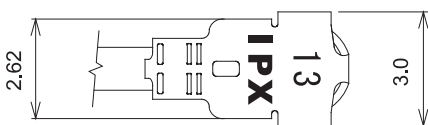
① ② ③

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
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	

MHF Plug Cable Assembly

Mating Height : 2.5mm MAX

Applicable Cable for **O.D.1.37mm** Cable

【Part Number】

Ground Contact : **Au** Plating

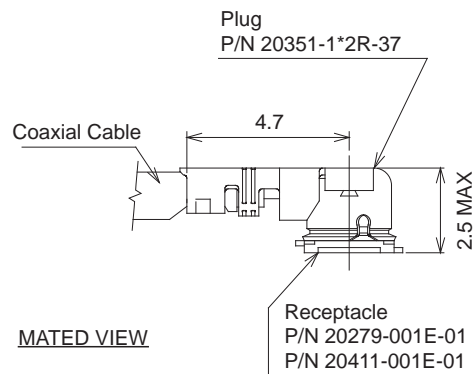
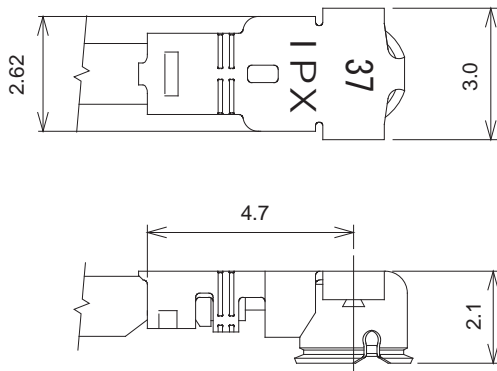
20351-1 * 2 R- 37

① ②

①	TOOL	0	for Hand Tool (with Notch)
		1	for Semi-Auto (without Notch)
②	Packing	R	Reel 1reel : 2,000pcs

【Applicable Cable Size】

Part No. (Au)	20351-1**R-37-*
Part No. (Ag)	-
	for AWG#30
Applicable Cable Nominal Dimension	
Braided Shield of Outer Conductor	Single Braided Shield



【Material and Finish】

Parts	Material	Plating / Color
HOUSING	PBT UL94V-0	NATURAL
CONTACT	COPPEER ALLOY	Au
GROUND CONTACT	COPPEER ALLOY	Au

MHF II Plug Cable Assembly

Mating Height : **2.1mm MAX**

【Part Number】

Ground Contact : **Au** Plating

20311-011 R - 08

①

Ground Contact : **Ag** Plating

20312-011 R- * *

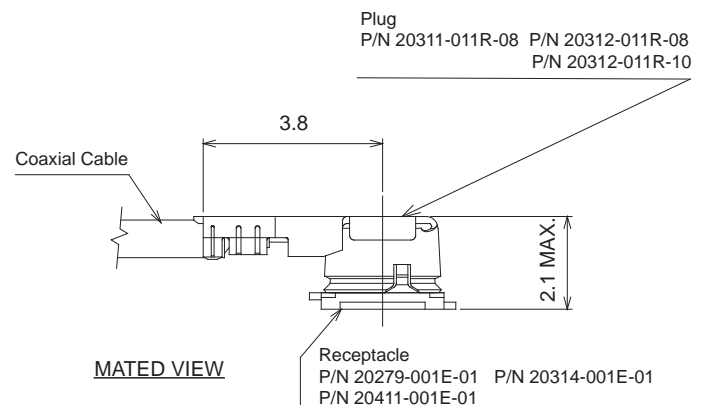
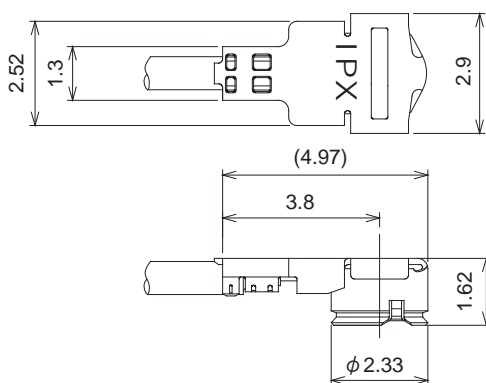
①

②

①	Packing	R	Reel 1reel : 2,000pcs
②	Applicable Cable Size	-	08, 10

【Applicable Cable Size】

Part No. (Au)	20311-011R-08	-
Part No. (Ag)	20312-011R-08	20312-011R-10
	for AWG#36	for AWG#33
Applicable Cable Nominal Dimension 		
Braided Shield of Outer Conductor	Single Braided Shield	Single Braided Shield



【Material and Finish】

Parts	Material	Plating / Color
HOUSING	LCP UL94V-0	NATURAL
CONTACT	COPPER ALLOY	Au
GROUND CONTACT	COPPER ALLOY	Au or Ag

MHF III Receptacle

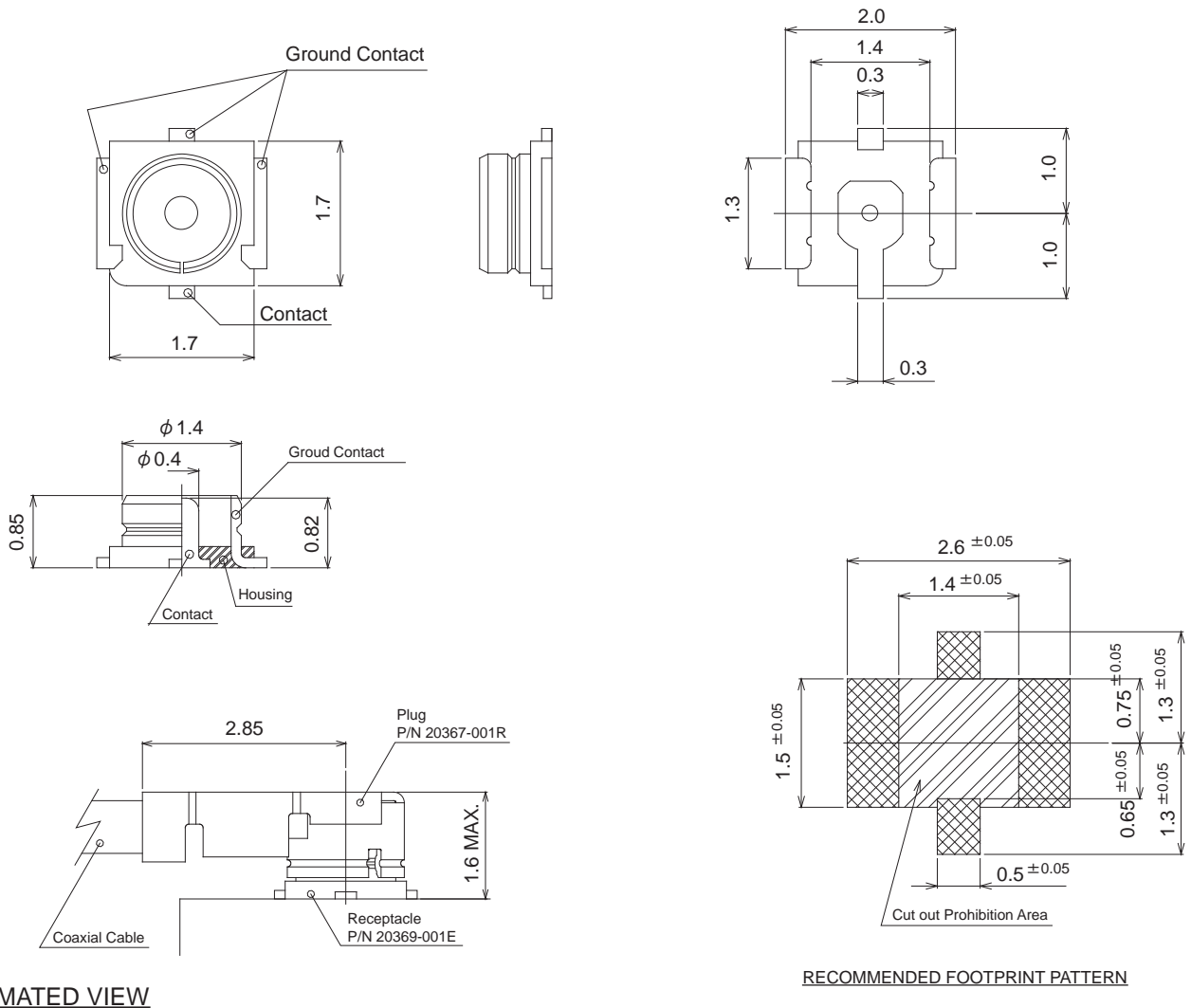
Mating Height : **1.6mm MAX**

【Part Number】

Ground Contact : **Au Plating**

20369-001 E

Packing : Emboss Tape
1reel : 5,000pcs



MATED VIEW

RECOMMENDED FOOTPRINT PATTERN

【Material and Finish】

Parts	Material	Plating / Color
HOUSING	LCP UL94V-0	BLACK
CONTACT	COPPER ALLOY	Au
GROUND CONTACT	COPPER ALLOY	Au

MHF III Plug Cable Assembly

Applicable Cable for **O.D.0.81mm** Cable

【Part Number】

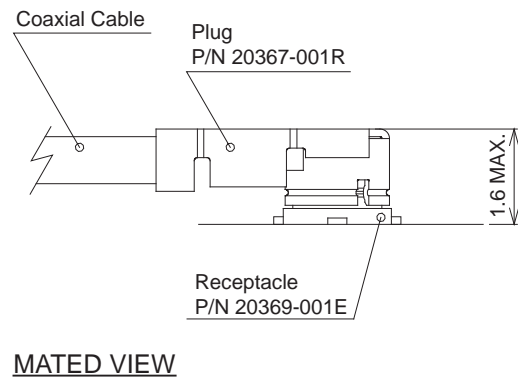
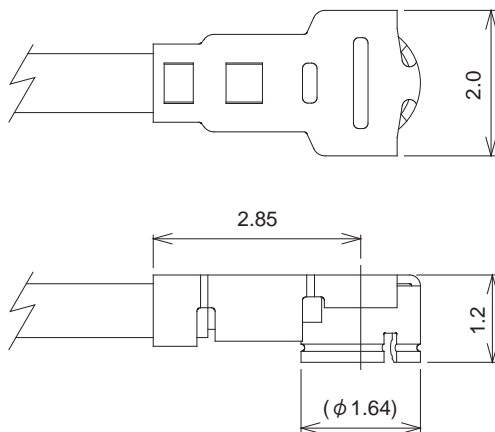
Ground Contact : **Au** Plating

20367 - 001 R

Packing : Reel
1 reel : 2,000pcs

【Applicable Cable Size】

Part No. (Au)	20367-001R
Part No. (Ag)	-
	for AWG#36
Applicable Cable Nominal Dimension 	
Braided Shield of Outer Conductor	Single Braided Shield



【Material and Finish】

Parts	Material	Plating / Color
HOUSING	LCP UL94V-0	NATURAL
CONTACT	COPPER ALLOY	Au
GROUND CONTACT	COPPER ALLOY	Au

MHF-A Receptacle

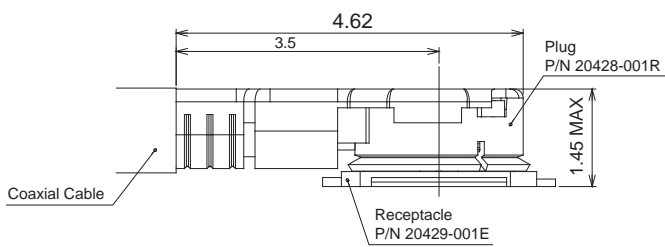
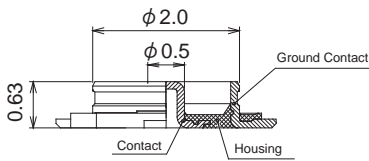
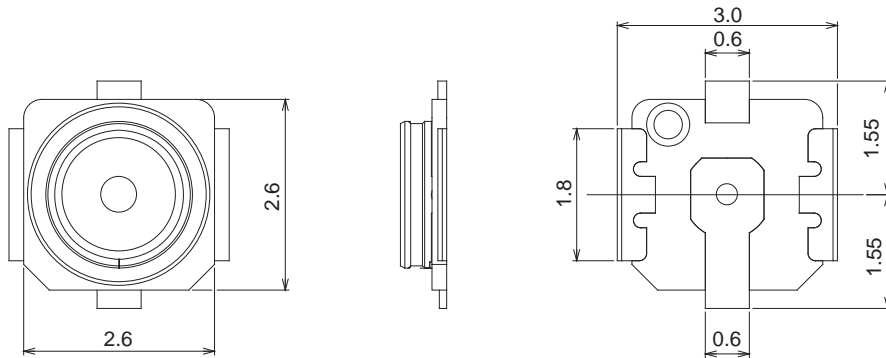
Mating Height : **1.45mm MAX**

【Part Number】

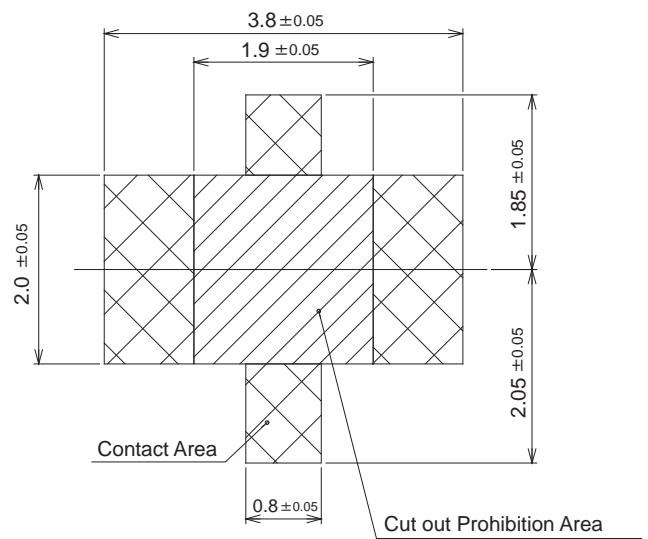
Ground Contact : **Au Plating**

20429-001 E

Packing : Emboss Tape
1reel : 5,000pcs



MATED VIEW



RECOMMENDED FOOTPRINT PATTERN

【Material and Finish】

Parts	Material	Plating / Color
HOUSING	LCP UL94V-0	BLACK
CONTACT	COPPER ALLOY	Au
GROUND CONTACT	COPPER ALLOY	Au

MHF-A13 Plug Cable Assembly

Applicable Cable for **O.D.1.13mm** Cable

【Part Number】

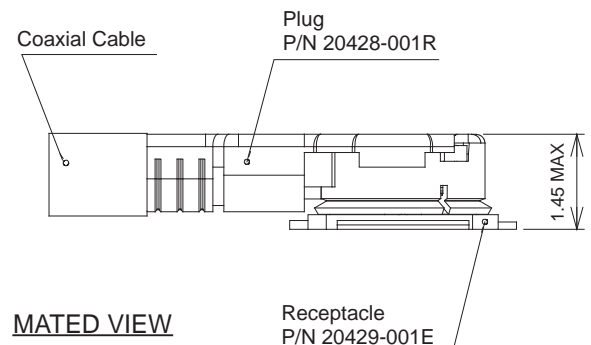
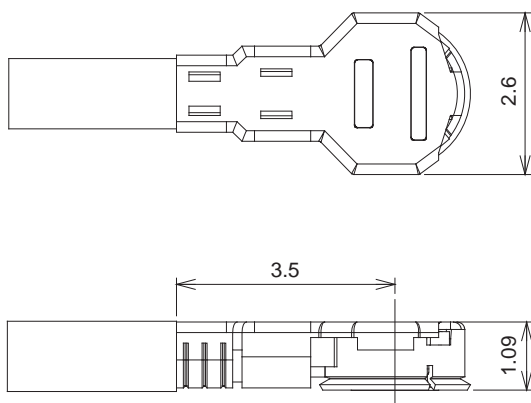
Ground Contact : **Au** Plating

20428 - 001 R

Packing : Reel
1 reel : 2,000pcs

【Applicable Cable Size】

Part No. (Au)	20428-001R
Part No. (Ag)	-
	for AWG#32
Applicable Cable Nominal Dimension 	
Braided Shield of Outer Conductor	Single Braided Shield



【Material and Finish】

Parts	Material	Plating / Color
HOUSING	PBT UL94V-0	BLACK
CONTACT	COPPER ALLOY	Au
GROUND CONTACT	COPPER ALLOY	Au

MHF 4 Receptacle

Mating Height : **1.2mm MAX**

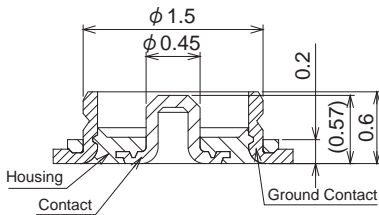
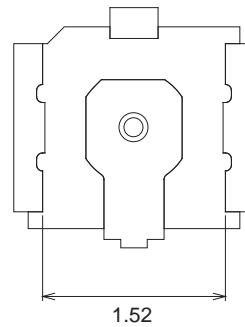
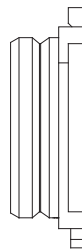
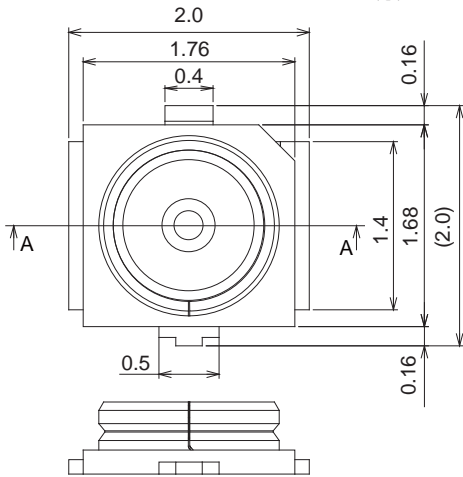
【Part Number】

Ground Contact : **Au** Plating

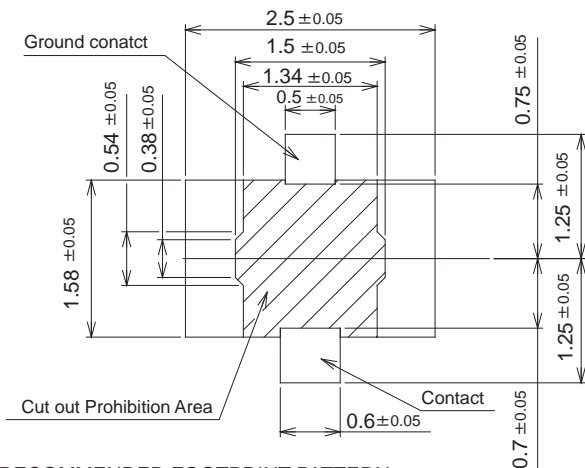
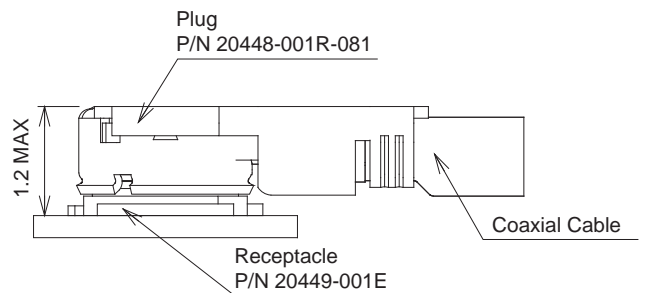
20449-001 E

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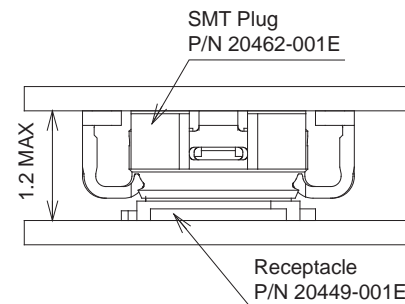
※ Packing : Emboss Tape
1reel : 5,000pcs



Sect. A-A



RECOMMENDED FOOTPRINT PATTERN



MATED VIEW

【Material and Finish】

Parts	Material	Plating / Color
HOUSING	LCP UL94V-0	BLACK
CONTACT	COPPER ALLOY	Au
GROUND CONTACT	COPPER ALLOY	Au

MHF 4 Plug Cable Assembly

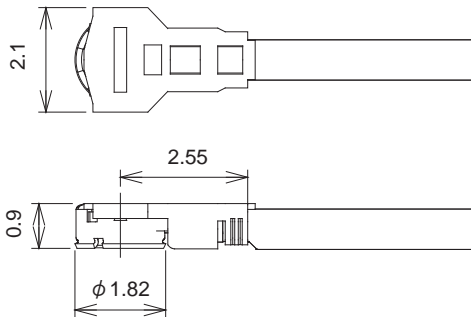
Applicable Cable for **O.D.0.81mm** Cable

【Part Number】

Ground Contact : **Au** Plating

20448 - 001 R -081

Packing : Reel
1 reel : 2,000pcs



【Applicable Cable Size】

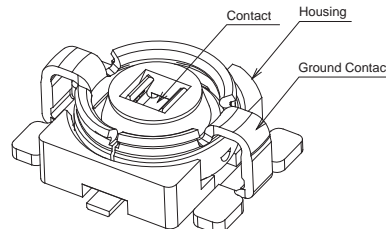
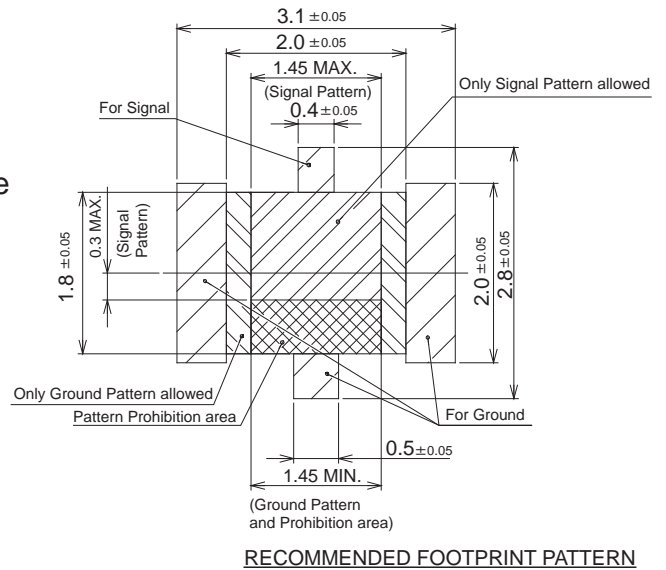
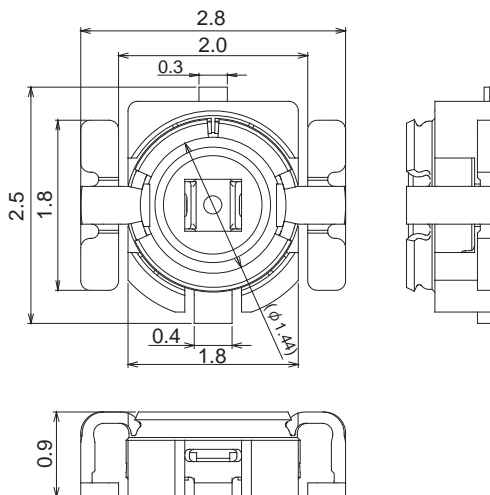
Part No. (Au)	20448-001R-081
Part No. (Ag)	-
for AWG#36	
Braided Shield of Outer Conductor	Single Braided Shield

MHF 4 SMT Plug

【Part Number】

Ground Contact : **Au** Plating

20462 - 001 E ※ Packing : Emboss Tape
1 reel : 5,000pcs



【Material and Finish】

Parts	Material (Plug)	Material (SMT Plug)	Plating / Color
HOUSING	PBT UL94V-0	LCP UL94V-0	BLACK
CONTACT	COPPER ALLOY	COPPER ALLOY	Au
GROUND CONTACT	COPPER ALLOY	COPPER ALLOY	Au

Permissible load of cable at mating	
MHF MHF II	<p>Coaxial cable 4N MAX. 2N MAX. 2N MAX. Plug Receptacle</p>
MHF III MHF-A13 MHF 4	<p>2N MAX. NG NG</p>

* 1..... [Halogen-Free]

For the definition of Halogen-free, I-PEX applies and judges as "halogen-free" in accordance with IEC 61249-2-21

- Br 900ppm Max.
- Cl 900ppm Max.
- TTL concentration [Br+Cl]1500ppm Max.

- MEMO -



MHF SERIES CONNECTORS

I-PEX Co.,Ltd .

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<http://www.i-pex.com>

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