

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

Insulation resistance

1.2

2.0 x 2.0

O.D. 0.81 mm / AWG 36

DC~6 GHz

1.3 max

1.5 max.

40 degree ~ +90 degree

50ohm

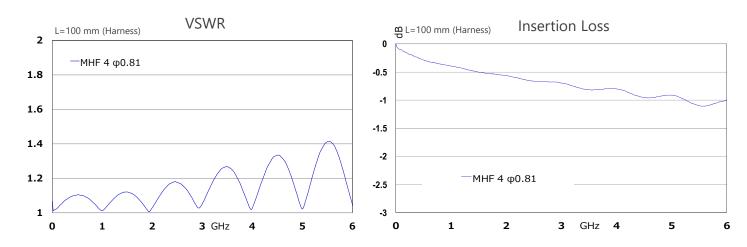
AC60V

20m ohm max AC200V/min

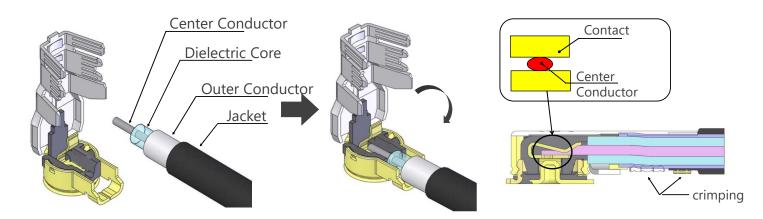
500M ohm min./DC100V

Maximum Mating height (mm) Outside dimension of receptacle(mm) ✓ Small form factor with big performance Applicable wire gauge through 6 GHz Frequency DC~3GHz ✓ Solderless micro-coax termination 3GHz~6GHz VSWR technology "i-Fit®" provides consistent 6GHz~9GHz (L=100mm) 9GHz~12GHz performance 12GHz~15GHz Service temp. (Celsius) MHF<sup>®</sup> 4 Plug available micro-coax O.D. Characteristic impedance (AWG): 0.81 mm (36) Rated voltage Contact resistance Withstand voltage

### Small form factor with big performance through 6 GHz



### Solderless micro-coax termination technology "i-Fit®" provides consistent performance



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

Coax O.D. (Center Conductor AWG)	Mating Height 1.2 mm max.
2.00 mm (26)	
1.80 mm (30)	
1.37 mm (30)	
1.32 mm (32)	
1.13 mm (32)	
0.95 mm (33)	
0.81 mm (33)	
0.81 mm (36)	0
0.64 mm (36)	
0.48 mm (38)	
FPC	0
Receptacle	MHF 4 receptacle , MHF 4L receptacle

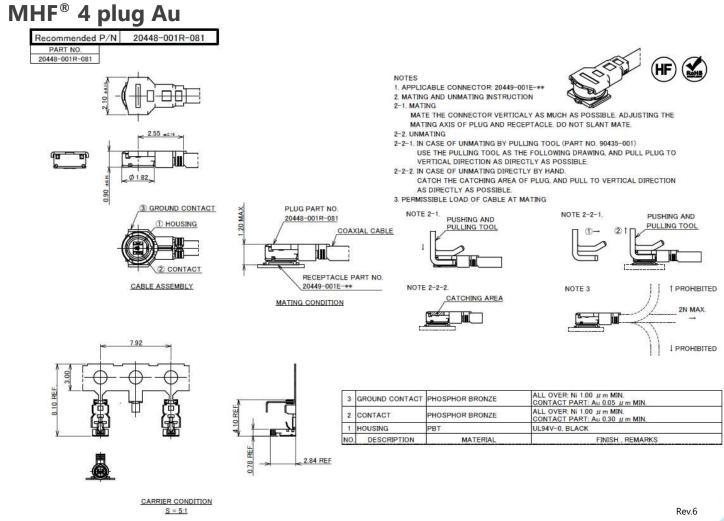


**I-PEX** Contact your sales representative for more detailed information. [i-pex.com]

202101R0



# MHF<sup>®</sup> 4 **Component Parts Detail**



-PEX Contact your sales representative for more detailed information. [i-pex.com]

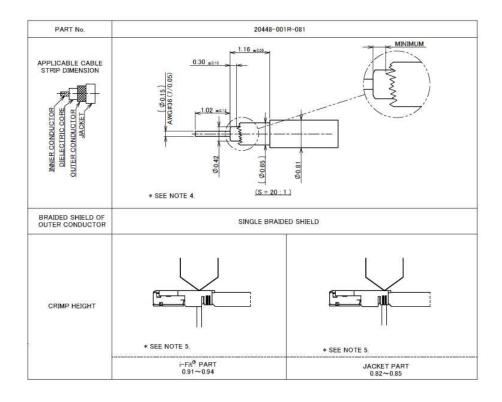
202101R0

# MHF<sup>®</sup> 4 plug Au

ITEMS	SPECIFICATION	
APPLICABLE CONNECTOR PART NO.	20449-001E-**	
RATING VOLTAGE	60 V AC (R.M.S) / DC	
RATING FREQUENCY	DC~6GHz	
OPERATING TEMPERATURE	233~363 K (-40°C~+90°C)	
VSWR	1.3 MAX. AT DC~3GHz, 1.5 MAX. AT 3~6GHz	
MAIN CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: AR 20 mohm MAX.	
GROUND CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: AR 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***	

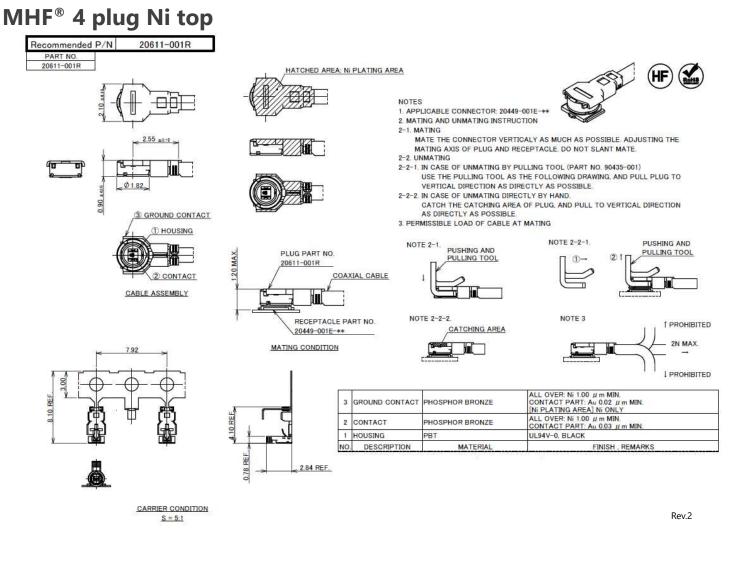
Rev.6

## MHF<sup>®</sup> 4 plug Au



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

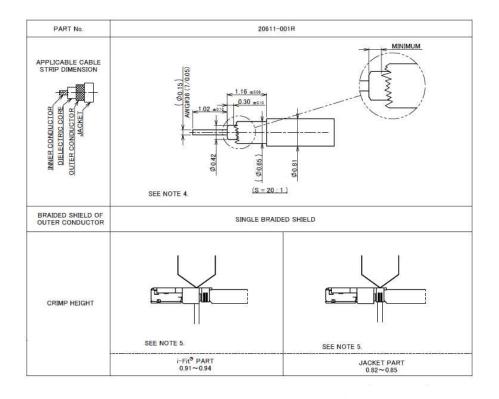




### MHF<sup>®</sup> 4 plug Ni top

ITEMS	SPECIFICATION	
APPLICABLE CONNECTOR PART NO.	20449-001E-**	
RATING VOLTAGE	60 V AC (R.M.S) / DC	
RATING FREQUENCY	DC~6GHz	
OPERATING TEMPERATURE	233~363 K (-40°C~+90°C)	
VSWR	1.3 MAX. AT DC~3GHz, 1.5 MAX. AT 3~6GHz	
MAIN CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: AR 20 mohm MAX.	
GROUND CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: AR 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***	

### MHF<sup>®</sup> 4 plug Ni top



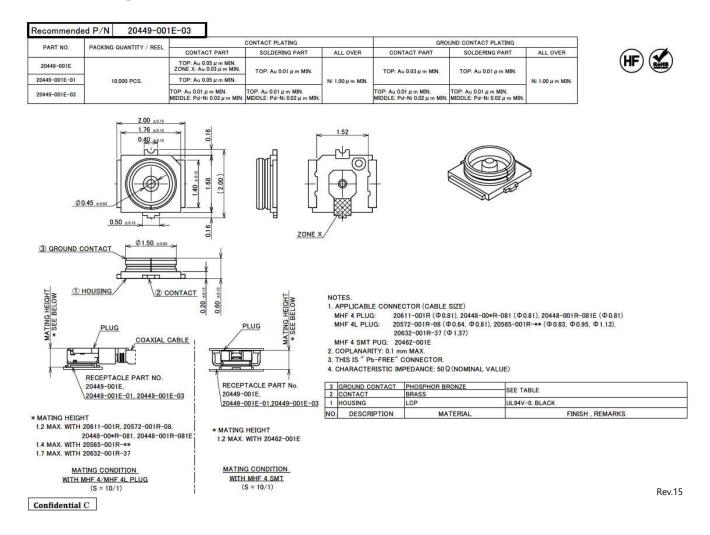
NOTES. 4. MUST NOT USE SOLDER COATED INNER CONDUCTOR AND OUTER CONDUCTOR. 5. USE POINT MICROMETER.

Rev.2

# Accessories for MHF<sup>®</sup> 4 plug



### **MHF® 4 Receptacle**



### **MHF<sup>®</sup> 4 Receptacle**

#### FOR MHF 4 PLUG

ITEMS	SPECIFICATION	
APPLICABLE CONNECTOR PART No.	20611-001R (CABLE Φ0.81 TYPE)	20448-001R (CABLE Ф0.81 ТҮРЕ)
RATING VOLTAGE	60 V AC (F	R.M.S)/DC
RATING FREQUENCY	DC~	9GHz
OPERATING TEMPERATURE	233~363 K (~40°C~+90°C)	
CHARACTERISTIC IMPEDANCE	50 ohm (NOMINAL VALUE)	
VSWR	1.3 MAX. AT DC~3GHz, 1.4 MAX. AT 3~6GHz, 1.5 MAX. AT 6~9GHz	
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ⊿R 20 mohm MAX.	
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ZR 100 mohm MAX.	INITIAL : 20 mohm MAX. / AFTER TEST : AR 20 mohm MAX
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.	
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC 1 MINUTE	
DURABILITY	30 CY	CLES
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***	

# MHF<sup>®</sup> 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 Ф0.95 ТҮРЕ) (CABLE Ф1.13 ТҮРЕ)	20565-001R-83 (CABLE Ф0.83 ТҮРЕ)	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	1.3 MAX. AT DC~3GHz, 1.4 MAX. AT 3~6GHz, 1.5 MAX. AT 6~9GHz			
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ∠R 20 mohm MAX.			
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : AR 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 @0.64 TYPE) PRS-1772 (CABLE @0.81 TYPE)	PRS-2051 (CABLE 00.95 TYPE) PRS-1772 (CABLE 01.13 TYPE)	PRS-2062 (CABLE @0.83 TYPE)	PRS-2008 (CABLE \$ 1.37 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 Ф0.83 TYPE)	TR-14100 (CABLE © 1.37 TYPE)
PACKING STANDARD	20449-001E-03: 300-604			
NSTRUCTION MANUAL	HIM-12011 HIM-12012 HIM-16011		HIM-16011	
APPEARANCE CRITERIA No.	QLS-A***			

Rev.15

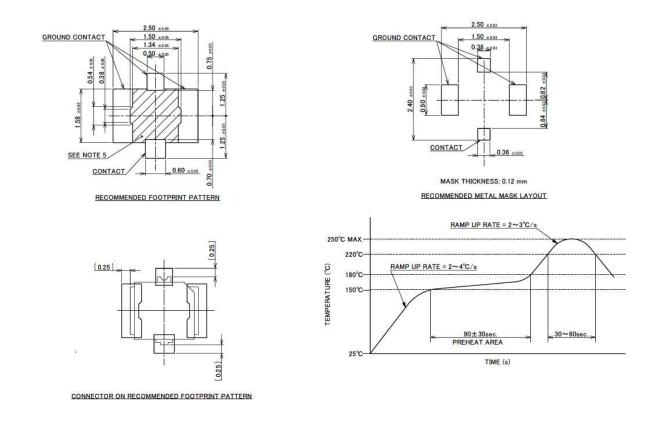
# MHF<sup>®</sup> 4 Receptacle

#### 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~9GHz	
OPERATING TEMPERATURE	233~363 K(-40°C~+90°C)	
CHARACTERISTIC IMPEDANCE	50 ohm (NOMINAL VALUE)	
VSWR	1.3 MAX. AT DC~3GHz, 1.4 MAX. AT 3~6GHz, 1.5 MAX. AT 6~9GHz	
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ⊿R 20 mohm MAX.	
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ⊿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	20449-001E-03: 300-604	
INSTRUCTION MANUAL	HIM-15005	
APPEARANCE CRITERIA No.	QLS-A***	



### **MHF® 4 Receptacle**



NOTE 5. CUT OUT PROHIBITION AREA.

**Confidential** C

**MHF<sup>®</sup> 4L Receptacle** Recommended P/N 20579-001E PART NO. PACKING QUANTITY / REEL SMT Au PLATING AREA 20579-001E 10,000 PCS 2.00 ±0.1 (GROUND CONTACT) 20579-001E-0 20.000 PCS 1.76 ±0.15 0.40 = N Ø 0.45 ±0.05 40 ±0.19 2.00 .68 0.50 ±01 0.16 SMT Au PLATING AREA Ø 1.50 ±0.05 3 GROUND CONTACT (CONTACT) (1) HOUSING 2 CONTACT +0.15 40.10 0.20 NOTES. 1. APPLICABLE CONNECTOR (CABLE SIZE) 20611-001R (\$\$\Phi.81\$), 20448-00\*R-081 (\$\$\Phi.81\$), 20448-001R-081E (\$\$\Phi.81\$) MHF 4 PLUG MHF 4L PLUG 20572-001R-08 (Ф0.64, Ф0.81), 20565-001R-\*\* (Ф0.83, Ф0.95, Ф1.13), 20632-001R-37 (Ф1.37) MHF 4 SMT PUG: 20462-001E 2. COPLANARITY: 0.1 mm MAX. \* SEE BELOW 52 ALL OVER NI 100  $\mu$  m MIN. CONTACT PART: Au 0.05  $\mu$  m MIN. SOLDERING PART Au AREA: 0.03  $\mu$  m MIN. ALL OVER NI 100  $\mu$  m MIN. CONTACT PART: Au 0.05  $\mu$  m MIN. SOLDERING PART Au AREA: 0.03  $\mu$  m MIN. UI 404-0 BLACK \* SEE BELOW 3 GROUND CONTACT PHOSPHOR BRONZE COAXIAL CABLE PLUG PLUG Turn CONTACT BRASS 2 ED. RECEPTACLE PART NO 1 HOUSING LCP UL94V-0, BLACK 20579-001E, 20579-001E-01 DESCRIPTION MATERIAL FINISH , REMARKS NO. RECEPTACLE PART NO. \* MATING HEIGHT 1.2 MAX. WITH 20611-001R. 20572-001R-08. 20579-001E, 20579-001E-01 20448-00\*R-081, 20448-001R-081E \* MATING HEIGHT 1.4 MAX. WITH 20565-001R-\*\* 1.2 MAX. WITH 20462-001E 1.7 MAX, WITH 20632-001R-37 MATING CONDITION MATING CONDITION WITH MHF 4 SMT (S = 10/1) WITH MHF 4/MHF 4L PLUG (S = 10/1) Rev.8

**I-PEX** Contact your sales representative for more detailed information. [i-pex.com]

202101R0

# MHF<sup>®</sup> 4L Receptacle

FOR MHF 4L PLUG

ITEMS	SPECIFICATION	
APPLICABLE CONNECTOR PART No.	20572-001R-08 (CABLE Ф0.81 ТҮРЕ)	20565-001E-13 (CABLE Φ 1.13 TYPE)
RATING VOLTAGE	60 V AC	(R.M.S)/DC
RATING FREQUENCY	DC ~	- 6GHz
OPERATING TEMPERATURE	233~363 K(-40°C~+90°C)	
VSWR	1.3 MAX. AT DC~3GHz, 1.4 MAX. AT 3~6GHz, 1.85 MAX. AT 3~120	
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ZR 20 mohm MAX.	
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ⊿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 : 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

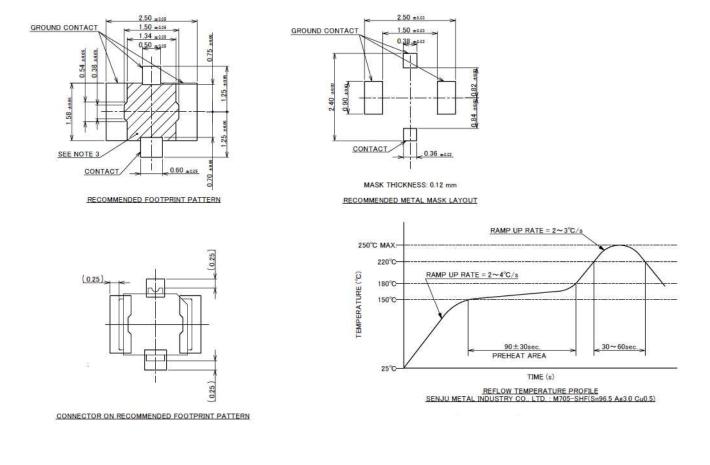
Rev.8

# 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~6GHz	
OPERATING TEMPERATURE	233~363 K(-40°C~+90°C)	
VSWR	1.3 MAX. AT DC~3GHz, 1.4 MAX. AT 3~6GHz, 1.85 MAX. AT 3~12GHz	
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ⊿R 20 mohm MAX.	
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : AR 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	

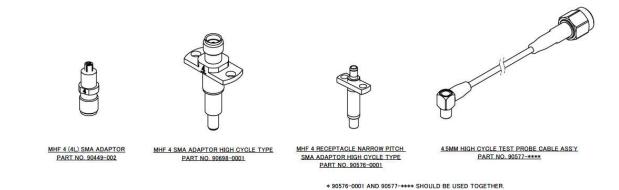
### **MHF® 4L Receptacle**



NOTE 3. CUT OUT PROHIBITION AREA.

Rev.8

### Accessories for MHF<sup>®</sup> 4 Receptacle





Copyright © I-PEX Inc. 2020. All rights reserved.

I-PEX, MHF, CABLINE, NOVASTACK, EVAFLEX, MINIFLEX, ISH, IARPB, IASLP, ESTORQ, i-Fit and ISFIT are registered trademarks of I-PEX Inc. Please note that the contents in the catalog might be changed without prior notification. I-PEX Inc. assumes no responsibility for any inaccuracies or obligation to update Information on these documents. Please be sure to read and understand the latest "Precautions for Use" and "Instruction Manual" before you use our products. We shall not be responsible for any defects, damages or troubles in case you use our products without following the precautions for use. Please feel free to contact our sales representatives when you use our products for any applications that require very high reliability and safety, or that relate to human life (ex. nuclear power control, aerospace, transportation, medical equipment, safety equipment etc.).

Contact your sales representative for more detailed information. [ i-pex.com ]

