

# MHF<sup>®</sup> 4

Low-profile design (mated height : 1.2 mm max.), ideal for use in limited spaces

**Product Specifications:**

Mated Height (mm max.)	1.2	
Rece. SMT Size (mm)	2.0 x 2.0	
Applicable Frequency	DC~6 GHz	
Characteristic Impedance	50 ohm	
VSWR (L=100 mm)	DC~3 GHz	1.3 max.
	3~6 GHz	1.5 max.
	6~9 GHz	-
	9~12 GHz	-
	12~15 GHz	-

\* Please inquire for pin counts not listed or outside of the pin count range.

**Applicable Cable Size:**

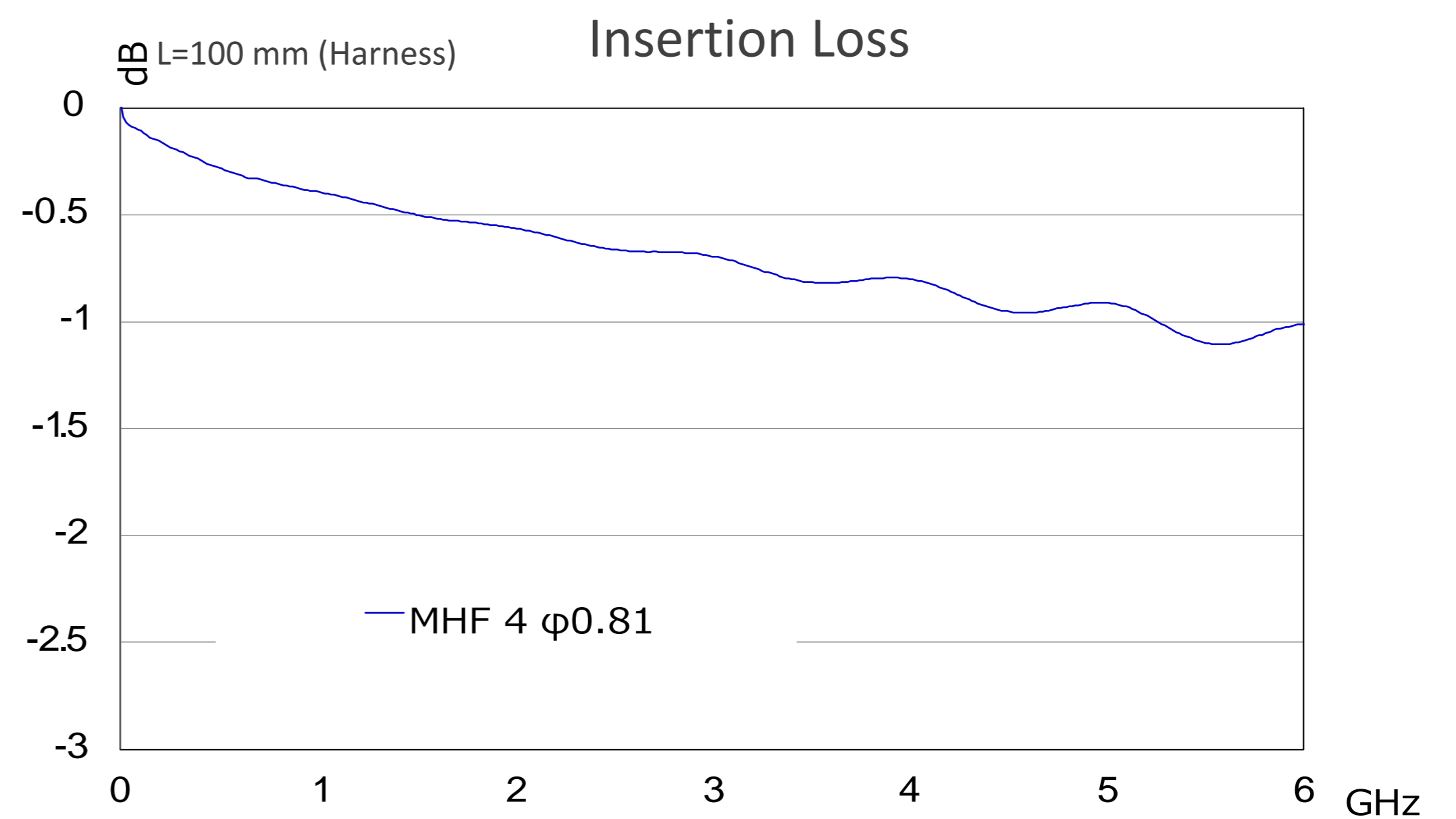
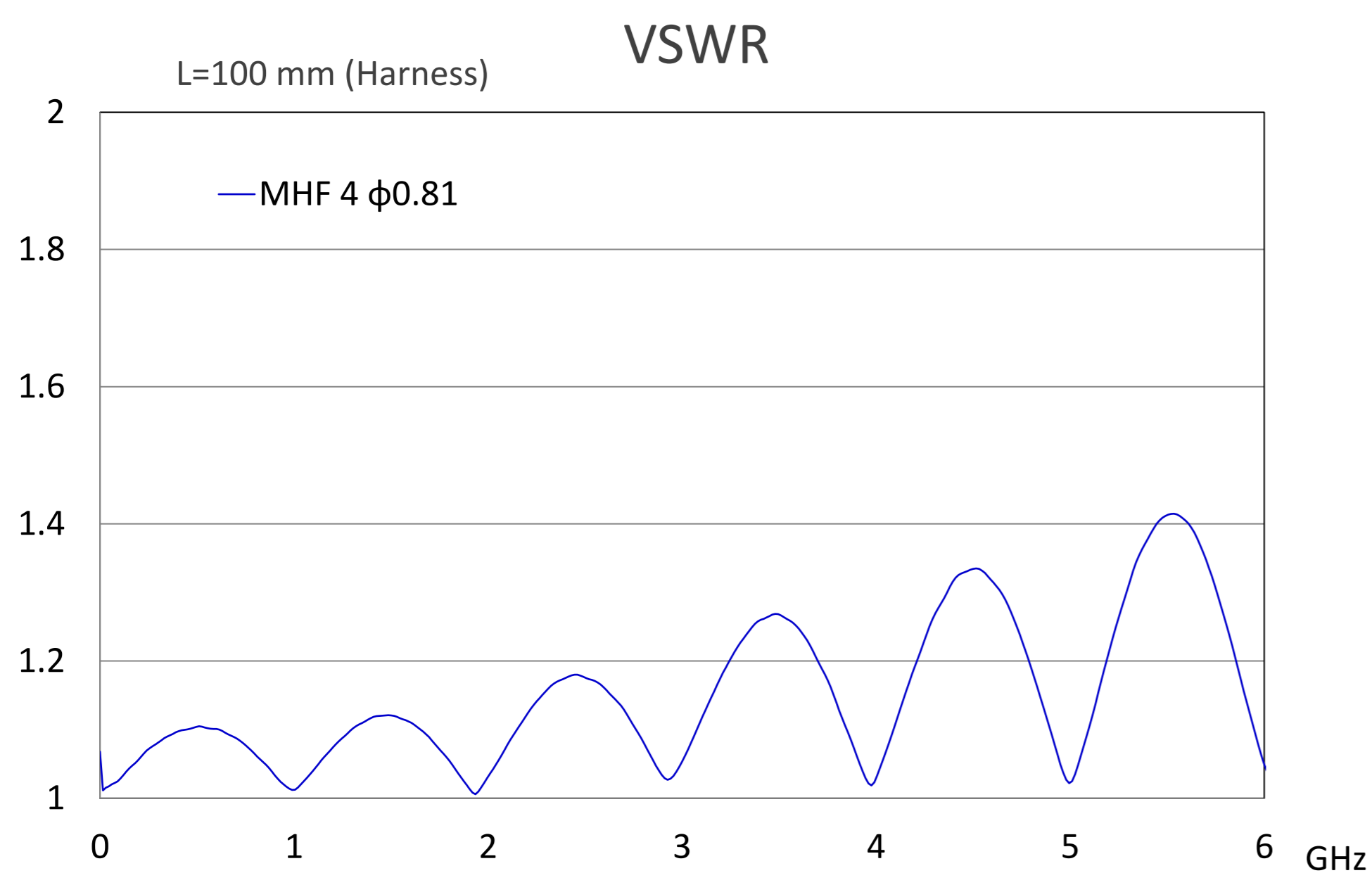
O.D. 0.81 mm / AWG 36
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**Applicable Standards (Reference Only):**

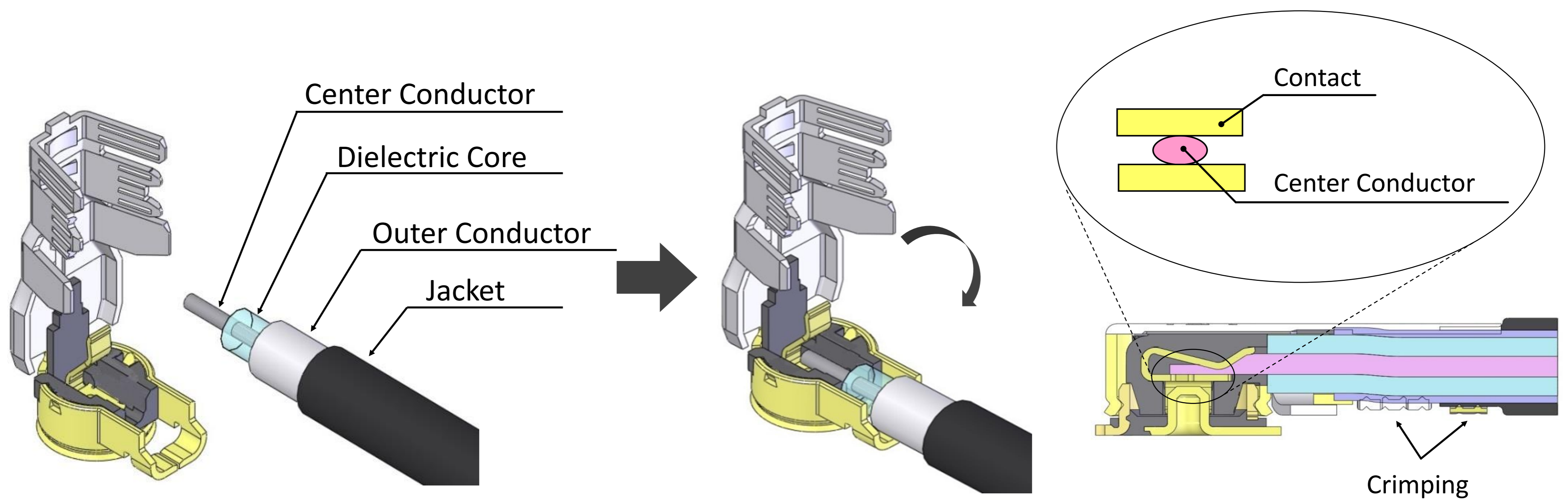
5G sub-6, Wi-Fi 6, LTE/LTE-Advanced, LPWA, Bluetooth, GPS
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## ▶ Small form factor with big performance through 6 GHz



## ▶ Solderless micro-coax termination technology "i-Fit<sup>®</sup>" provides consistent performance



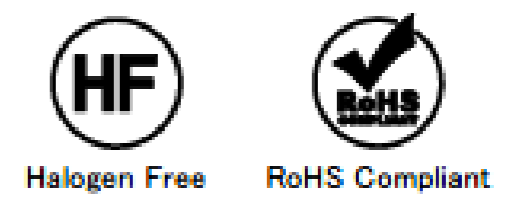
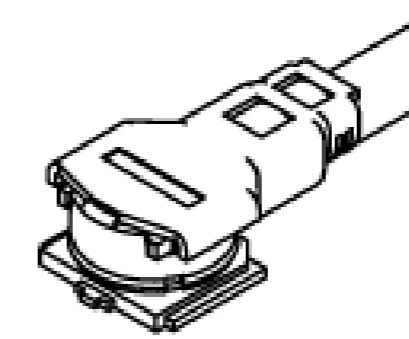
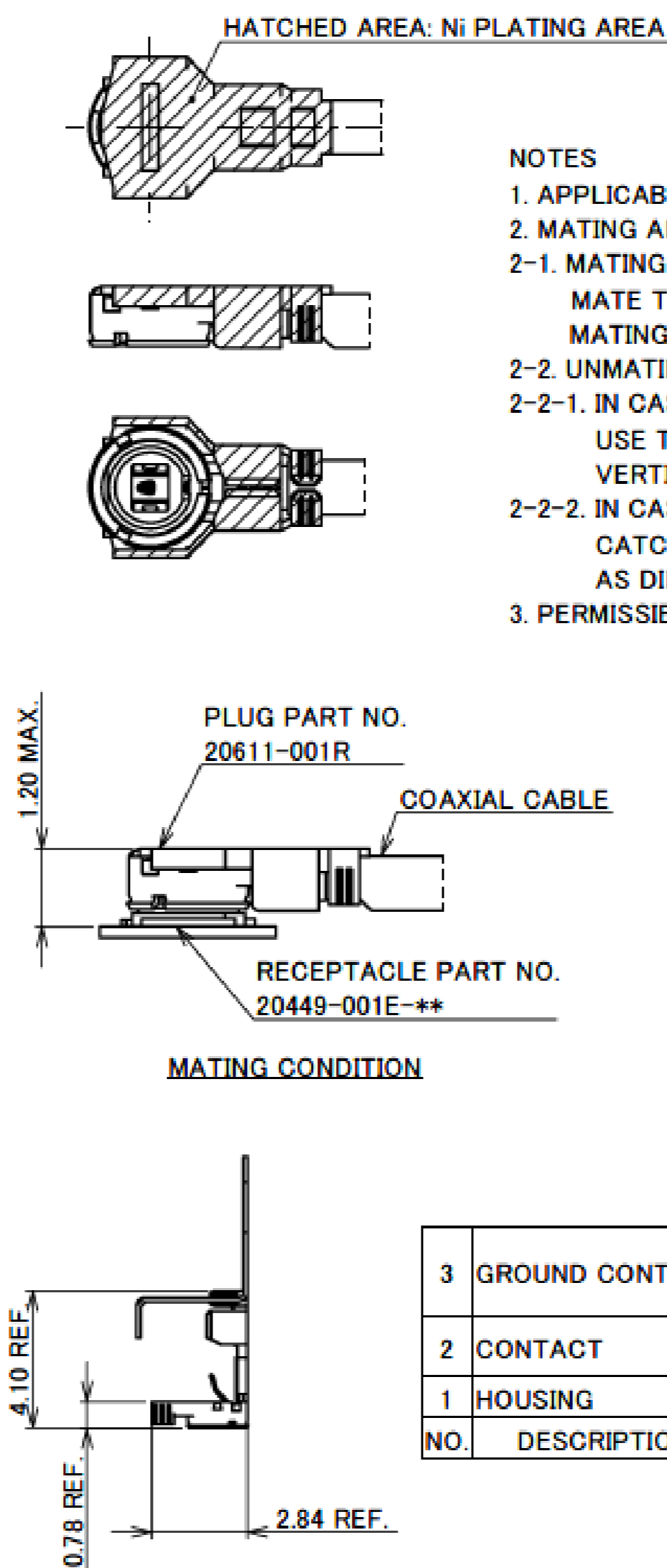
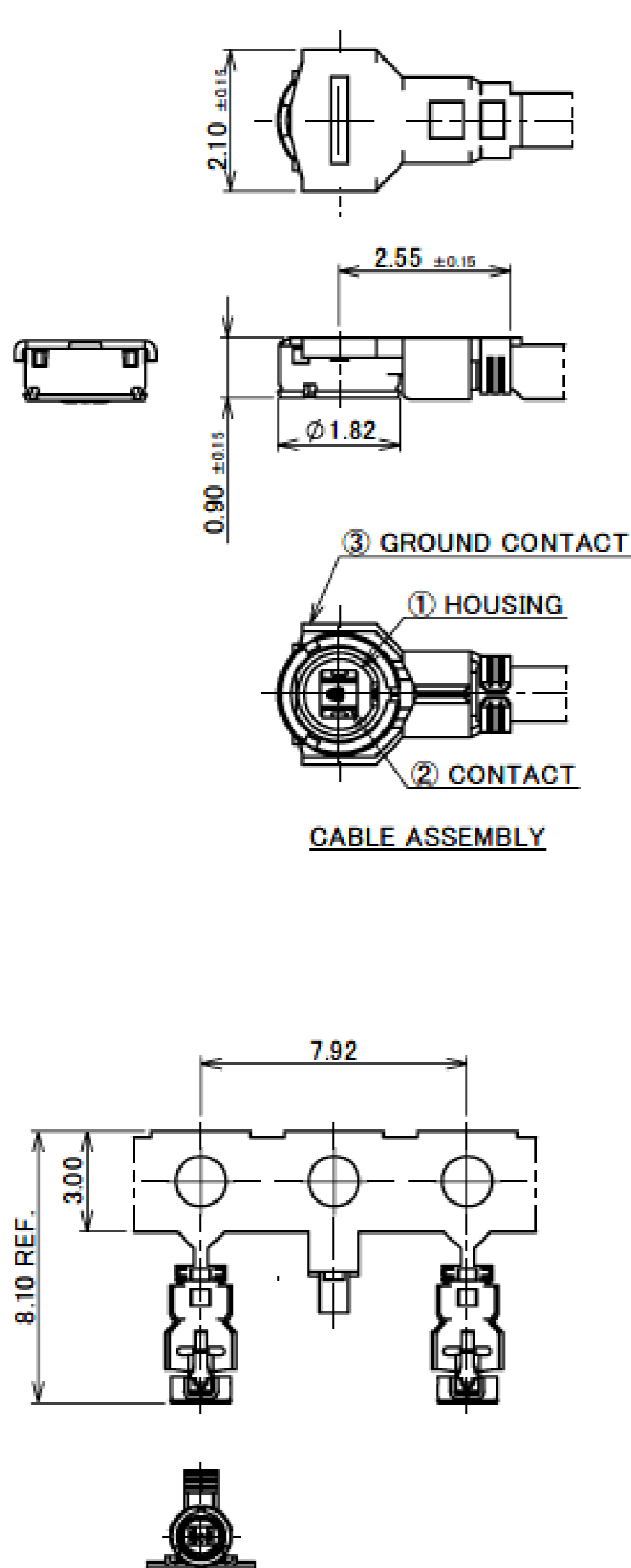
## ▶ MHF<sup>®</sup> 4 Plug available micro-coax O.D. (AWG) : 0.81 mm (36)

Product name	MHF <sup>®</sup> 4L			MHF <sup>®</sup> 4
Frequency	DC – 12 GHz			DC – 6 GHz
Mating Height	1.7 mm max.	1.4 mm max.	1.2 mm max.	1.2 mm max.
Coax O.D. (Center Conductor AWG)	1.37 mm (AWG#30)	●		
	1.13 mm (AWG#32)		●	
	0.95 mm (AWG#33)		●	
	0.81 mm (AWG#36)			●
	0.64 mm (AWG#36)			●
Receptacle	MHF 4 receptacle , MHF 4L receptacle			

# Component Parts Details

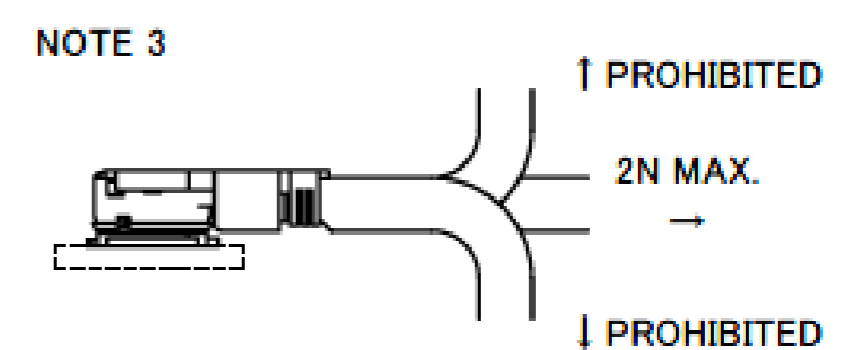
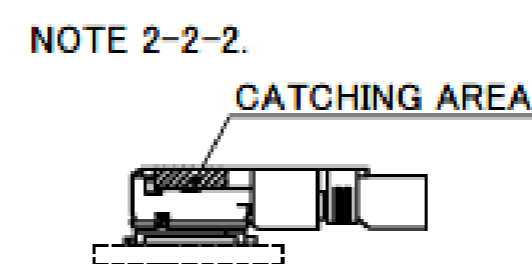
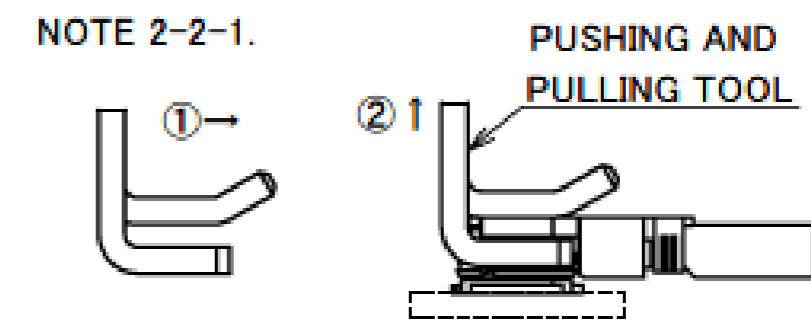
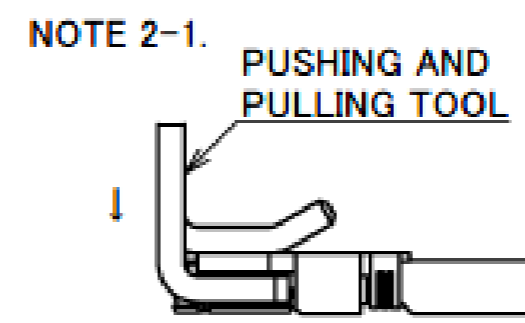
## MHF<sup>®</sup> 4 plug Ni top

Recommended P/N	20611-001R
PART NO.	20611-001R



### NOTES

1. APPLICABLE CONNECTOR: 20449-001E-\*\*
2. MATING AND UNMATING INSTRUCTION
  - 2-1. MATING  
MATE THE CONNECTOR VERTICALLY AS MUCH AS POSSIBLE. ADJUSTING THE MATING AXIS OF PLUG AND RECEPTACLE. DO NOT SLANT MATE.
  - 2-2. UNMATING
    - 2-2-1. IN CASE OF UNMATING BY PULLING TOOL (PART NO. 90435-001)  
USE THE PULLING TOOL AS THE FOLLOWING DRAWING, AND PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
    - 2-2-2. IN CASE OF UNMATING DIRECTLY BY HAND.  
CATCH THE CATCHING AREA OF PLUG, AND PULL TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
3. PERMISSIBLE LOAD OF CABLE AT MATING



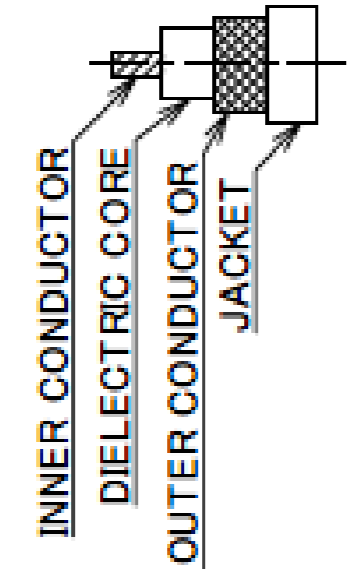
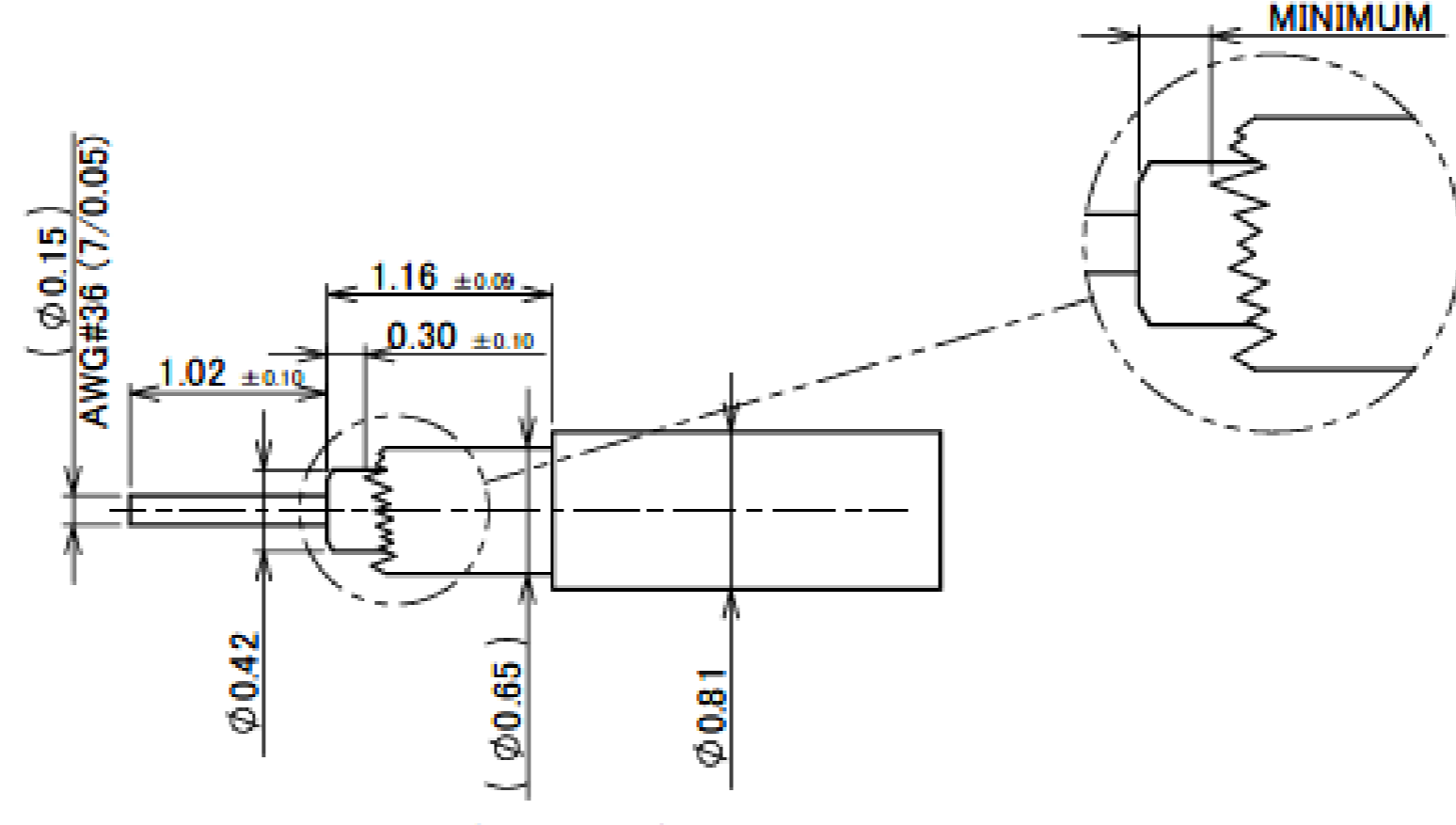
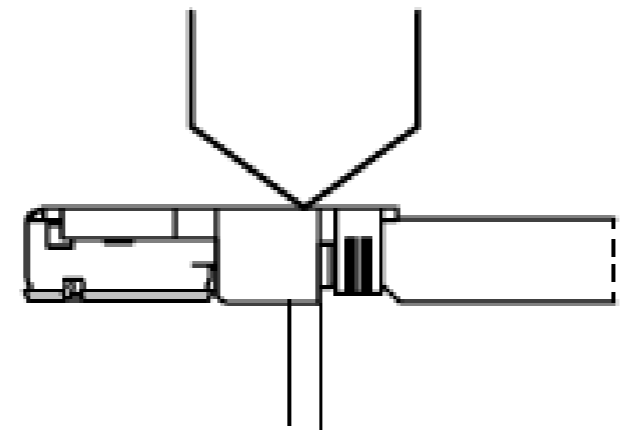
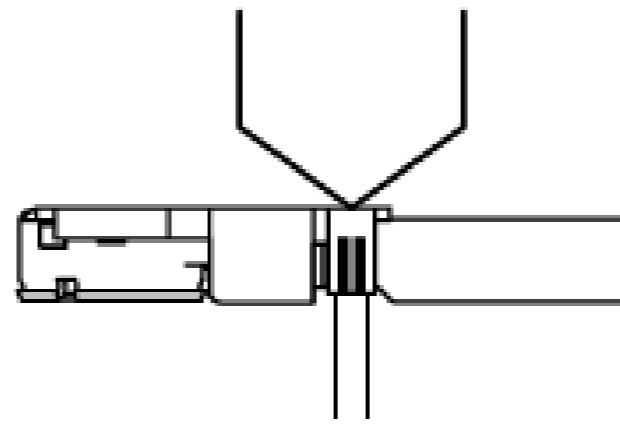
NO.	DESCRIPTION	MATERIAL	FINISH , REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	ALL OVER: Ni 1.00 $\mu$ m MIN. CONTACT PART: Au 0.02 $\mu$ m MIN. [Ni PLATING AREA] Ni ONLY
2	CONTACT	PHOSPHOR BRONZE	ALL OVER: Ni 1.00 $\mu$ m MIN. CONTACT PART: Au 0.03 $\mu$ m MIN.
1	HOUSING	PBT	UL94V-0, BLACK

CARRIER CONDITION  
S = 5:1

# MHF® 4 plug Ni top

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART NO.	20449-001E-**
RATING VOLTAGE	60 V AC (R.M.S) / DC
RATING FREQUENCY	DC~9GHz
OPERATING TEMPERATURE	233~363 K (-40°C~+90°C)
VSWR (MATED WITH SMA ADAPTER PART No. 90449-001)	1.30 MAX. AT 0.1~3GHz, 1.50 MAX. AT 3~6GHz, 2.00 MAX. AT 6~9GHz
MAIN CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: $\Delta$ R 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: $\Delta$ R 100 mohm MAX.
INSULATION RESISTANCE	INITIAL: 500 Mohm MIN. / AFTER TEST: 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC 1 MINUTE
DURABILITY	30 CYCLES
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL: 4 N MIN. / AFTER TEST: 2 N MIN.
CRIMP STRENGTH	5 N MIN.
PRODUCT SPECIFICATION	PRS-2530
TEST REPORT	TR-18086
PACKING STANDARD	300-591
INSTRUCTION MANUAL	HIM-10003
APPEARANCE CRITERIA No.	QLS-A***

Rev.3

PART No.	20611-001R	
<p>APPLICABLE CABLE STRIP DIMENSION</p>  <p>INNER CONDUCTOR DIELECTRIC CORE OUTER CONDUCTOR JACKET</p>	 <p>SEE NOTE 4. (S = 20 : 1)</p>	
BRAIDED SHIELD OF OUTER CONDUCTOR	SINGLE BRAIDED SHIELD	
CRIMP HEIGHT	 <p>SEE NOTE 5.</p> <p>i-Fit® PART 0.91~0.94</p>	 <p>SEE NOTE 5.</p> <p>JACKET PART 0.82~0.85</p>

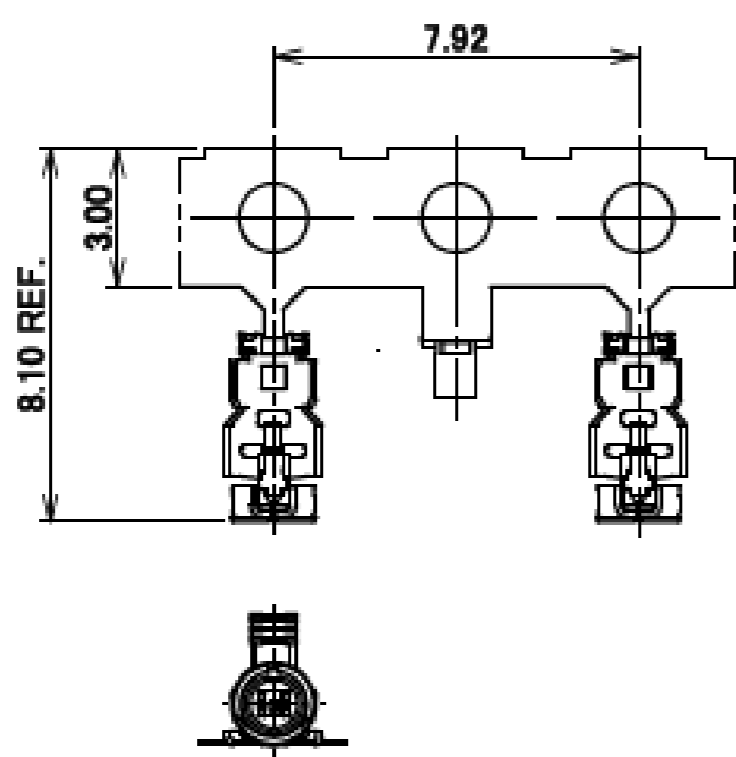
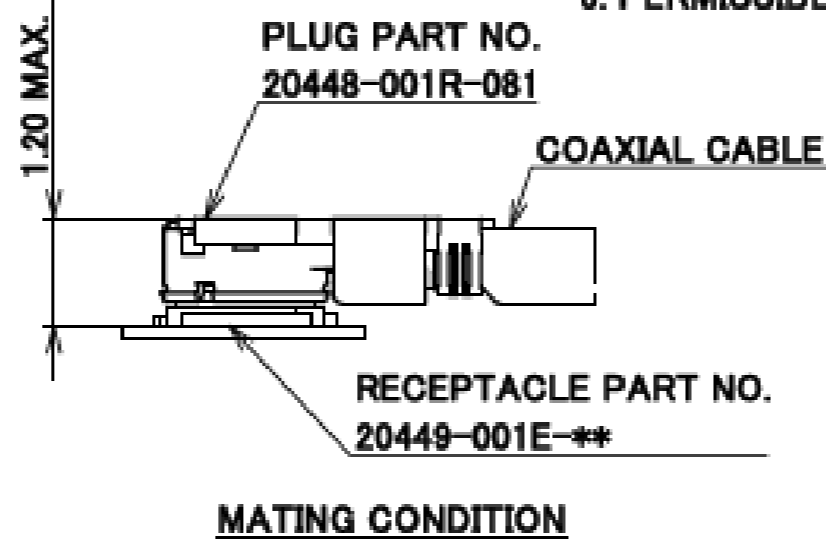
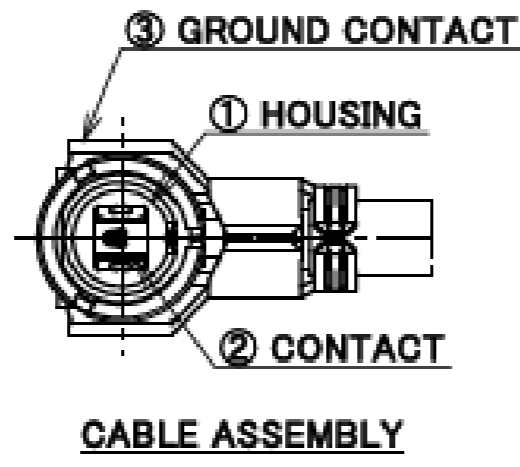
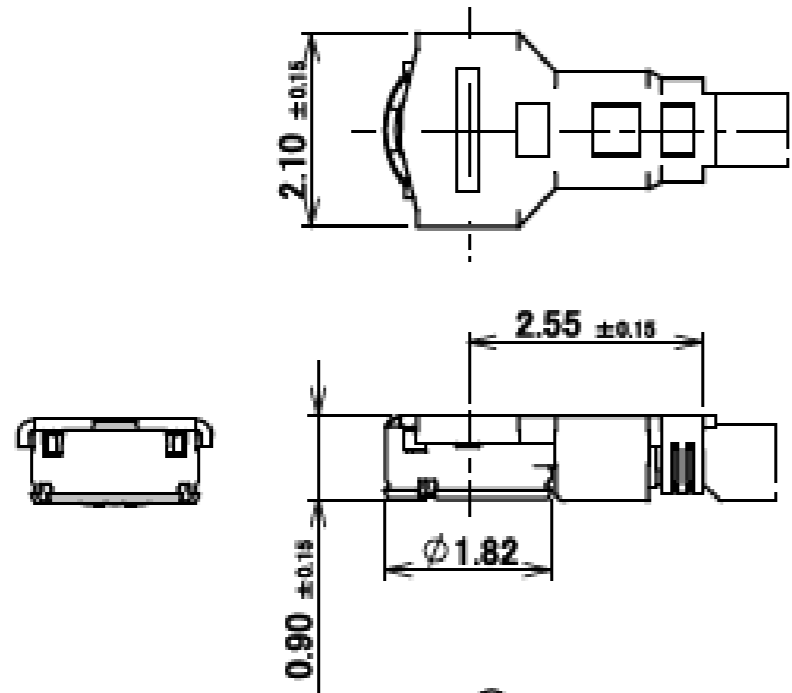
NOTES.  
4. MUST NOT USE SOLDER COATED INNER CONDUCTOR AND OUTER CONDUCTOR.  
5. USE POINT MICROMETER.

Rev.3

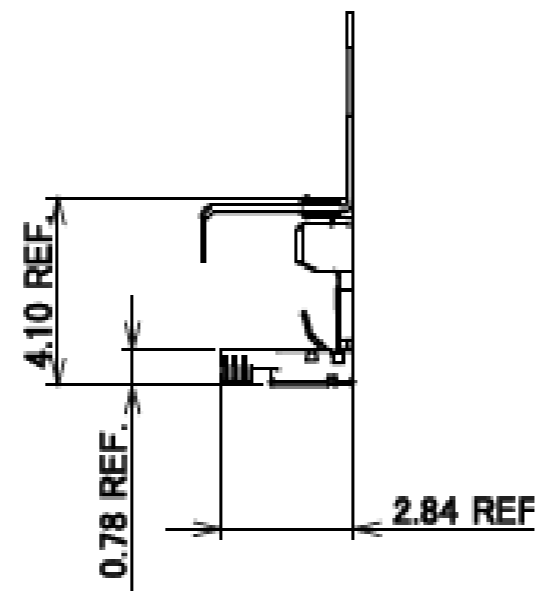


# MHF® 4 plug Au

Recommended P/N	20448-001R-081
PART NO.	20448-001R-081



CARRIER CONDITION  
S = 5:1



## NOTES

1. APPLICABLE CONNECTOR: 20449-001E-\*\*
2. MATING AND UNMATING INSTRUCTION

### 2-1. MATING

MATE THE CONNECTOR VERTICALLY AS MUCH AS POSSIBLE. ADJUSTING THE MATING AXIS OF PLUG AND RECEPTACLE. DO NOT SLANT MATE.

### 2-2. UNMATING

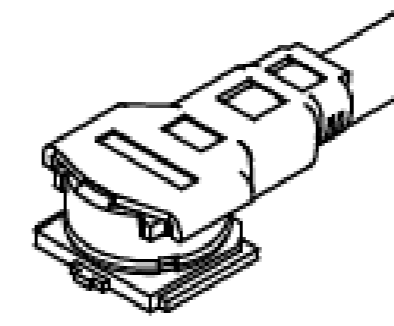
2-2-1. IN CASE OF UNMATING BY PULLING TOOL (PART NO. 90435-001)

USE THE PULLING TOOL AS THE FOLLOWING DRAWING, AND PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.

2-2-2. IN CASE OF UNMATING DIRECTLY BY HAND.

CATCH THE CATCHING AREA OF PLUG, AND PULL TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.

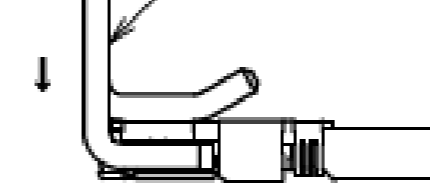
### 3. PERMISSIBLE LOAD OF CABLE AT MATING



Halogen Free RoHS Compliant

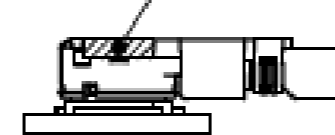
#### NOTE 2-1.

PUSHING AND PULLING TOOL



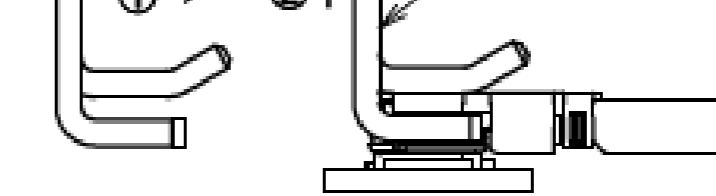
#### NOTE 2-2-2.

CATCHING AREA

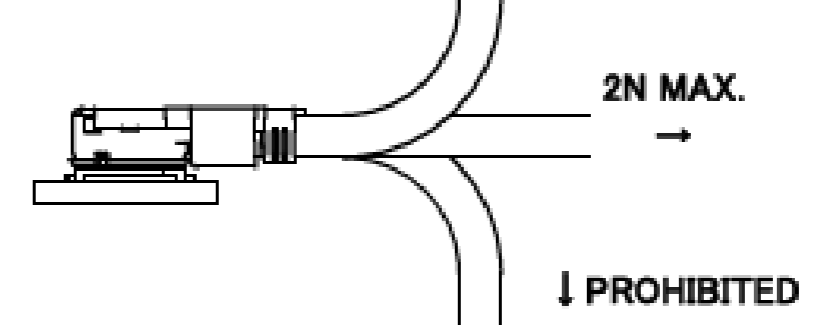


#### NOTE 2-2-1.

PUSHING AND PULLING TOOL



#### NOTE 3



NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	ALL OVER: Ni 1.00 μm MIN. CONTACT PART: Au 0.05 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER: Ni 1.00 μm MIN. CONTACT PART: Au 0.30 μm MIN.
1	HOUSING	PBT	UL94V-0, BLACK

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART NO.	20449-001E-**
RATING VOLTAGE	60 V AC (R.M.S) / DC
RATING FREQUENCY	DC~9GHz
OPERATING TEMPERATURE	233~383 K (-40°C~+90°C)
VSWR (MATED WITH SMA ADAPTER PART No. 90449-001)	1.30 MAX. AT 0.1~3GHz, 1.50 MAX. AT 3~6GHz, 2.00 MAX. AT 6~9GHz
MAIN CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: <math>\Delta</math>R 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: <math>\Delta</math>R 20 mohm MAX.
INSULATION RESISTANCE	INITIAL: 500 Mohm MIN. / AFTER TEST: 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC 1 MINUTE
DURABILITY	30 CYCLES
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL: 4 N MIN. / AFTER TEST: 2 N MIN.
CRIMP STRENGTH	5 N MIN.
PRODUCT SPECIFICATION	PRS-1745
TEST REPORT	TR-12118
PACKING STANDARD	300-591
INSTRUCTION MANUAL	HIM-10003
APPEARANCE CRITERIA No.	QLS-A***

Rev.7

# MHF® 4 plug Au

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART NO.	20449-001E-**
RATING VOLTAGE	60 V AC (R.M.S) / DC
RATING FREQUENCY	DC~9GHz
OPERATING TEMPERATURE	233~383 K (-40°C~+90°C)
VSWR (MATED WITH SMA ADAPTER PART No. 90449-001)	1.30 MAX. AT 0.1~3GHz, 1.50 MAX. AT 3~6GHz, 2.00 MAX. AT 6~9GHz
MAIN CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: $\Delta$ R 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: $\Delta$ R 20 mohm MAX.
INSULATION RESISTANCE	INITIAL: 500 Mohm MIN. / AFTER TEST: 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC 1 MINUTE
DURABILITY	30 CYCLES
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL: 4 N MIN. / AFTER TEST: 2 N MIN.
CRIMP STRENGTH	5 N MIN.
PRODUCT SPECIFICATION	PRS-1745
TEST REPORT	TR-12118
PACKING STANDARD	300-591
INSTRUCTION MANUAL	HIM-10003
APPEARANCE CRITERIA No.	QLS-A***

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## Accessories for MHF® 4 plug



MHF 4 (4L) SMA ADAPTOR  
PART NO. 90449-001



MHF 4 (4L) INSPECTION CONNECTOR  
PART NO. 90449-003-01



FRONT SIDE



BACK SIDE

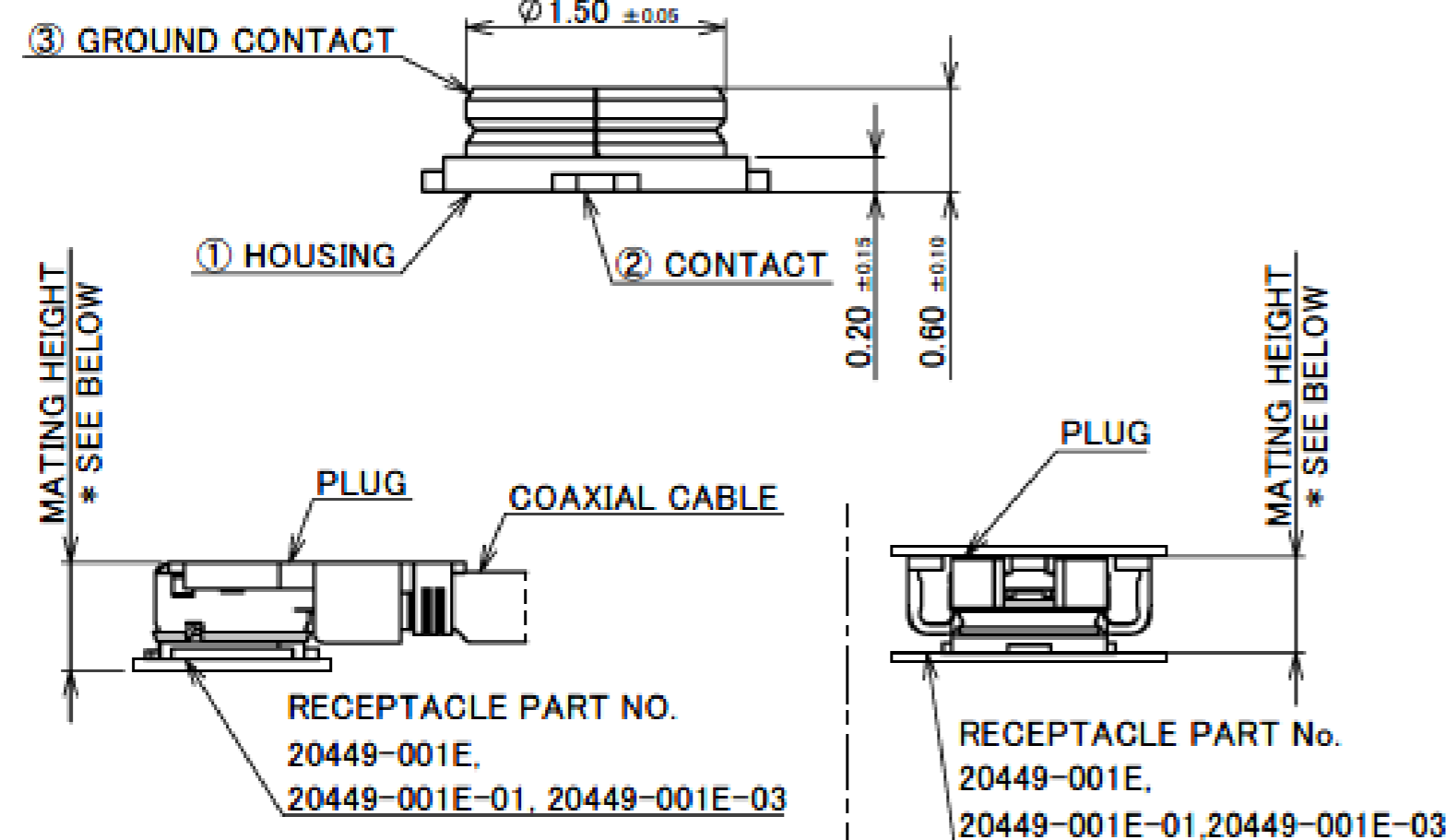
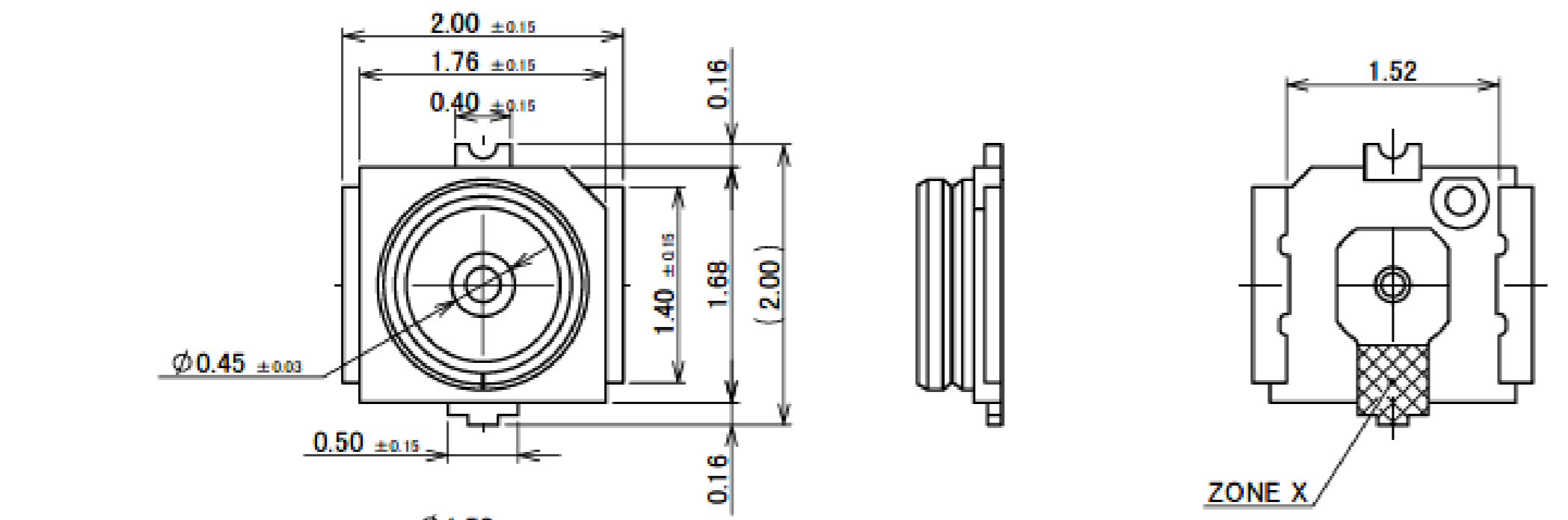
MHF 4 PUSHING AND PULLING TOOL  
PART NO. 90435-001

Rev.3

# MHF<sup>®</sup> 4 Receptacle

Recommended P/N 20449-001E-03

PART NO.	PACKING QUANTITY / REEL	CONTACT PLATING			GROUND CONTACT PLATING		
		CONTACT PART	SOLDERING PART	ALL OVER	CONTACT PART	SOLDERING PART	ALL OVER
20449-001E	10,000 PCS.	TOP: Au 0.05 μm MIN.	TOP OTHER: Au 0.01 μm MIN. ZONE X: Au 0.03 μm MIN.	Ni 1.00 μm MIN.	TOP: Au 0.03 μm MIN.	TOP: Au 0.01 μm MIN.	Ni 1.00 μm MIN.
20449-001E-01		TOP: Au 0.01 μm MIN. MIDDLE: Pd-Ni 0.02 μm MIN.	TOP: Au 0.01 μm MIN. MIDDLE: Pd-Ni 0.02 μm MIN.		TOP: Au 0.01 μm MIN. MIDDLE: Pd-Ni 0.02 μm MIN.	TOP: Au 0.01 μm MIN. MIDDLE: Pd-Ni 0.02 μm MIN.	
20449-001E-03							



\* MATING HEIGHT  
1.2 MAX. WITH 20611-001R, 20572-001R-08,  
20448-00\*R-081, 20448-001R-081E  
1.4 MAX. WITH 20565-001R-\*\*  
1.7 MAX. WITH 20632-001R-37  
(2.0 MAX. WITH MHF 4L LK LOCKED CONDITION)  
MATING CONDITION  
WITH MHF 4/MHF 4L PLUG  
(S = 10 : 1)

\* MATING HEIGHT  
1.2 MAX. WITH 20462-001E  
MATING CONDITION  
WITH MHF 4 SMT  
(S = 10 : 1)

- NOTES.  
1. APPLICABLE CONNECTOR (CABLE SIZE)  
MHF 4 PLUG: 20611-001R (Φ0.81)  
20448-00\*R-081 (Φ0.81)  
M: 81  
20565-001R-\*\* (Φ0.83, Φ0.95, Φ1.13)  
20632-001R-37 (Φ1.37)  
MHF 4 SMT PLUG: 20462-001E  
2. COPLANARITY: 0.1 mm MAX.  
3. THIS IS "Pb-FREE" CONNECTOR.  
4. CHARACTERISTIC IMPEDANCE: 50 Ω (NOMINAL VALUE)

NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	SEE TABLE
2	CONTACT	BRASS	
1	HOUSING	LCP	UL94V-0, BLACK

## FOR MHF 4 PLUG

ITEMS	SPECIFICATION	
	20611-001R (CABLE Φ0.81 TYPE)	20448-001R (CABLE Φ0.81 TYPE)
APPLICABLE CONNECTOR PART No.		
RATING VOLTAGE	60 V AC (R.M.S)/DC	
RATING FREQUENCY	DC~9GHz	
OPERATING TEMPERATURE	233~363 K (-40°C~+90°C)	
CHARACTERISTIC IMPEDANCE	50 ohm (NOMINAL VALUE)	
VSWR (MATED WITH SMA ADAPTER PART No. 90449-002)	1.30 MAX. AT 0.1~3GHz, 1.40 MAX. AT 3~6GHz, 1.55 MAX. AT 6~9GHz	
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ΔR 20 mohm MAX.	
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ΔR 100 mohm MAX.	INITIAL : 20 mohm MAX. / AFTER TEST : ΔR 20 mohm MAX.
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.	
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC 1 MINUTE	
DURABILITY	30 CYCLES	
MATING FORCE (INITIAL / AFTER TEST)	-	
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL : 4 N MIN. / AFTER TEST : 2 N MIN.	
PRODUCT SPECIFICATION	PRS-2530	PRS-1745
TEST REPORT	TR-18086	TR-12118
PACKING STANDARD	20449-001E-03: 300-604	
INSTRUCTION MANUAL	HIM-10003	
APPEARANCE CRITERIA No.	QLS-A***	

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# MHF® 4 Receptacle

FOR MHF 4L PLUG

ITEMS	SPECIFICATION			
APPLICABLE CONNECTOR PART No.	20572-001R-08 (CABLE Φ0.64 TYPE) (CABLE Φ0.81 TYPE)	20565-001E-13 (CABLE Φ0.95 TYPE) (CABLE Φ1.13 TYPE)	20565-001R-83 (CABLE Φ0.83 TYPE)	20632-001R-37 (CABLE Φ1.37 TYPE)
RATING VOLTAGE	60 V AC (R.M.S)/DC			
RATING FREQUENCY	DC ~ 9GHz			
OPERATING TEMPERATURE	233~363 K(-40°C~+90°C)			
CHARACTERISTIC IMPEDANCE	50 ohm (NOMINAL VALUE)			
VSWR (MATED WITH SMA ADAPTER PART No. 90449-002)	1.30 MAX. AT 0.1~3GHz, 1.40 MAX. AT 3~6GHz, 1.55 MAX. AT 6~9GHz			
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ΔR 20 mohm MAX.			
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ΔR 20 mohm MAX.			
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.			
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC 1 MINUTE			
DURABILITY	30 CYCLES			
MATING FORCE (INITIAL / AFTER TEST)	INITIAL : 30 N MAX. / AFTER TEST : 30 N MAX.			
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL : 20 N MAX. 5 N MIN. / AFTER TEST : 20 N MAX. 3 N MIN.			
PRODUCT SPECIFICATION	PRS-1944 (CABLE Φ0.64 TYPE) PRS-1772 (CABLE Φ0.81 TYPE)	PRS-2051 (CABLE Φ0.95 TYPE) PRS-1772 (CABLE Φ1.13 TYPE)	PRS-2062 (CABLE Φ0.83 TYPE)	PRS-2008 (CABLE Φ1.37 TYPE)
TEST REPORT	TR-14078 (CABLE Φ0.64 TYPE) TR-13011 (CABLE Φ0.81 TYPE)	TR-14142 (CABLE Φ0.95 TYPE) TR-13011 (CABLE Φ1.13 TYPE)	TR-15011 (CABLE Φ0.83 TYPE)	TR-14100 (CABLE Φ1.37 TYPE)
PACKING STANDARD	20449-001E-03: 300-604			
INSTRUCTION MANUAL	HIM-12011	HIM-12012		HIM-16011
APPEARANCE CRITERIA No.	QLS-A***			

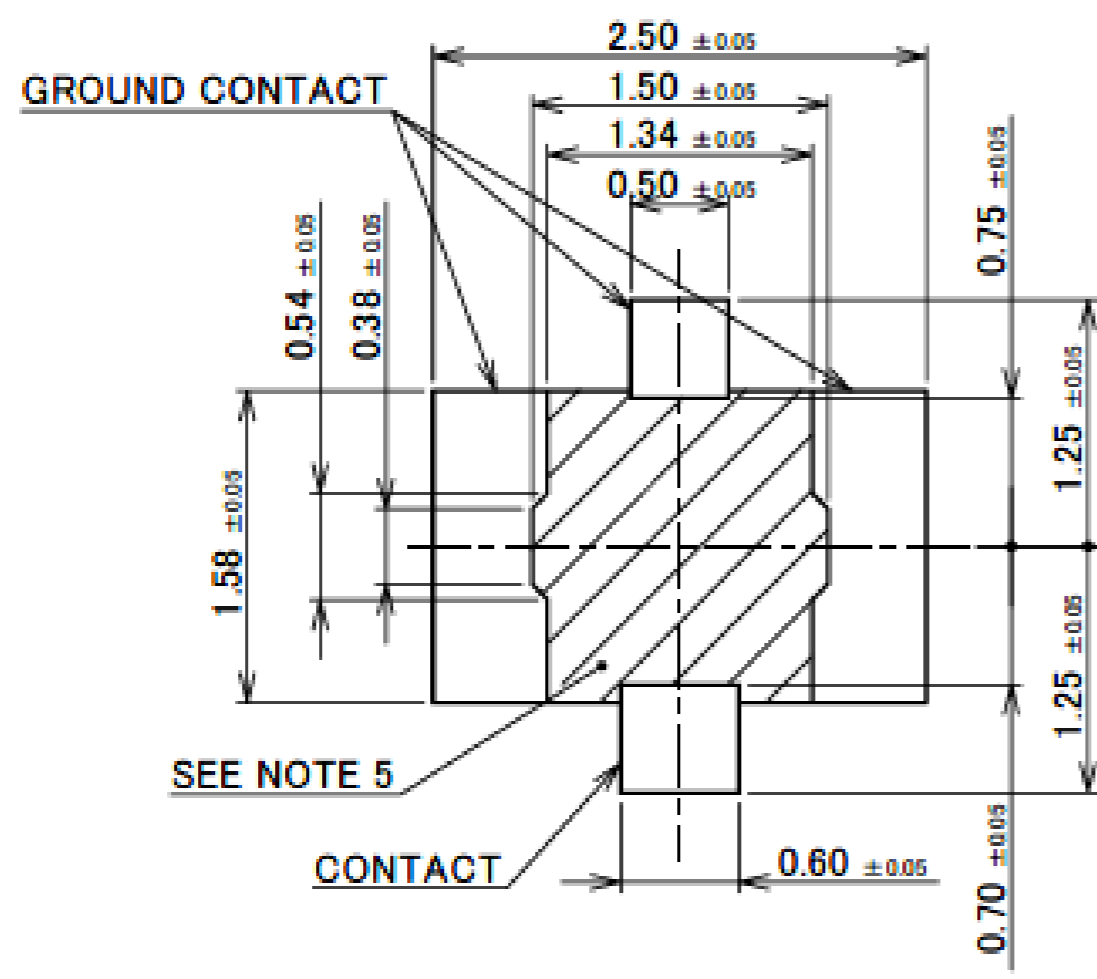
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FOR MHF 4 SMT PLUG

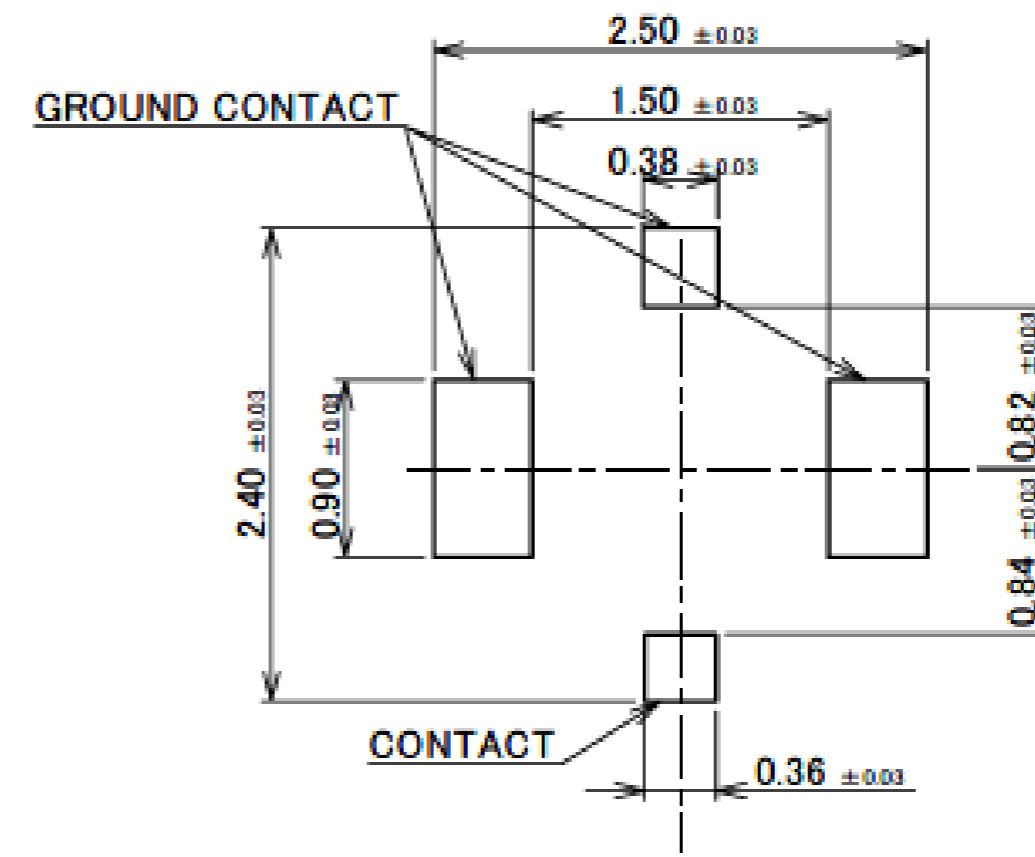
ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20462-001E (MHF 4 SMT PLUG)
RATING VOLTAGE	60 V AC (R.M.S)/DC
RATING FREQUENCY	DC~9GHz
OPERATING TEMPERATURE	233~363 K(-40°C~+90°C)
CHARACTERISTIC IMPEDANCE	50 ohm (NOMINAL VALUE)
VSWR (MATED WITH SMA ADAPTER PART No. 90449-002)	1.30 MAX. AT 0.1~3GHz, 1.40 MAX. AT 3~6GHz, 1.55 MAX. AT 6~9GHz
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ΔR 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ΔR 20 mohm MAX.
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC 1 MINUTE
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	INITIAL : 30 N MAX. / AFTER TEST : 15 N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL : 4 N MIN. / AFTER TEST : 2 N MIN.
PRODUCT SPECIFICATION	PRS-1404
TEST REPORT	TR-08022
PACKING STANDARD	20449-001E-03: 300-604
INSTRUCTION MANUAL	HIM-15005
APPEARANCE CRITERIA No.	QLS-A***

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# MHF<sup>®</sup> 4 Receptacle

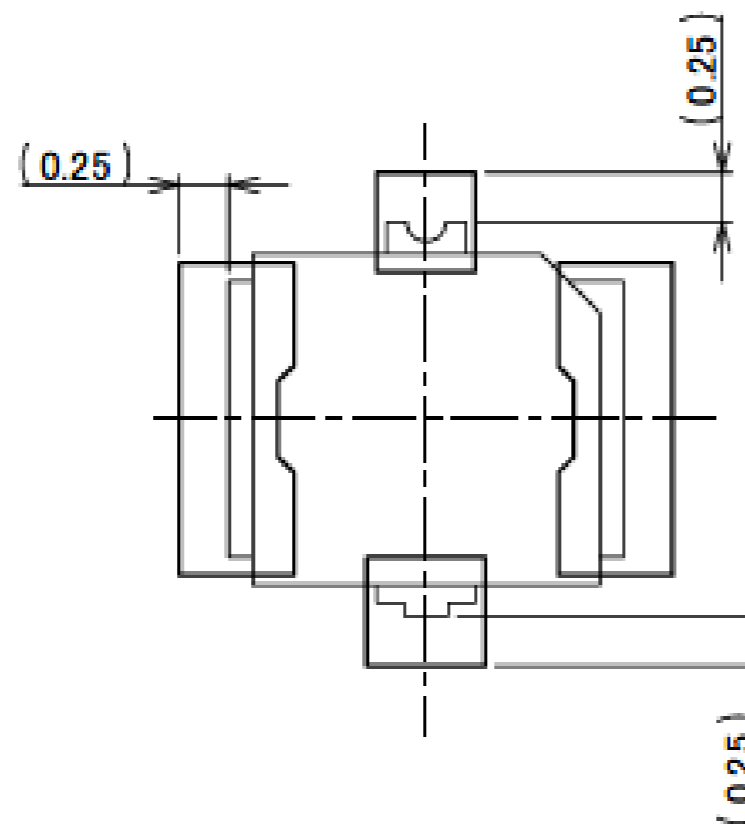


RECOMMENDED FOOTPRINT PATTERN

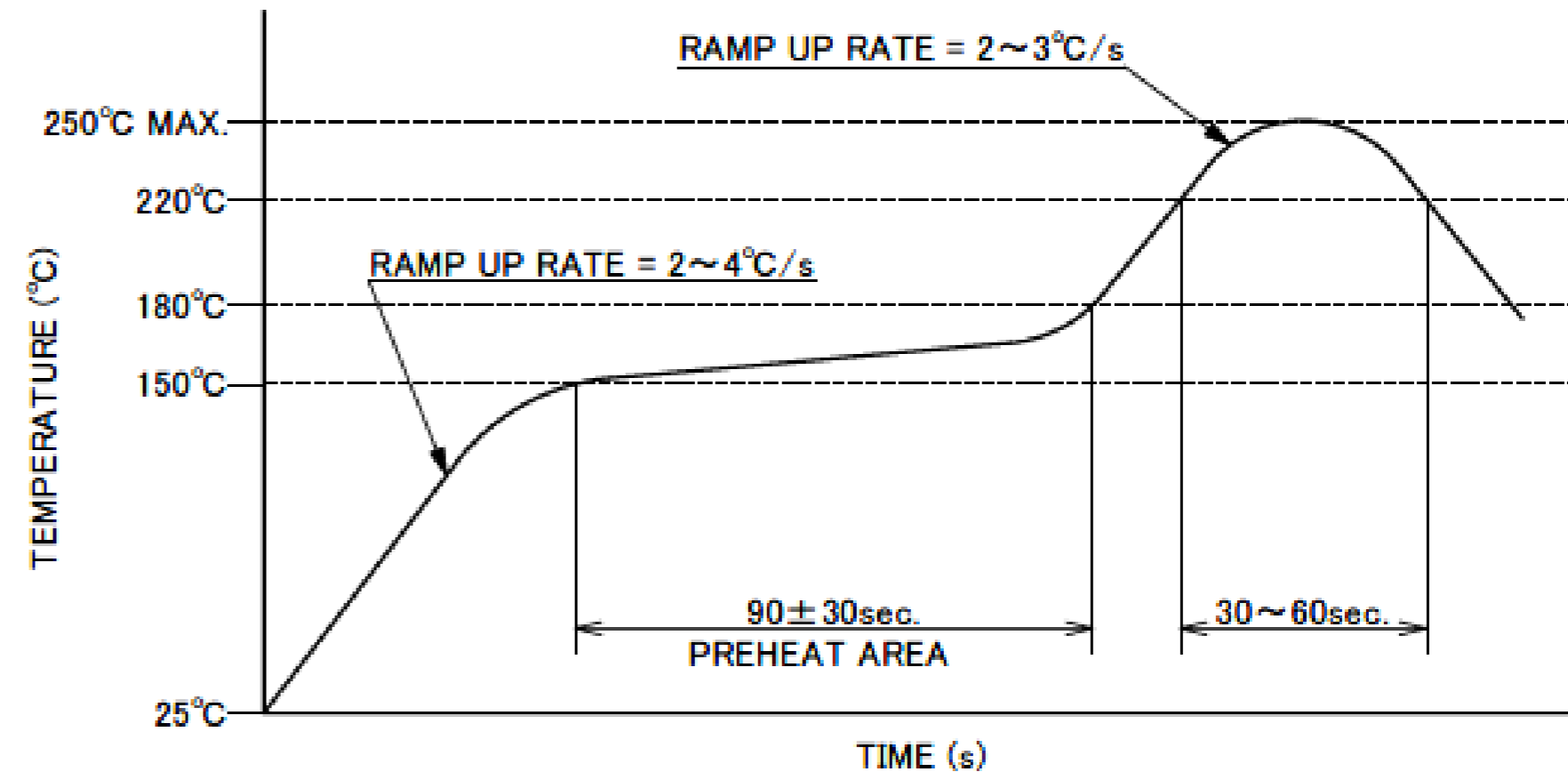


MASK THICKNESS: 0.12 mm

RECOMMENDED METAL MASK LAYOUT



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



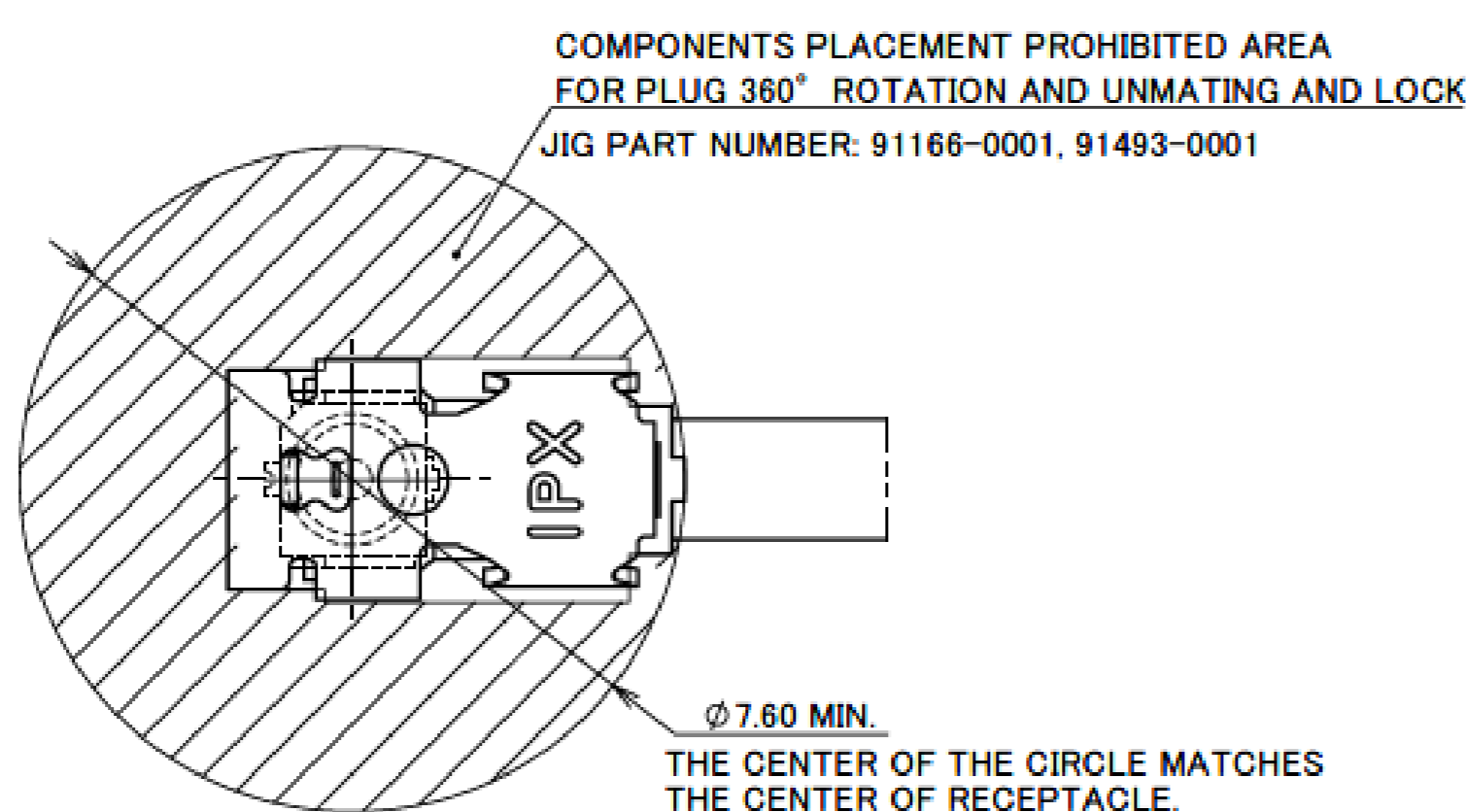
REFLOW TEMPERATURE PROFILE  
SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

NOTE 5. NO GROUND, SIGNAL, AND RESIST IN THIS AREA.

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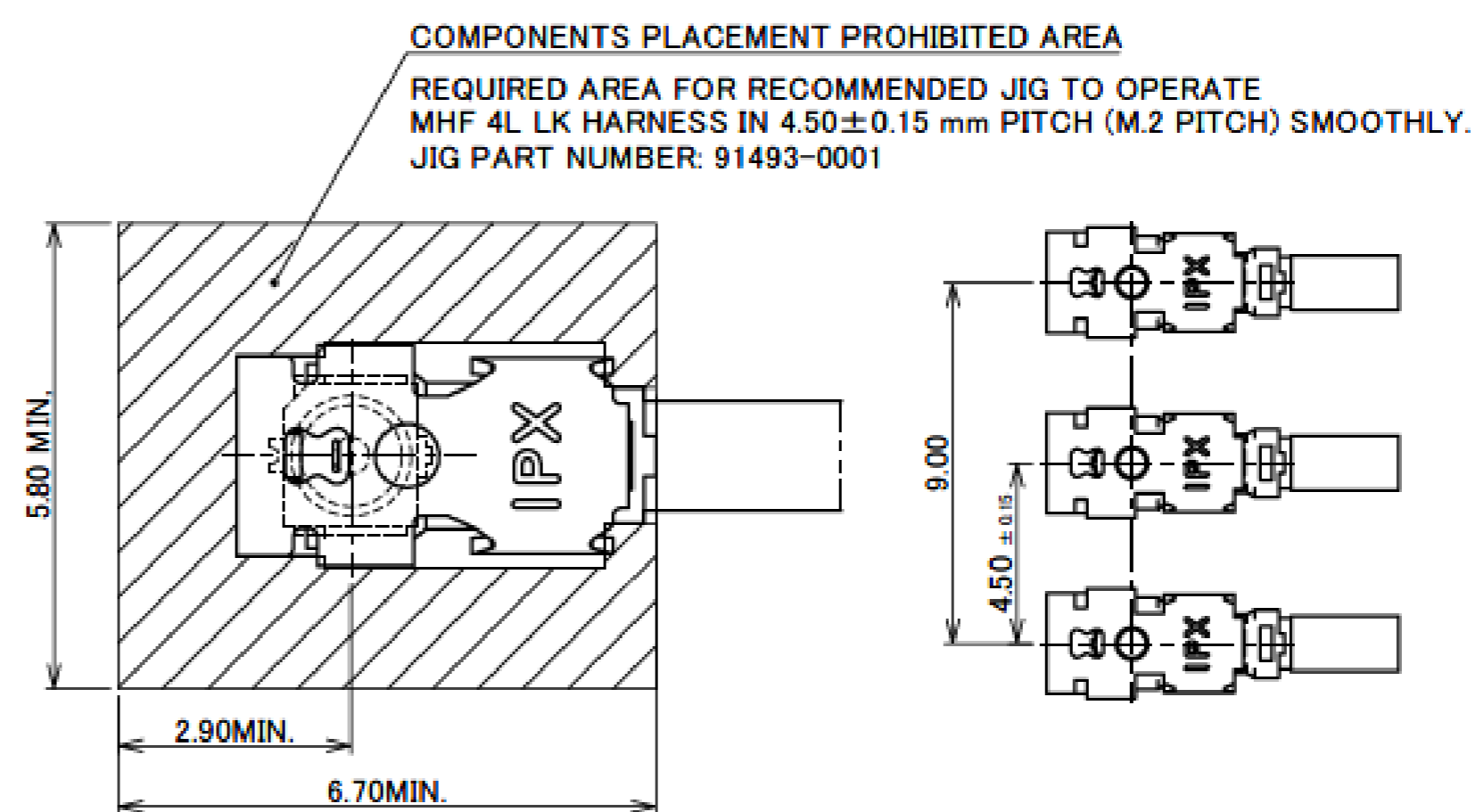
## COMPONENT PLACEMENT PROHIBITED AREA FOR MHF 4 RECEPTACLE MATED WITH MHF 4L LK HARNESS REQUIRED AREA FOR RECOMMENDED JIG TO OPERATE

SINGLE CONNECTOR LAYOUT



MATING AND LOCK CONDITION  
WITH MHF 4L LK HARNESS

MULTIPLE CONNECTORS LAYOUT



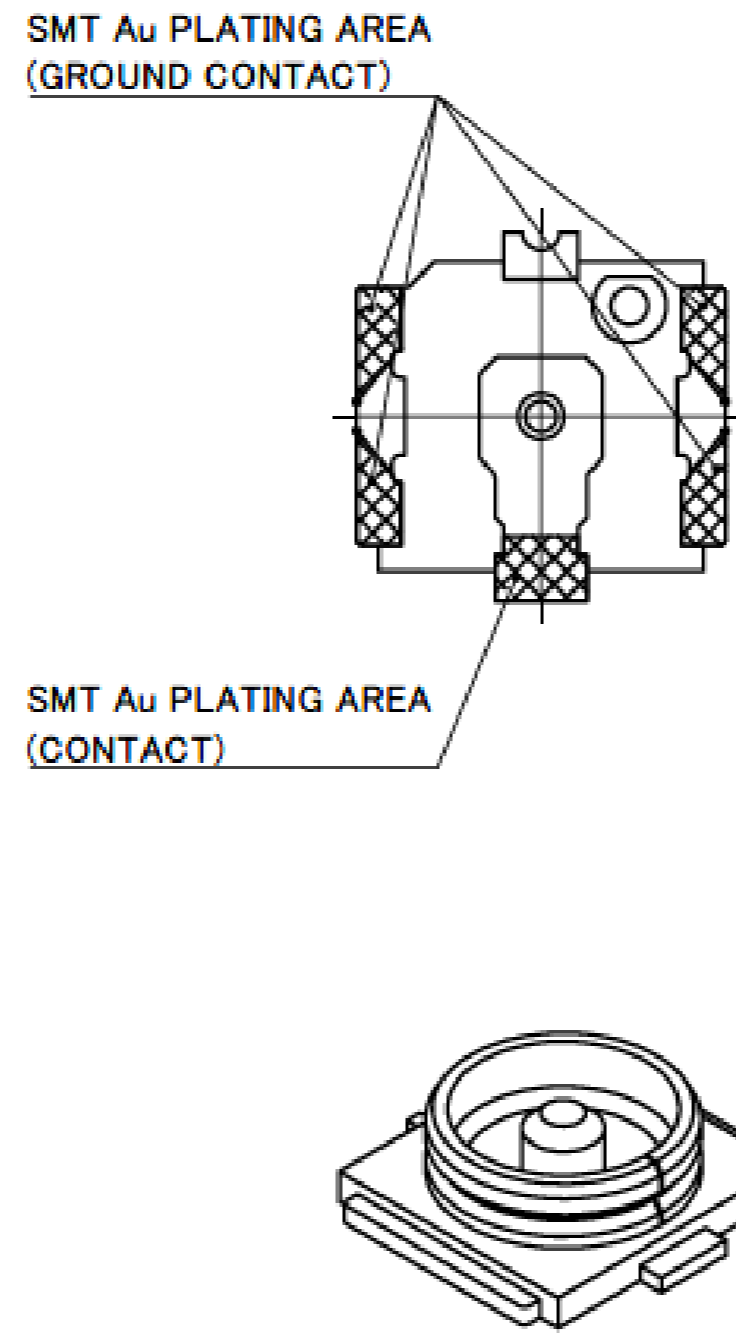
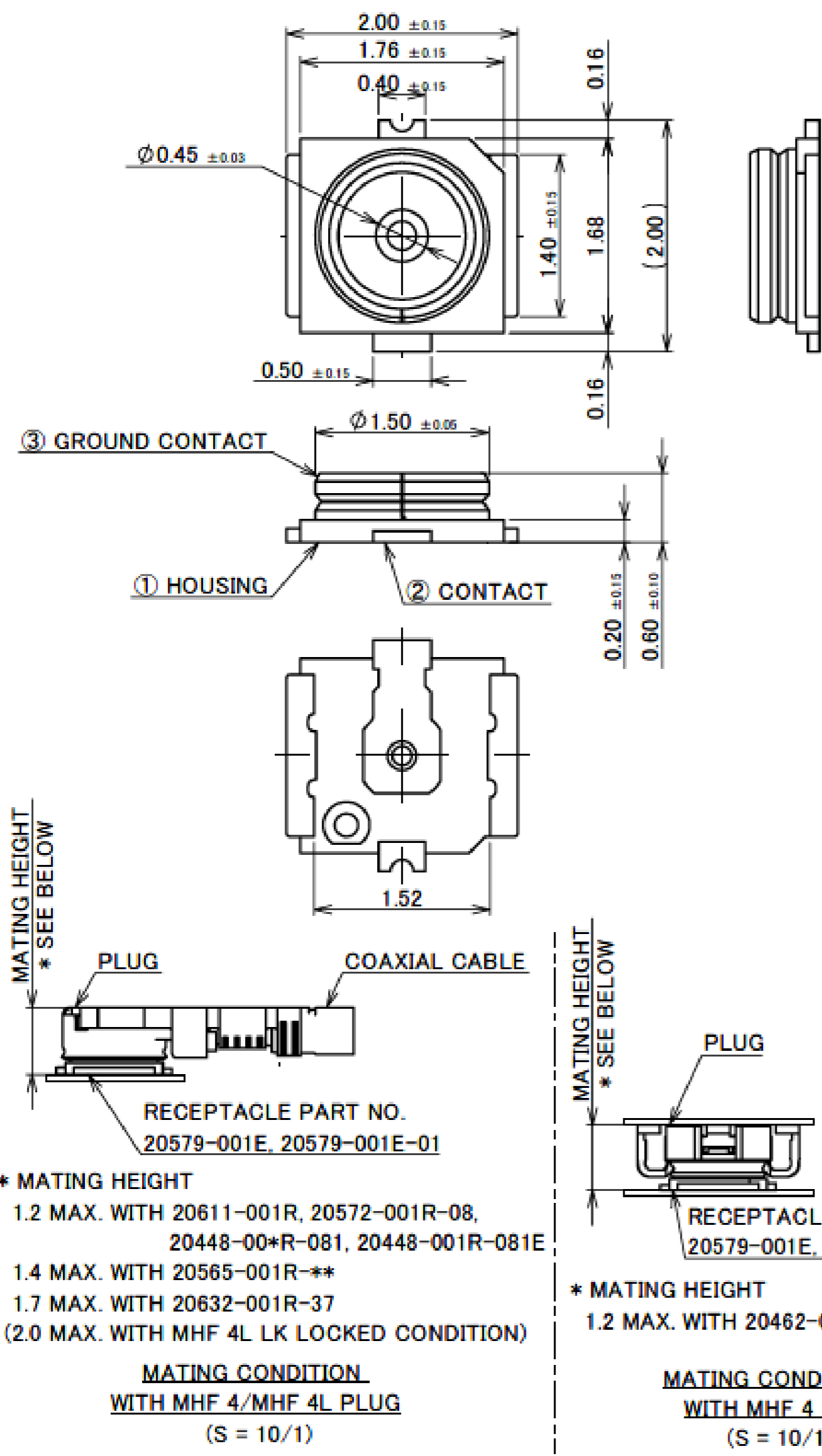
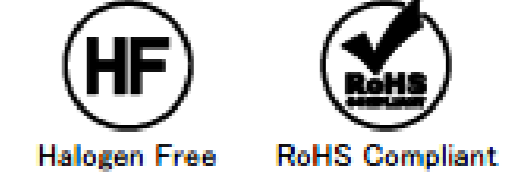
MATING AND LOCK CONDITION  
WITH MHF 4L LK HARNESS NARROW PITCH

MHF 4L LK HARNESS UNLOCK CONDITION  
NARROW PITCH DIMENSIONS  
(S = 5 : 1)



# MHF® 4L Receptacle

Recommended P/N		20579-001E
PART NO.	PACKING QUANTITY / REEL	
20579-001E	10,000 PCS.	
20579-001E-01	20,000 PCS.	



- NOTES.
- APPLICABLE CONNECTOR (CABLE SIZE)
    - MHF 4 PLUG: 20611-001R (Φ0.81), 20448-00\*R-081 (Φ0.81), 20448-001R-081E (Φ0.81)
    - MHF 4L PLUG: 20572-001R-08 (Φ0.64, Φ0.81), 20565-001R-\*\* (Φ0.83, Φ0.95, Φ1.13), 20632-001R-37 (Φ1.37)
    - MHF 4 SMT PLUG: 20462-001E
  - COPLANARITY: 0.1 mm MAX.

NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT PART: Au 0.05 μm MIN. SOLDERING PART Au AREA: 0.03 μm MIN.
2	CONTACT	BRASS	ALL OVER Ni 1.00 μm MIN. CONTACT PART: Au 0.05 μm MIN. SOLDERING PART Au AREA: 0.03 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK

\* MATING HEIGHT  
1.2 MAX. WITH 20611-001R, 20572-001R-08, 20448-00\*R-081, 20448-001R-081E  
1.4 MAX. WITH 20565-001R-\*\*  
1.7 MAX. WITH 20632-001R-37  
(2.0 MAX. WITH MHF 4L LK LOCKED CONDITION)

**MATING CONDITION**  
WITH MHF 4/MHF 4L PLUG  
(S = 10/1)

\* MATING HEIGHT  
1.2 MAX. WITH 20462-001E

**MATING CONDITION**  
WITH MHF 4 SMT  
(S = 10/1)

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## FOR MHF 4L PLUG

ITEMS	SPECIFICATION	
	20572-001R-08 (CABLE Φ0.81 TYPE)	20565-001E-13 (CABLE Φ1.13 TYPE)
APPLICABLE CONNECTOR PART No.	20572-001R-08 (CABLE Φ0.81 TYPE)	20565-001E-13 (CABLE Φ1.13 TYPE)
RATING VOLTAGE	60 V AC (R.M.S)/DC	
RATING FREQUENCY	DC ~ 12GHz	
OPERATING TEMPERATURE	233~383 K(-40°C~+90°C)	
VSWR (MATED WITH SMA ADAPTER PART No. 90449-002)	1.30 MAX. AT 0.1~3GHz, 1.40 MAX. AT 3~6GHz, 1.50 MAX. 6~9GHz, 1.65 MAX. AT 9~12GHz	
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : <math>\angle R</math> 20 mohm MAX.	
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : <math>\angle R</math> 20 mohm MAX.	
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.	
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC 1 MINUTE	
DURABILITY	30 CYCLES	
MATING FORCE (INITIAL / AFTER TEST)	INITIAL : 30 N MAX. / AFTER TEST : 30 N MAX.	
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL : 20 N MAX. 5 N MIN. / AFTER TEST : 20 N MAX. 3 N MIN.	
PRODUCT SPECIFICATION	PRS-1907	
TEST REPORT	TR-14097	
PACKING STANDARD	20579-001E: PST-14004 20579-001E-01: PST-14067	
INSTRUCTION MANUAL	HIM-12011	HIM-12012
APPEARANCE CRITERIA No.	QLS-A***	

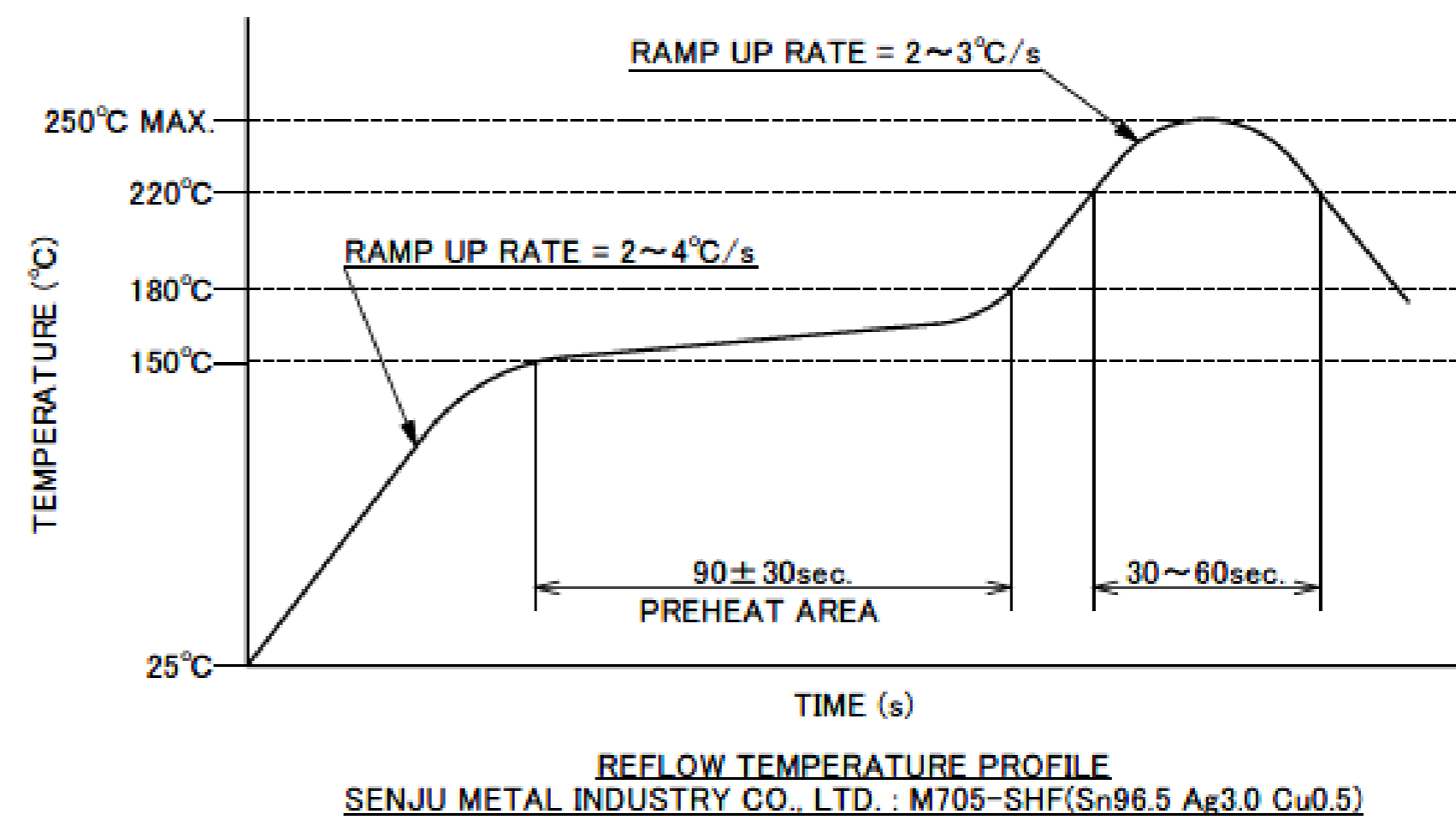
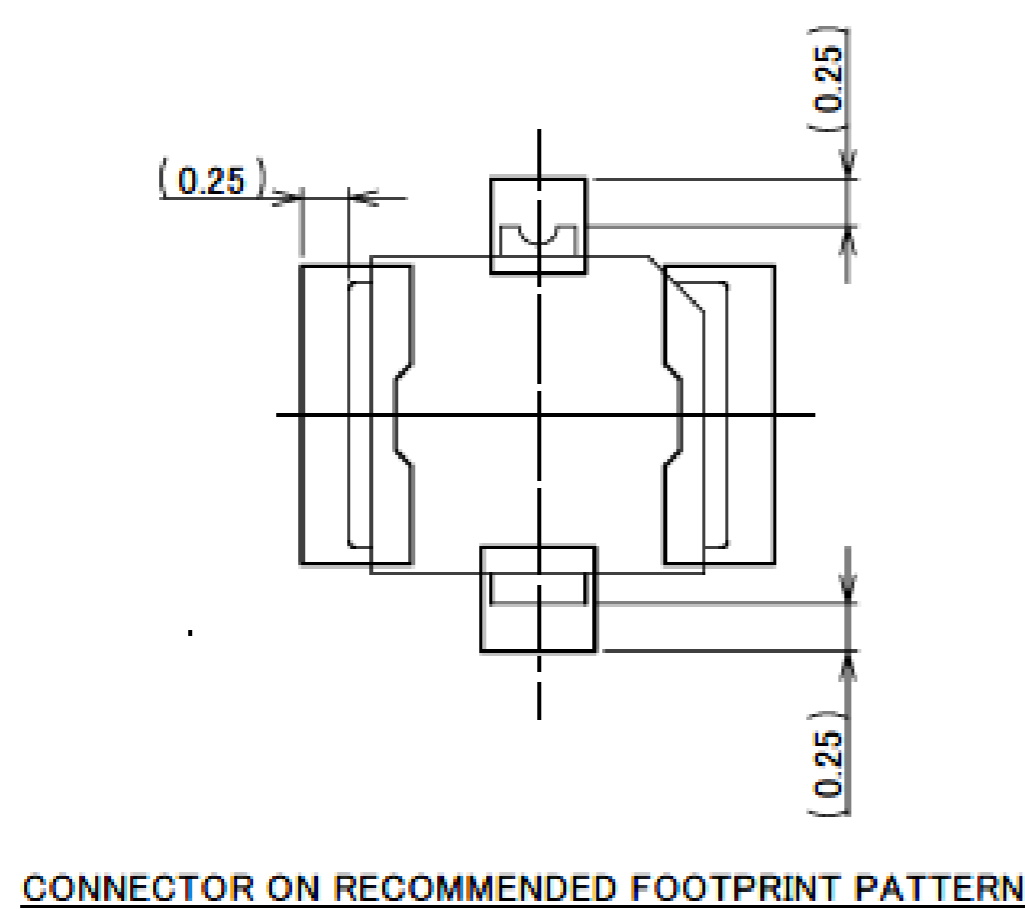
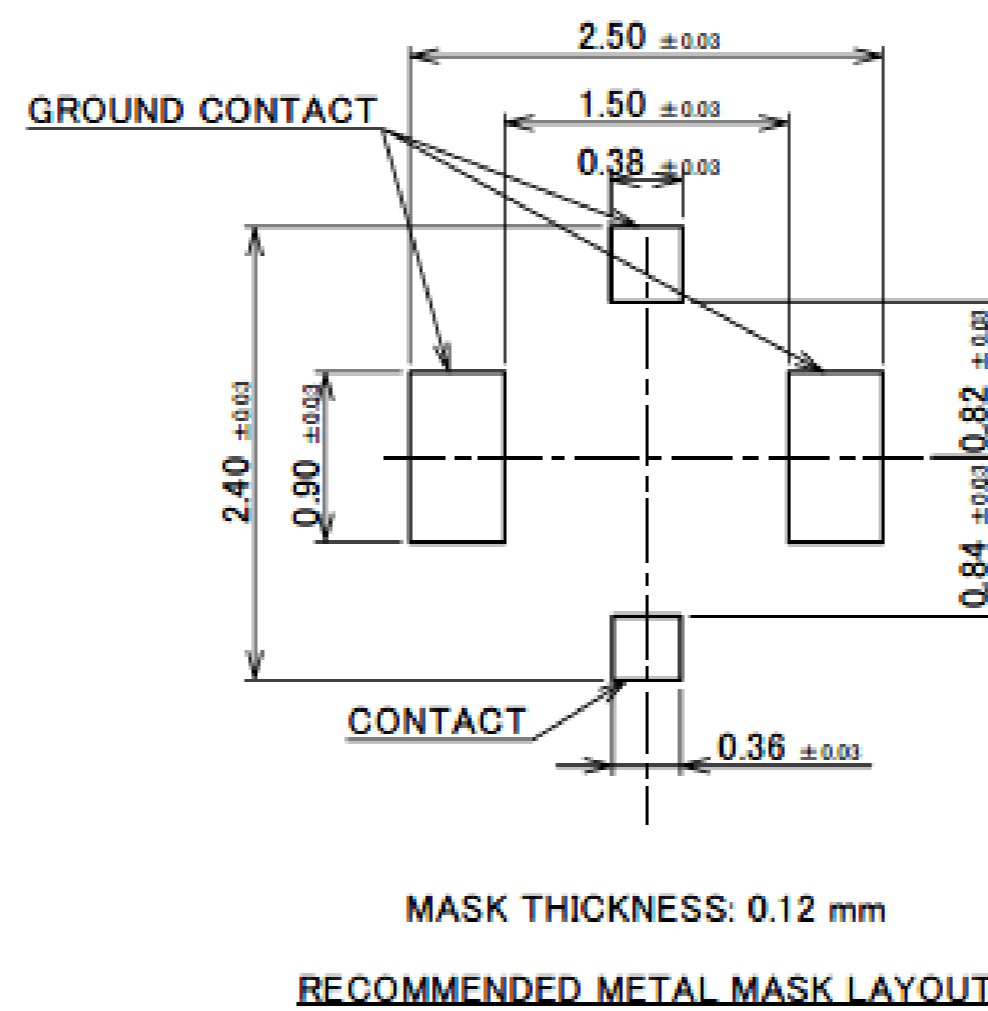
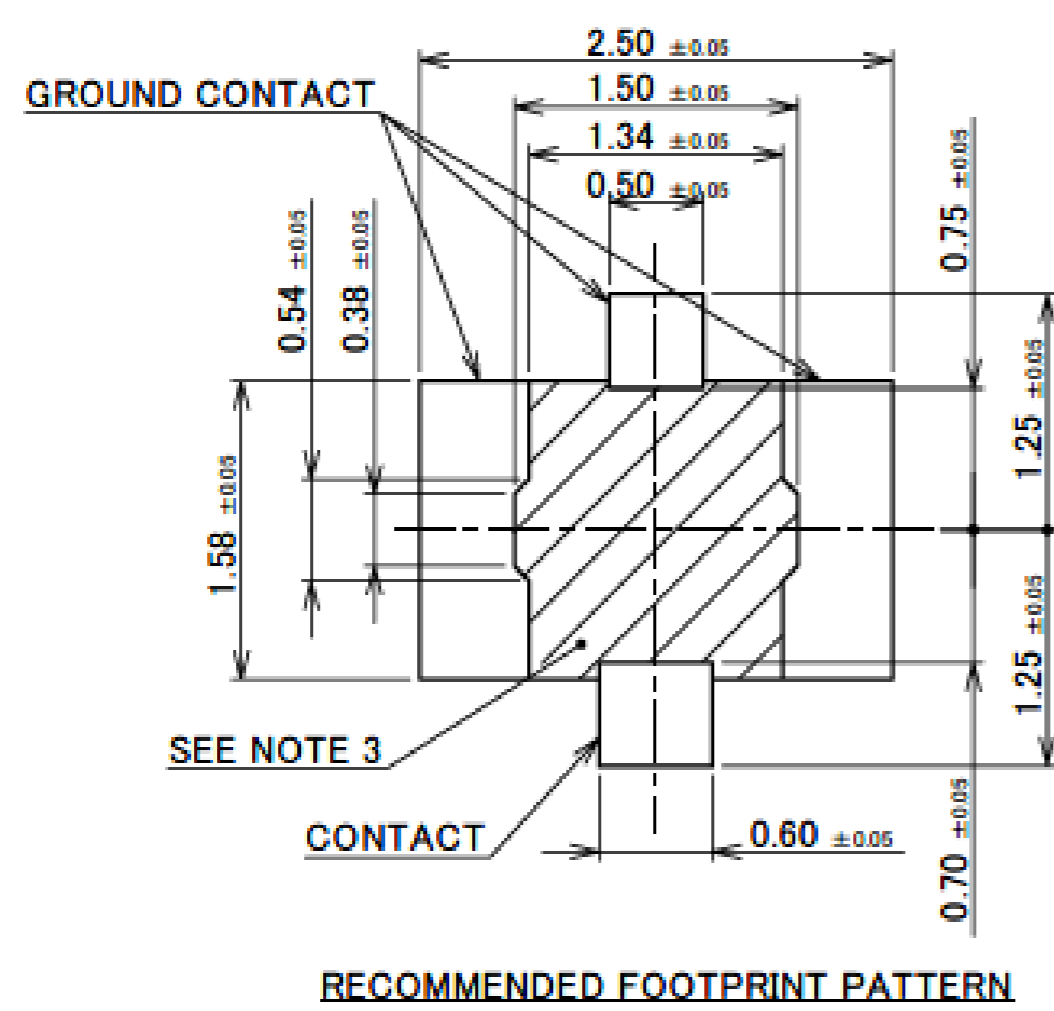
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# MHF<sup>®</sup> 4L Receptacle

FOR MHF 4 SMT PLUG

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20462-001E (MHF 4 SMT PLUG)
RATING VOLTAGE	60 V AC (R.M.S.)/DC
RATING FREQUENCY	DC~12GHz
OPERATING TEMPERATURE	233~363 K(-40°C~+90°C)
VSWR (MATED WITH SMA ADAPTER PART No. 90449-002)	1.30 MAX. AT 0.1~3GHz, 1.40 MAX. AT 3~6GHz, 1.50 MAX. 6~9GHz, 1.65 MAX. AT 9~12GHz
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : $\Delta$ R 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : $\Delta$ R 20 mohm MAX.
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. AFTER TEST : 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC 1 MINUTE
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	INITIAL : 30 N MAX. / AFTER TEST : 15 N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL : 4 N MIN. / AFTER TEST : 2 N MIN.
PRODUCT SPECIFICATION	PRS-1404
TEST REPORT	TR-08022
PACKING STANDARD	20579-001E: PST-14004 20579-001E-01: PST-14067
APPEARANCE CRITERIA No.	QLS-A***

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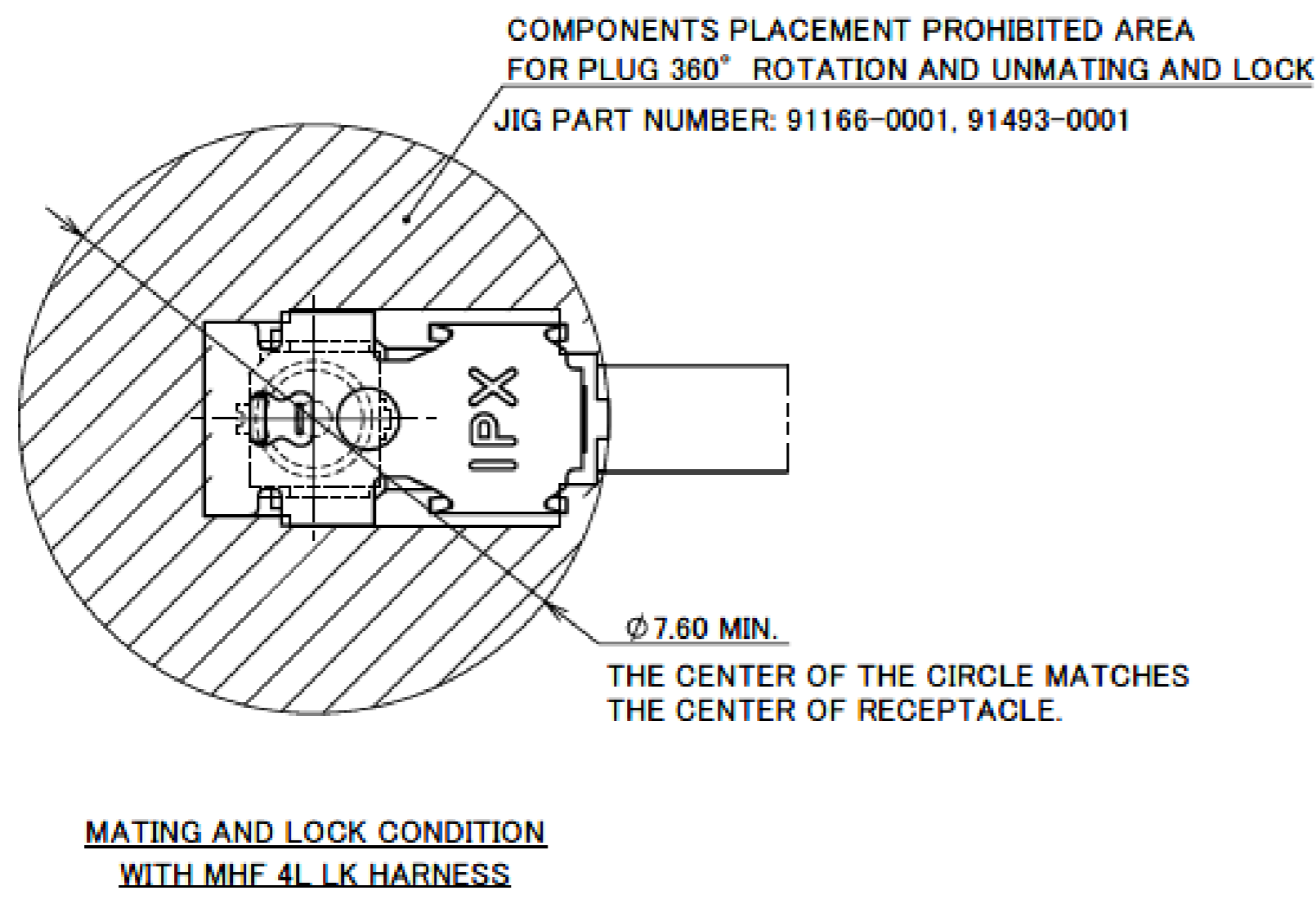
NOTE 3. NO GROUND, SIGNAL, AND RESIST IN THIS AREA.

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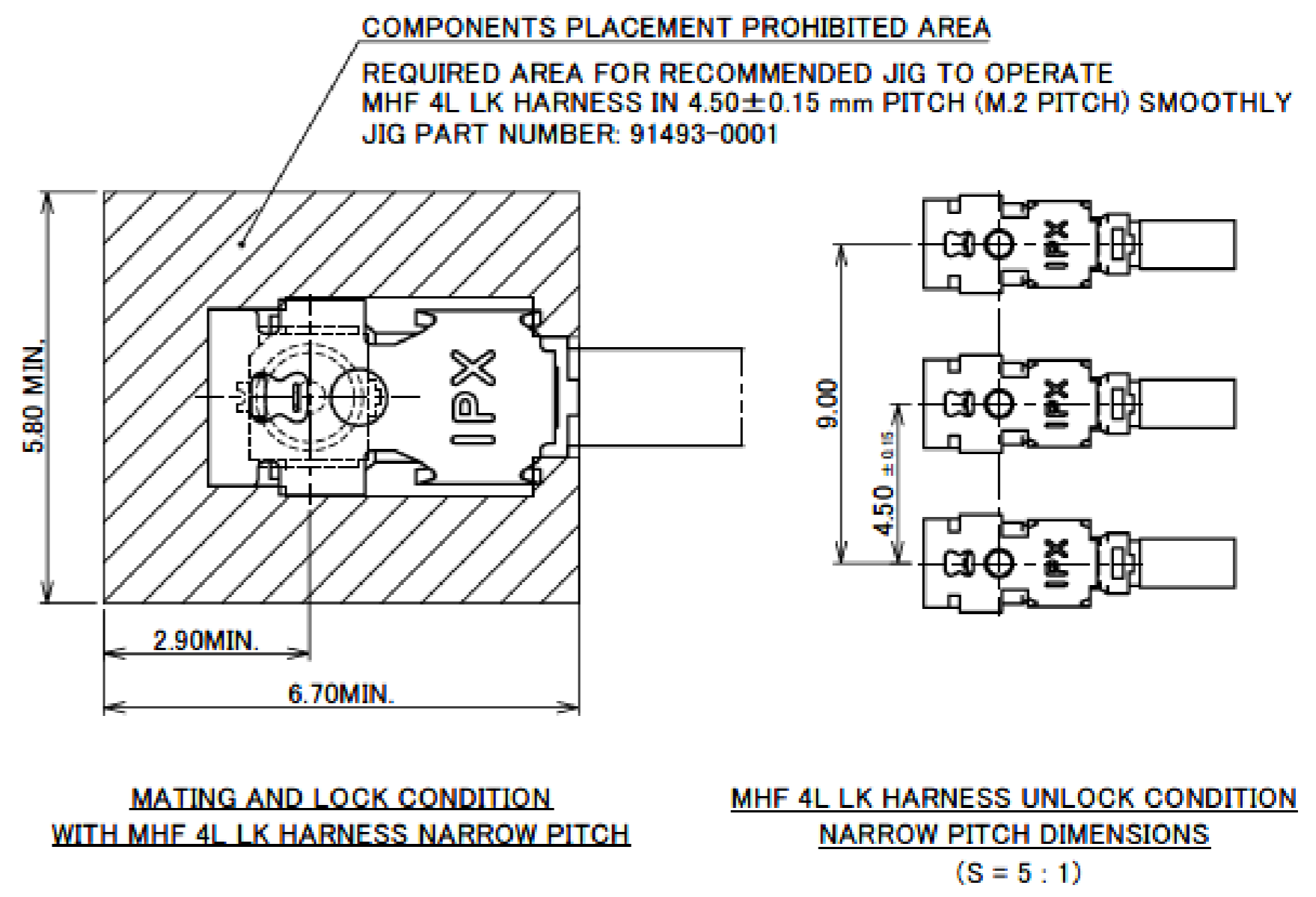
# MHF® 4L Receptacle

## COMPONENT PLACEMENT PROHIBITED AREA FOR MHF 4L RECEPTACLE MATED WITH MHF 4L LK HARNESS REQUIRED AREA FOR RECOMMENDED JIG TO OPERATE

### SINGLE CONNECTOR LAYOUT

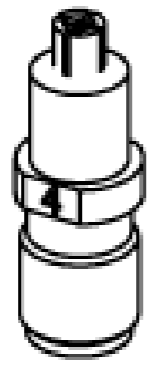


### MULTIPLE CONNECTORS LAYOUT



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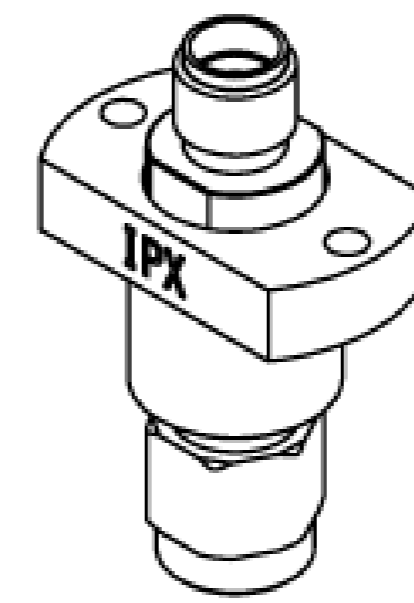
## Accessories for MHF® 4 plug



MHF 4 (4L) SMA ADAPTER  
PART NO. 90449-002

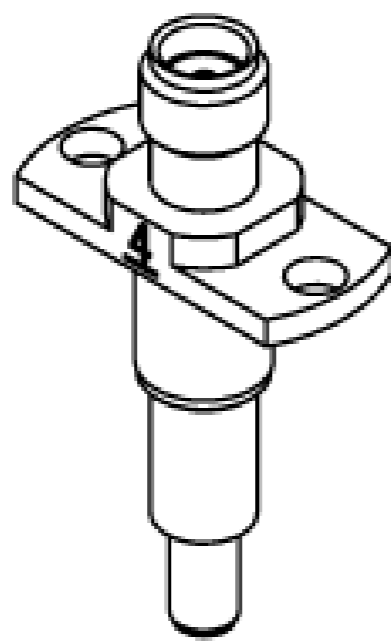


MHF 4 RECEPTACLE HIGH CYCLE ATTACHMENT  
PART NO. 90683-0001

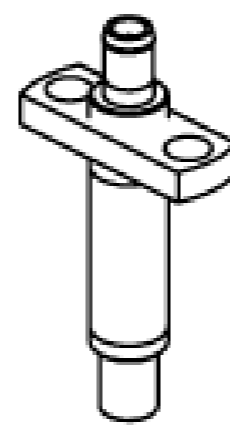


MHF SERIES HIGH CYCLE SMA ADAPTER BASE UNIT  
PART NO. 90684-0001

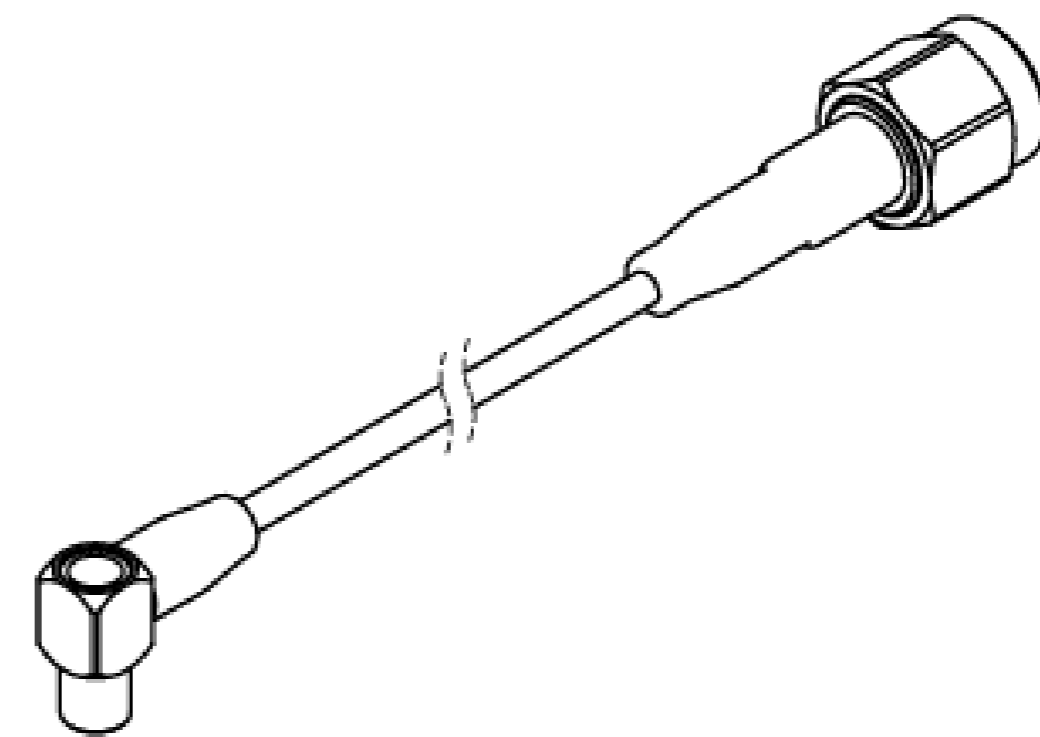
\* 90683-0001 AND 90684-0001 SHOULD BE USED TOGETHER.



MHF4(4L) RECEPTACLE HIGH CYCLE SMA ADAPTER  
PART NO. 90698-0001



MHF4(4L) RECEPTACLE HIGH CYCLE N45 C ADAPTER  
PART NO. 90576-0001



MHF SERIES N45 C TO SMA ADAPTER CABLE  
PART NO. 90577-\*\*\*\*

\* 90576-0001 AND 90577-\*\*\*\* SHOULD BE USED TOGETHER.

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Board to Board



High-Density



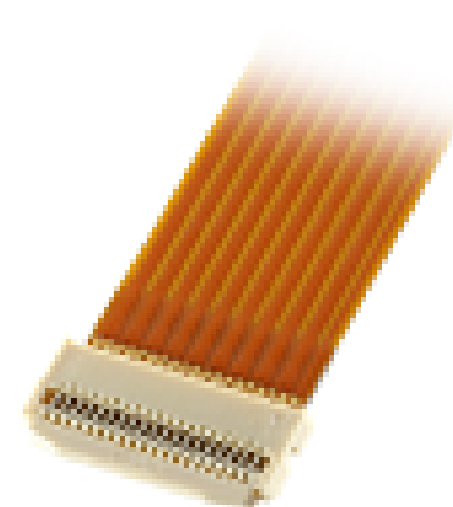
Autolocking FPC/FFC



High-Density



FPC/FFC



Micro-Coaxial / Discrete Cable



High-Speed



RF



High-Frequency



Optical Module



High-Speed



Effector



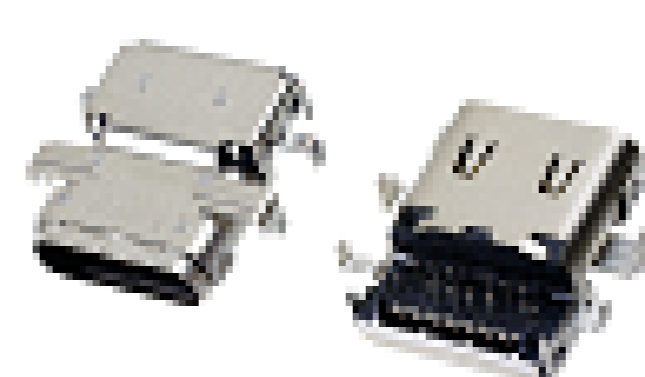
Power



High-Power



I/O (Input/Output)



Quick charge



Inquiry



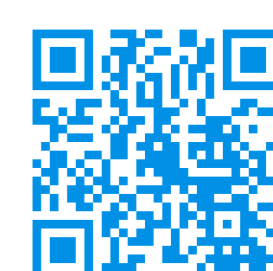
Custom Connectors Available



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