

# MHF® III

低背(嵌合高さ = 1.6 mm max.)、対応周波数~6GHz

**Product Specifications:**

Mated Height (mm max.)	1.6	
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	-

**Applicable Cable Size:**

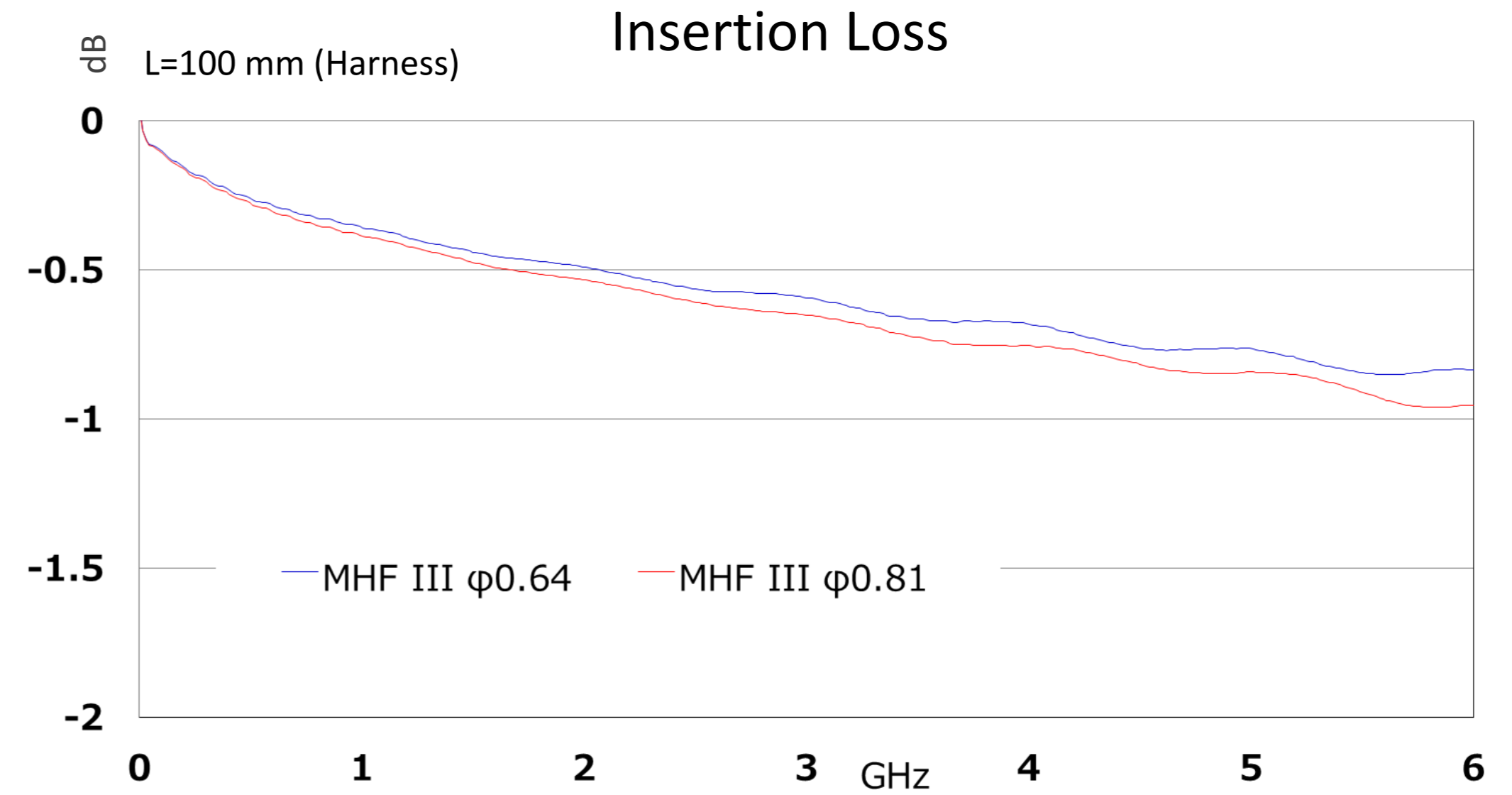
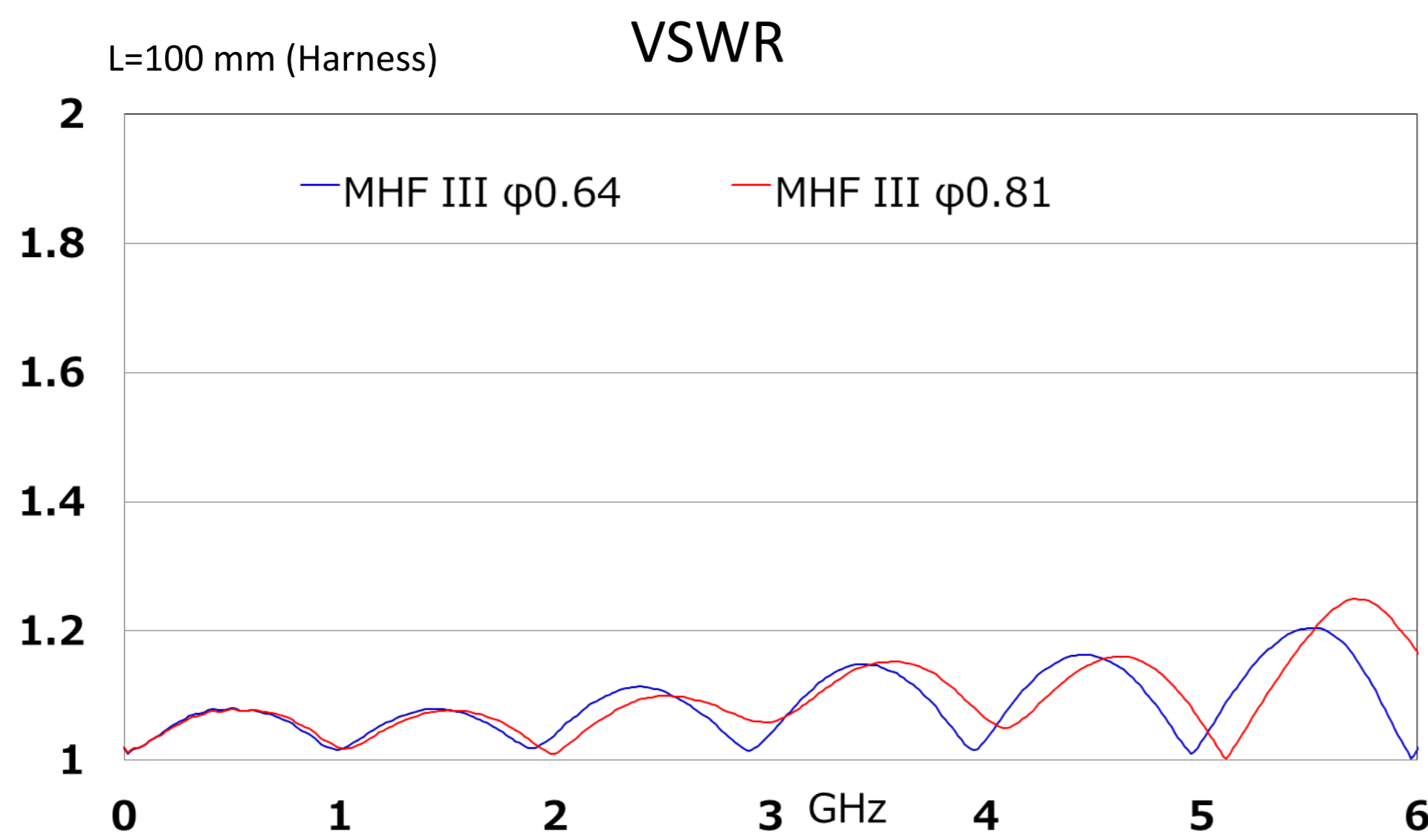
O.D. 0.81 mm / AWG 36
O.D. 0.64 mm / AWG 36

**Applicable Standards (Reference Only):**

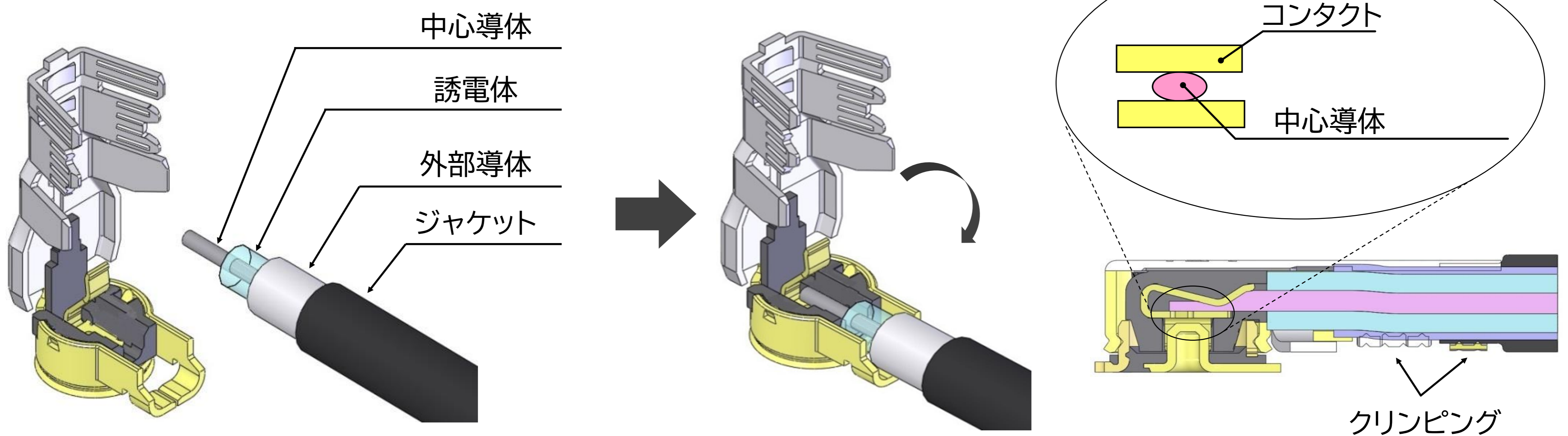
5G sub-6, Wi-Fi 6, LTE/LTE-Advanced, LPWA, Bluetooth, GPS



▶ 最小限の製品サイズで、~6GHzにおいて優れたパフォーマンスを実現



▶ 信頼性の高い無半田結線技術 “i-Fit®” テクノロジーにより、安定した性能のハーネス提供



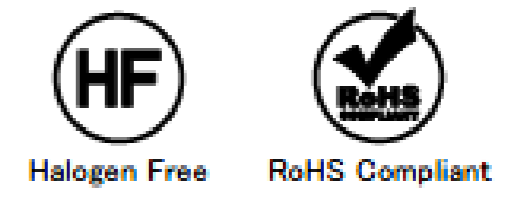
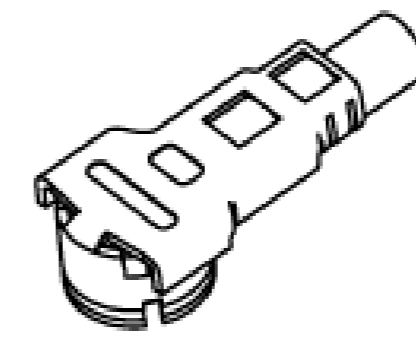
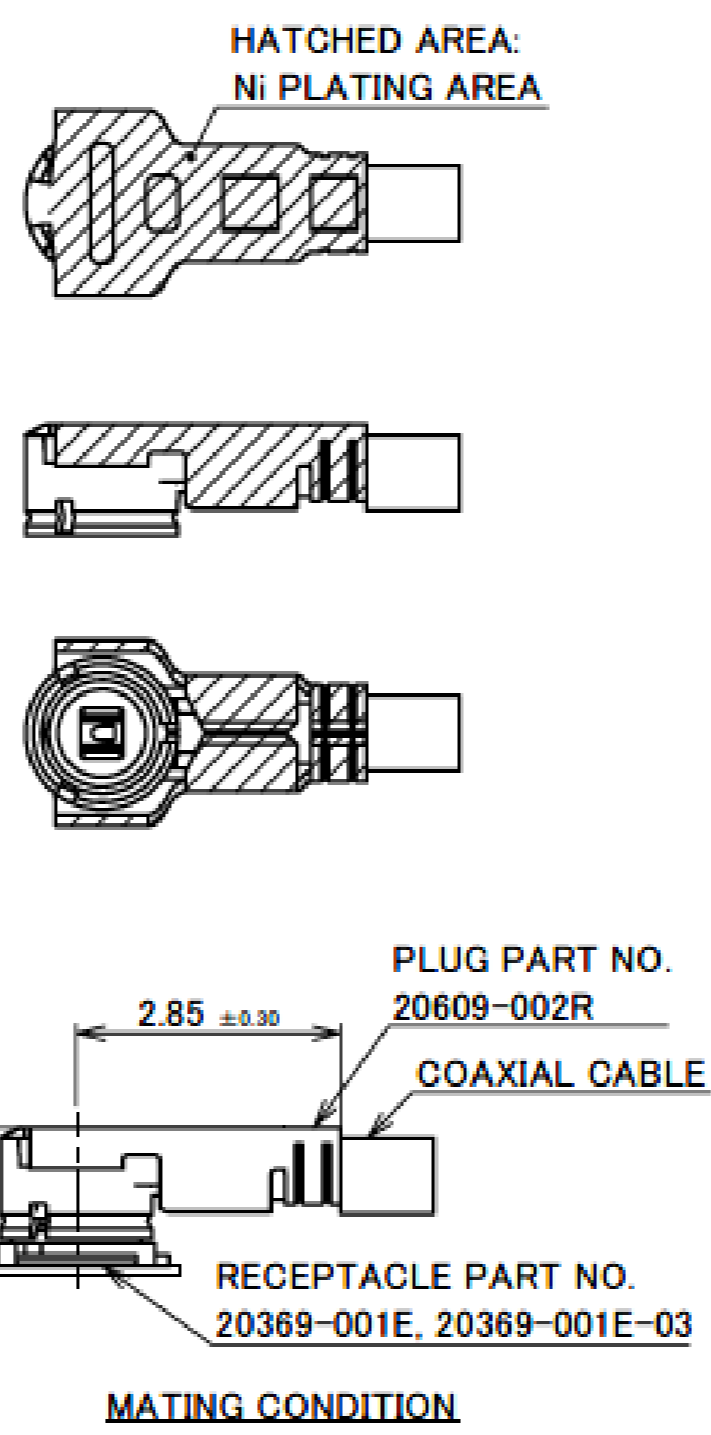
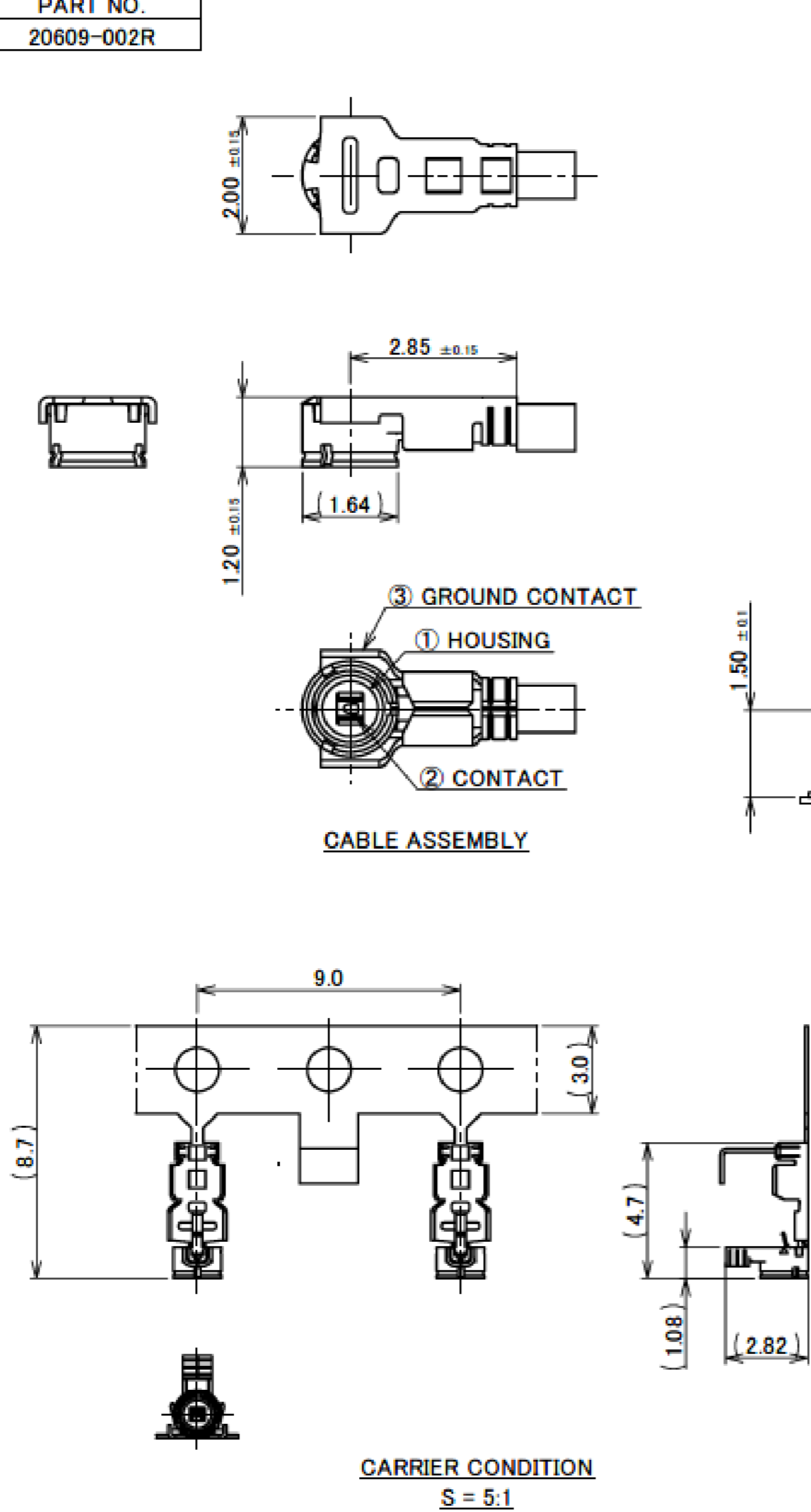
▶ 対応ケーブル : 0.81 mm(36), 0.64 mm(36)

Product name	MHF® III	MHF® 4L		MHF® I	
Mating Height	1.6 mm max.	1.7 mm max.	1.4 mm max.	1.2 mm max.	3.0 mm max. / 2.5 mm max.
Coax O.D. (Center Conductor AWG)	2.00 mm (AWG#26)				●
	1.80 mm (AWG#30)				●
	1.37 mm (AWG#30)		●		●
	1.32 mm (AWG#32)				●
	1.13 mm (AWG#32)			●	●
	0.95 mm (AWG#33)			●	●
	0.81 mm (AWG#36)	●			●
0.64 mm (AWG#36)	●			●	
Receptacle	MHF III receptacle	MHF 4 receptacle, MHF 4L receptacle		MHF I receptacle	

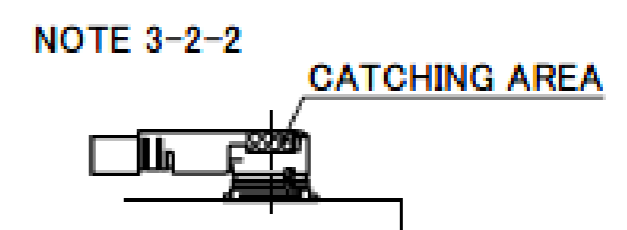
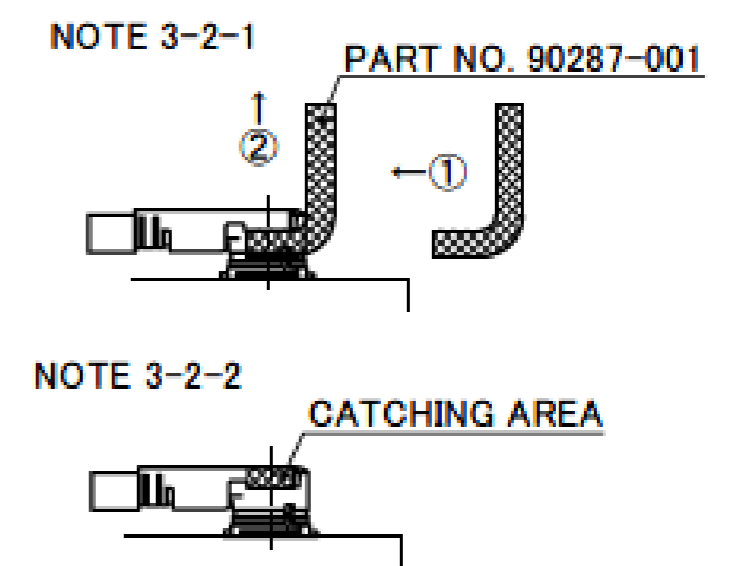
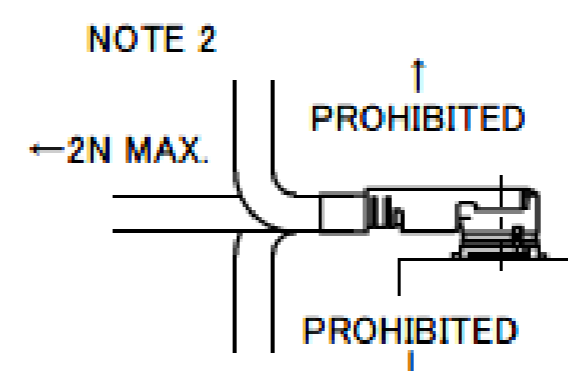
# Component Parts Details

## MHF<sup>®</sup> III plug Ni top

Recommended P/N	20609-002R
PART NO.	20609-002R



- NOTES.
1. APPLICABLE CONNECTOR: 20369-001E, 20369-001E-03
  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 ( P/N : 90287-001 ).  
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 $\mu$ 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	LCP	UL94V-0, WHITE

# MHF® III plug Ni top

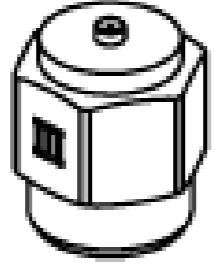
ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20369-001E
RATING VOLTAGE	60 V AC (R.M.S)
RATING FREQUENCY	DC ~ 9 GHz
OPERATING TEMPERATURE	233 ~ 363 K(-40°C ~ +90°C)
VSWR (MATED WITH SMA ADAPTER PART No. 90285-001)	1.30 MAX. AT 0.1~3 GHz, 1.50 MAX. AT 3~6 GHz, 1.70 MAX. AT 6~9 GHz
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : $\Delta$ R 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : $\Delta$ R100 mohm MAX.
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC 200 V 1 MINUTE
DURABILITY	30 CYCLES
TOTAL UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL: 4 N MIN. / AFTER: 2 N MIN.
CRIMP STRENGTH	7 N MIN.
PRODUCT SPECIFICATION	PRS-2107
TEST REPORT	TR-15061
PACKING STANDARD	300-340
INSTRUCTION MANUAL	HIM-07002
APPEARANCE CRITERIA No.	QLS-A***

Rev.2

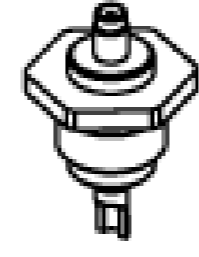
PART NO.	20609-002R			
	<p>MUST NOT USE SOLDER COATED INNER CONDUCTOR AND OUTER CONDUCTOR.</p> <p>B : MAXIMUM LENGTH C : MINIMUM LENGTH 0.35±0.05 = A-C ≠ A-B</p>			
REQUIREMENTS	CHARACTERISTIC IMPEDANCE : 50 OHM BY TDR METHOD NOMINAL CAPACITANCE (REFERENCE VALUE) : 96pF/m CONDUCTOR RESISTANCE OF INNER CONDUCTOR AT 293 K (REFERENCE VALUE) : 1400 OHM/km INSULATION RESISTANCE : 1000 MEGA-OHM.km MIN. DIELECTRIC WITH STANCE VOLTAGE : OD 0.81 TYPE ...NO BREAKDOWN AT AC 1000 V FOR 1 MIN. OD 0.64 TYPE ...NO BREAKDOWN AT AC 500 V FOR 1 MIN.			
BRAIDED SHIELD OF OUTER CONDUCTOR	SINGLE		SINGLE	
P/N OF SEMI AUTO TERMINATION MACHINE	90283-008 SEMI-AUTO		90283-006 SEMI-AUTO	
CRIMP HEIGHT	<p>USE FOR POINT MICROMETER</p> <p>CH-1 (i-Fit® PART) 0.89~0.93</p>		<p>USE FOR POINT MICROMETER</p> <p>CH-2 (JACKET PART) 0.80~0.85</p>	
	<p>USE FOR POINT MICROMETER</p> <p>CH-1 (i-Fit® PART) 0.78~0.82</p>		<p>USE FOR POINT MICROMETER</p> <p>CH-2 (JACKET PART) 0.68~0.72</p>	

Rev.2

# Accessories for MHF<sup>®</sup> III plug Ni top



**MHF III SMA ADAPTOR**  
PART NO. 90285-001



**MHF III INSPECTION CONNECTOR**  
PART NO. 90286-001



FRONT SIDE



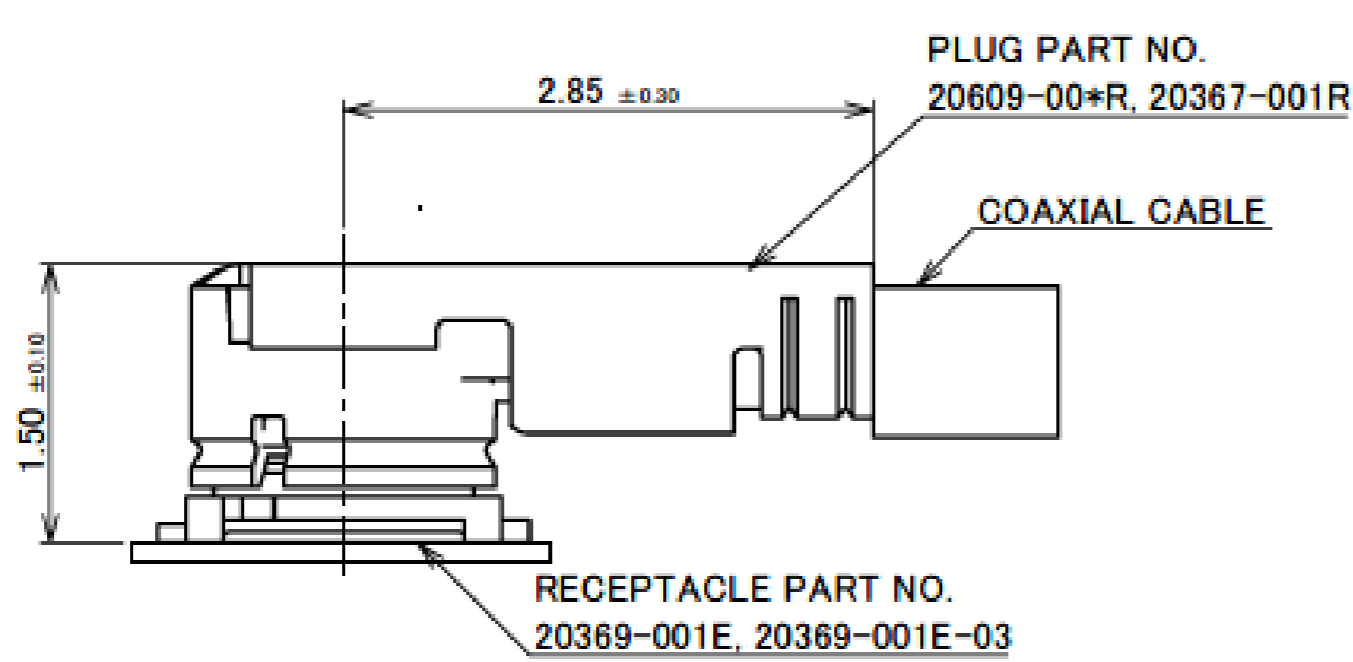
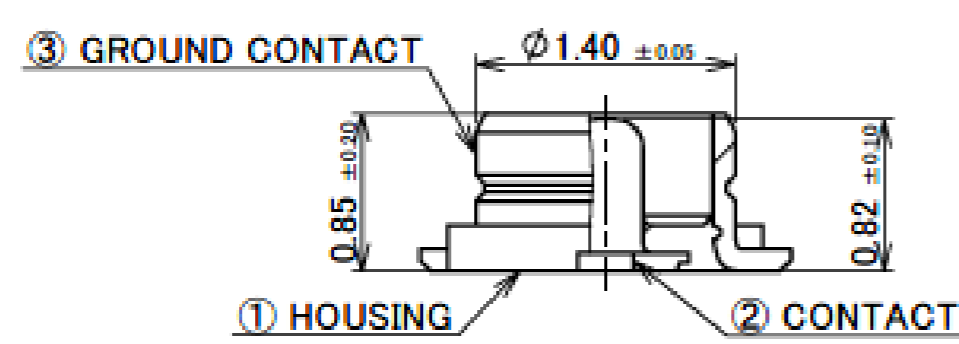
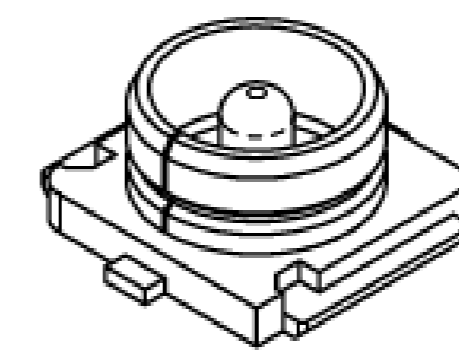
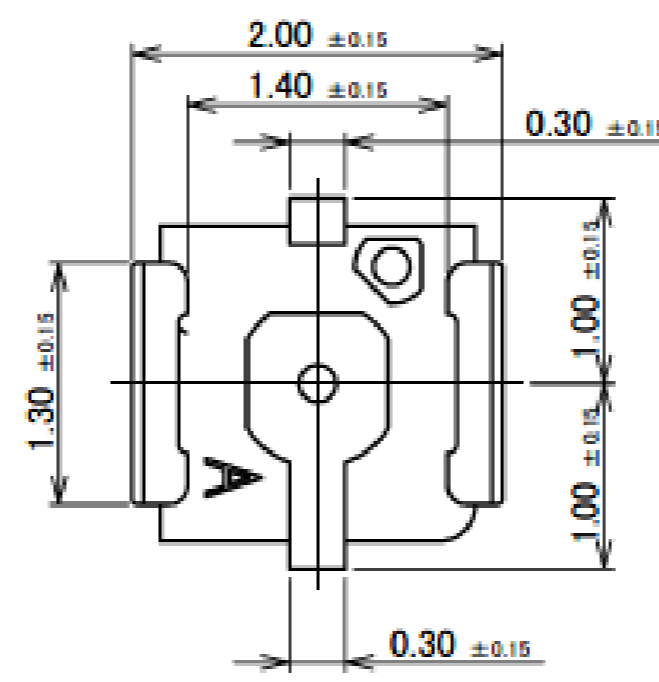
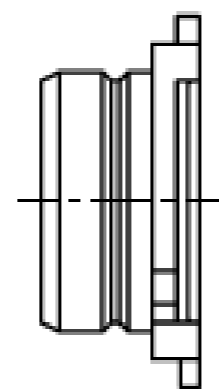
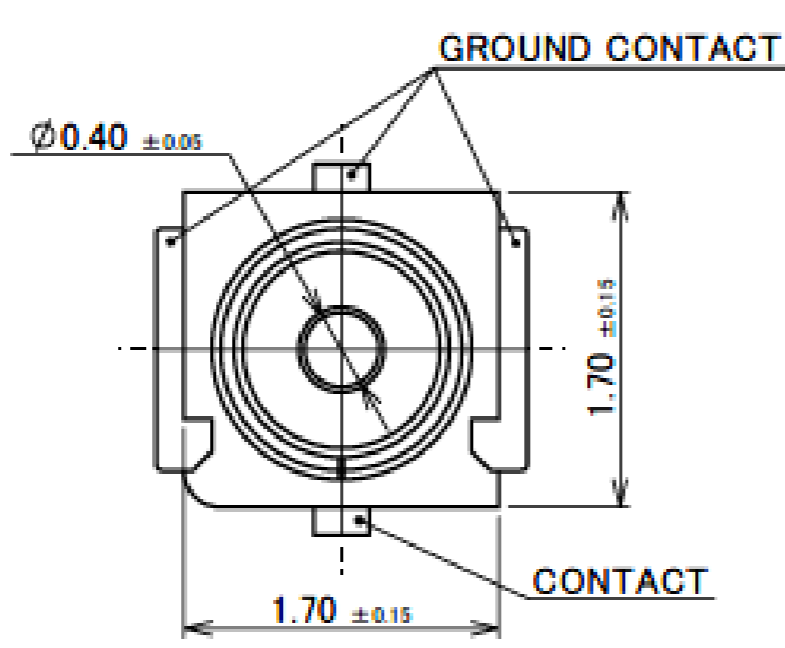
BACK SIDE

**MHF III PULLING TOOL**  
PART NO. 90287-001

Rev.2

# MHF<sup>®</sup> III Receptacle

Recommended P/N		20369-001E-03
PART NO.	PACKING REEL	PACKING QUANTITY
20369-001E	CORRUGATED PAPER REEL	5,000/REEL
20369-001E-03	PLASTIC REEL	



MATING CONDITION

- NOTES.  
1. APPLICABLE CONNECTOR  
20609-00\*R  
20367-001R  
2. COPLANARITY : 0.1MAX.

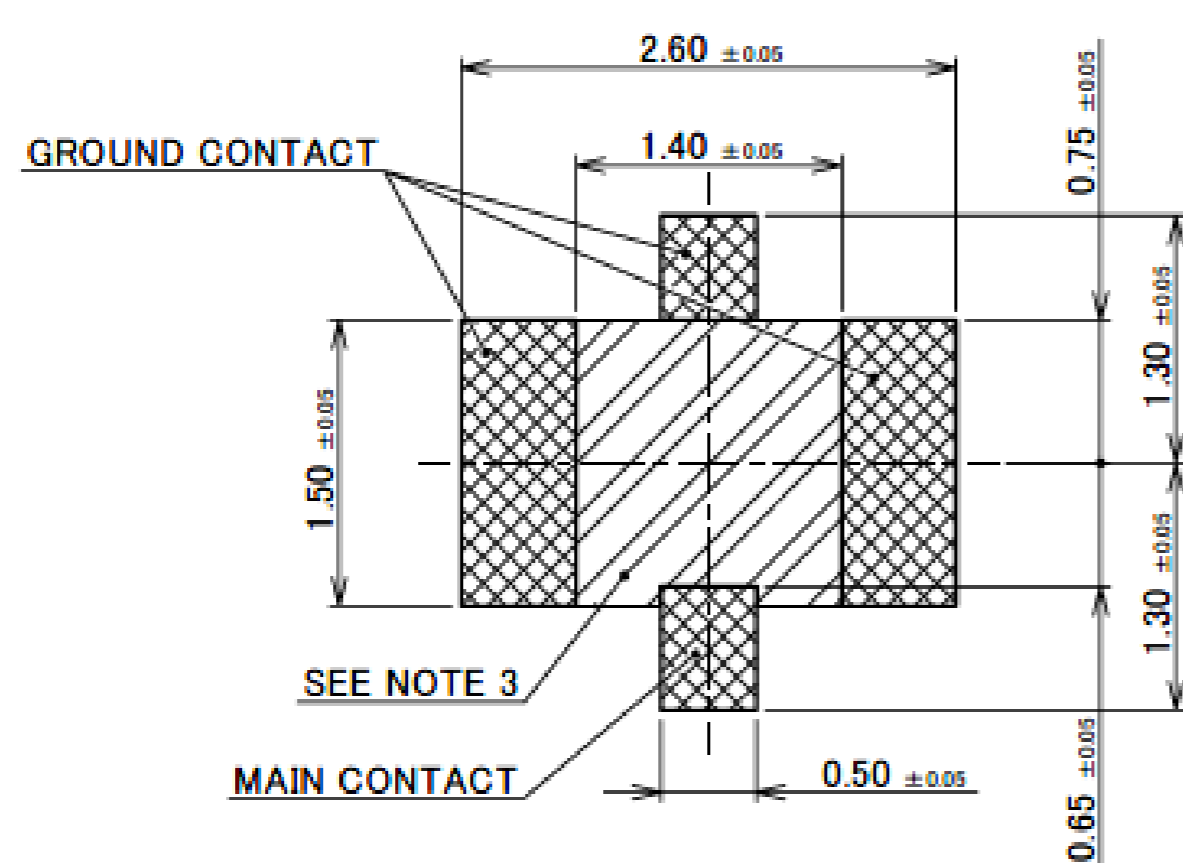
NO.	DESCRIPTION	MATERIAL	FINISH . REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT PART Au 0.03 μm MIN. SOLDERING PART Au 0.03 μm MIN.
2	CONTACT A	BRASS	ALL OVER Ni 1.00 μm MIN. CONTACT PART Au 0.1 μm MIN. SOLDERING PART Au 0.1 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK

Rev.13

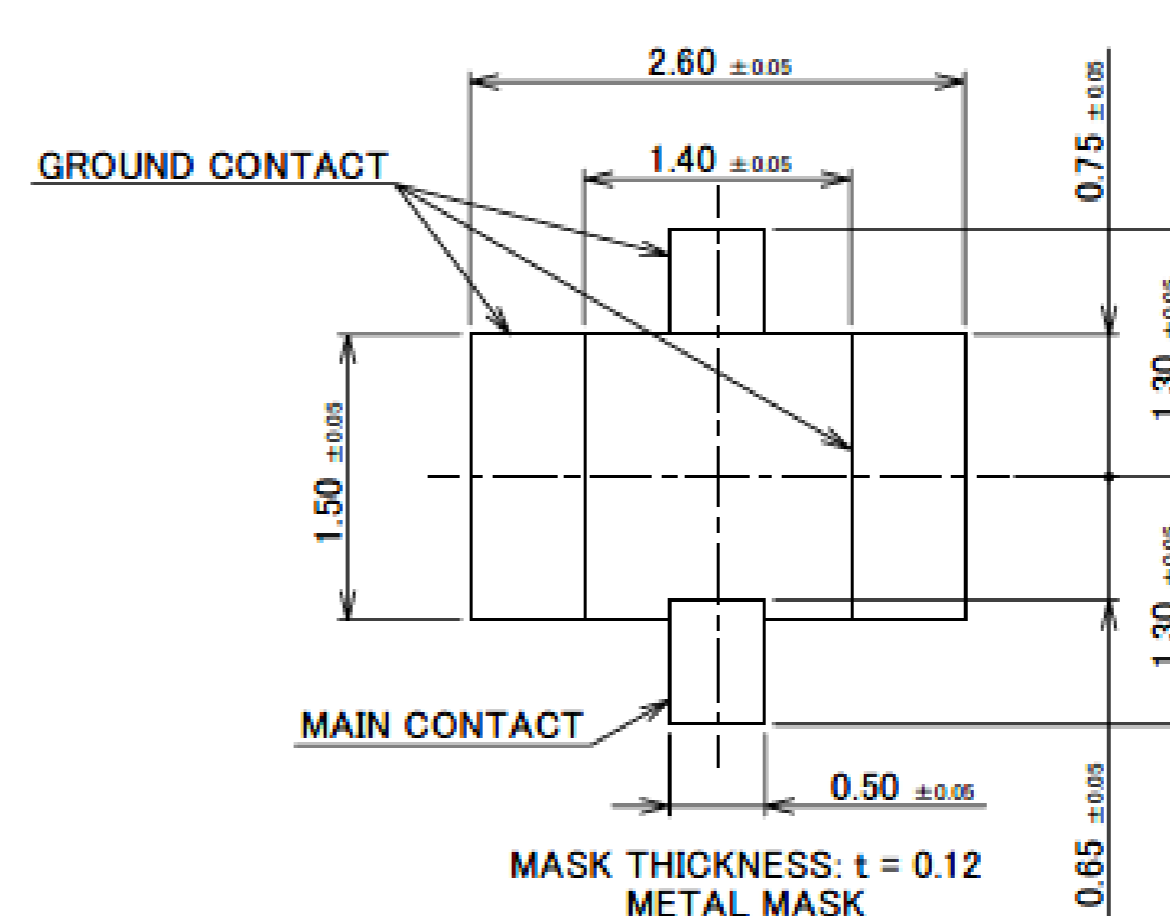
# MHF<sup>®</sup> III Receptacle

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20609-002R
RATING VOLTAGE	60 V AC (R.M.S)
RATING FREQUENCY	DC ~ 9 GHz
OPERATING TEMPERATURE	233 ~ 363 K(-40°C ~ +90°C)
VSWR (MATED WITH SMA ADAPTER PART No. 90285-002)	1.30 MAX. AT 0.1~ 3GHz, 1.40 MAX. AT 3~6GHz, 1.60 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 : $\Delta$ R100 mohm MAX.
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC 200 V 1 MINUTE
DURABILITY	30 CYCLES
TOTAL UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL: 4 N MIN. / AFTER: 2 N MIN.
PRODUCT SPECIFICATION	PRS-2107
TEST REPORT	TR-15061
PACKING STANDARD	300-339
INSTRUCTION MANUAL	HIM-07002
APPEARANCE CRITERIA No.	QLS-A***

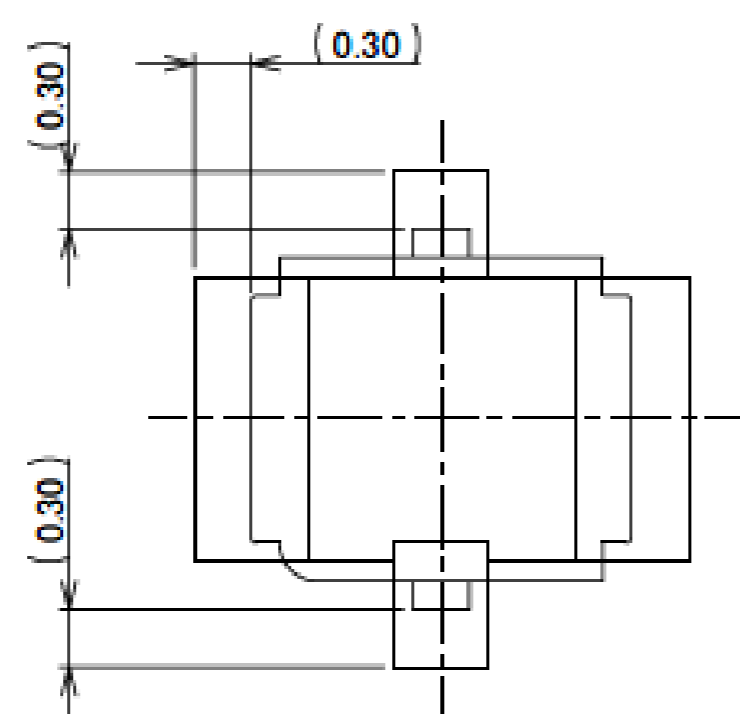
Rev.13



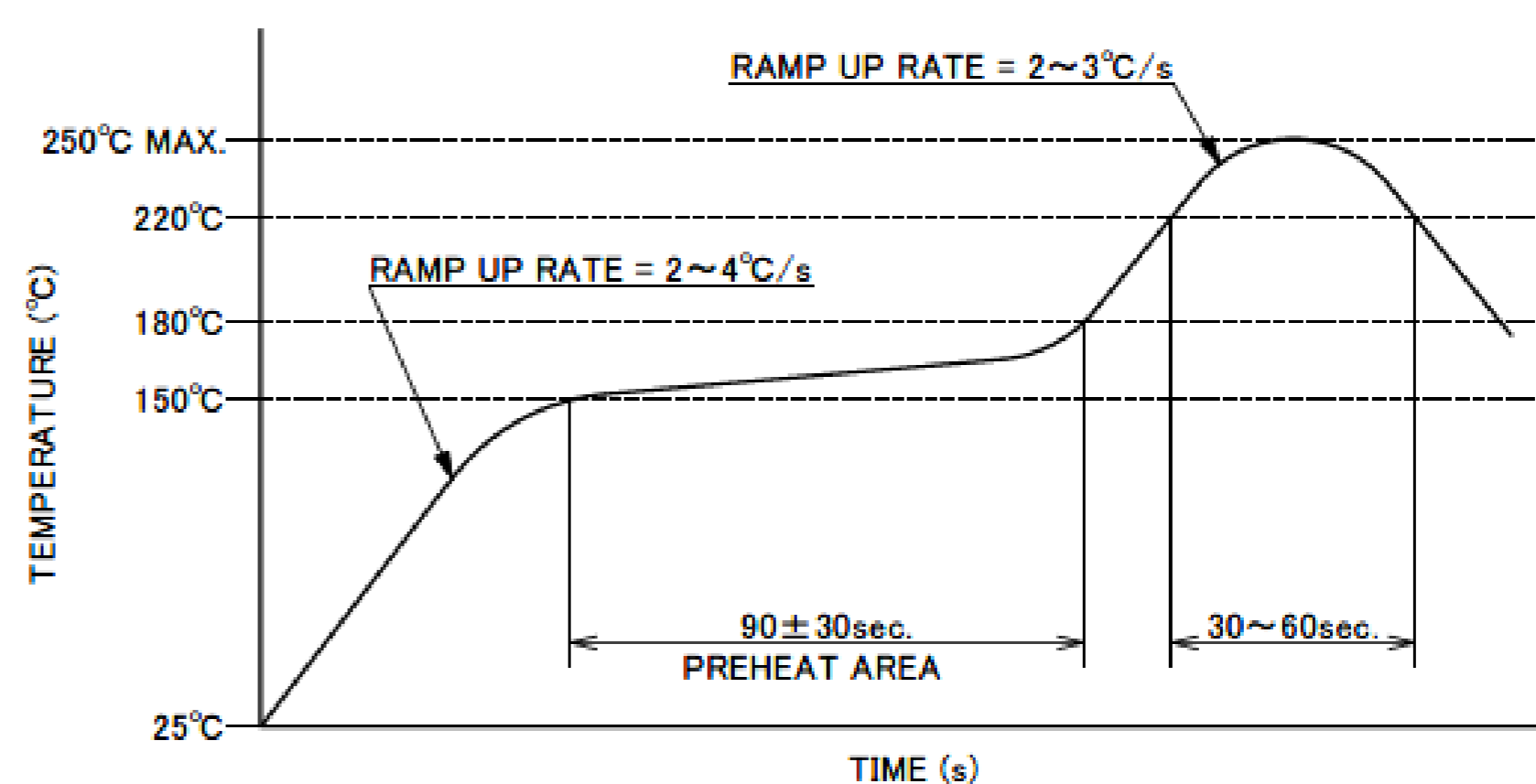
RECOMMENDED FOOTPRINT PATTERN



RECOMMENDED FOOTPRINT PATTERN



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

NOTES

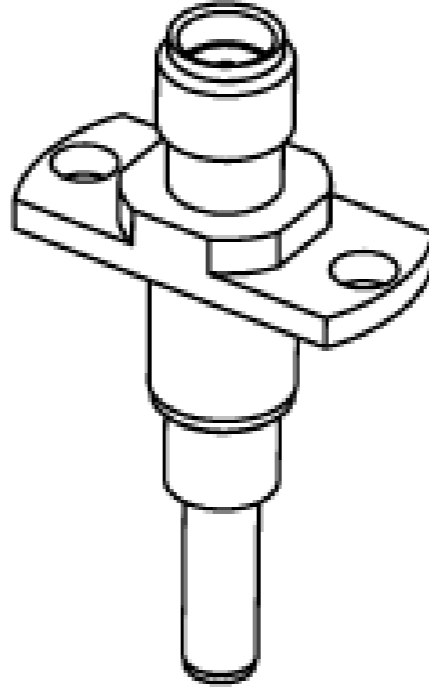
3. NO GROUND, SIGNAL, AND RESIST IN THIS AREA.

Rev.13

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



MHF III SMA ADAPTER  
PART NO. 90285-002



MHF III RECEPTACLE HIGH CYCLE SMA ADAPTER  
PART NO. 90491-001

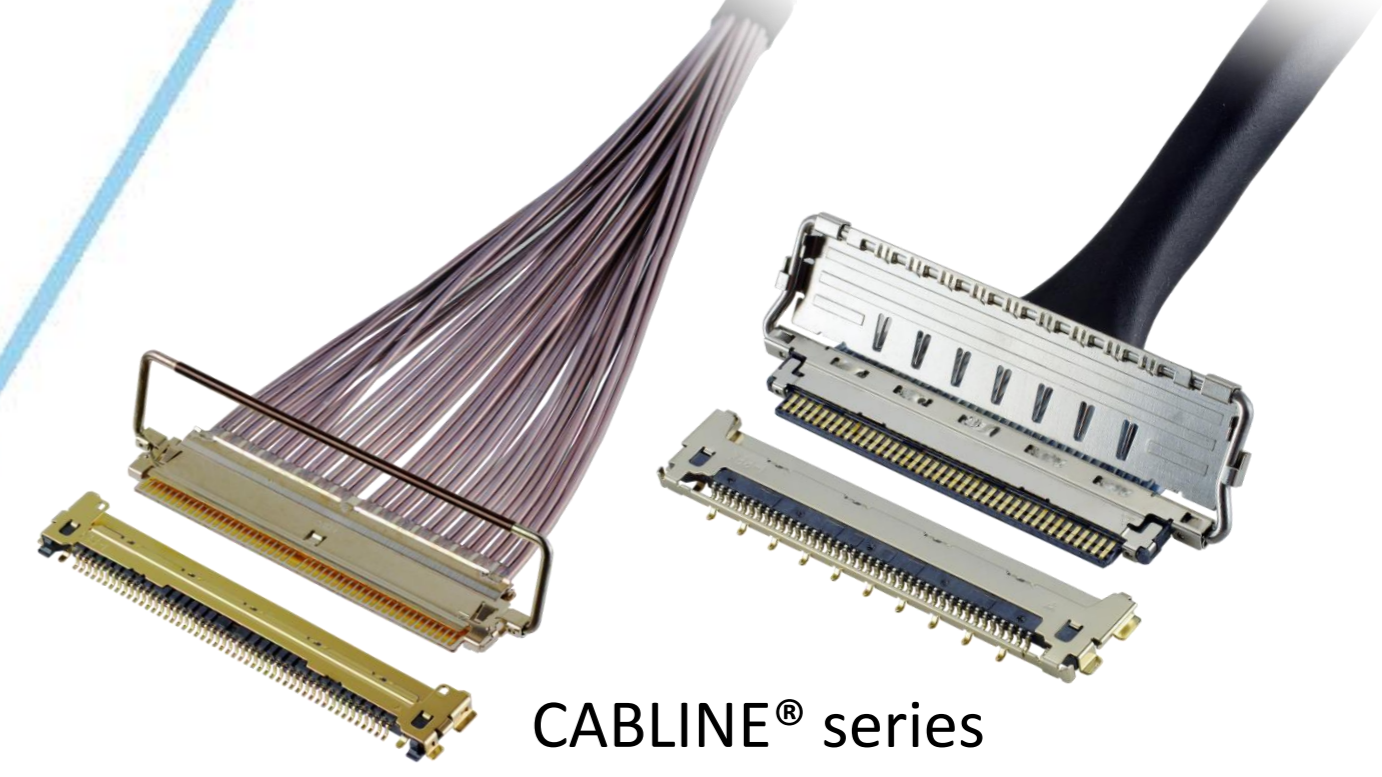
# Custom Products Available

## RF Connector

MHF® series



## Micro-coaxial/Twinax/Discrete Wire Connector



CABLINE® series

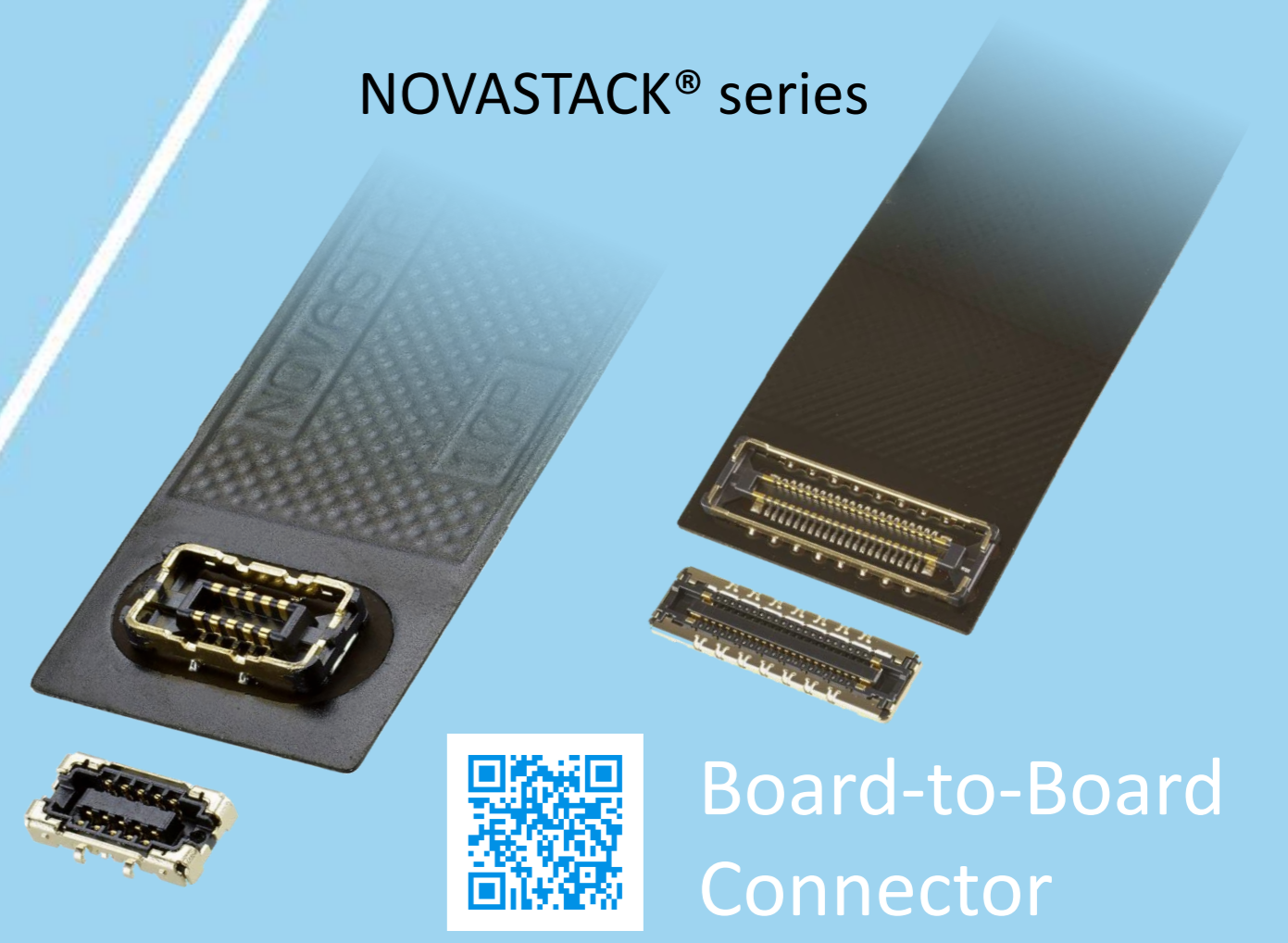


## Optical Module

LIGHTPASS® series



NOVASTACK® series



## Board-to-Board Connector



## Power Connector/Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series



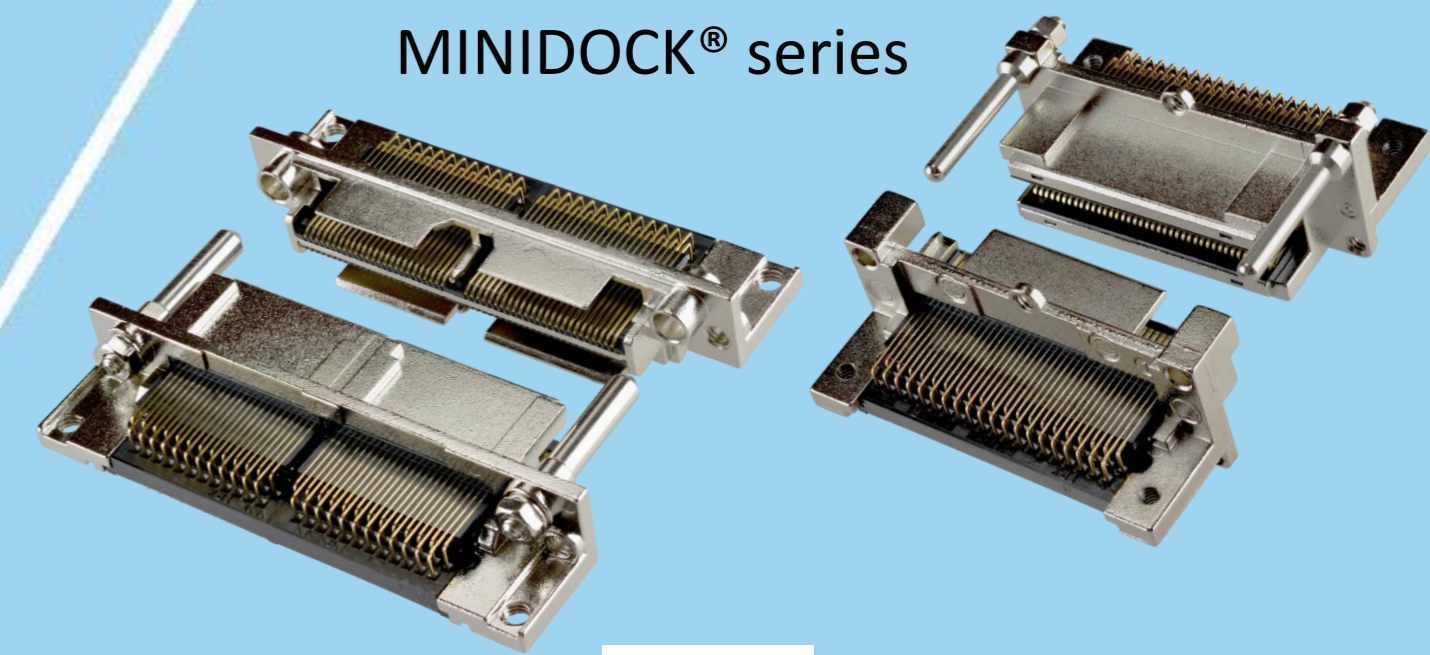
## FPC FFC Connector



Inquiry



MINIDOCK® series



## I/O Connector

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