

MHF[®] 5L

Improved electrical performance of 1.6 VSWR through 15 GHz, mated height of 1.3 mm max.

Product Specifications:

Mated Height (mm max.)	1.3	
Rece. SMT Size (mm)	2.0 x 2.0	
Applicable Frequency	DC ~ 15 GHz	
Characteristic Impedance	50 ohm	
VSWR (L=100 mm)	DC~3 GHz	1.30 max.
	3~6 GHz	1.40 max.
	6~9 GHz	1.50 max.
	9~12 GHz	1.50 max.
	12~15 GHz	1.60 max.

Applicable Cable Size:

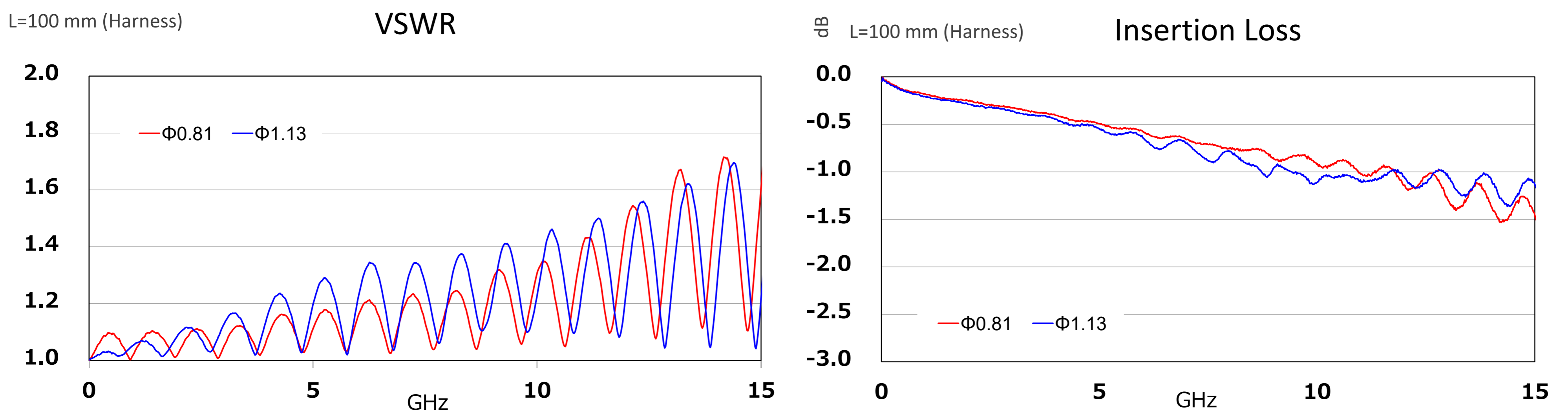
O.D. 1.13 mm / AWG 32
O.D. 0.81 mm / AWG 33

Applicable Standards (Reference Only):

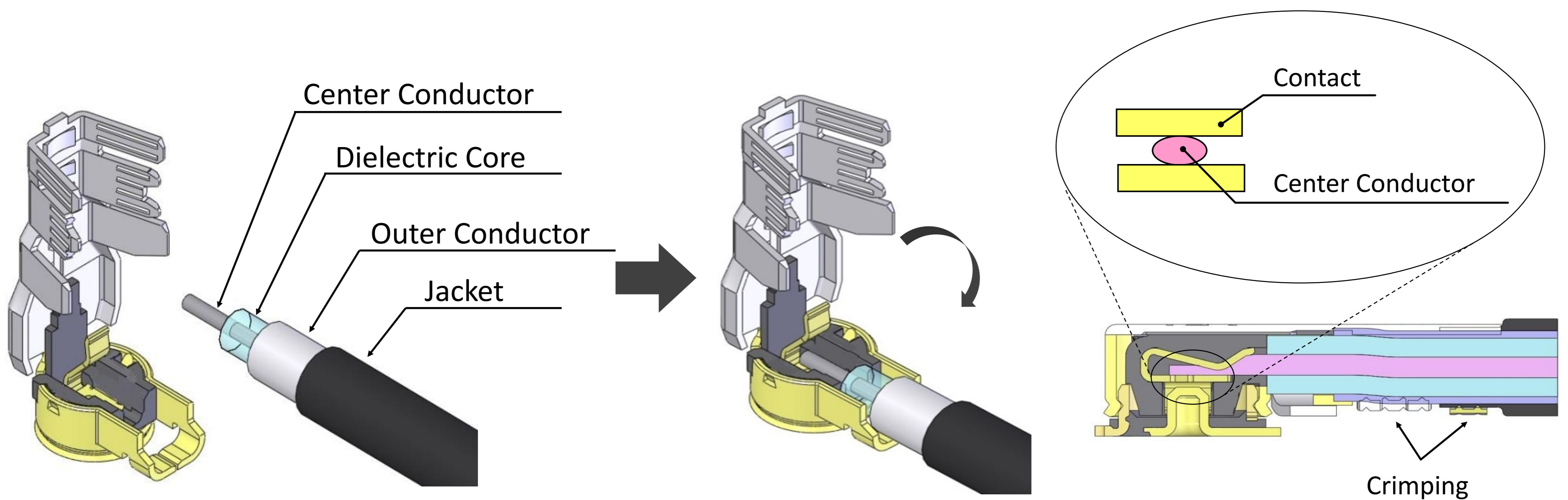
5G sub-6, Wi-Fi 6E, WiGig, LTE/LTE-Advanced, LPWA, Bluetooth, GPS



▶ **Small form factor with big performance through 15 GHz**



▶ **Solderless micro-coax termination technology "i-Fit[®]" provides consistent performance**



▶ **MHF[®] 5L plug available cable O.D. (AWG) : 1.13 mm (32), 0.81 mm (33)**

Product name	MHF [®] 5	MHF [®] 5L
Mating Height	1.0 mm max.	1.3 mm max.
Coax O.D. (Center Conductor AWG)	1.13 mm (AWG#32)	●
	0.81 mm (AWG#33)	●
	0.81 mm (AWG#36)	●
	0.64 mm (AWG#36)	●
	0.48 mm (AWG#38)	●
Receptacle	MHF [®] 5 receptacle	

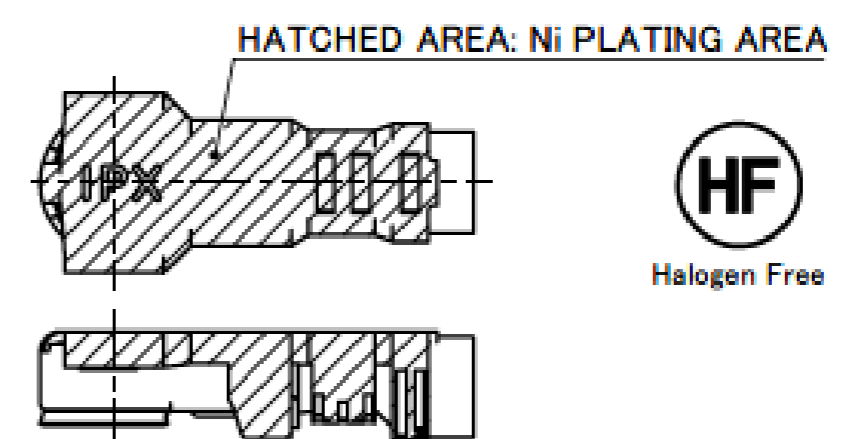
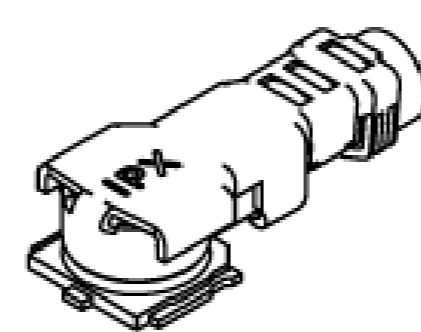
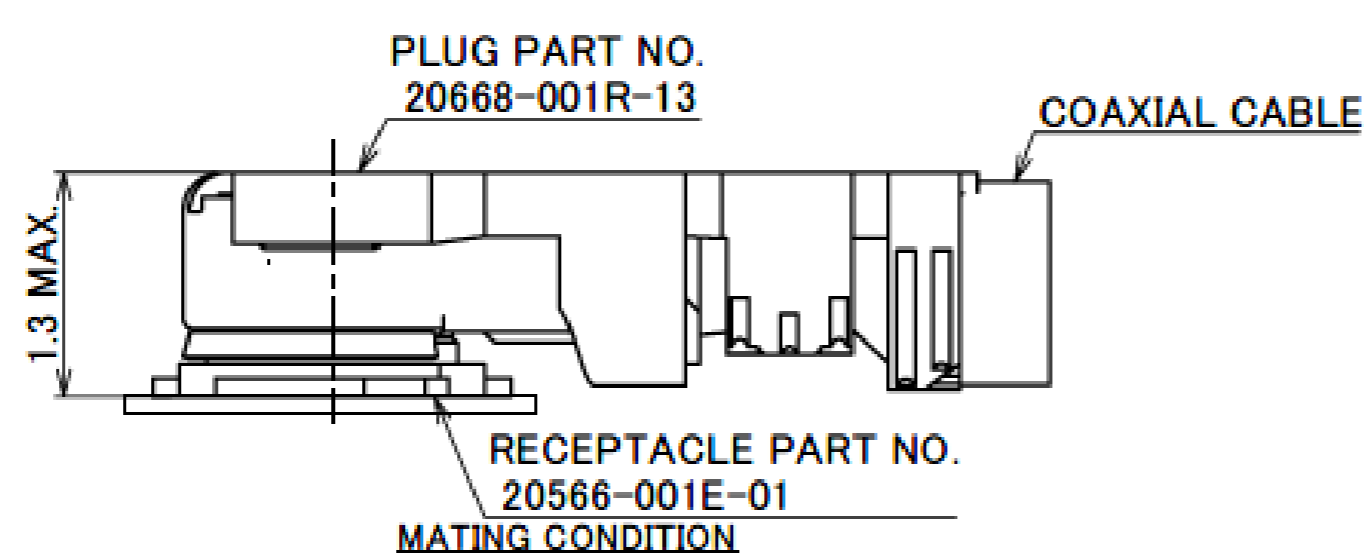
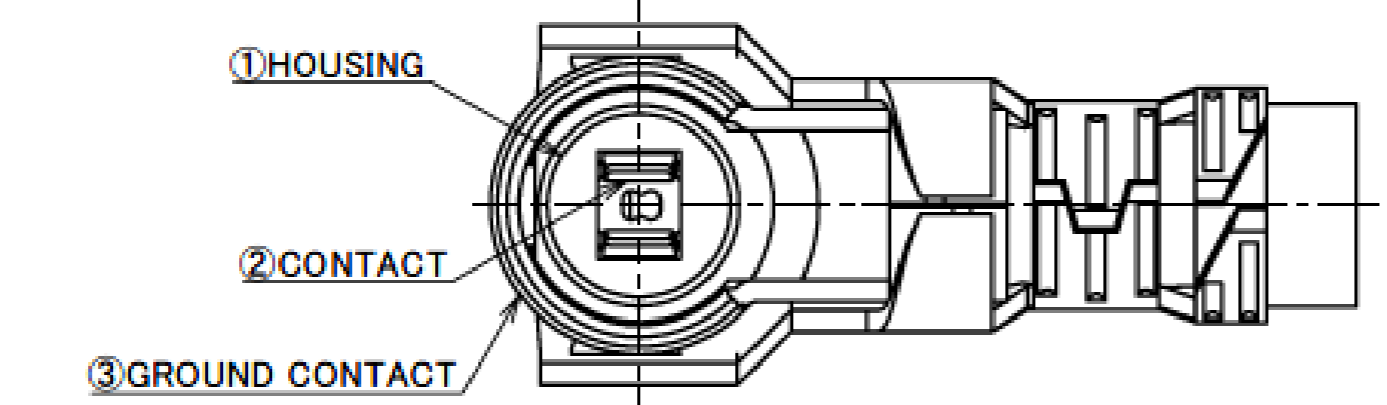
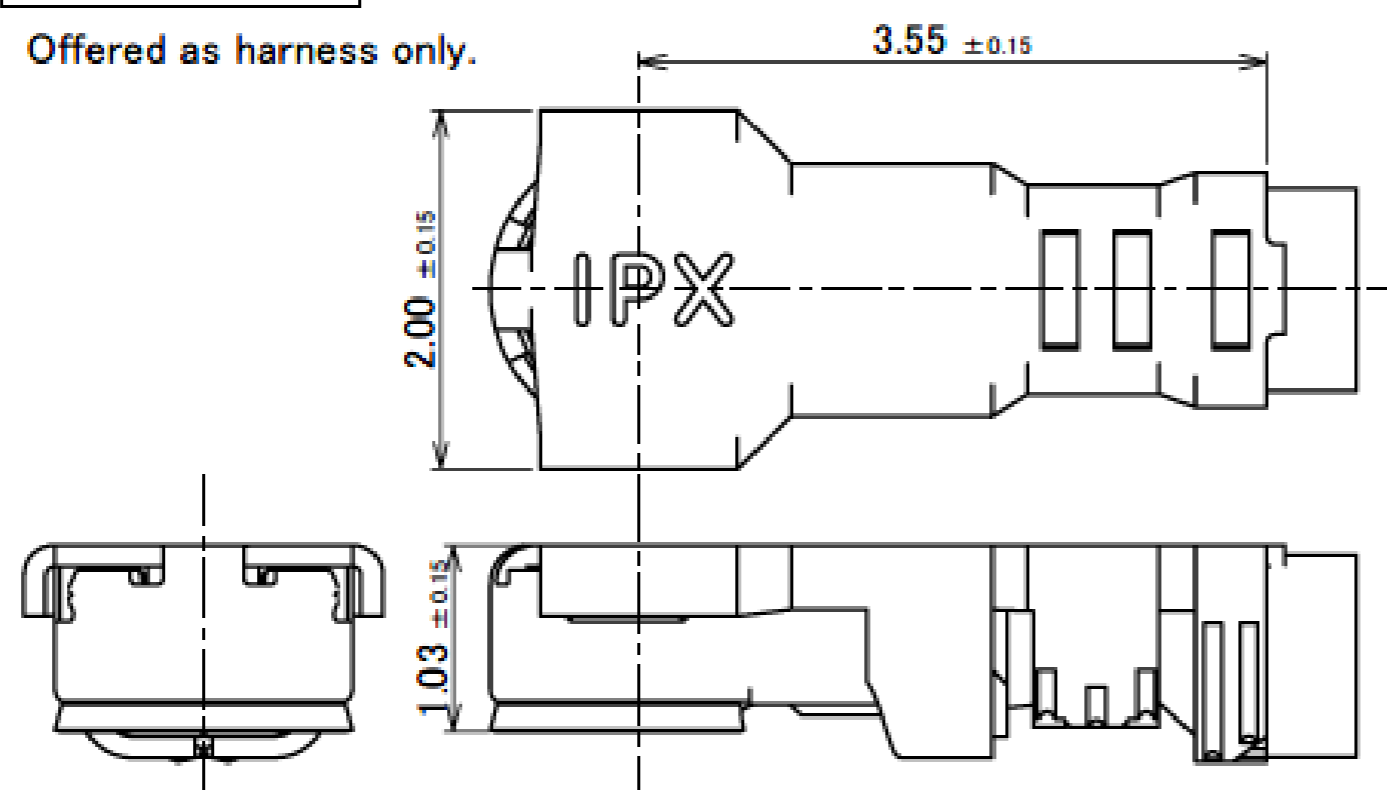
Component Parts Details

MHF® 5L plug Ni top (1.13)

Recommended P/N 20668-001R-13

PART No.
20668-001R-13

Offered as harness only.



HATCHED AREA: Ni PLATING AREA



Halogen Free

RoHS Compliant

NOTES.

1. APPLICABLE CONNECTOR: 20566-001E-01
2. PERMISSIBLE LOAD OF CABLE AT MATING
3. MATING AND UNMATING INSTRUCTION

3-1. MATING

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

3-2. UNMATING

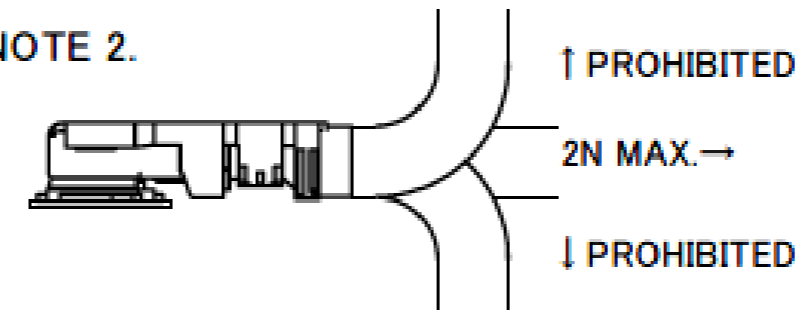
3-2-1. IN CASE OF UNMATING BY PULLING TOOL (PART NO. 90612-0001)

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

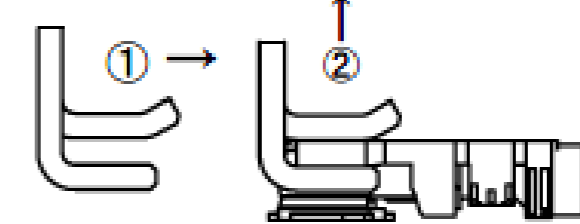
3-2-2. IN CASE OF UNMATING DIRECTLY BY HAND

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

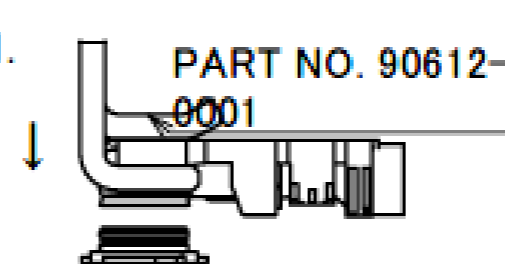
NOTE 2.



NOTE 3-2-1.



NOTE 3-1.



NOTE 3-2-2.



NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT PART Au 0.05 μm MIN. [Ni PLATING AREA] Ni ONLY
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT PART Au 0.05 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK (GF 30%)

MHF® 5L plug Ni top (1.13)

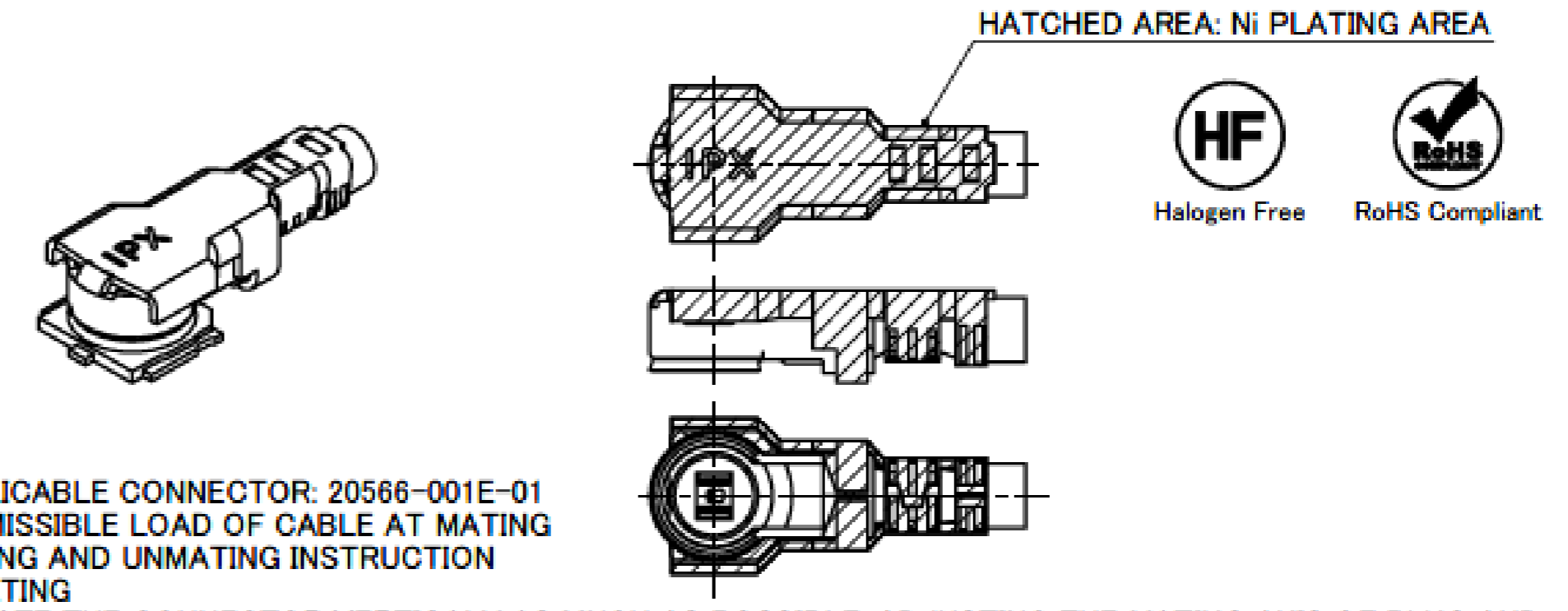
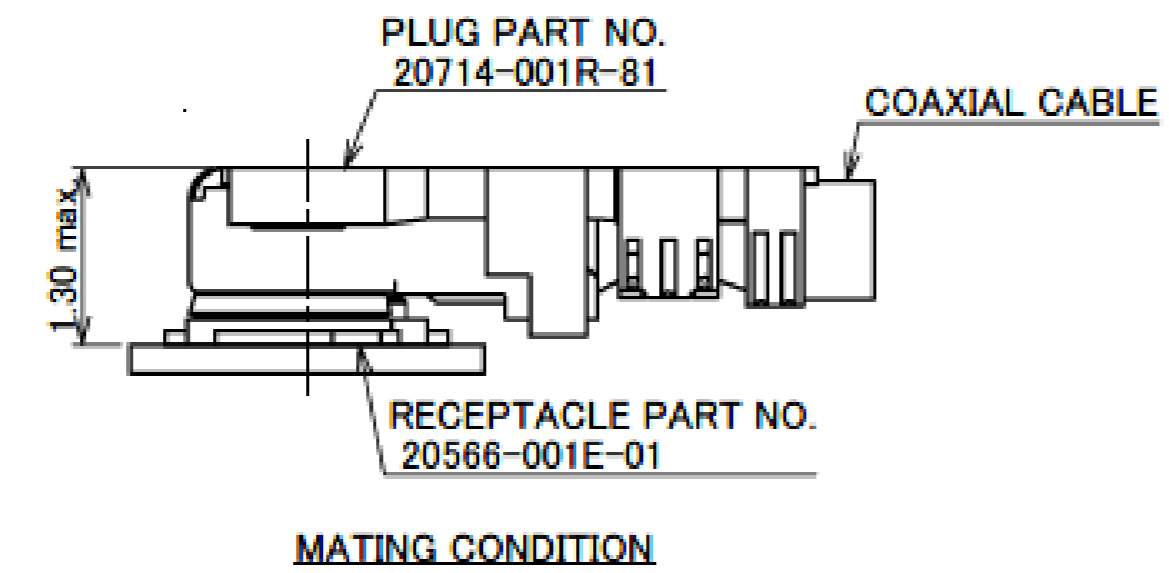
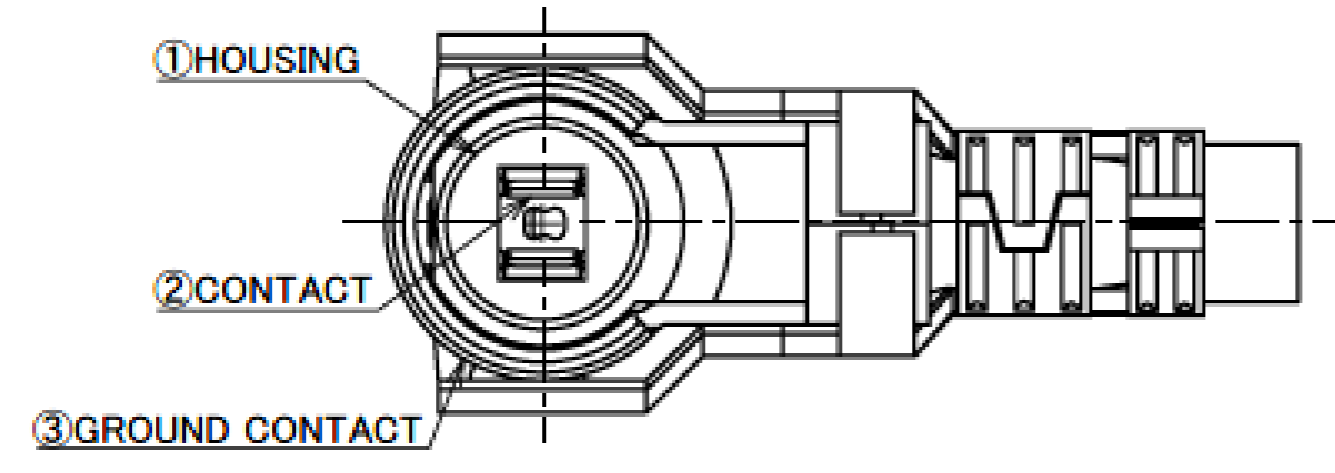
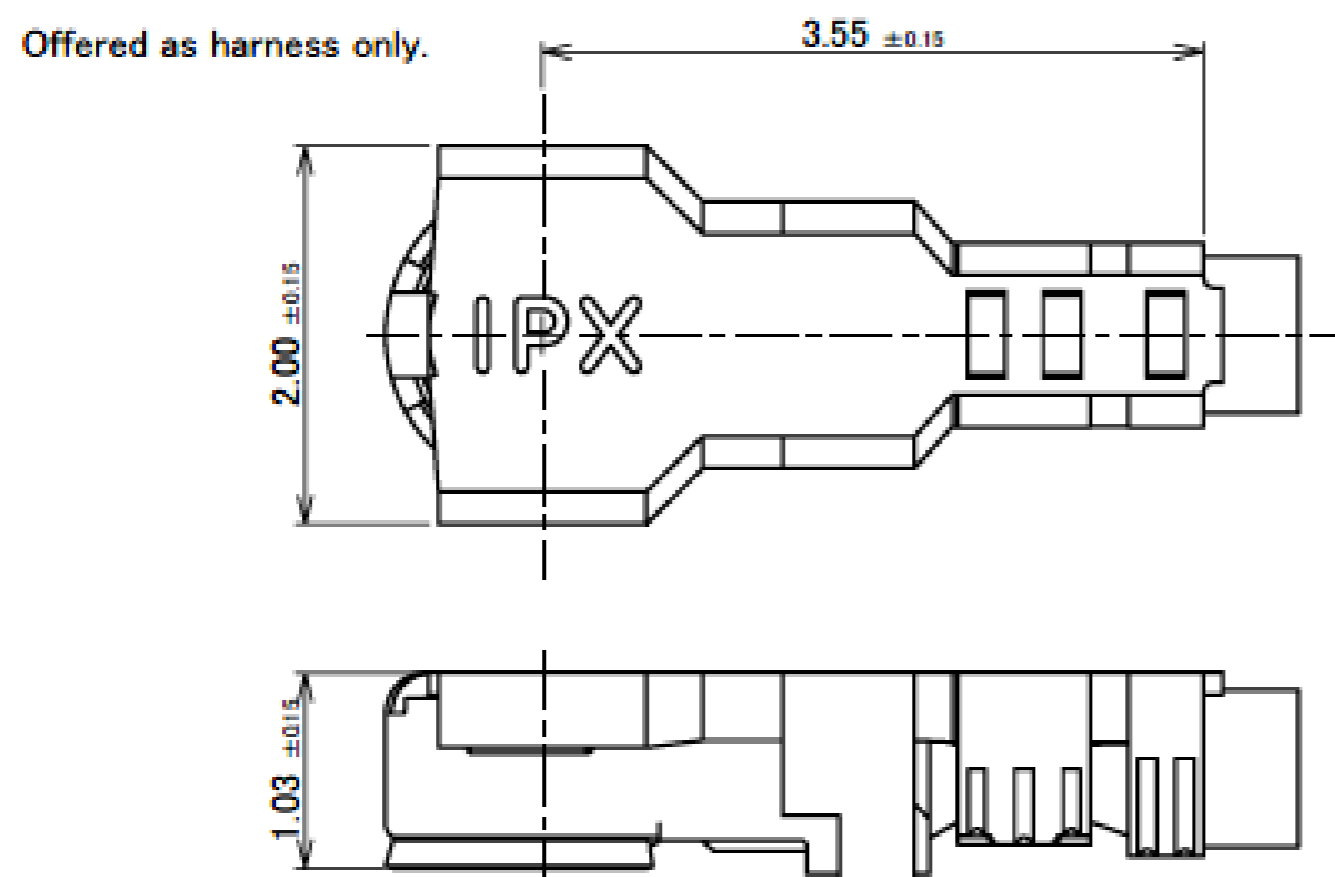
ITEMS	SPECIFICATION
RECOMMENDED APPLICABLE CONNECTOR PART No.	20566-001E-01
RATING VOLTAGE	60 V AC (R.M.S)
RATING FREQUENCY	DC~15 GHz
OPERATING TEMPERATURE	233~363K (-40°C~+90°C)
VSWR (MATED WITH SMA ADAPTER PART No. 90543-0001)	1.30 MAX. AT 0.1~3 GHz, 1.40 MAX. AT 3~6 GHz, 1.50 MAX. AT 6~12 GHz, 1.60 MAX. AT 12~15 GHz
MAIN CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: Δ R 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: Δ 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: 5 N MIN. / AFTER TEST: 3 N MIN.
CRIMP STRENGTH	10 N MIN.
PRODUCT SPECIFICATION	PRS-2192
TEST REPORT	TR-16003
INSTRUCTION MANUAL	HIM-16014
APPEARANCE CRITERIA No.	QLS-A***

Rev.4

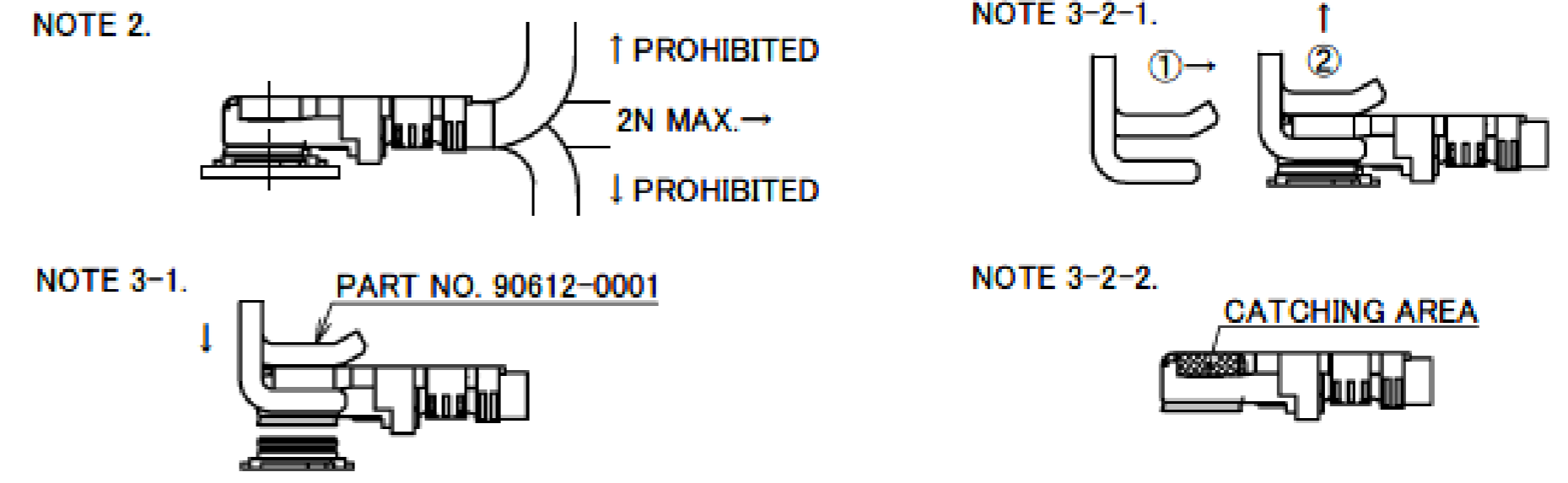
MHF® 5L plug Ni top (0.81)

Recommended P/N	20714-001R-81
PART No.	20714-001R-81

Offered as harness only.



NOTES.
 1. APPLICABLE CONNECTOR: 20566-001E-01
 2. PERMISSIBLE LOAD OF CABLE AT MATING
 3. MATING AND UNMATING INSTRUCTION
 3-1. MATING
 MATE THE CONNECTOR VERTICALLY AS MUCH AS POSSIBLE, ADJUSTING THE MATING AXIS OF PLUG AND RECEPTACLE. DO NOT SLANT MATE.
 3-2. UNMATING
 3-2-1. IN CASE OF UNMATING BY PULLING TOOL (PART NO. 90612-0001)
 USE THE PULLING TOOL AS THE FOLLOWING DRAWING, AND PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
 3-2-2. IN CASE OF UNMATING DIRECTLY BY HAND
 CATCH THE CATCHING AREA OF PLUG, AND PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.



NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT PART Au 0.05 μm MIN. [Ni PLATING AREA] Ni ONLY
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT PART Au 0.05 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK (GF 30%)

Rev.4

MHF® 5L plug Ni top (0.81)

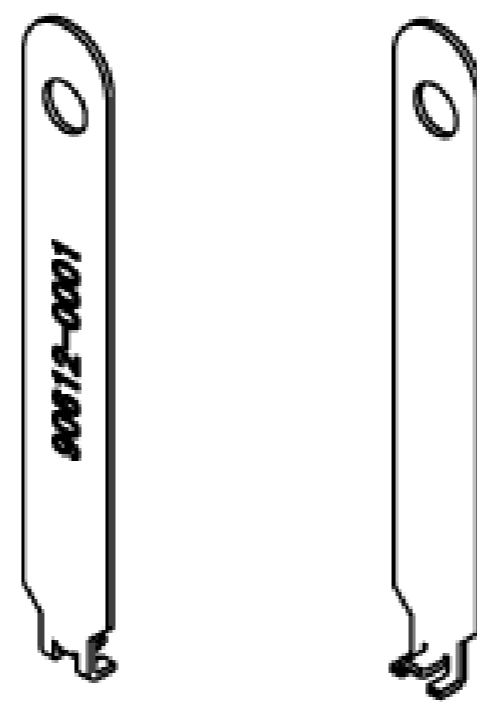
ITEMS	SPECIFICATION
RECOMMENDED APPLICABLE CONNECTOR PART No.	20566-001E-01
RATING VOLTAGE	60 V AC (R.M.S)
RATING FREQUENCY	DC ~ 15 GHz
OPERATING TEMPERATURE	233 ~ 363 K (-40°C ~ +90°C)
VSWR (MATED WITH SMA ADAPTER PART No. 90543-0001)	1.30 MAX. AT 0.1 ~ 3 GHz, 1.40 MAX. AT 3 ~ 6 GHz, 1.50 MAX. AT 6 ~ 12 GHz, 1.60 MAX. AT 12 ~ 15 GHz
MAIN CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: Δ R 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: Δ 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: 5 N MIN. / AFTER TEST: 3 N MIN.
CRIMP STRENGTH	10 N MIN.
PRODUCT SPECIFICATION	PRS-2236
TEST REPORT	TR-16049
INSTRUCTION MANUAL	HIM-16014
APPEARANCE CRITERIA No.	QLS-A***

Rev.4

Accessories for MHF® 5L plug Ni top

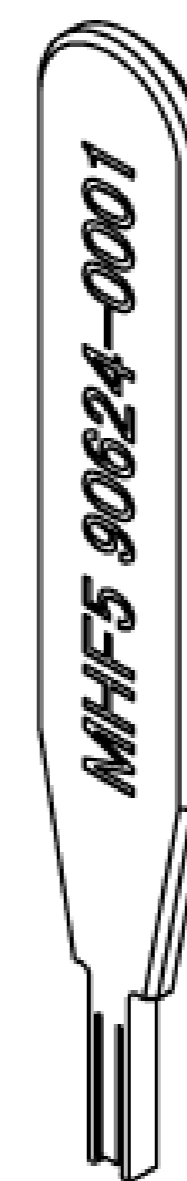


SMA ADAPTOR FOR MHF 5 PLUG
PART NO. 90543-0001



FRONT SIDE BACK SIDE

MHF 5 PUSHING AND PULLING TOOL
PART NO. 90612-0001

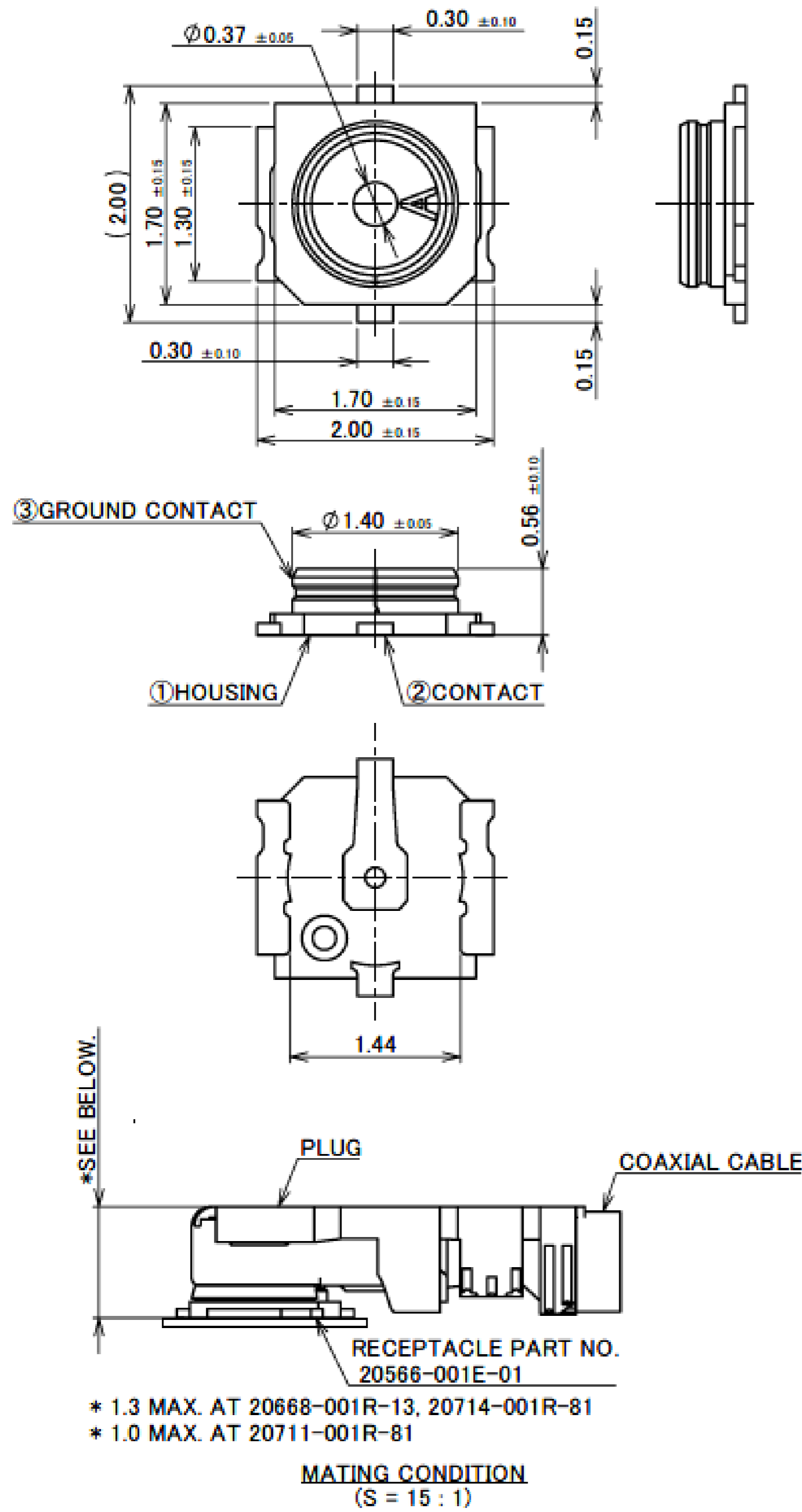


MHF 5 PUSHING TOOL
PART NO. 90624-0001

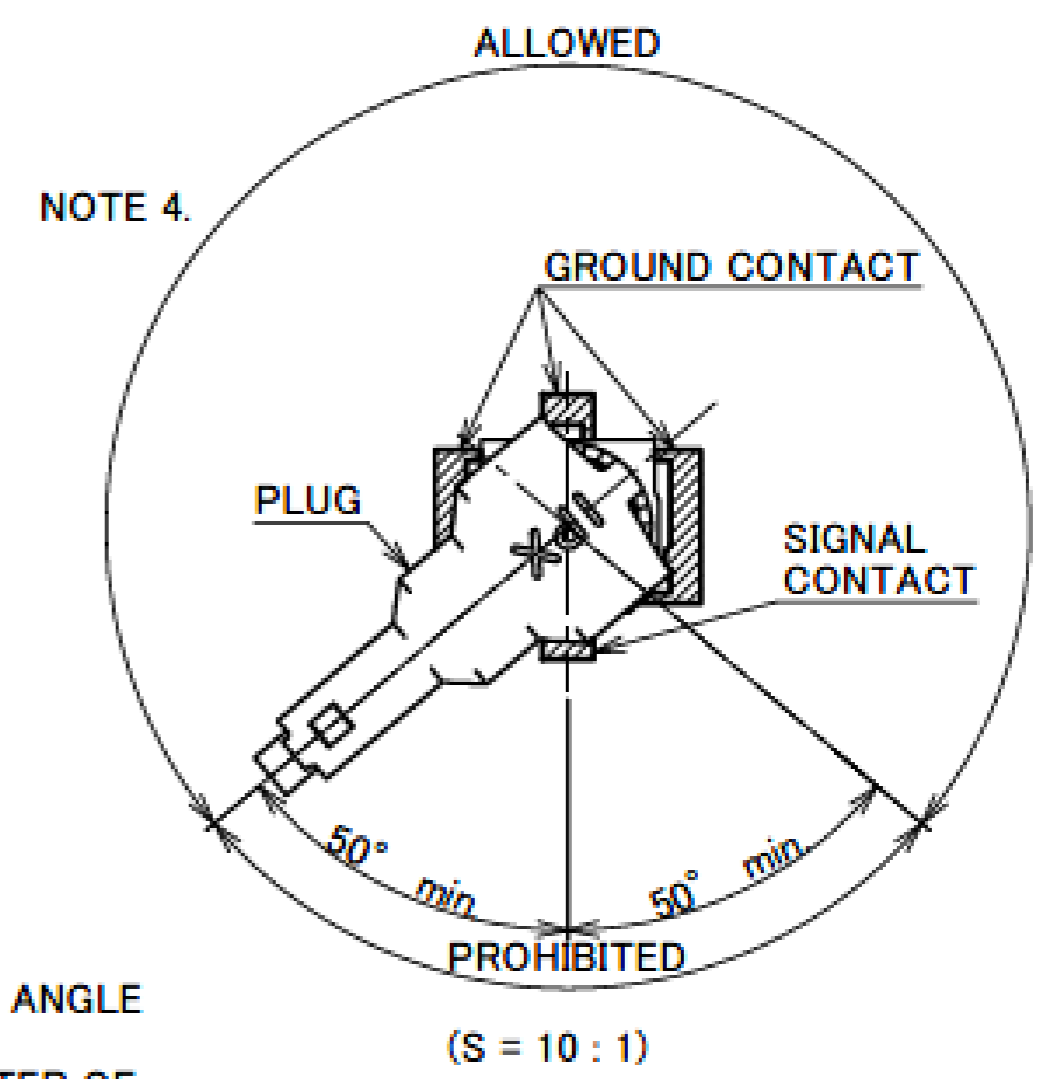
Rev.4

MHF[®] 5 Receptacle

Recommended P/N	20566-001E-01
PART NO.	20566-001E-01



- NOTES
1. APPLICABLE CONNECTOR
20567-001R-81
20615-00*R-48
20668-001R-13
20669-001R-81
20711-001R-81
20714-001R-81
 2. COPLANARITY: 0.1mm MAX.
 3. THIS IS "Pb-FREE" CONNECTOR.
 4. PRECAUTIONS FOR CABLE POSITION
[PART NO. 20567-001R-81, 20615-00*R-48]
THE PLUG SHALL NOT BE PLACED WITHIN 50 DEGREES ANGLE FROM CENTER OF THE SIGNAL CONTACT.
TILT THE PLUG AT LEAST 50 DEGREES FROM THE CENTER OF A SIGNAL CONTACT.

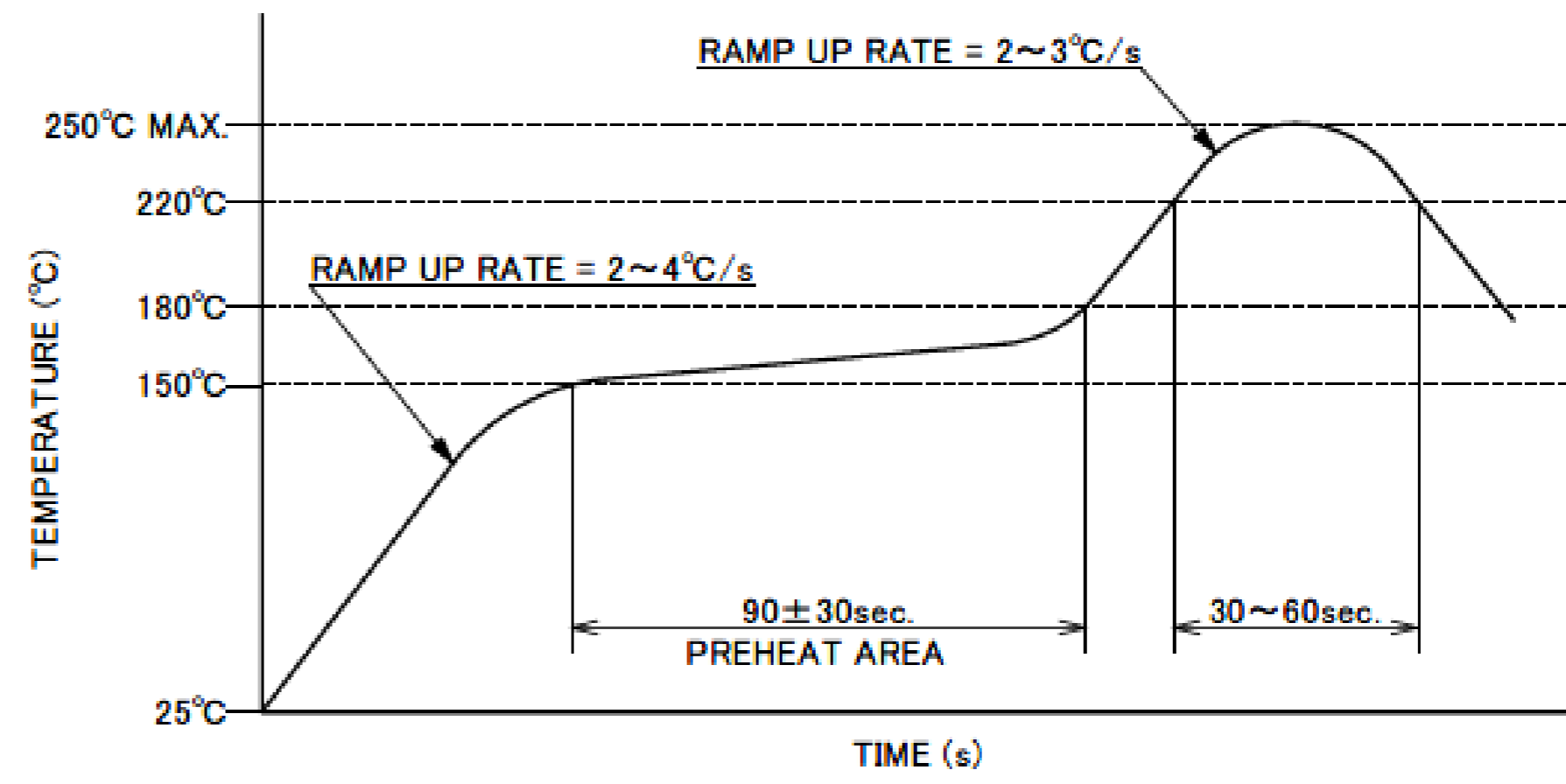
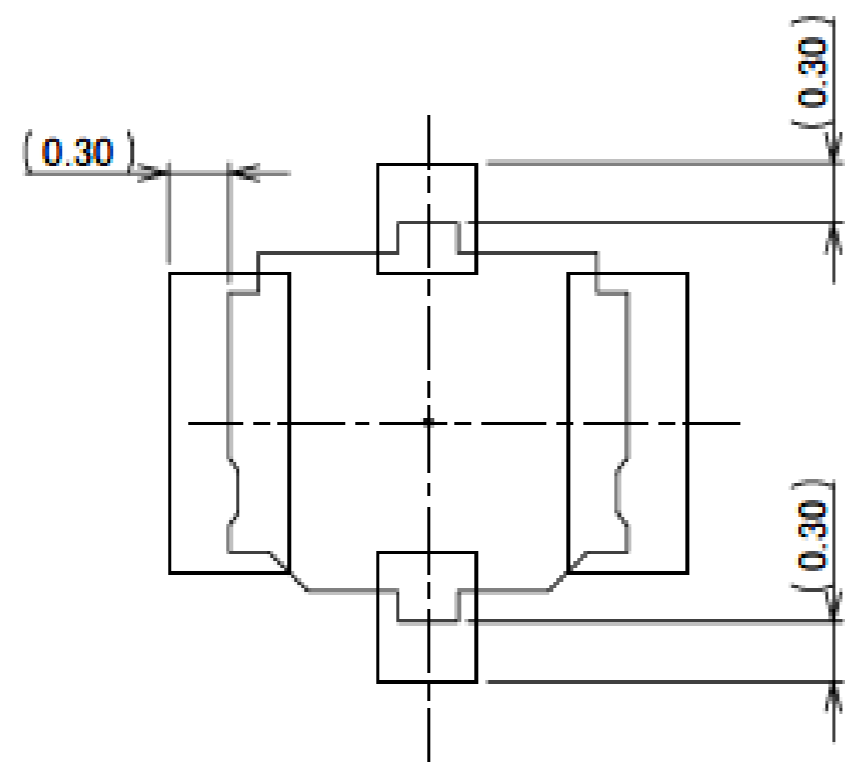
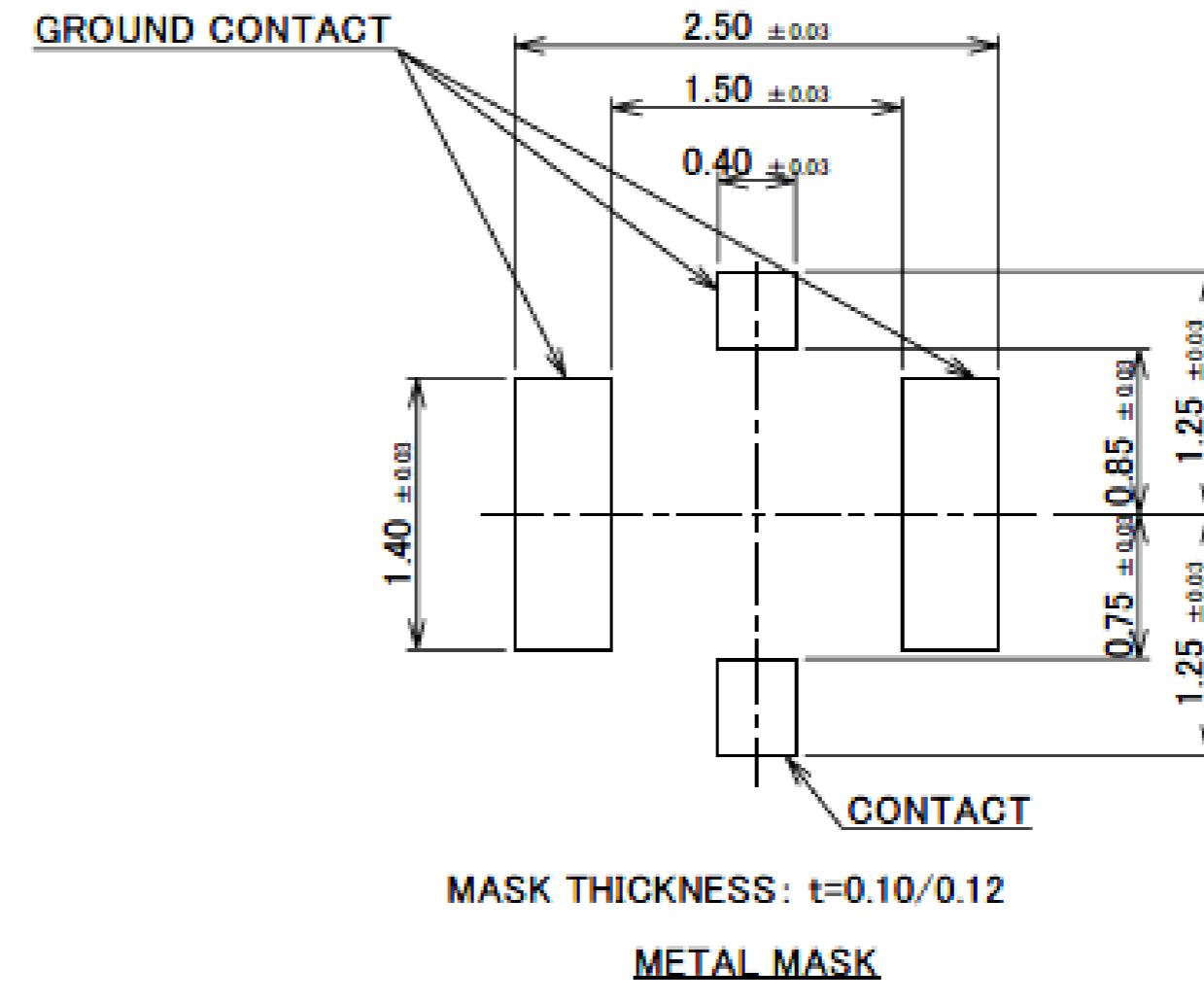
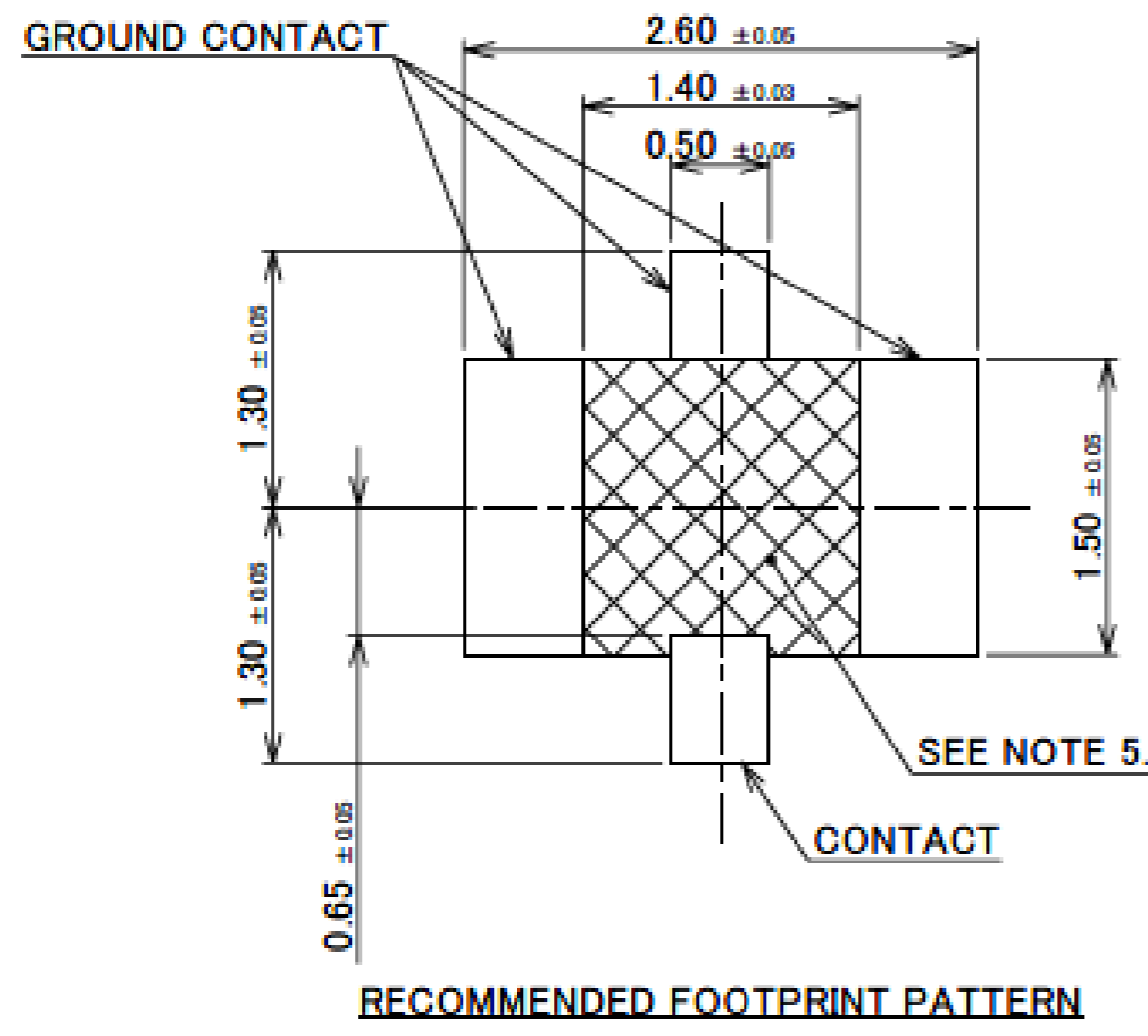


NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. CONTACT PART Au 0.01 μ m MIN. UNDER PLATE Pd-Ni 0.02 μ m MIN. SOLDERING PART Au 0.01 μ m MIN. UNDER PLATE Pd-Ni 0.02 μ m MIN.
2	CONTACT	BRASS	ALL OVER Ni 1.00 μ m MIN. CONTACT PART Au 0.1 μ m MIN. SOLDERING PART Au 0.03 μ m MIN.
1	HOUSING	LCP	UL94V-0, BLACK

Rev.9

ITEMS	SPECIFICATION				
RECOMMENDED APPLICABLE CONNECTOR PART No.	20668-001R-13	20711-001R-81 (CABLE AWG#36 ϕ 0.81)	20714-001R-81	20711-001R-81 (CABLE AWG#36 ϕ 0.64)	20615-001R-48 (ALL Au PLATING TYPE)
RATING VOLTAGE	60 V AC (R.M.S)				
RATING FREQUENCY	DC~15 GHz				
OPERATING TEMPERATURE	233~363 K (-40°C~+90°C)				
VSWR (MATED WITH SMA ADAPTER PART No. 90543-0001)	1.30 MAX. AT 0.1~3 GHz, 1.40 MAX. AT 3~6 GHz, 1.50 MAX. AT 6~12 GHz, 1.65 MAX. AT 12~15 GHz				
MAIN CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: Δ R 20 mohm MAX.				
GROUND CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: Δ R 100 mohm MAX.				INITIAL: 20 mohm MAX. / AFTER TEST: Δ 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: 5 N MIN. AFTER TEST: 3 N MIN.	INITIAL: 4 N MIN. AFTER TEST: 2 N MIN.	INITIAL: 5 N MIN. AFTER TEST: 3 N MIN.	INITIAL: 4 N MIN. AFTER TEST: 2 N MIN.	INITIAL: 4 N MIN. AFTER TEST: 2 N MIN.
PRODUCT SPECIFICATION	PRS-2192	PRS-2108	PRS-2236	PRS-2109	PRS-1939
TEST REPORT	TR-16003	TR-15062	TR-16049	TR-15063	TR-14026
PACKING STANDARD	PST-12036				
INSTRUCTION MANUAL	HIM-16014	HIM-16013	HIM-16014	HIM-16013	HIM-13003
APPEARANCE CRITERIA No.	QLS-A***				

MHF[®] 5 Receptacle



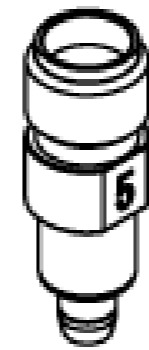
NOTES.
5. NO GROUND, SIGNAL, AND RESIST IN THIS AREA.

Rev.9

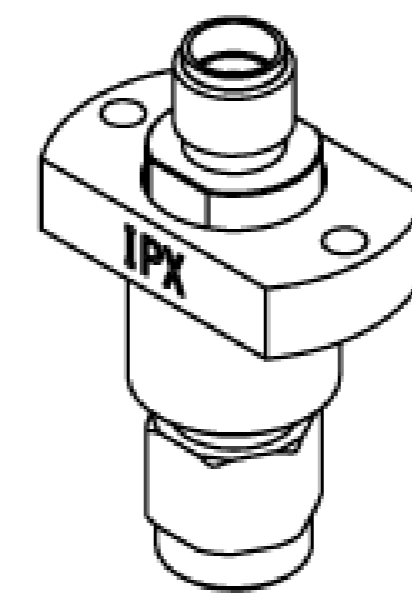
Accessories for MHF[®] 5 Receptacle



MHF 5 SMA ADAPTER
PART NO. 90543-0001

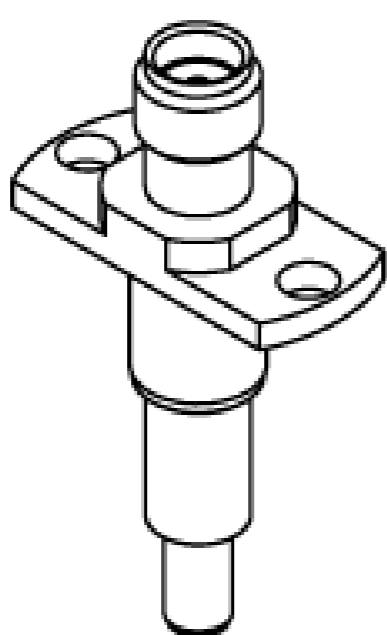


MHF 5 RECEPTACLE HIGH CYCLE ATTACHMENT
PART NO. 90690-0001

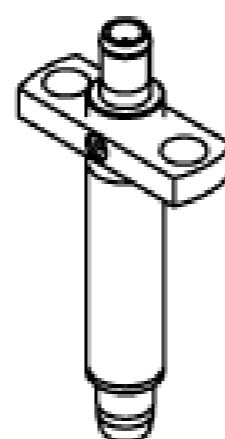


MHF SERIESE HIGH CYCLE ADAP BASE UNIT
PART NO. 90684-0001

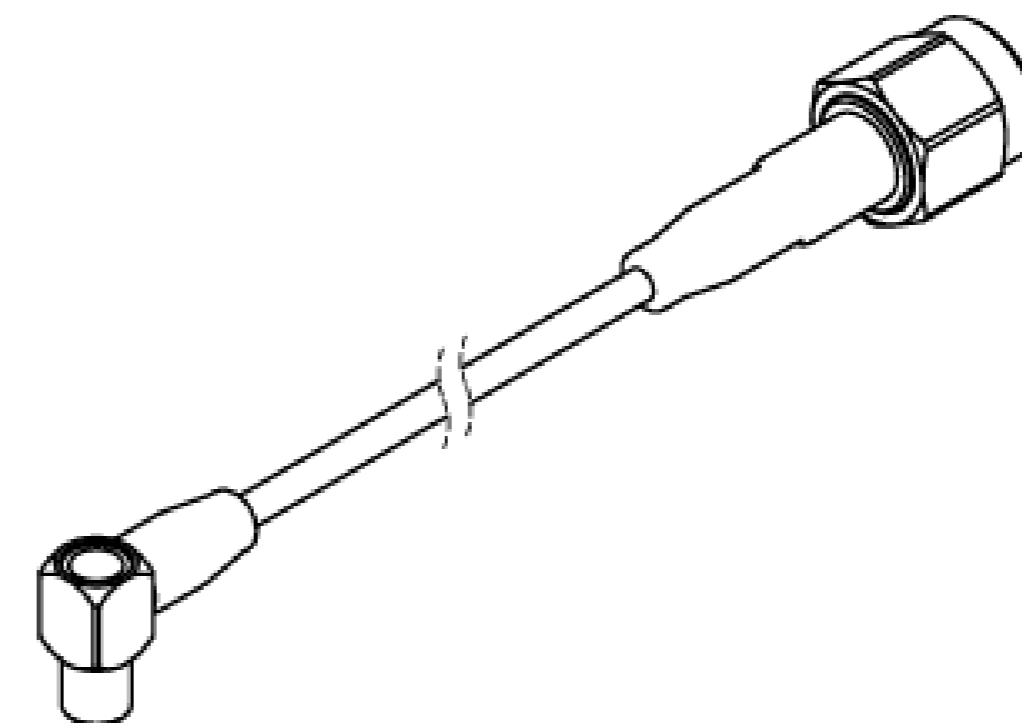
* 90690-0001 AND 90684-0001 SHOULD BE USED TOGETHER.



MHF 5 RECEPTACLE HIGH CYCLE SMA ADAPTER
PART NO. 90793-0001



MHF 5 RECEPTACLE HIGH CYCLE N45 C ADAPTER
PART NO. 90847-0001



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

* 90847-0001 AND 90577-**** SHOULD BE USED TOGETHER.

Rev.9

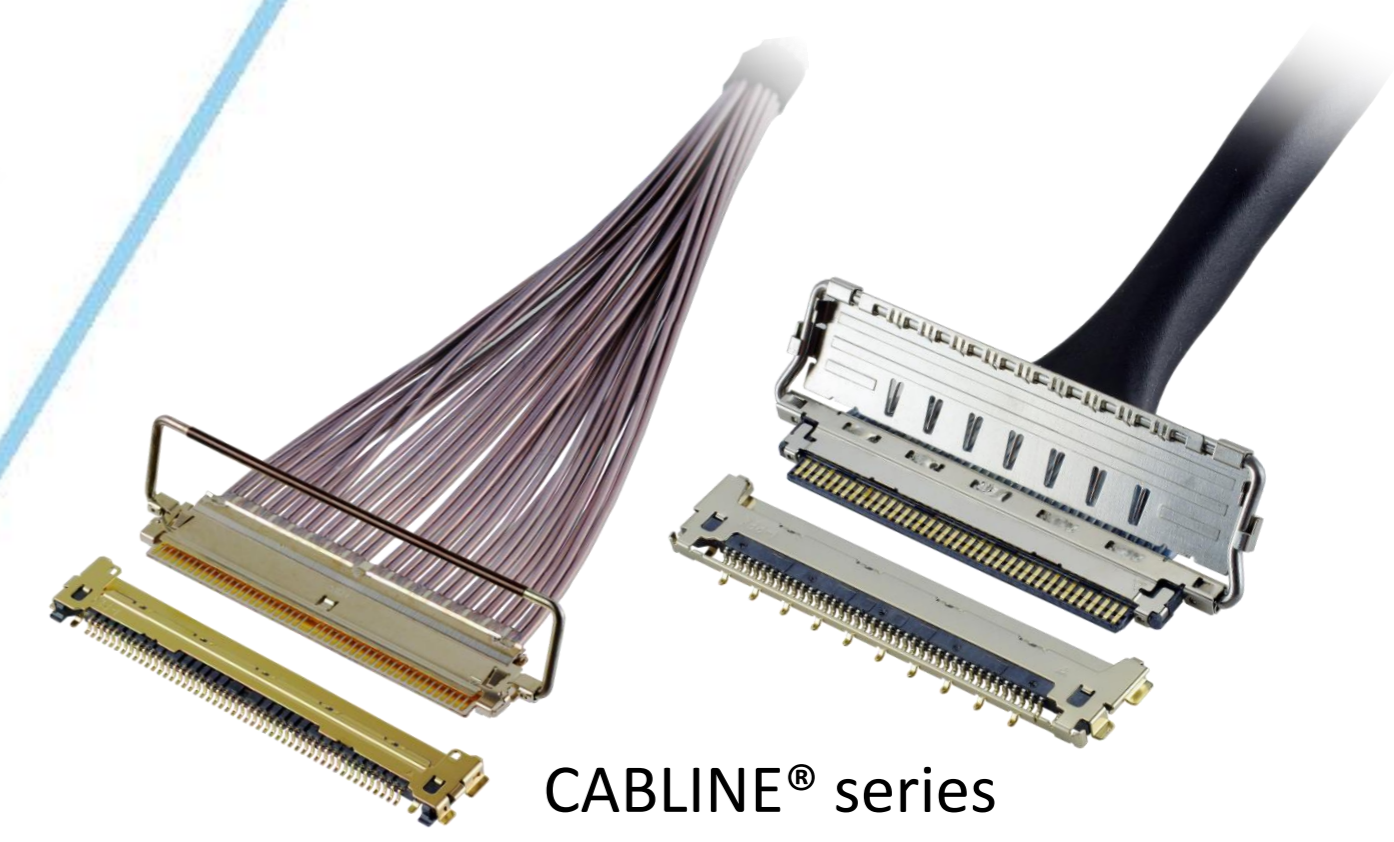
Custom Products Available

RF Connector

MHF® series



Micro-coaxial/Twinax/ Discrete Wire Connector



CABLINE® series

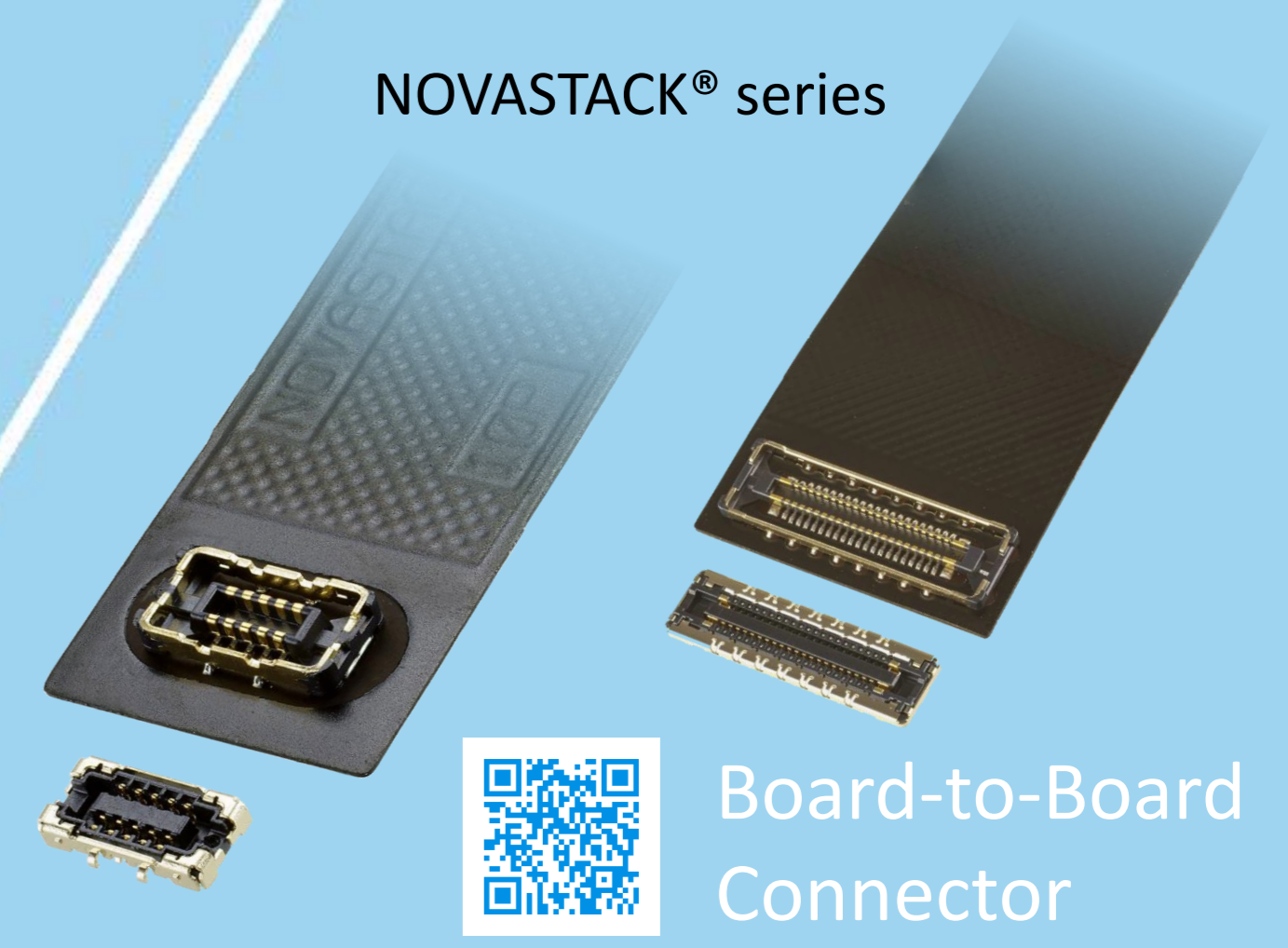


Optical Module

LIGHTPASS® series



NOVASTACK® series



Board-to-Board Connector



Power Connector/ Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series



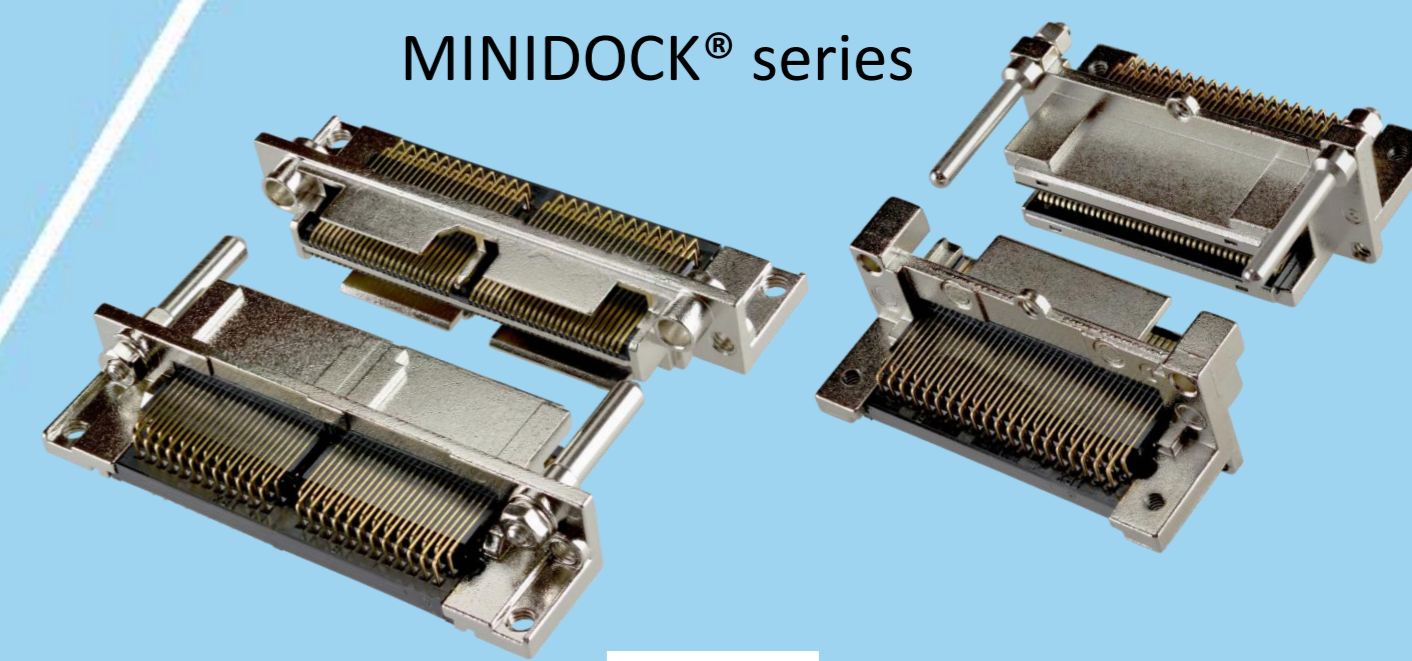
FPC FFC Connector



Inquiry



MINIDOCK® series



I/O Connector

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Contact your sales representative or more detailed information.

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