

# MHF® I

Supports up to 9 GHz, mated height of 3.0 mm max.

**Product Specifications:**

|                          |                 |                              |            |
|--------------------------|-----------------|------------------------------|------------|
| Mated Height (mm max.)   | (1) 2.5 (2) 3.0 |                              |            |
| Rece. SMT Size (mm)      | 3.1 x 3.0       |                              |            |
| Applicable Frequency     | DC ~ 9 GHz      |                              |            |
| Characteristic Impedance | 50 ohm          |                              |            |
| VSWR<br>(L=100 mm)       | Connector       | PLUG                         | RECEPTACLE |
|                          | DC~3 GHz        | 1.3 max.                     | 1.3 max.   |
|                          | 3~6 GHz         | 1.5 max.                     | 1.4 max.   |
|                          | 6~9 GHz         | (1) 1.9 max.<br>(2) 1.6 max. | 1.8 max.   |

\* Cable size O.D. (1) 1.80 mm, 1.32 mm, 1.13 mm, 0.81 mm, 1.37 mm (2) 2.0 mm

**Applicable Cable Size:**

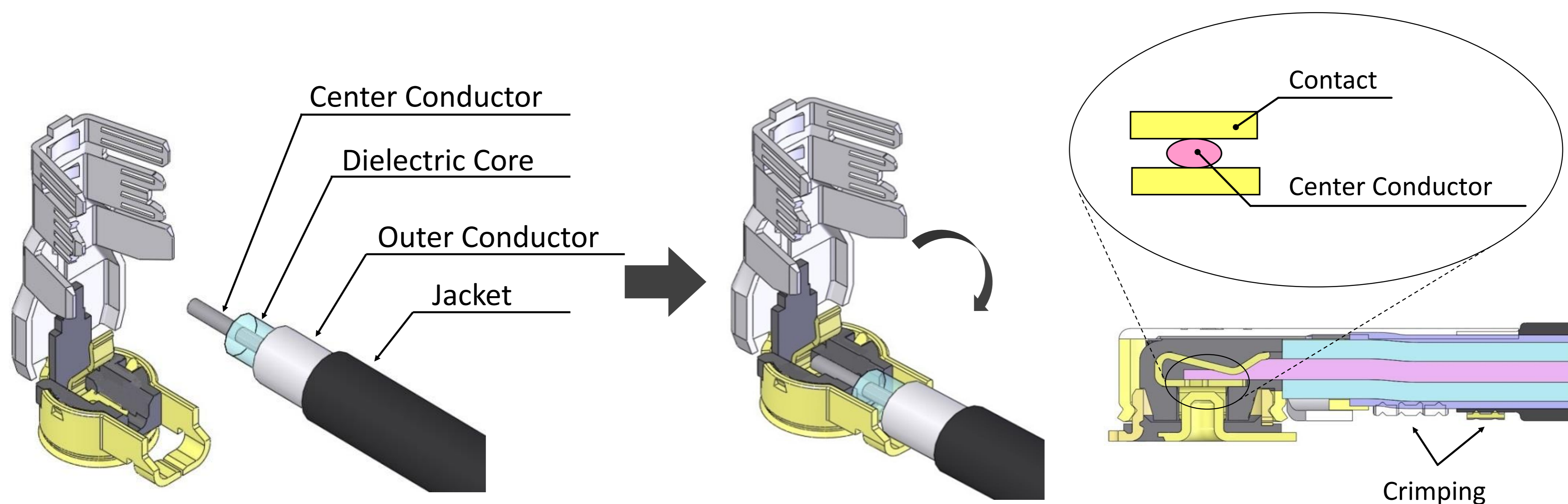
|                                     |
|-------------------------------------|
| <b>20278-112R-**, 20670-001R-**</b> |
| O.D. 1.80 mm / AWG 30               |
| O.D. 1.32 mm, 1.13 mm / AWG 32      |
| O.D. 0.81 mm / AWG 36               |
| <b>20351-112R-37</b>                |
| O.D. 1.37 mm / AWG 30               |
| <b>20767-001R-20</b>                |
| O.D. 2.0 mm / AWG 26                |

**Applicable Standards (Reference Only):**

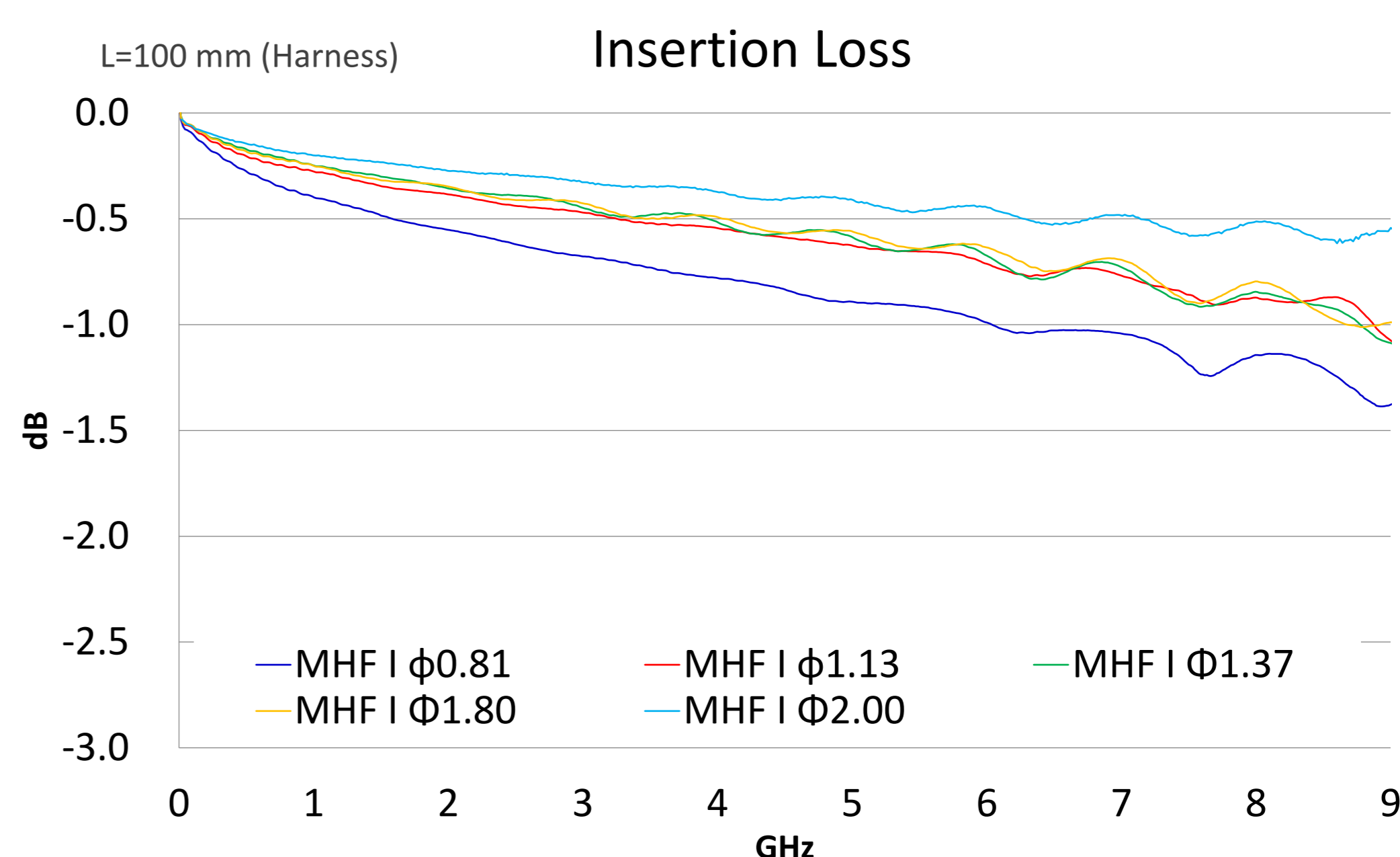
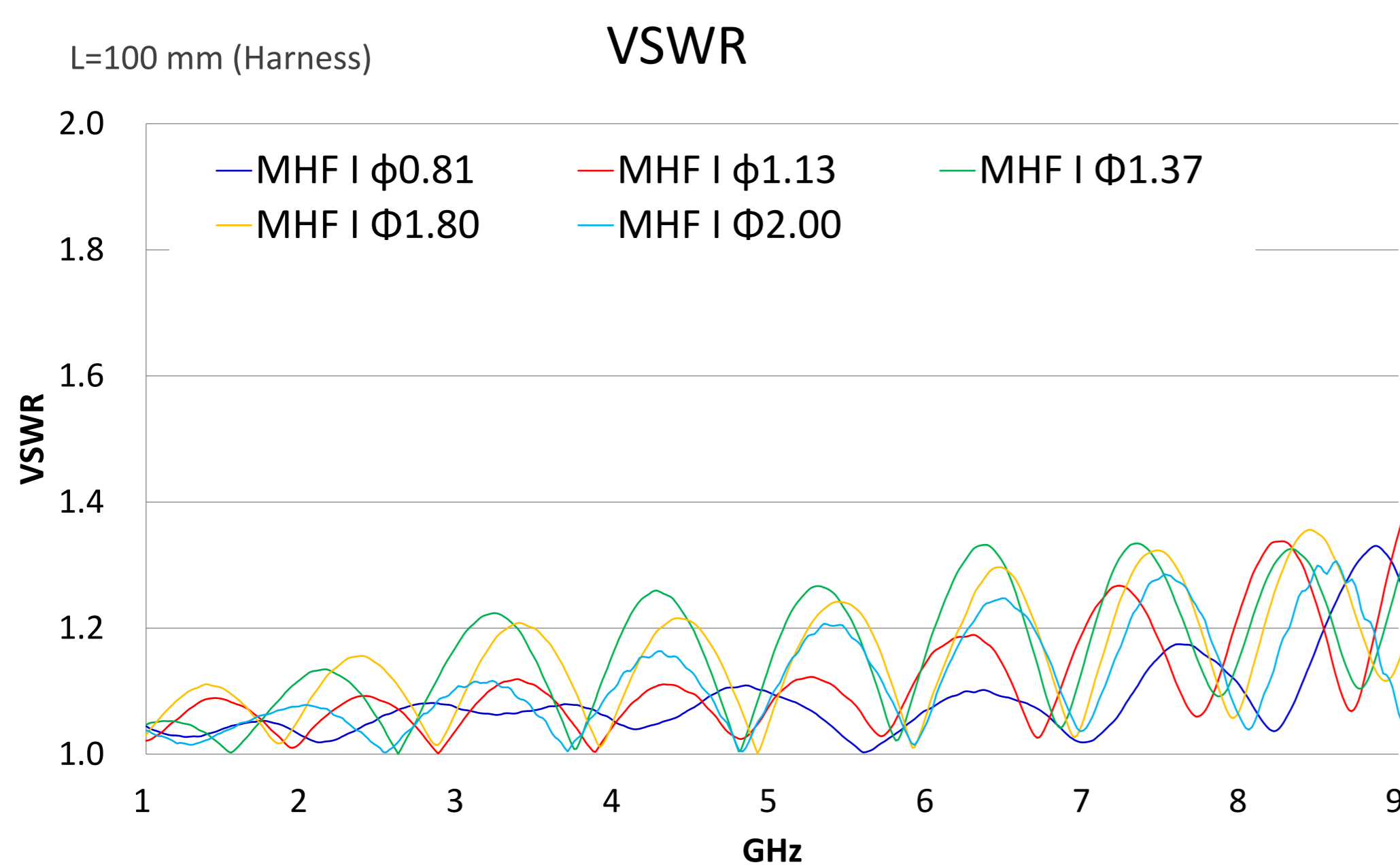
5G sub-6, Wi-Fi 6E, LTE/LTE-Advanced, LPWA, Bluetooth, GPS



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



▶ Small form factor with big performance through 9 GHz



▶ MHF® I plug available with various cable O.D. and additional locking option

|                                     |                  |   |              |              |
|-------------------------------------|------------------|---|--------------|--------------|
|                                     |                  |   |              |              |
| Product name                        |                  | MHF® I LK   | MHF® I       | MHF® I       |
| Lock                                |                  | With Lock   | Without Lock | Without Lock |
| Mating Height                       |                  | 2.9 mm max.   | 2.5 mm max.  | 3.0 mm max.  |
| Coax O.D.<br>(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) | ●   | ●            |              |
|                                     | 0.81 mm (AWG#36) | ●   | ●            |              |
| Receptacle                          |                  | MHF® I receptacle 20279-001E-** (3 pads) / 20441-001E-01 (4 pads) |              |              |

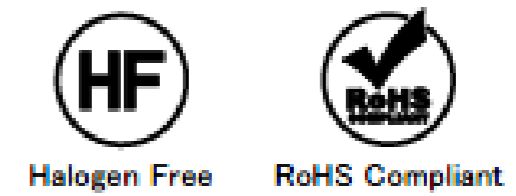
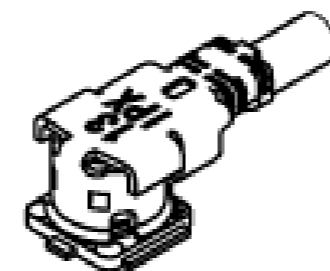
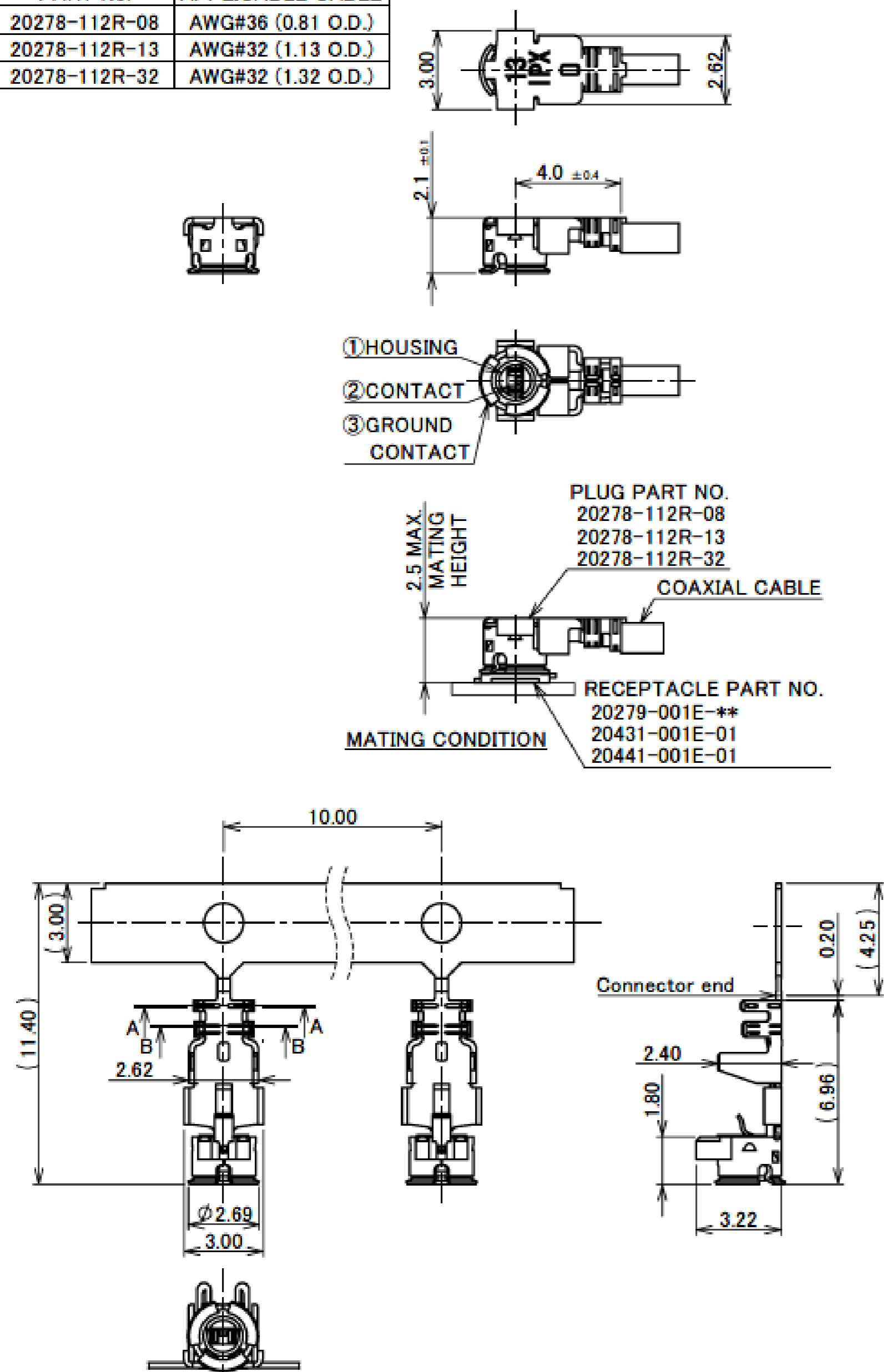


# Component Parts Details

## MHF<sup>®</sup> I plug Au (0.81,1.13,1.32,1.80)

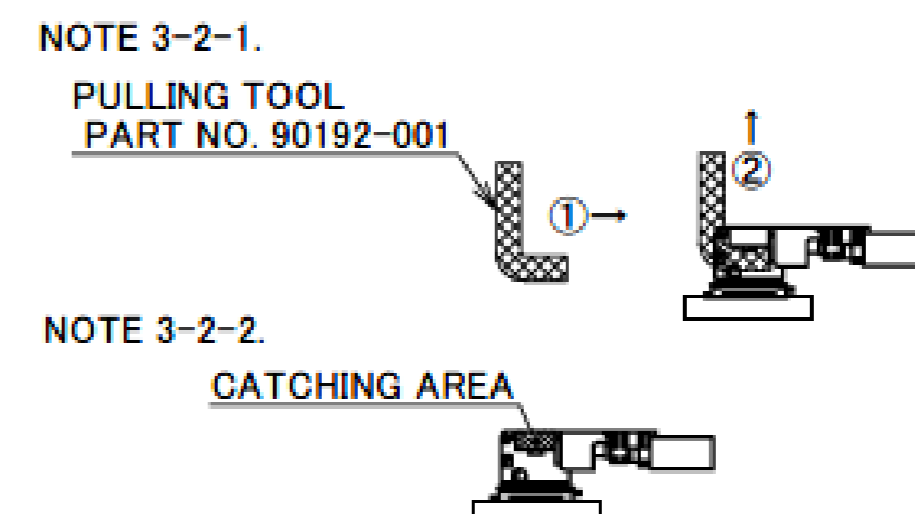
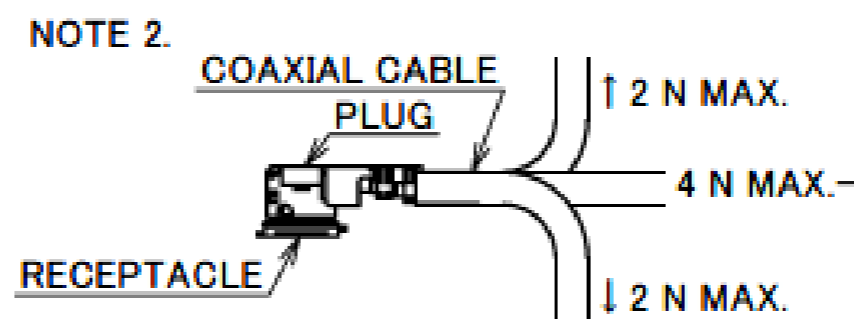
### Recommended P/N 20278-112R-\*\*-\*\*

| PART No.      | APPLICABLE CABLE   |
|---------------|--------------------|
| 20278-112R-08 | AWG#36 (0.81 O.D.) |
| 20278-112R-13 | AWG#32 (1.13 O.D.) |
| 20278-112R-32 | AWG#32 (1.32 O.D.) |



#### NOTES

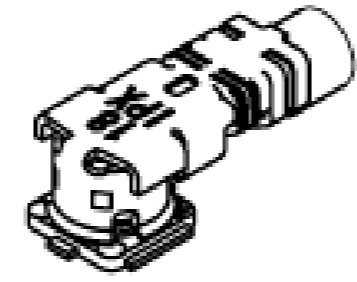
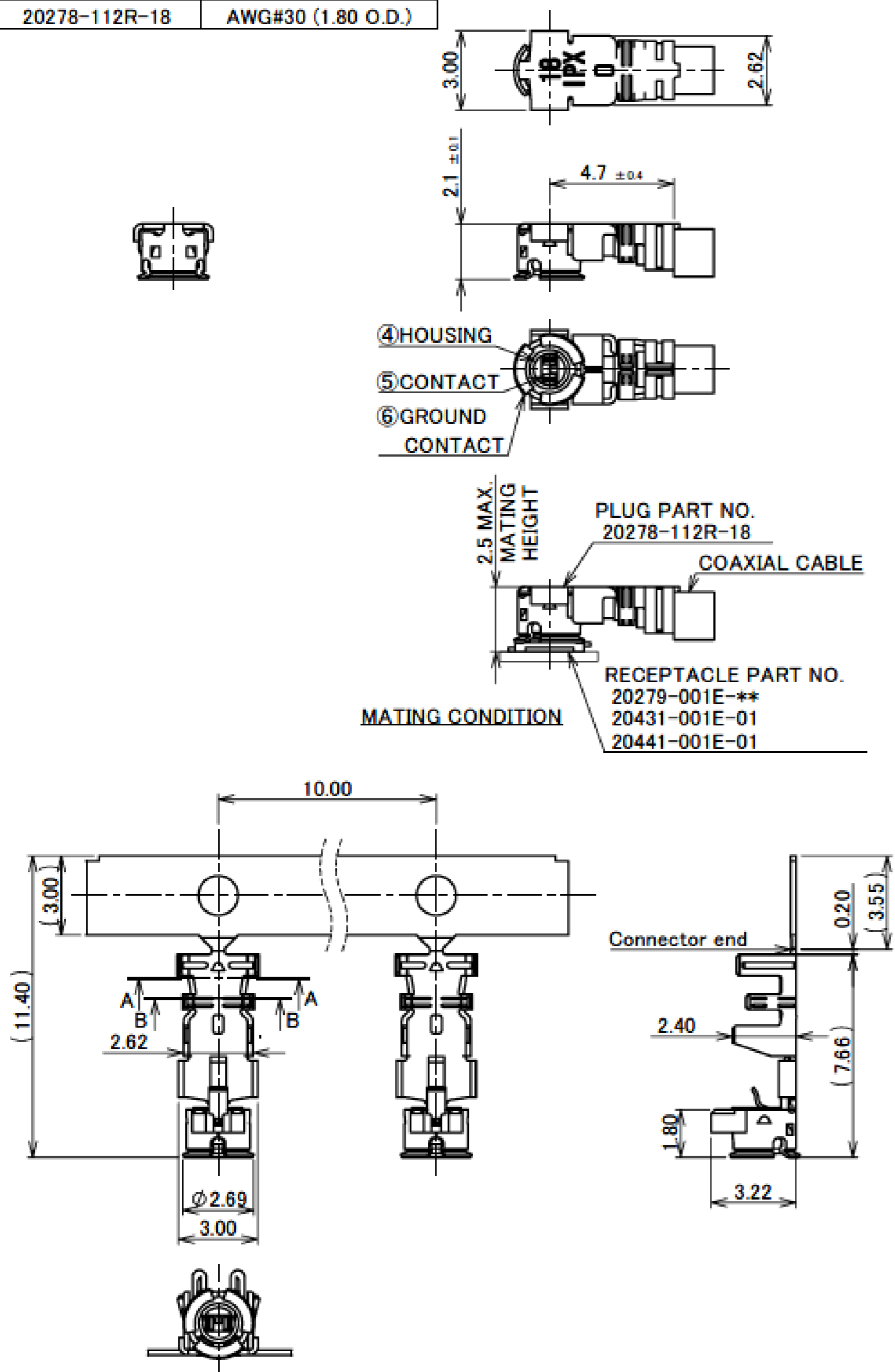
- APPLICABLE CONNECTOR:  
20279-001E-\*\*, 20431-001E-01, 20441-001E-01
- PERMISSIBLE LOAD OF CABLE AT MATING
- SUGGESTIONS FOR MATING & UNMATING OPERATION.
  - MATING  
PLEASE MATE THE CONNECTOR STRAIGHTLY TO VERTICAL DIRECTION AS MUCH AS POSSIBLE. ADJUSTING THE MATING AXIS OF PLUG AND RECEPTACLE. AS EXCESSIVE SLANT ANGLE MATING MAY BREAK THE CONNECTOR, PLEASE DON'T DO IT.
  - UNMATING
    - IN CASE OF UNMATING BY PULLING TOOL  
PLEASE USE THE PULLING TOOL AS THE FOLLOWING DRAWING, AND PLEASE PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
    - IN CASE OF UNMATING DIRECTLY BY HAND  
PLEASE CATCH THE CATCHING AREA OF PLUG, AND PLEASE PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
  - CRIMP OVER STANDARDS OF OUTER CONDUCTOR  
STANDARDS: LESS THAN 10% FROM TOTAL NUMBERS OF OUTER CONDUCTOR.  
(NUMBERS OF OUTER CONDUCTOR'S CRIMP OVER FROM OUTER CONDUCTOR'S BARREL)
- CAUTION ABOUT HEAT SHRINKAGE TUBES  
PLEASE BE CAREFUL NOT TO MELT HOUSING WHEN USING HEAT SHRINKAGE TUBES. IT WILL BECOME CAUSE OPEN CIRCUIT.
- THIS IS "Pb-FREE" CONNECTOR.



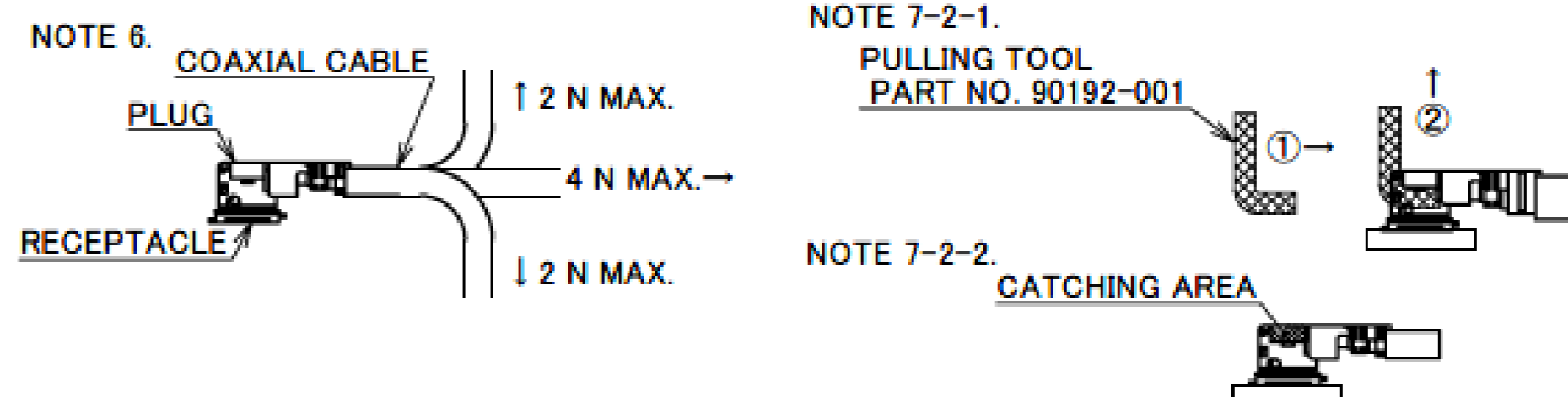
| NO. | DESCRIPTION    | MATERIAL        | FINISH, REMARKS  |
|-----|----------------|-----------------|--|
| 3   | GROUND CONTACT | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.05 μm MIN.   |
| 2   | CONTACT        | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.10 μm MIN.   |
| 1   | HOUSING        | PBT             | UL94V-0, 20278-112R-08: WHITE<br>20278-112R-13, -32: BLACK |

# MHF® I plug Au (0.81,1.13,1.32,1.80)

| Recommended P/N | 20278-112R-**-     |
|-----------------|--------------------|
| PART No.        | APPLICABLE CABLE   |
| 20278-112R-18   | AWG#30 (1.80 O.D.) |



- NOTES
- APPLICABLE CONNECTOR:  
20279-001E-\*\*, 20431-001E-01, 20441-001E-01
  - PERMISSIBLE LOAD OF CABLE AT MATING
  - SUGGESTIONS FOR MATING & UNMATING OPERATION.
  - MATING  
PLEASE MATE THE CONNECTOR STRAIGHTLY TO VERTICAL DIRECTION AS MUCH AS POSSIBLE. ADJUSTING THE MATING AXIS OF PLUG AND RECEPTACLE. AS EXCESSIVE SLANT ANGLE MATING MAY BREAK THE CONNECTOR, PLEASE DON'T DO IT.
  - UNMATING
  - IN CASE OF UNMATING BY PULLING TOOL  
PLEASE USE THE PULLING TOOL AS THE FOLLOWING DRAWING, AND PLEASE PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
  - IN CASE OF UNMATING DIRECTLY BY HAND  
PLEASE CATCH THE CATCHING AREA OF PLUG, AND PLEASE PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
  - CRIMP OVER STANDARDS OF OUTER CONDUCTOR  
STANDARDS: LESS THAN 10% FROM TOTAL NUMBERS OF OUTER CONDUCTOR.  
(NUMBERS OF OUTER CONDUCTOR'S CRIMP OVER FROM OUTER CONDUCTOR'S BARREL)
  - CAUTION ABOUT HEAT SHRINKAGE TUBES  
PLEASE BE CAREFUL NOT TO MELT HOUSING WHEN USING HEAT SHRINKAGE TUBES. IT WILL BECOME CAUSE OPEN CIRCUIT.
  - THIS IS "Pb-FREE" CONNECTOR.



| NO. | DESCRIPTION    | MATERIAL        | FINISH, REMARKS  |
|-----|----------------|-----------------|--|
| 6   | GROUND CONTACT | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.05 μm MIN. |
| 5   | CONTACT        | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.10 μm MIN. |
| 4   | HOUSING        | PBT             | UL94V-0, WHITE   |

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## Recommended P/N 20278-112R-\*\*-

| PART NO.                                  | 20278-112R-08  | 20278-112R-13  | 20278-112R-32  | 20278-112R-18   | CABLE CUT LENGTH |
|---|--|--|--|---|------------------|
| APPLICABLE CABLE NOMINAL DIMENSION        | <br>2.09 ±0.1<br>1.25 ±0.1<br>1.16 ±0.1<br>AWG #36(7/0.05) | <br>2.09 ±0.1<br>1.25 ±0.1<br>1.16 ±0.1<br>AWG #32(7/0.08) | <br>2.09 ±0.1<br>1.25 ±0.1<br>1.16 ±0.1<br>AWG #32(7/0.08) | <br>2.09 ±0.1<br>1.25 ±0.1<br>1.16 ±0.1<br>AWG #30(7/0.102) |                  |
| INNER CONDUCTOR SILVER PLATING            |  |  |  |   |                  |
| INNER CONDUCTOR DIELECTRIC CORE           |  |  |  |   |                  |
| OUTER CONDUCTOR SILVER OR TIN PLATING     |  |  |  |   |                  |
| JACKET                                    |  |  |  |   |                  |
| BRAIDED SHIELD OF OUTER CONDUCTOR         | SINGLE   | SINGLE   | DOUBLE   | SINGLE  |                  |
| PART NO. OF SEMI AUTO TERMINATION MACHINE | 90213-008C   | 90213-013C   | 90213-032C   | 90232-018   |                  |
| SECT. B-B                                 |  |  |  |   |                  |
| SECT. A-A                                 |  |  |  |   |                  |
| CRIMP HEIGHT                              | CH-1   | 1.34~1.40  | 1.34~1.40  | 1.34~1.40   |                  |
|   | CH-2   | 0.76~0.84  | 1.06~1.14  | 1.20~1.30   |                  |
|   | CH-3   | 0.85~0.97  | 1.15~1.35  | 1.26~1.46   |                  |

NOTE 9. DO NOT USE SOLDER COATED EITHER INNER OR OUTER CONDUCTOR CABLE.

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Contact your sales representative for more detailed information. [www.i-pex.com](http://www.i-pex.com)

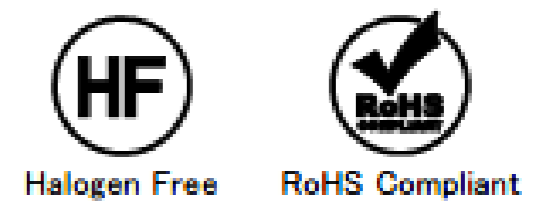
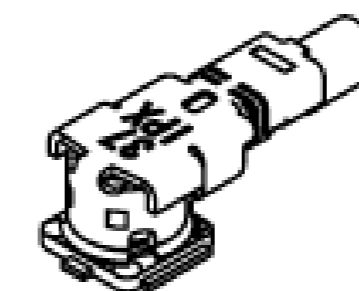
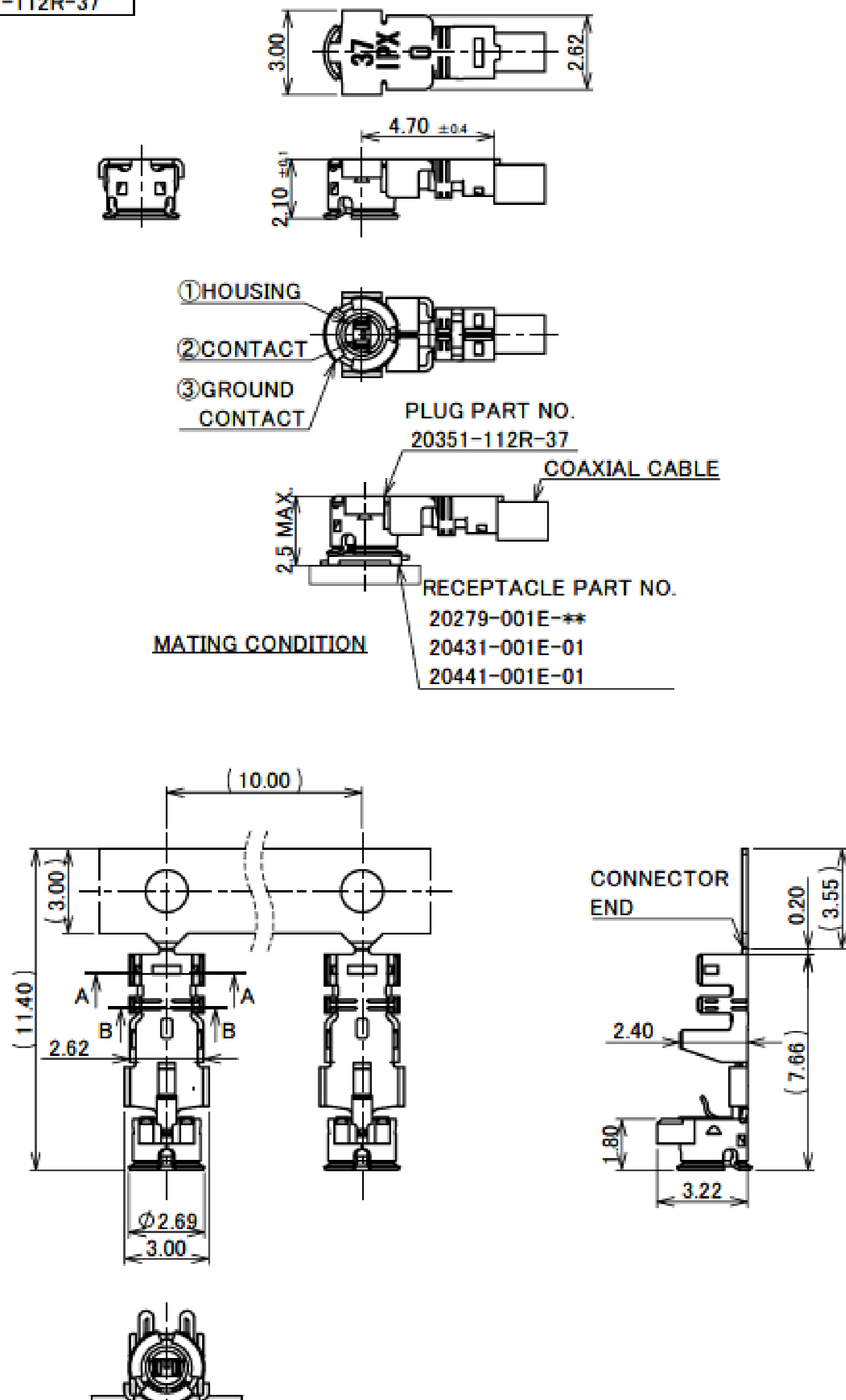
# MHF® I plug Au (0.81,1.13,1.32,1.80)

| ITEMS  | SPECIFICATION   |               |
|--|---|---------------|
| RECOMMENDED APPLICABLE CONNECTOR PART No.          | 20279-001E-**   | 20441-001E-01 |
| RATING VOLTAGE                                     | 60 V AC (R.M.S)   |               |
| RATING FREQUENCY                                   | DC~9GHz   |               |
| OPERATING TEMPERATURE                              | 233~363 K (-40°C~+90°C)   |               |
| VSWR<br>(MATED WITH SMA ADAPTER PART No.90193-001) | 1.30 MAX. AT 0.1~3 GHz, 1.50 MAX. AT 3~6 GHz, 1.90 MAX. AT 6~9 GHz<br>(0.81 O.D. / 1.13 O.D. / 1.80 O.D.)<br>1.30 MAX. AT 0.1~3 GHz, 1.50 MAX. AT 3~6 GHz, 1.60 MAX. AT 6~9 GHz (1.32 O.D.) |               |
| MAIN CONTACT RESISTANCE                            | INITIAL: 20 mohm MAX. / AFTER TEST: 25 mohm MAX.  |               |
| GROUND CONTACT RESISTANCE                          | INITIAL: 10 mohm MAX. / AFTER TEST: 15 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)              | 5 N MIN. / 3 N MIN.   |               |
| CRIMP STRENGTH                                     | 20278-112R-08, 20278-112R-13, 20278-112R-32: 10 N MIN.<br>20278-112R-18: 15 N MIN.  |               |
| PRODUCT SPECIFICATION                              | PRS-1676  |               |
| TEST REPORT  | TR-12044  |               |
| PACKING STANDARD                                   | 300-233   |               |
| INSTRUCTION MANUAL                                 | HIM-10002   |               |
| APPEARANCE CRITERIA No.                            | QLS-A***  |               |

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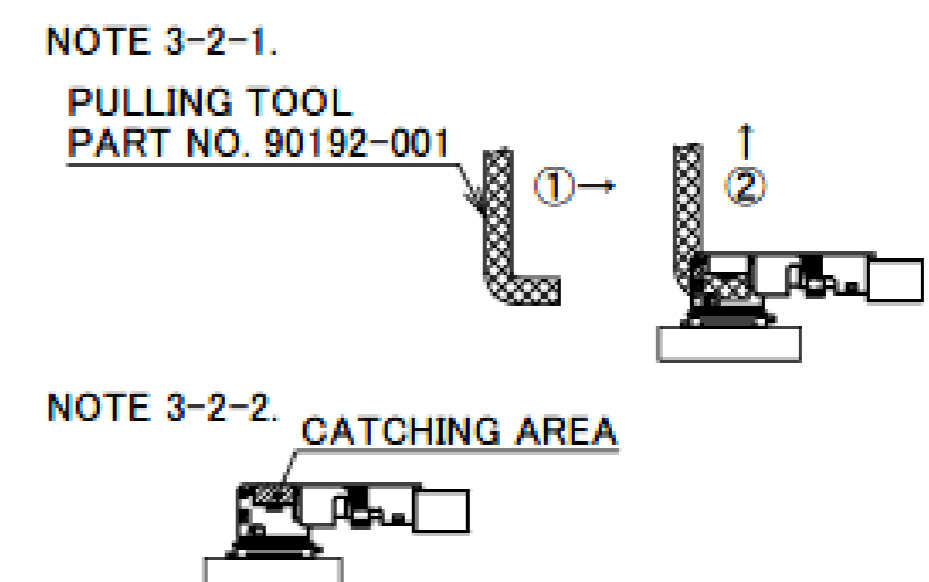
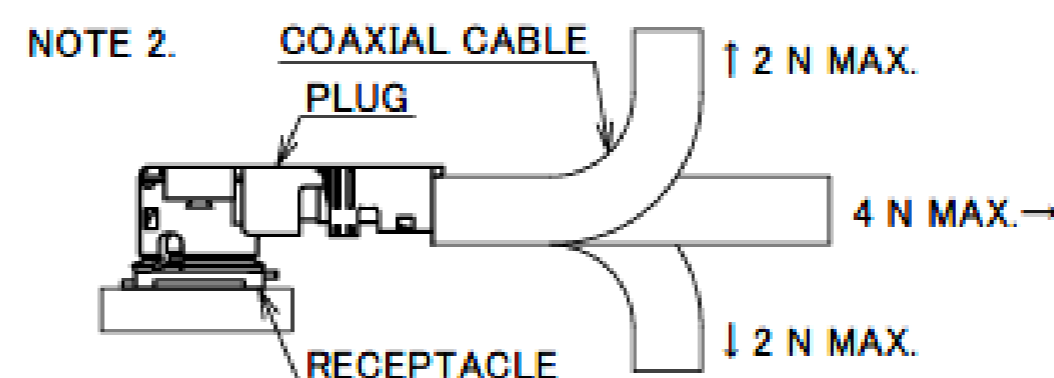
# MHF® I plug Au (1.37)

|                 |               |
|-----------------|---------------|
| Recommended P/N | 20351-112R-37 |
| PART No.        | 20351-112R-37 |



### NOTES

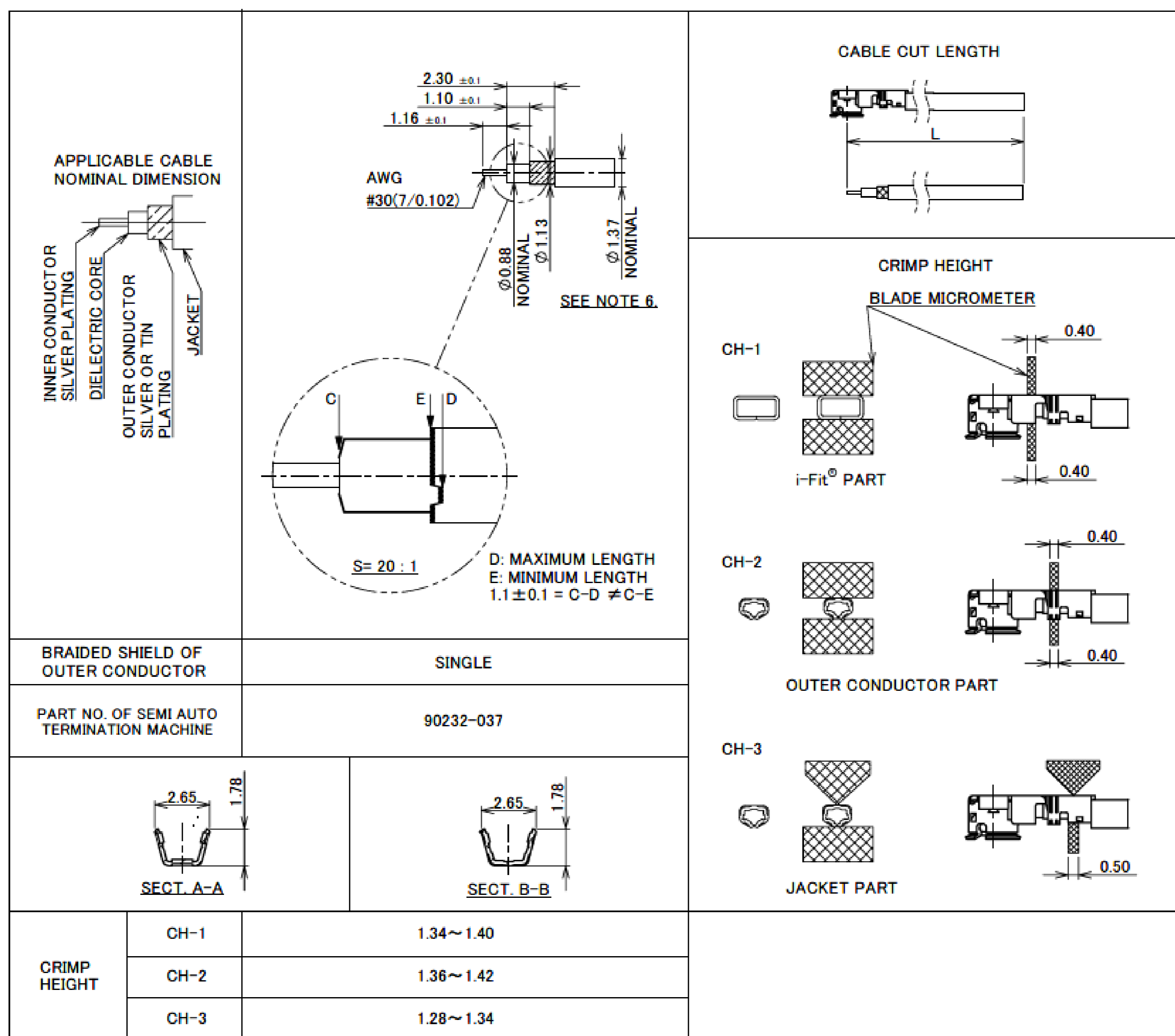
- APPLICABLE CONNECTOR:  
20279-001E-\*\*, 20431-001E-01, 20441-001E-01
- PERMISSIBLE LOAD OF CABLE AT MATING
- SUGGESTIONS FOR MATING & UNMATING OPERATION
  - MATING  
PLEASE MATE THE CONNECTOR STRAIGHTLY TO VERTICAL DIRECTION AS MUCH AS POSSIBLE, ADJUSTING THE MATING AXIS OF PLUG AND RECEPTACLE. AS EXCESSIVE SLANT ANGLE MATING MAY BREAK THE CONNECTOR, PLEASE DON'T DO IT.
  - UNMATING
    - IN CASE OF UNMATING BY PULLING TOOL  
PLEASE USE THE PULLING TOOL AS THE FOLLOWING DRAWING, AND PLEASE PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
    - IN CASE OF UNMATING DIRECTLY BY HAND  
PLEASE CATCH THE CATCHING AREA OF PLUG, AND PLEASE PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
  - CRIMP OVER STANDARDS OF OUTER CONDUCTOR  
STANDARDS: LESS THAN 10% FROM TOTAL NUMBERS OF OUTER CONDUCTOR.  
(NUMBERS OF OUTER CONDUCTOR'S CRIMP OVER FROM OUTER CONDUCTOR'S BARREL)
  - CAUTION ABOUT HEAT SHRINKAGE TUBES  
PLEASE BE CAREFUL NOT TO MELT HOUSING WHEN USING HEAT SHRINKAGE TUBES. IT WILL BECOME CAUSE OPEN CIRCUIT.
- TIP OF CONTACT SHOULD BE RECESSED OF HOUSING AFTER CRIMPED ABOUT MATING AREA.
- THIS IS "Pb-FREE" CONNECTOR.



| NO. | DESCRIPTION    | MATERIAL        | FINISH, REMARKS  |
|-----|----------------|-----------------|--|
| 3   | GROUND CONTACT | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.05 μm MIN. |
| 2   | CONTACT        | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.10 μm MIN. |
| 1   | HOUSING        | PBT             | UL94V-0, WHITE   |

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# MHF® I plug Au (1.37)



NOTE 6. DO NOT USE SOLDER COATED EITHER INNER OR OUTER CONDUCTOR CABLE.

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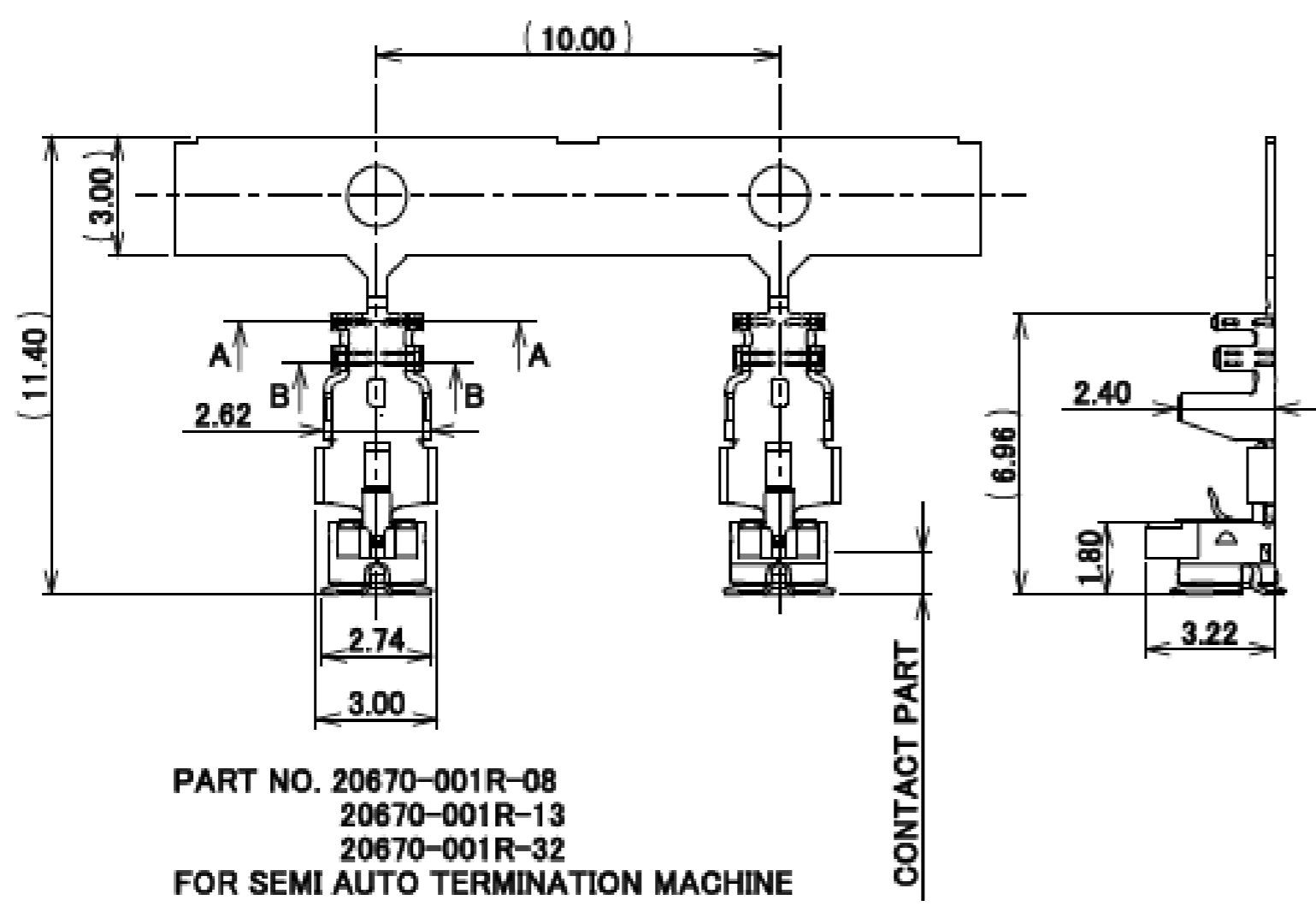
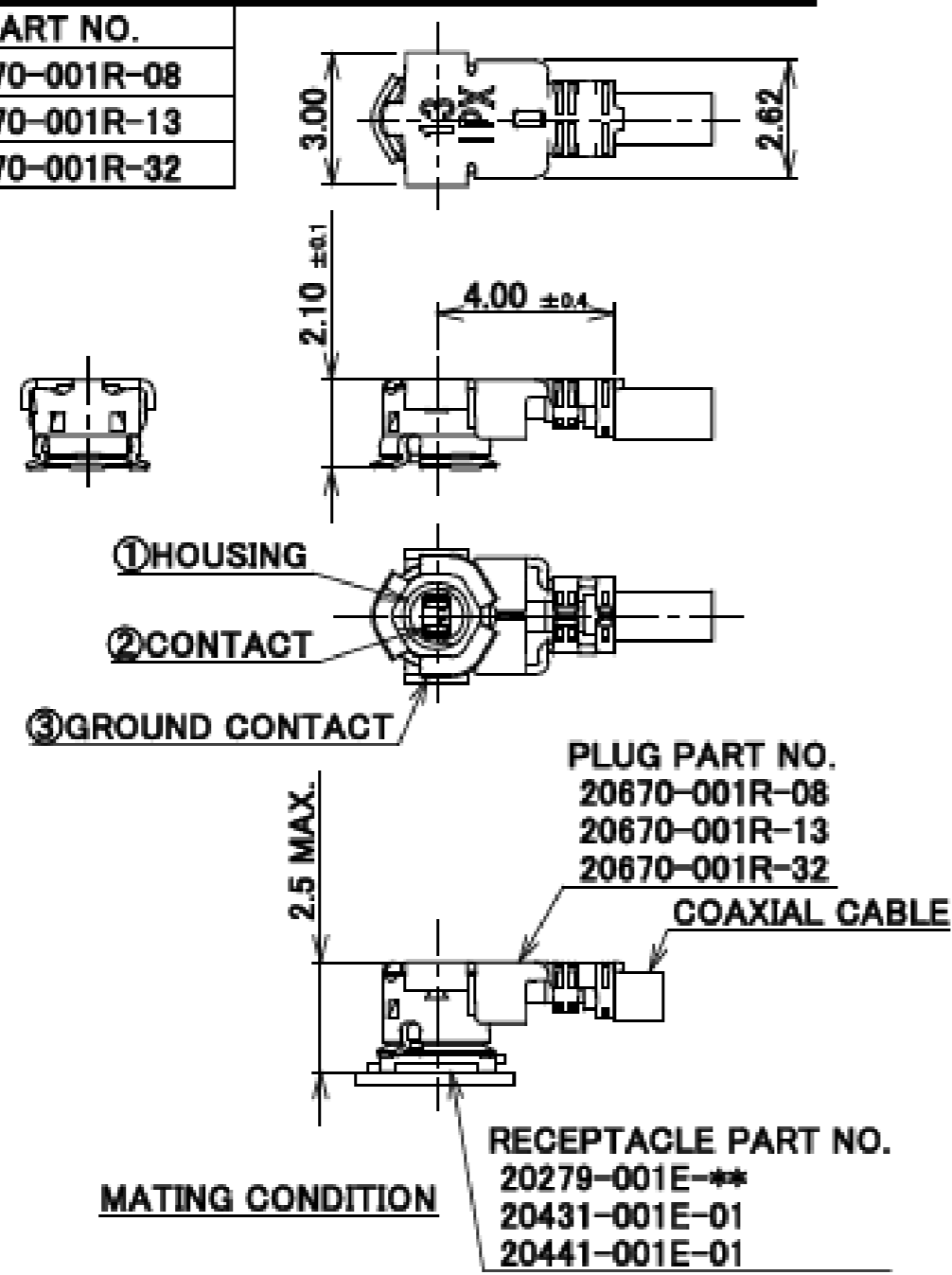
| ITEMS                                     | SPECIFICATION   |               |
|---|---|---------------|
| RECOMMENDED APPLICABLE CONNECTOR PART No. | 20279-001E-**   | 20441-001E-01 |
| RATING VOLTAGE                            | 60 V AC (R.M.S)   |               |
| RATING FREQUENCY                          | DC ~ 9GHz   |               |
| OPERATING TEMPERATURE                     | 233 ~ 363 K (-40°C ~ +90°C)   |               |
| VSWR                                      | 1.3 MAX. AT 0.1 ~ 3 GHz, 1.5 MAX. AT 3 ~ 6 GHz, 1.9 MAX. AT 6 ~ 9 GHz |               |
| MAIN CONTACT RESISTANCE                   | INITIAL: 20 mohm MAX. / AFTER TEST: 25 mohm MAX.                      |               |
| GROUND CONTACT RESISTANCE                 | INITIAL: 10 mohm MAX. / AFTER TEST: 15 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)     | 5 N MIN. / 3 N MIN.   |               |
| CRIMP STRENGTH                            | 15 N MIN.   |               |
| PRODUCT SPECIFICATION                     | PRS-1726  |               |
| TEST REPORT                               | TR-12096  |               |
| PACKING STANDARD                          | 300-233   |               |
| INSTRUCTION MANUAL                        | HIM-10002   |               |
| APPEARANCE CRITERIA No.                   | QLS-A***  |               |

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# MHF® I plug Ni top (0.81,1.13,1.32,1.37,1.80)

Recommended P/N **20670-001R-\*\*-**

| PART NO.      |
|---------------|
| 20670-001R-08 |
| 20670-001R-13 |
| 20670-001R-32 |

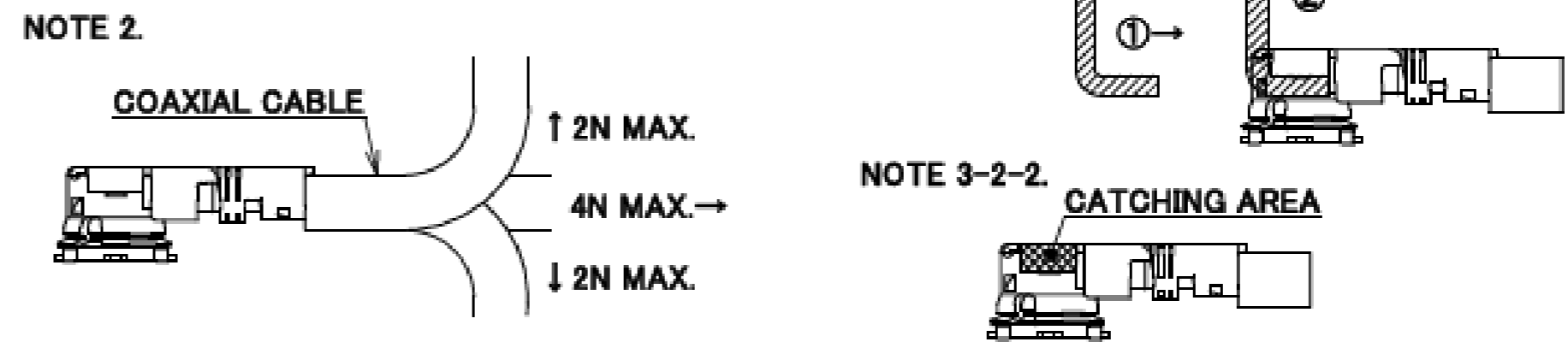


HATCHED AREA: NI PLATING AREA

HF Halogen Free RoHS Compliant

NOTES

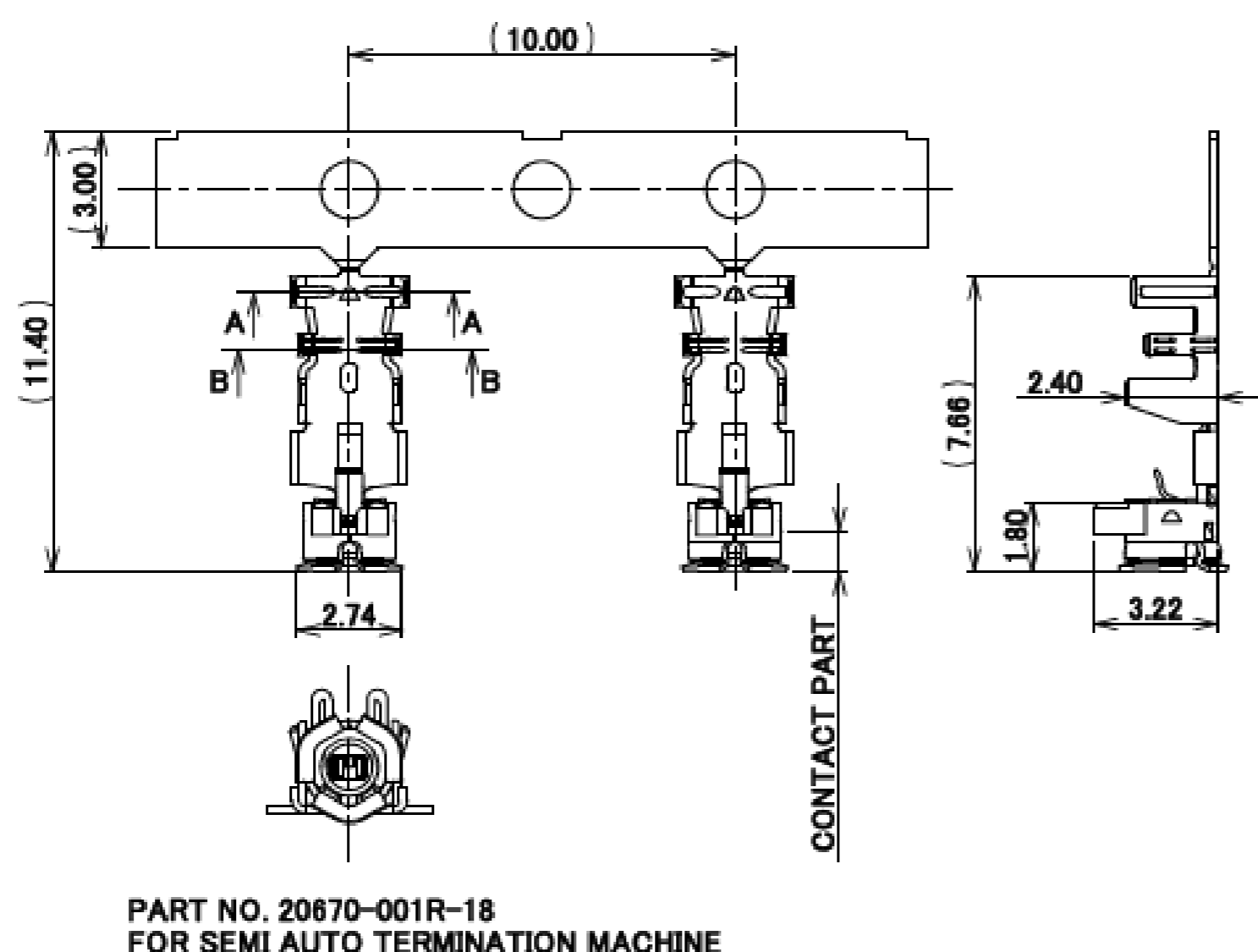
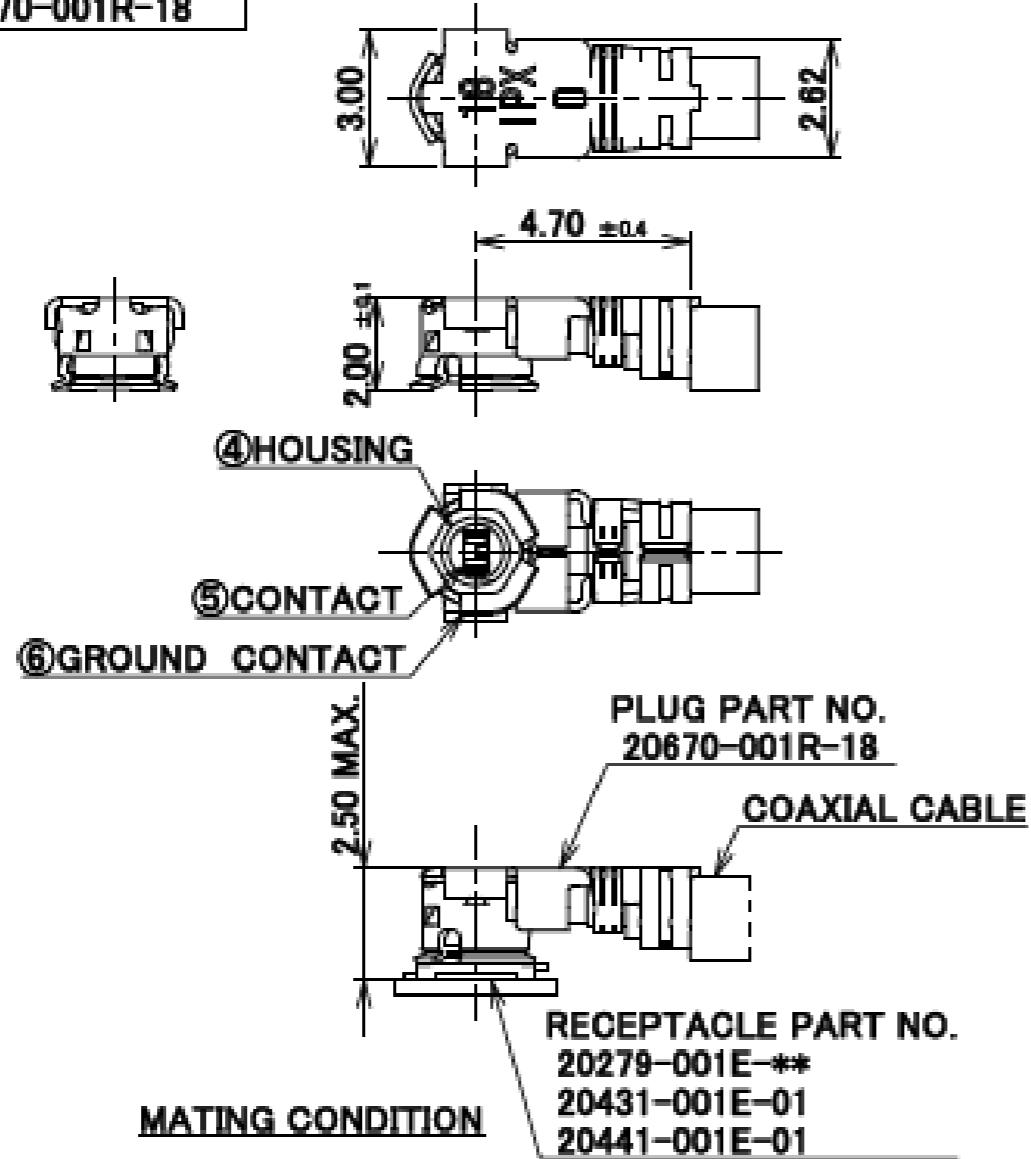
- APPLICABLE CONNECTOR:  
20279-001E-\*\*-  
20431-001E-01  
20441-001E-01
- PERMISSIBLE LOAD OF CABLE AT MATING
- MATING AND UNMATING INSTRUCTION
- MATING  
MAKE THE CONNECTOR VERTICALLY AS MUCH AS POSSIBLE, ADJUSTING THE MATING AXIS OF PLUG AND RECEPTACLE.
- UNMATING
- UNMATING BY PULLING TOOL (PART NO. 90192-001): USE THE PULLING TOOL AS THE FOLLOWING DRAWING, AND PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
- UNMATING DIRECTLY BY HAND: CATCH THE CATCHING AREA OF PLUG, AND PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
- CRIMP OVER STANDARDS OF OUTER CONDUCTOR  
STANDARDS: LESS THAN 10% FROM TOTAL NUMBERS OF OUTER CONDUCTOR.  
(NUMBERS OF OUTER CONDUCTOR'S CRIMP OVER FROM OUTER CONDUCTOR'S BARREL)
- CAUTION ABOUT HEAT SHRINKAGE TUBES  
PLEASE BE CAREFUL NOT TO MELT HOUSING WHEN USING HEAT SHRINKAGE TUBES.  
IT WILL CAUSE OPEN CIRCUIT.
- THIS IS "Pb-FREE" CONNECTOR.



| NO. | DESCRIPTION    | MATERIAL        | FINISH, REMARKS   |
|-----|----------------|-----------------|---|
| 3   | GROUND CONTACT | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.02 μm MIN.<br>[Ni PLATING AREA] Ni ONLY |
| 2   | CONTACT        | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.03 μm MIN.                              |
| 1   | HOUSING        | PBT             | UL94V-0, BLACK  |

Recommended P/N **20670-001R-\*\*-**

| PART No.      |
|---------------|
| 20670-001R-18 |

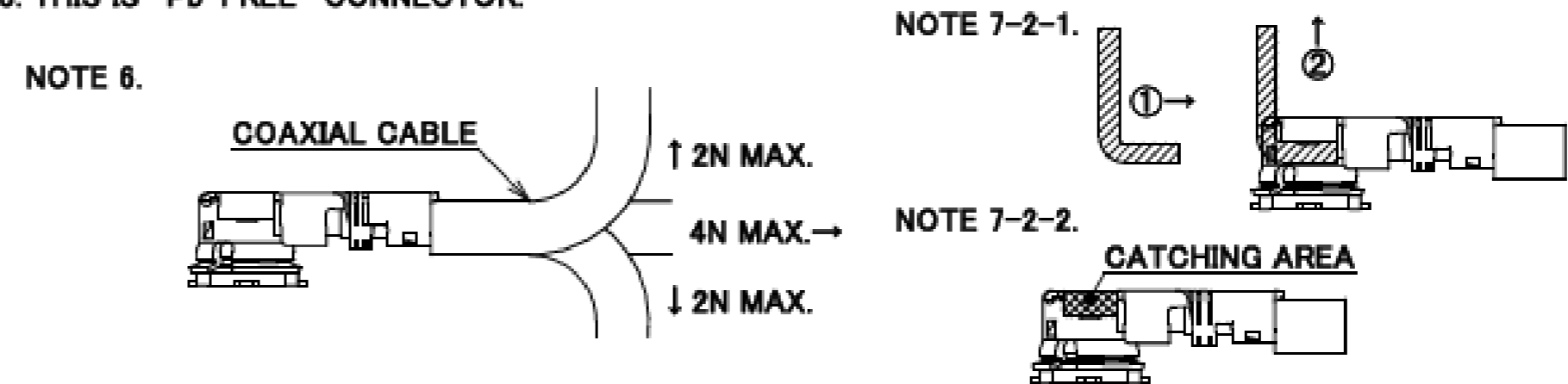


HATCHED AREA: NI PLATING AREA

HF Halogen Free RoHS Compliant

NOTES

- APPLICABLE CONNECTOR:  
20279-001E-\*\*-  
20431-001E-01  
20441-001E-01
- PERMISSIBLE LOAD OF CABLE AT MATING
- MATING AND UNMATING INSTRUCTION
- MATING  
MAKE THE CONNECTOR VERTICALLY AS MUCH AS POSSIBLE, ADJUSTING THE MATING AXIS OF PLUG AND RECEPTACLE.
- UNMATING
- UNMATING BY PULLING TOOL (PART NO. 90192-001): USE THE PULLING TOOL AS THE FOLLOWING DRAWING, AND PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
- UNMATING DIRECTLY BY HAND: CATCH THE CATCHING AREA OF PLUG, AND PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
- CRIMP OVER STANDARDS OF OUTER CONDUCTOR  
STANDARDS: LESS THAN 10% FROM TOTAL NUMBERS OF OUTER CONDUCTOR.  
(NUMBERS OF OUTER CONDUCTOR'S CRIMP OVER FROM OUTER CONDUCTOR'S BARREL)
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IT WILL CAUSE OPEN CIRCUIT.
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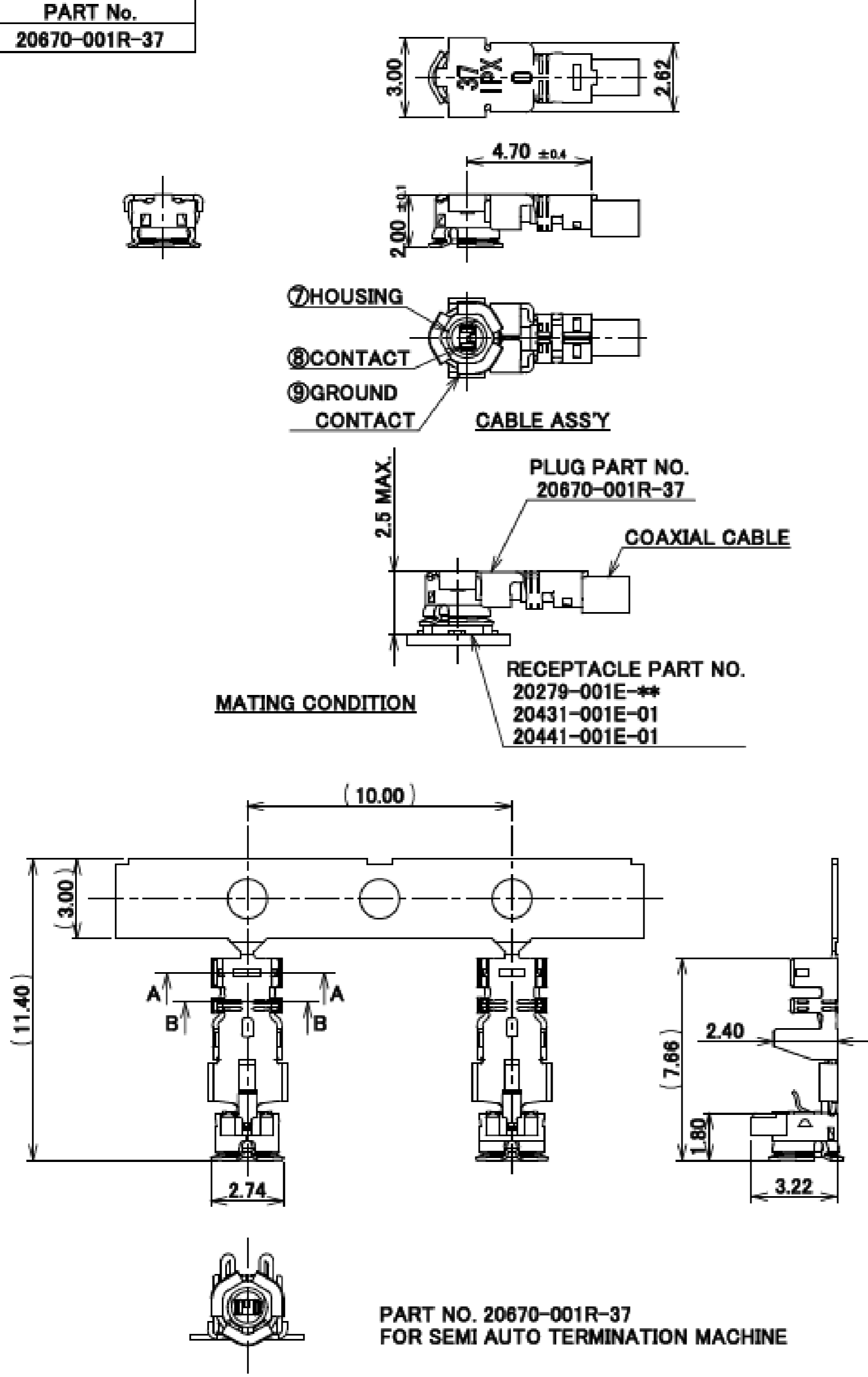


| NO. | DESCRIPTION    | MATERIAL        | FINISH, REMARKS   |
|-----|----------------|-----------------|---|
| 6   | GROUND CONTACT | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.02 μm MIN.<br>[Ni PLATING AREA] Ni ONLY |
| 5   | CONTACT        | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.03 μm MIN.                              |
| 4   | HOUSING        | PBT             | UL94V-0, BLACK  |



# MHF® I plug Ni top (0.81,1.13,1.32,1.37,1.80)

|                 |                |
|-----------------|----------------|
| Recommended P/N | 20670-001R-**- |
| PART No.        | 20670-001R-37  |



**NOTES**

9. APPLICABLE CONNECTOR:  
20279-001E-\*\*-  
20431-001E-01  
20441-001E-01

10. PERMISSIBLE LOAD OF CABLE AT MATING

11. MATING AND UNMATING INSTRUCTION

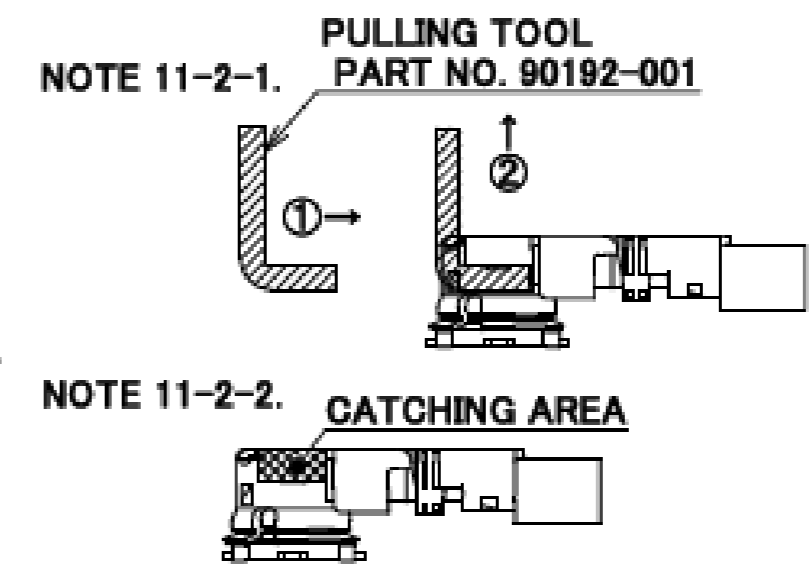
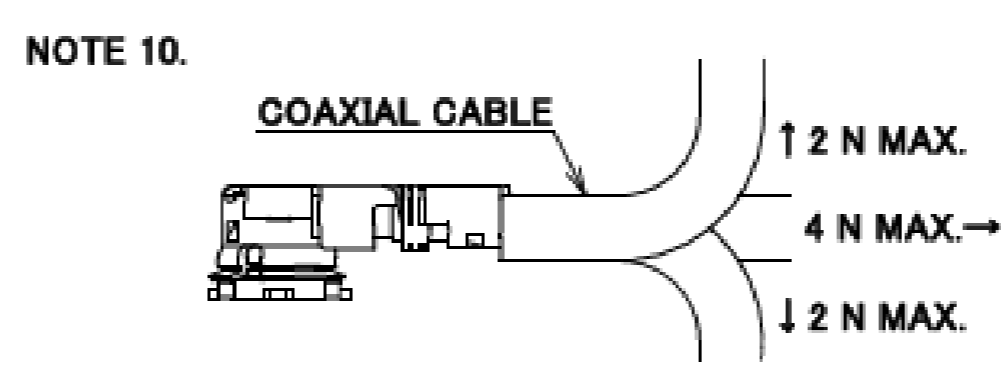
11-1. MATING  
MAKE THE CONNECTOR VERTICALLY AS MUCH AS POSSIBLE, ADJUSTING THE MATING AXIS OF PLUG AND RECEPTACLE.

11-2. UNMATING  
11-2-1. IN CASE OF UNMATING BY PULLING TOOL (PART NO. 90192-001): USE THE PULLING TOOL AS THE FOLLOWING DRAWING, AND PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.  
11-2-2. IN CASE OF UNMATING DIRECTLY BY HAND: CATCH THE CATCHING AREA OF PLUG, AND PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.

11-3. CRIMP OVER STANDARDS OF OUTER CONDUCTOR  
STANDARDS: LESS THAN 10% FROM TOTAL NUMBERS OF OUTER CONDUCTOR.  
(NUMBERS OF OUTER CONDUCTOR'S CRIMP OVER FROM OUTER CONDUCTOR'S BARREL)

11-4. CAUTION ABOUT HEAT SHRINKAGE TUBES  
PLEASE BE CAREFUL NOT TO MELT HOUSING WHEN USING HEAT SHRINKAGE TUBES.  
IT WILL CAUSE OPEN CIRCUIT.

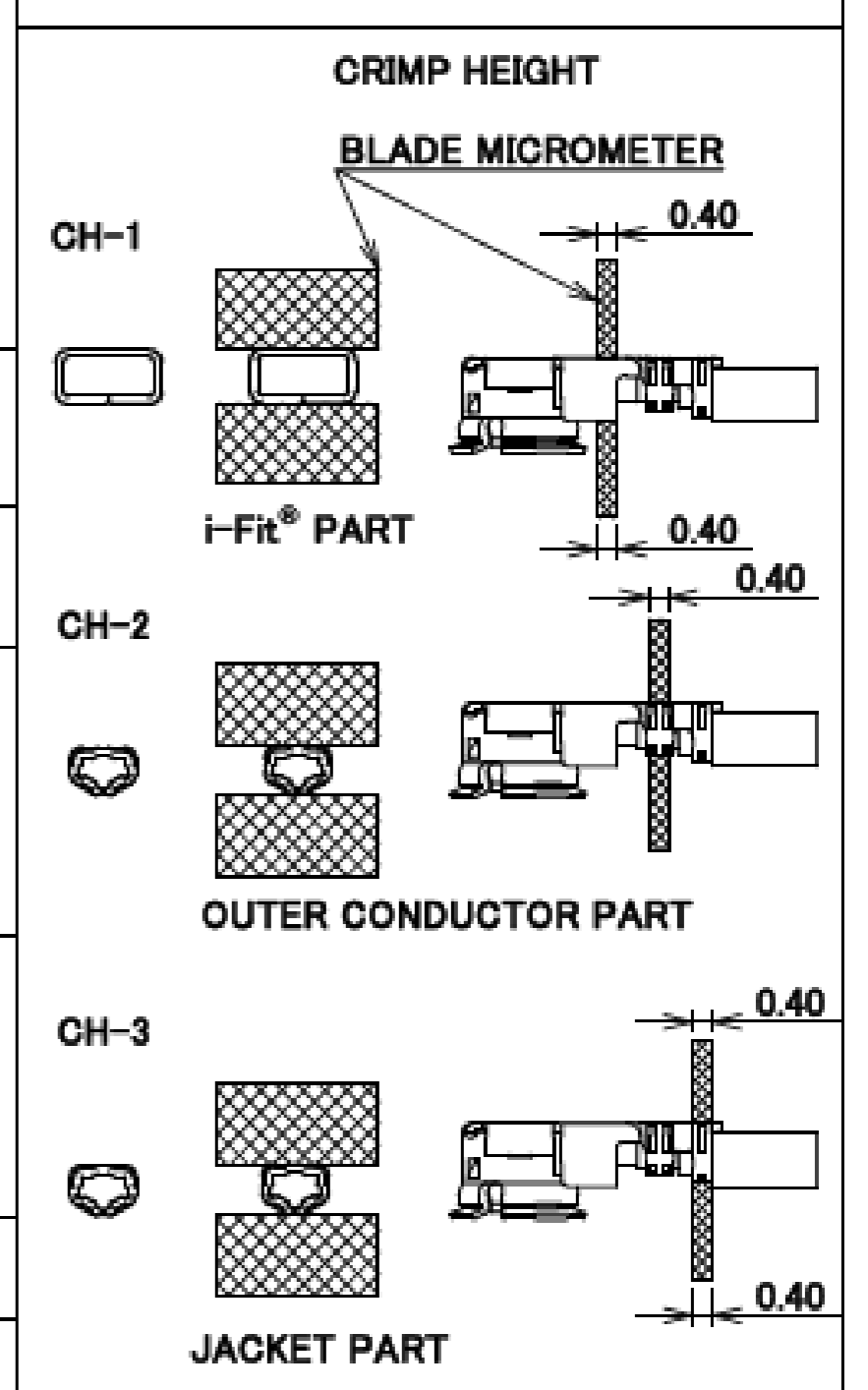
12. THIS IS "Pb-FREE" CONNECTOR.



| NO. | DESCRIPTION    | MATERIAL        | FINISH, REMARKS   |
|-----|----------------|-----------------|---|
| 9   | GROUND CONTACT | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.02 μm MIN.<br>[Ni PLATING AREA] Ni ONLY |
| 8   | CONTACT        | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.03 μm MIN.                              |
| 7   | HOUSING        | PBT             | UL94V-0, BLACK  |

Rev.7

| PART NO.                                       | 20670-001R-08 | 20670-001R-13 | 20670-001R-32 | 20670-001R-18 | CABLE CUT LENGTH |
|--|---------------|---------------|---------------|---------------|------------------|
| APPLICABLE CABLE NOMINAL DIMENSION             |               |               |               |               |                  |
| INNER CONDUCTOR SILVER PLATING DIELECTRIC CORE | *SEE NOTE 14. |               |               |               |                  |
| BRAIDED SHIELD OF OUTER CONDUCTOR              | SINGLE        | SINGLE        | DOUBLE        | SINGLE        |                  |
| PART NO. OF SEMI AUTO TERMINATION MACHINE      | 90213-008C    | 90213-013C    | 90213-032C    | 90232-018     |                  |
| SECT. B-B                                      |               |               |               |               |                  |
| SECT. A-A                                      |               |               |               |               |                  |
| CRIMP HEIGHT                                   | CH-1          | 1.34~1.40     | 1.34~1.40     | 1.34~1.40     | 1.34~1.40        |
|  | CH-2          | 0.76~0.84     | 1.06~1.14     | 1.20~1.30     | 1.41~1.49        |
|  | CH-3          | 0.85~0.97     | 1.15~1.35     | 1.26~1.46     | 1.70~1.80        |



NOTE  
13. MUST NOT USE SOLDER COATED INNER CONDUCTOR AND OUTER CONDUCTOR.

Rev.7

# MHF® I plug Ni top (0.81,1.13,1.32,1.37,1.80)

|  |      |               |  |  |  |
|--|------|---------------|--|--|--|
| PART NO.                                       |      | 20670-001R-37 |  | CABLE CUT LENGTH                               |  |
| APPLICABLE CABLE NOMINAL DIMENSION             |      |               |  |  |  |
| INNER CONDUCTOR SILVER PLATING DIELECTRIC CORE |      |               |  | <b>CRIMP HEIGHT</b><br><b>BLADE MICROMETER</b> |  |
| BRAIDED SHIELD OF OUTER CONDUCTOR              |      | SINGLE        |  |  |  |
| PART NO. OF SEMI AUTO TERMINATION MACHINE      |      | 90232-037     |  |  |  |
| SECT. B-B                                      |      |               |  |  |  |
| SECT. A-A                                      |      |               |  |  |  |
| CRIMP HEIGHT                                   | CH-1 | 1.34~1.40     |  |  |  |
|  | CH-2 | 1.36~1.42     |  |  |  |
|  | CH-3 | 1.28~1.34     |  |  |  |

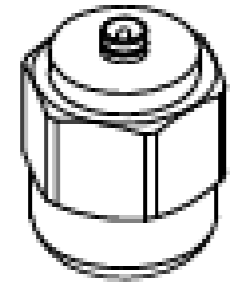
NOTE  
14. MUST NOT USE SOLDER COATED INNER CONDUCTOR AND OUTER CONDUCTOR.

Rev.7

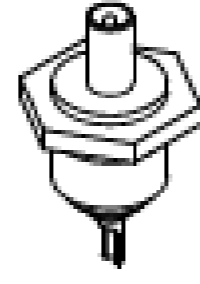
| ITEMS  | SPECIFICATION   |
|--|---|
| RECOMMENDED APPLICABLE CONNECTOR PART No.          | 20279-001E-***  |
| RATING VOLTAGE                                     | 60 V AC (R.M.S)   |
| RATING FREQUENCY                                   | DC~9GHz   |
| OPERATING TEMPERATURE                              | 233~363 K (-40°C~+90°C)   |
| VSWR<br>(MATED WITH SMA ADAPTER PART No:90193-001) | 1.30 MAX. AT 0.1~3 GHz, 1.50 MAX. AT 3~6 GHz, 1.90 MAX. AT 6~9 GHz<br>(0.81 O.D. / 1.13 O.D. / 1.37 O.D. / 1.80 O.D.)<br>1.30 MAX. AT 0.1~3 GHz, 1.50 MAX. AT 3~6 GHz, 1.80 MAX. AT 6~9 GHz (1.32 O.D.) |
| MAIN CONTACT RESISTANCE                            | INITIAL: 20 mohm MAX. / AFTER TEST: $\Delta$ R 20 mohm MAX.   |
| GROUND CONTACT RESISTANCE                          | INITIAL: 20mohm 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)              | 5 N MIN. / 3 N MIN.   |
| CRIMP STRENGTH                                     | 20670-001R-08, 20670-001R-13, 20670-001R-32: 10 N MIN.<br>20670-001R-18, 20670-001R-37: 15 N MIN.   |
| PRODUCT SPECIFICATION                              | PRS-2105  |
| TEST REPORT  | TR-15059  |
| PACKING STANDARD                                   | 300-233   |
| INSTRUCTION MANUAL                                 | HIM-10002   |
| APPEARANCE CRITERIA No.                            | QLS-A***  |



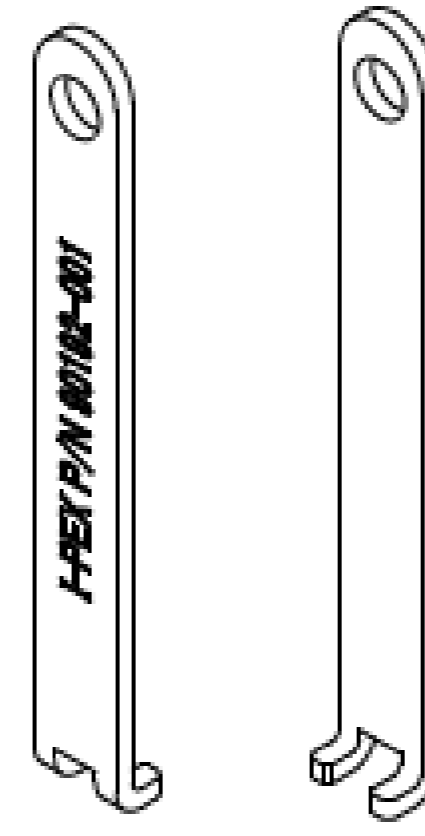
# Accessories for MHF® I plug



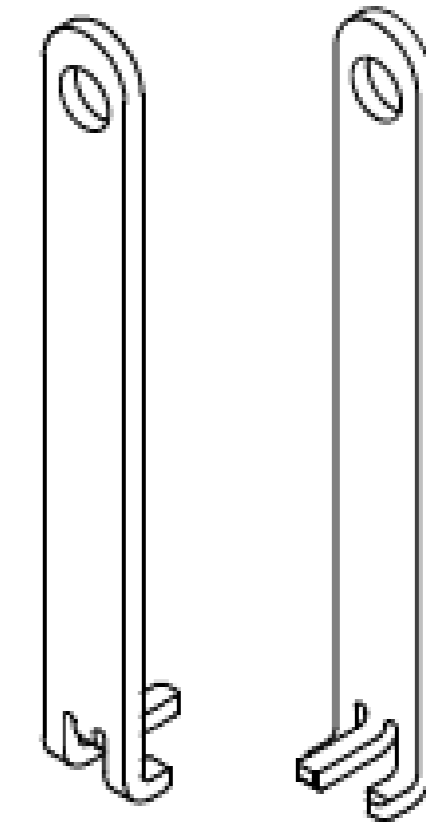
**MHF I/II SMA ADAPTOR**  
PART NO. 90193-001



**MHF I/II PLUG INSPECTION CONNECTOR**  
PART NO. 90194-001



FRONT SIDE BACK SIDE  
**MHF I/II PULLING TOOL**  
PART NO. 90192-001

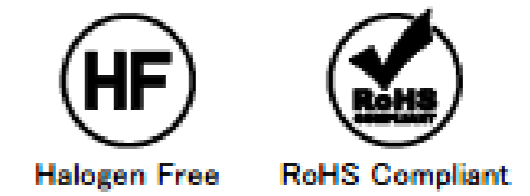
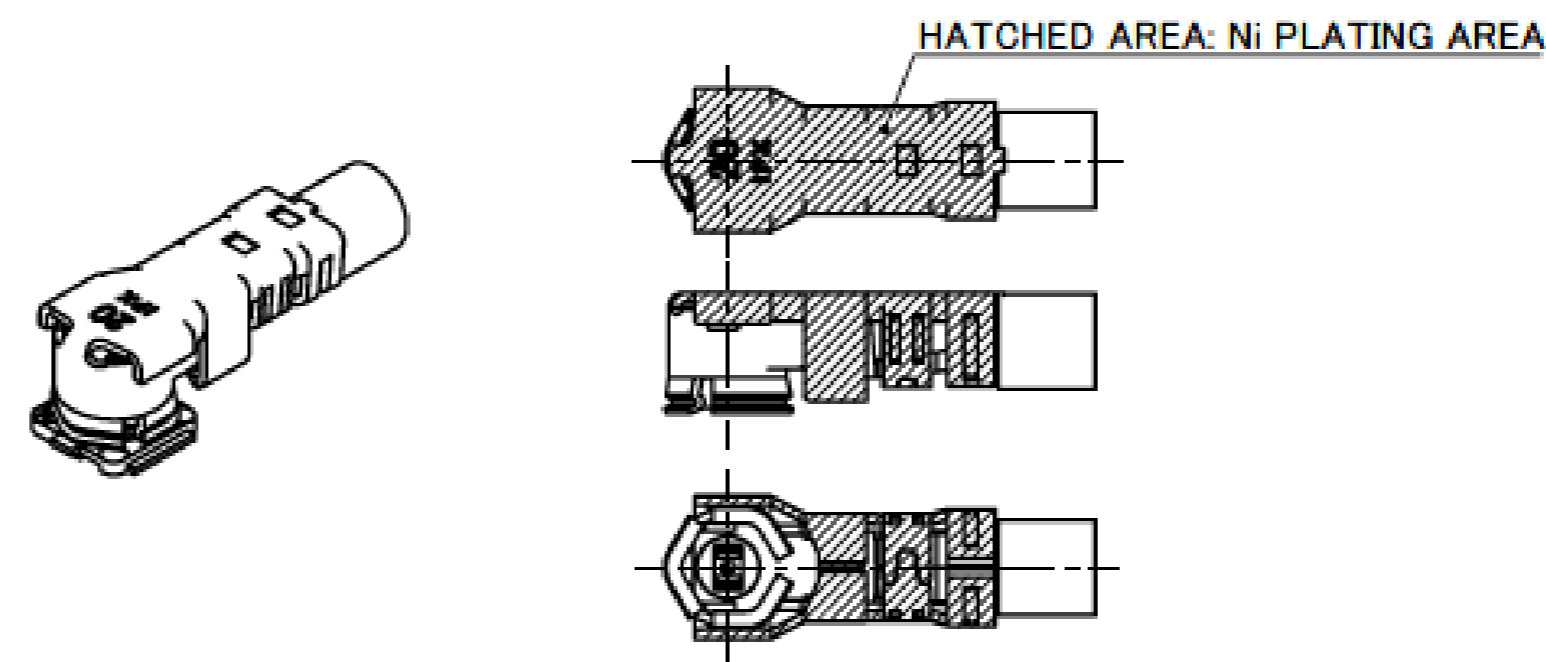
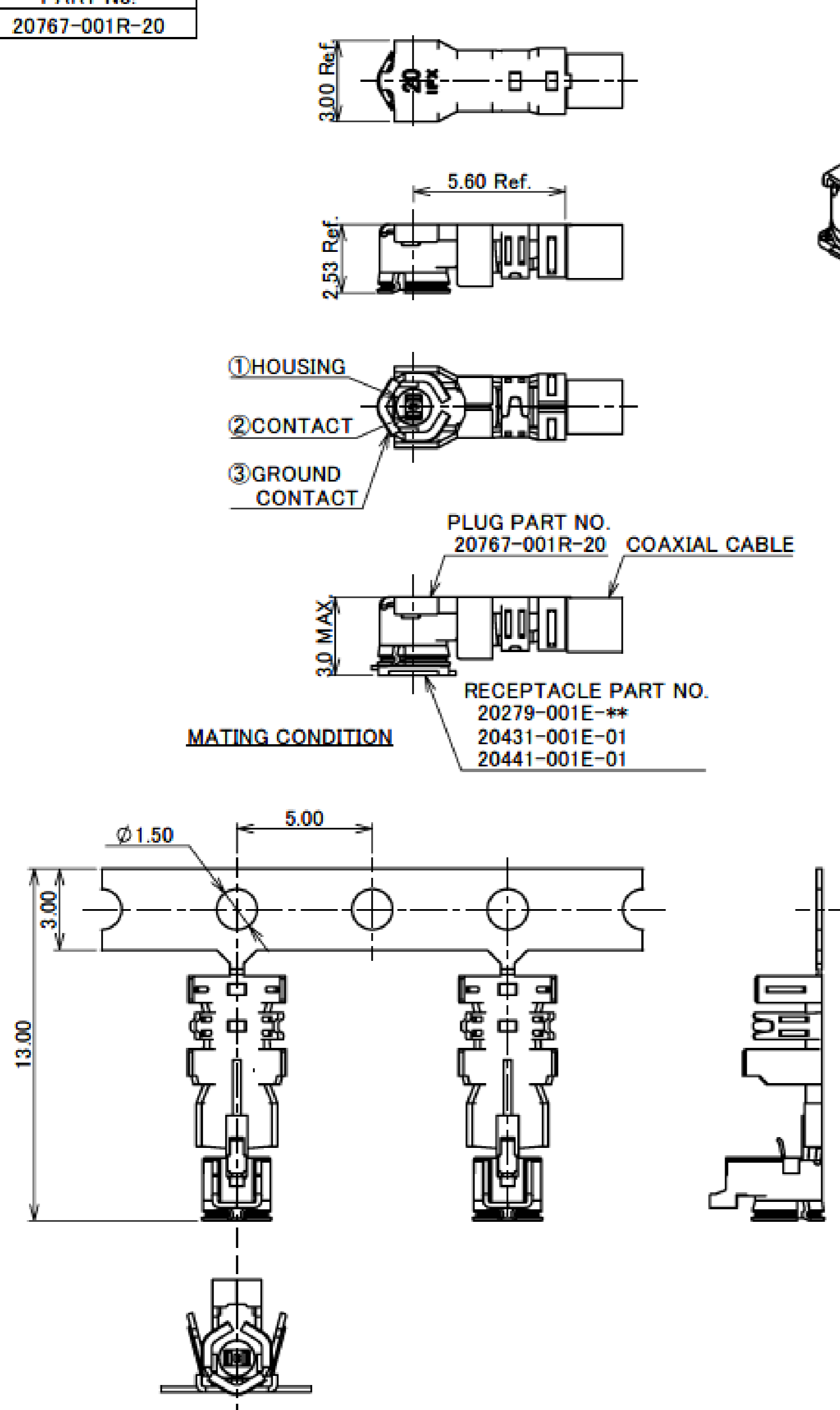


FRONT SIDE BACK SIDE  
**MHF I PUSHING AND PULLING TOOL**  
PART NO. 90224-001

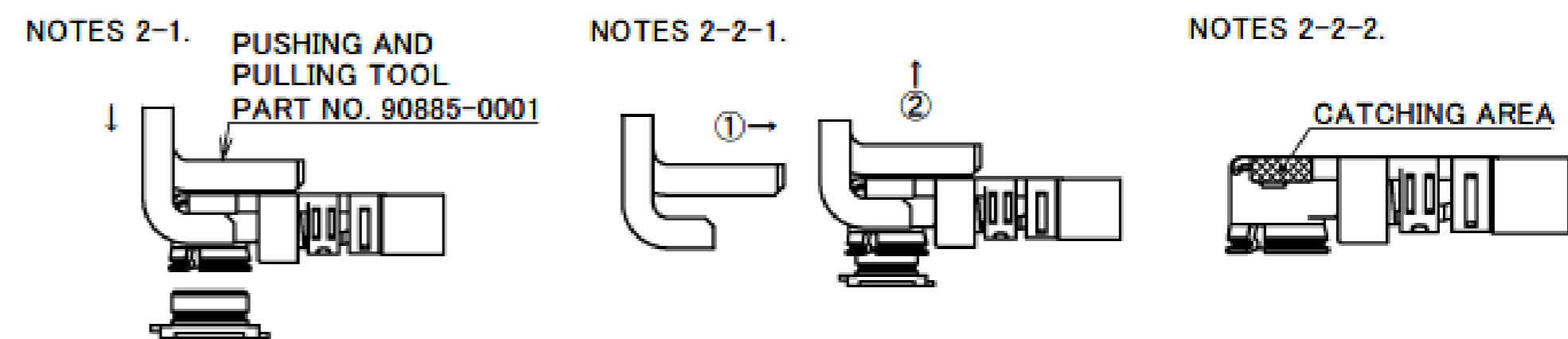
Rev.7

## MHF® I plug (2.0 mm Cable O.D.)

|                 |               |
|-----------------|---------------|
| Recommended P/N | 20767-001R-20 |
| PART No.        |               |
|                 | 20767-001R-20 |



- NOTES
- APPLICABLE CONNECTOR:  
20279-001E-\*\*, 20431-001E-01, 20441-001E-01
  - MATING AND UNMATING INSTRUCTION
    - MATING  
MATE THE CONNECTOR VERTICALLY AS MUCH AS POSSIBLE. ADJUSTING THE MATING AXIS OF PLUG AND RECEPTACLE. DO NOT SLANT MATE.
    - UNMATING
      - IN CASE OF UNMATING BY PULLING TOOL (PART NO. 90885-0001)  
USE THE PULLING TOOL AS THE FOLLOWING DRAWING, AND PLEASE PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
      - 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.<br>CONTACT PART Au 0.05 μm MIN. |
| 2   | CONTACT        | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.10 μm MIN. |
| 1   | HOUSING        | PBT             | UL94V-0, BLACK   |

Rev.5

# MHF® I plug (2.0 mm Cable O.D.)

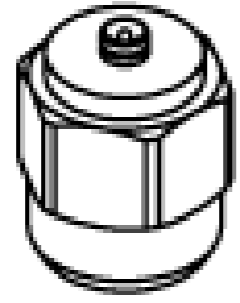
|   |                  |                  |                  |
|---|------------------|------------------|------------------|
| PART NO.                                  | 20767-001R-20    |                  |                  |
| APPLICABLE CABLE NOMINAL DIMENSION        |                  |                  |                  |
| BRAIDED SHIELD OF OUTER CONDUCTOR         | SINGLE           |                  |                  |
| PART NO. OF SEMI AUTO TERMINATION MACHINE | 90876-020        |                  |                  |
| CRIMP HEIGHT                              | CH-1 i-Fit® PART | CH-2 SHIELD PART | CH-3 JACKET PART |
|   | <br>2.28~2.36    | <br>1.81~1.87    | <br>1.95~2.01    |

Rev.5

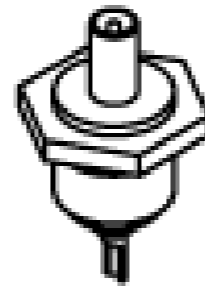
| ITEMS  | SPECIFICATION  |               |
|--|--|---------------|
| RECOMMENDED APPLICABLE CONNECTOR PART No.          | 20279-001E-**  | 20441-001E-01 |
| RATING VOLTAGE                                     | 60 V AC (R.M.S)  |               |
| RATING FREQUENCY                                   | DC~9GHz  |               |
| OPERATING TEMPERATURE                              | 233~363 K (-40°C~+90°C)  |               |
| VSWR<br>(MATED WITH SMA ADAPTER PART No.90193-001) | 1.30 MAX. AT 0.1~3 GHz, 1.50 MAX. AT 3~6 GHz, 1.60 MAX. AT 6~9 GHz |               |
| MAIN CONTACT RESISTANCE                            | INITIAL: 20 mohm MAX. / AFTER TEST: $\nabla$ R 20 mohm MAX.        |               |
| GROUND CONTACT RESISTANCE                          | INITIAL: 20 mohm MAX. / AFTER TEST: $\nabla$ 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)              | 5 N MIN. / 3 N MIN.  |               |
| CRIMP STRENGTH                                     | 15 N MIN.  |               |
| PRODUCT SPECIFICATION                              | PRS-2490   |               |
| TEST REPORT  | TR-18041   |               |
| PACKING STANDARD                                   | PST-16007  |               |
| INSTRUCTION MANUAL                                 | HIM-17017  |               |
| APPEARANCE CRITERIA No.                            | QLS-A***   |               |

Rev.5

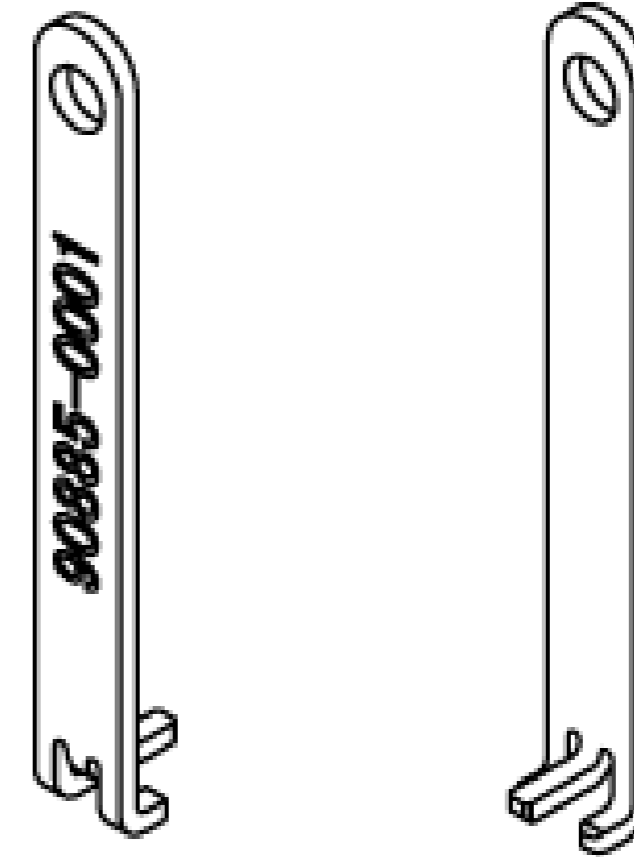
# Accessories for MHF<sup>®</sup> I plug (2.0 mm Cable O.D.)



**MHF I/II SMA ADAPTOR**  
PART NO. 90193-001



**MHF I/II PLUG INSPECTION CONNECTOR**  
PART NO. 90194-001

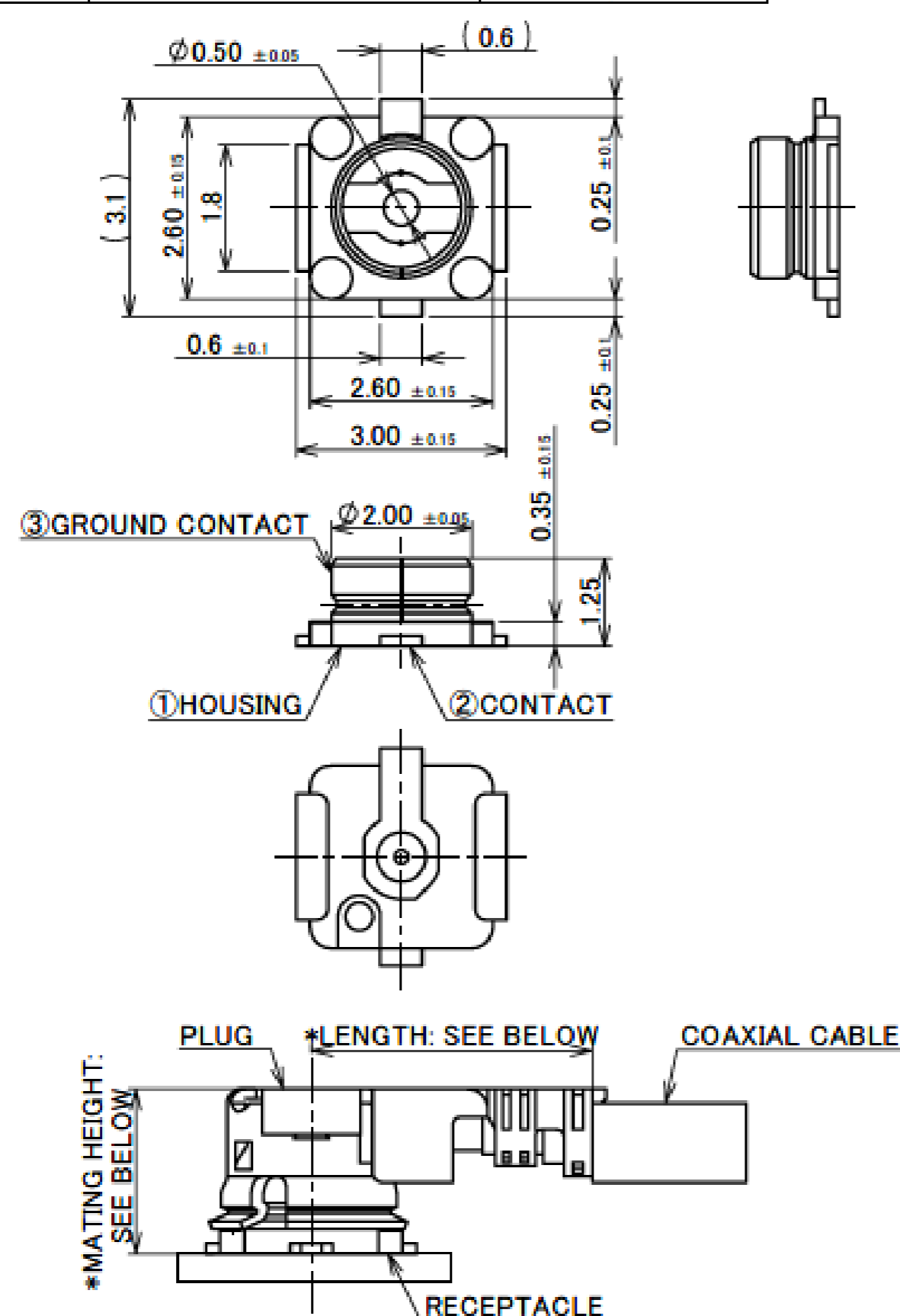
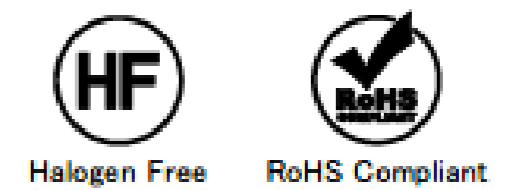


FRONT SIDE      BACK SIDE  
**MHF I PLUG (2.00) PUSHING AND PULLING TOOL**  
PART NO. 90885-0001

Rev.5

## MHF<sup>®</sup> I Receptacle (3pads)

| Recommended P/N | 20279-001E-03         |                    |
|-----------------|-----------------------|--------------------|
| PART NO.        | PACKING REEL          | QUANTITY IN 1 REEL |
| 20279-001E-01   | PLASTIC REEL          | 2,500              |
|                 | CORRUGATED PAPER REEL | 2,500              |
| 20279-001E-03   | PLASTIC REEL          | 5,000              |
| 20279-001E-05   | PLASTIC REEL          | 10,000             |



- NOTES
1. APPLICABLE CONNECTOR PART NO.  
MHF I PLUG  
20278-11\*R-\*\*-  
20351-\*\*\*R-37  
20631-\*\*\*R-\*\*-  
20670-001R-\*\*-  
20767-001R-20  
MHF II PLUG  
20311-011R-\*\*-  
20686-001R-08
  2. COPLANARITY: 0.1mm MAX.
  3. THIS IS "Pb-FREE" CONNECTOR.

| NO. | DISCRIPTION    | MATERIAL        | FINISH, REMARKS  |
|-----|----------------|-----------------|--|
| 3   | GROUND CONTACT | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.05 μm MIN.<br>SOLDERING PART Au 0.05 μm MIN. |
| 2   | CONTACT        | BRASS           | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.10 μm MIN.<br>SOLDERING PART Au 0.03 μm MIN. |
| 1   | HOUSING        | LCP             | UL94V-0, WHITE   |

- \*LENGTH: 4.0 ± 0.4 AT PLUG PART NO. 20670-001R-08, 20670-001R-13, 20670-001R-32  
4.7 ± 0.4 AT PLUG PART NO. 20670-001R-18, 20670-001R-37  
5.6 AT PLUG PART NO. 20767-001R-20 (REFERENCE DIMENSION)  
3.8 ± 0.3 AT PLUG PART NO. 20686-001R-08, 20311-011R-\*\*-
- \*MATING HEIGHT: 2.5 MAX. AT PLUG PART NO. 20670-001R-\*\*-  
(2.9 MAX. AT MHF I LK LOCKED CONDITION)  
3.0 MAX. AT PLUG PART NO. 20767-001R-20  
2.0 ± 0.1 AT PLUG PART NO. 20686-001R-08, 20311-011R-\*\*-

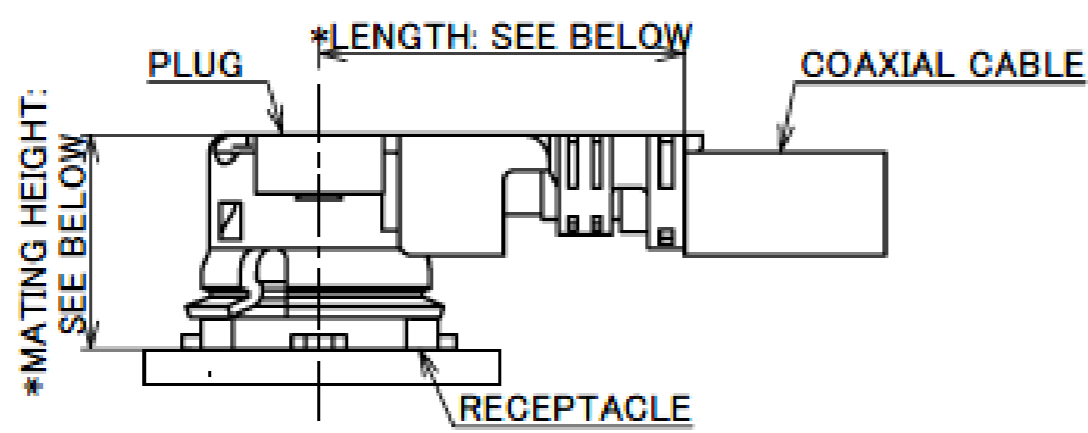
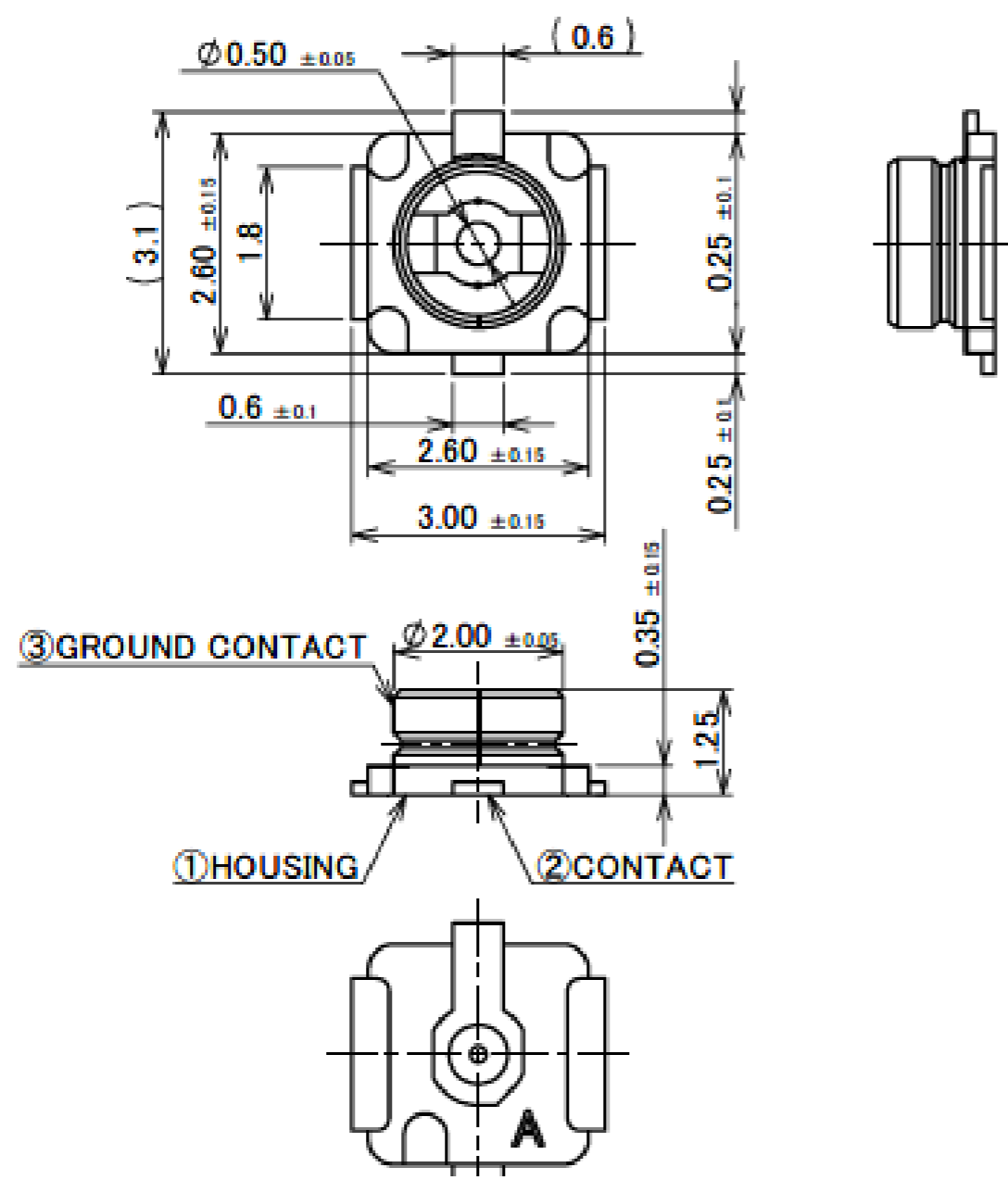
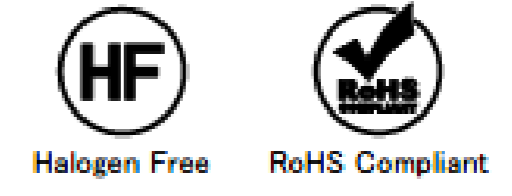
MATING CONDITION

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# MHF® I Receptacle (3pads)

|                 |               |                    |
|-----------------|---------------|--------------------|
| Recommended P/N | 20279-001E-03 |                    |
| PART NO.        | PACKING REEL  | QUANTITY IN 1 REEL |
| 20279-001E-06   | PLASTIC REEL  | 10,000             |



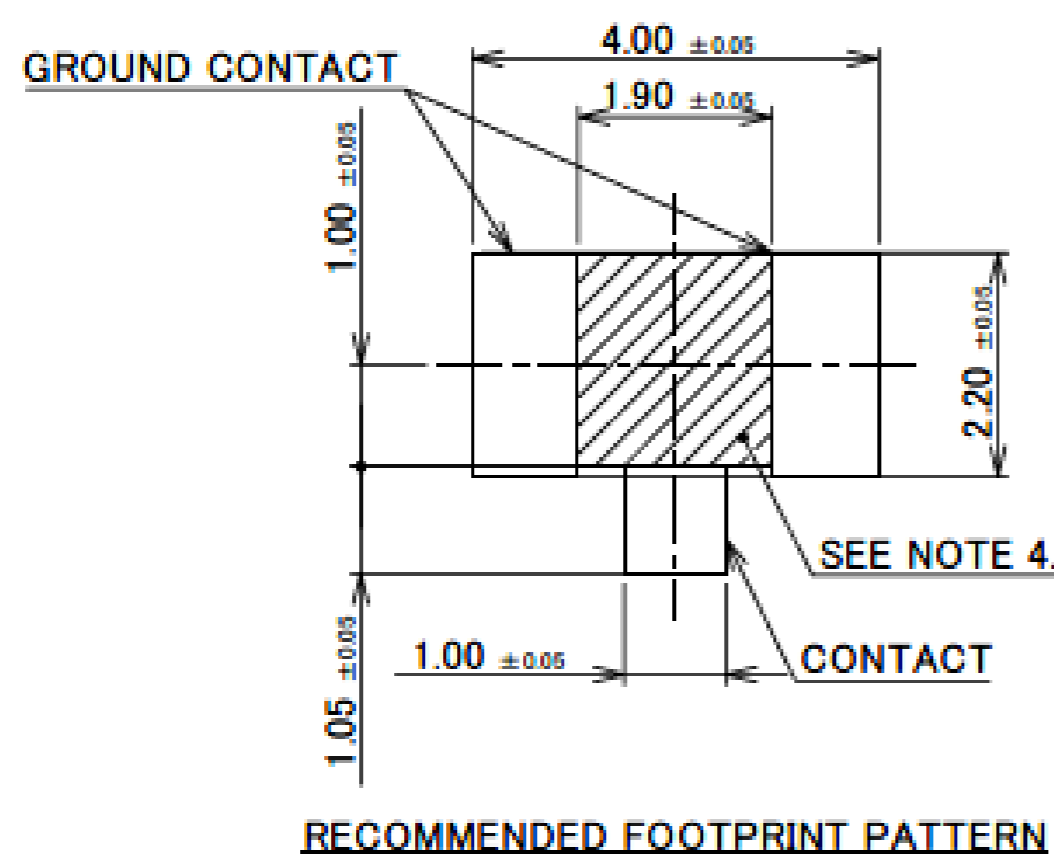
\*LENGTH: 4.0±0.4 AT PLUG PART NO. 20670-001R-08, 20670-001R-13, 20670-001R-32  
 4.7±0.4 AT PLUG PART NO. 20670-001R-18, 20670-001R-37  
 5.6 AT PLUG PART NO. 20767-001R-20 (REFERENCE DIMENSION)  
 3.8±0.3 AT PLUG PART NO. 20686-001R-08, 20311-011R-08  
 \*MATING HEIGHT: 2.5 MAX. AT PLUG PART NO. 20670-001R-08  
 (2.9 MAX. AT MHF I LK LOCKED CONDITION)  
 3.0 MAX. AT PLUG PART NO. 20767-001R-20  
 2.0±0.1 AT PLUG PART NO. 20686-001R-08, 20311-011R-08

**MATING CONDITION**

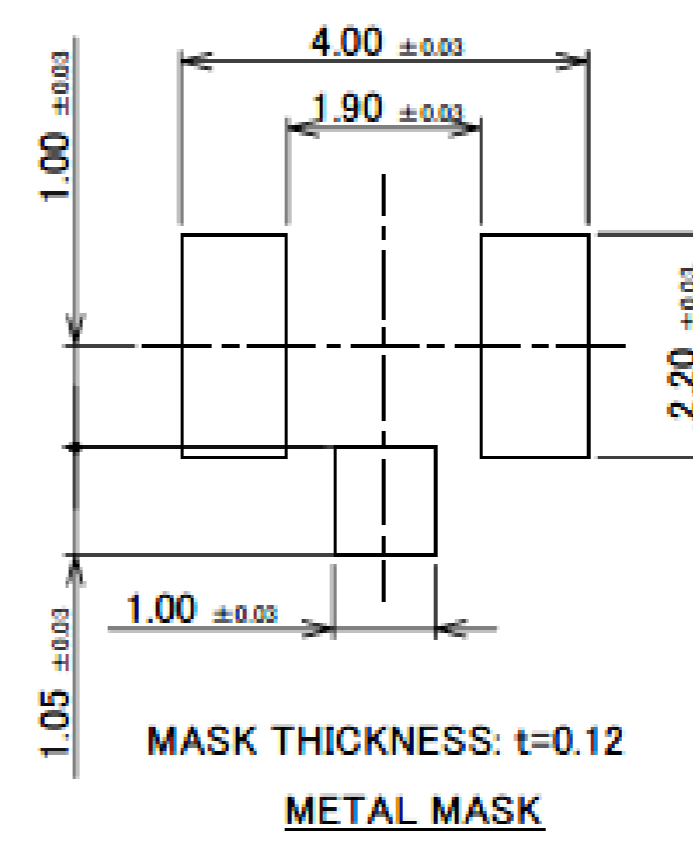
- NOTES
1. APPLICABLE CONNECTOR PART NO.  
 MHF I PLUG  
 20278-11\*\*R-08  
 20351-\*\*\*R-37  
 20631-\*\*\*R-08  
 20670-001R-08  
 20767-001R-20  
 MHF II PLUG  
 20311-011R-08  
 20686-001R-08
  2. COPLANARITY: 0.1mm MAX.
  3. THIS IS "Pb-FREE" CONNECTOR.

| NO. | DISCRIPTION    | MATERIAL        | FINISH . REMARKS   |
|-----|----------------|-----------------|--|
| 3   | GROUND CONTACT | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.05 μm MIN.<br>SOLDERING PART Au 0.05 μm MIN. |
| 2   | CONTACT        | BRASS           | ALL OVER Ni 1.00 μm MIN.<br>CONTACT PART Au 0.10 μm MIN.<br>SOLDERING PART Au 0.03 μm MIN. |
| 1   | HOUSING        | LCP             | UL94V-0, WHITE   |

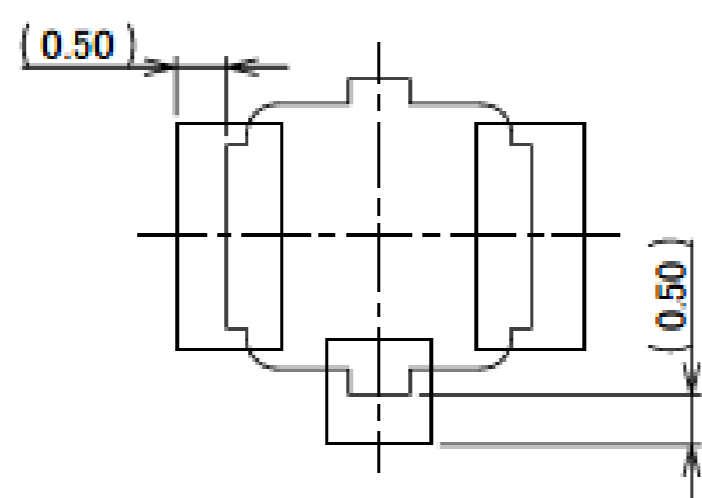
Rev.32



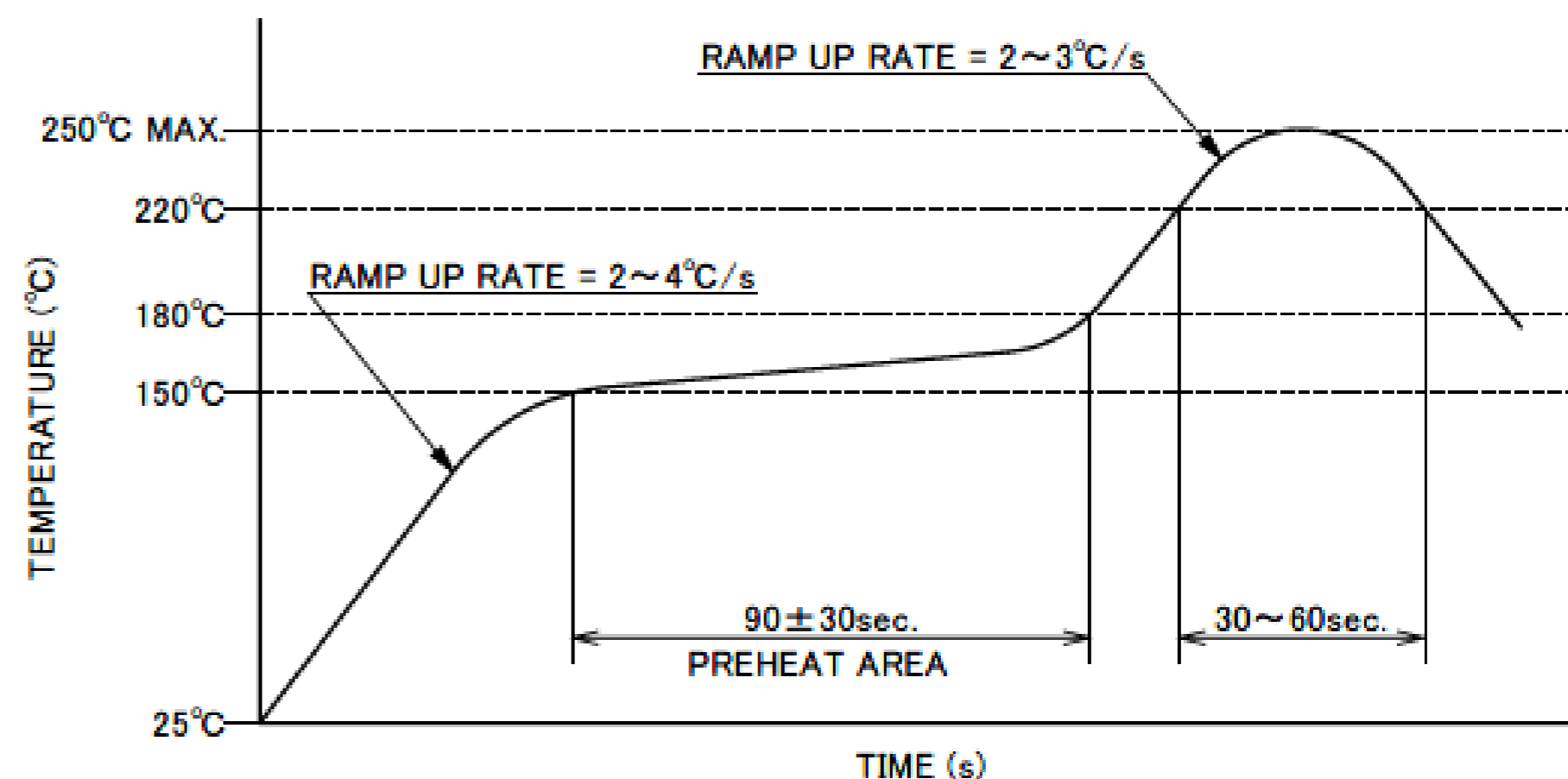
**RECOMMENDED FOOTPRINT PATTERN**



**MASK THICKNESS: t=0.12  
METAL MASK**



**CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN**



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

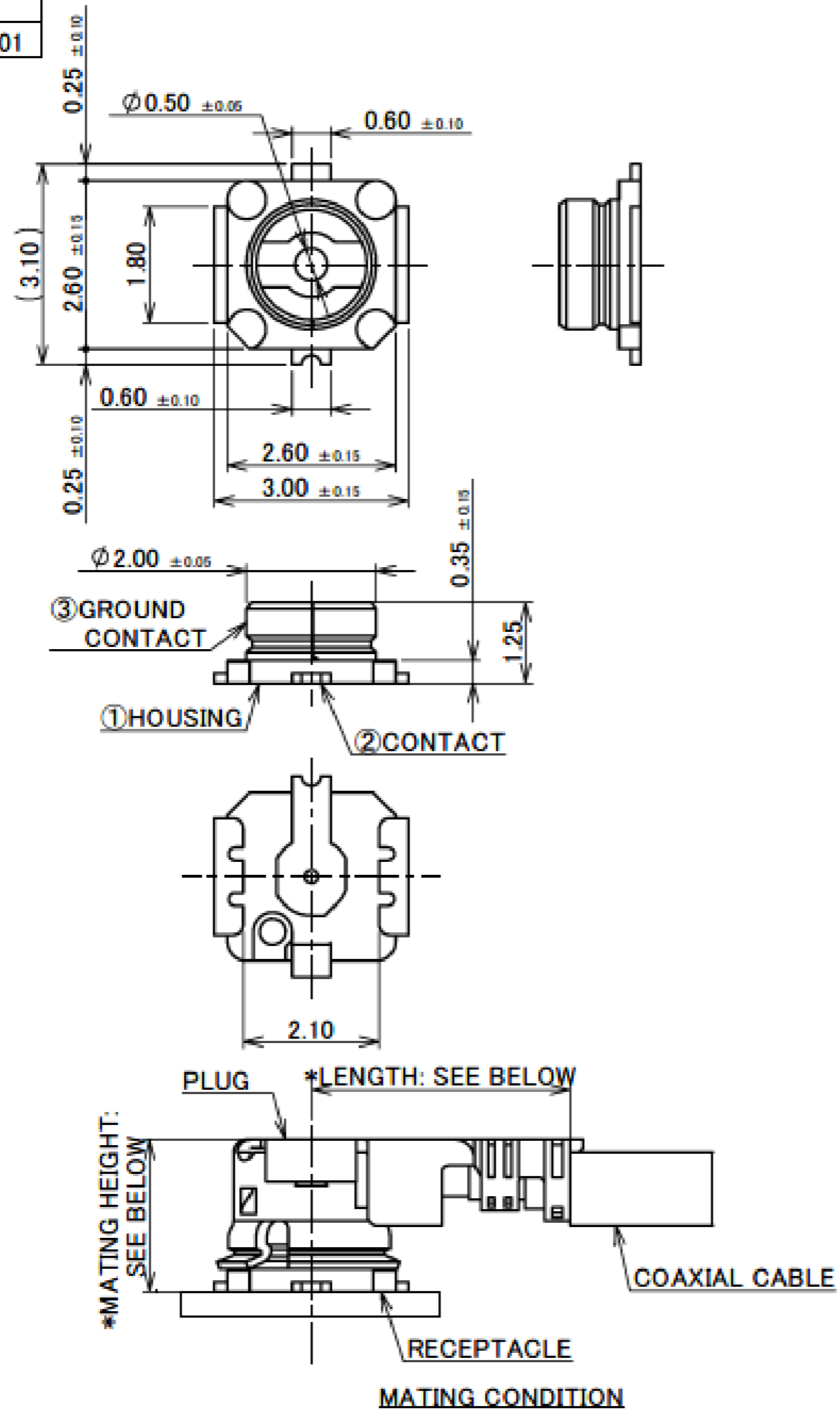
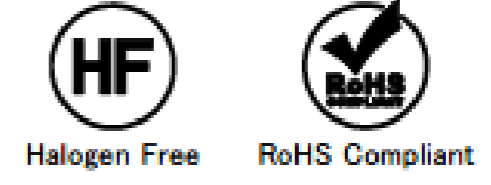
- NOTES.
4. NO GROUND, SIGNAL, AND RESIST IN THIS AREA.

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# MHF® I Receptacle (4pads/Black color HSG)

|                 |               |
|-----------------|---------------|
| Recommended P/N | 20441-001E-01 |
| PART No.        | 20441-001E-01 |

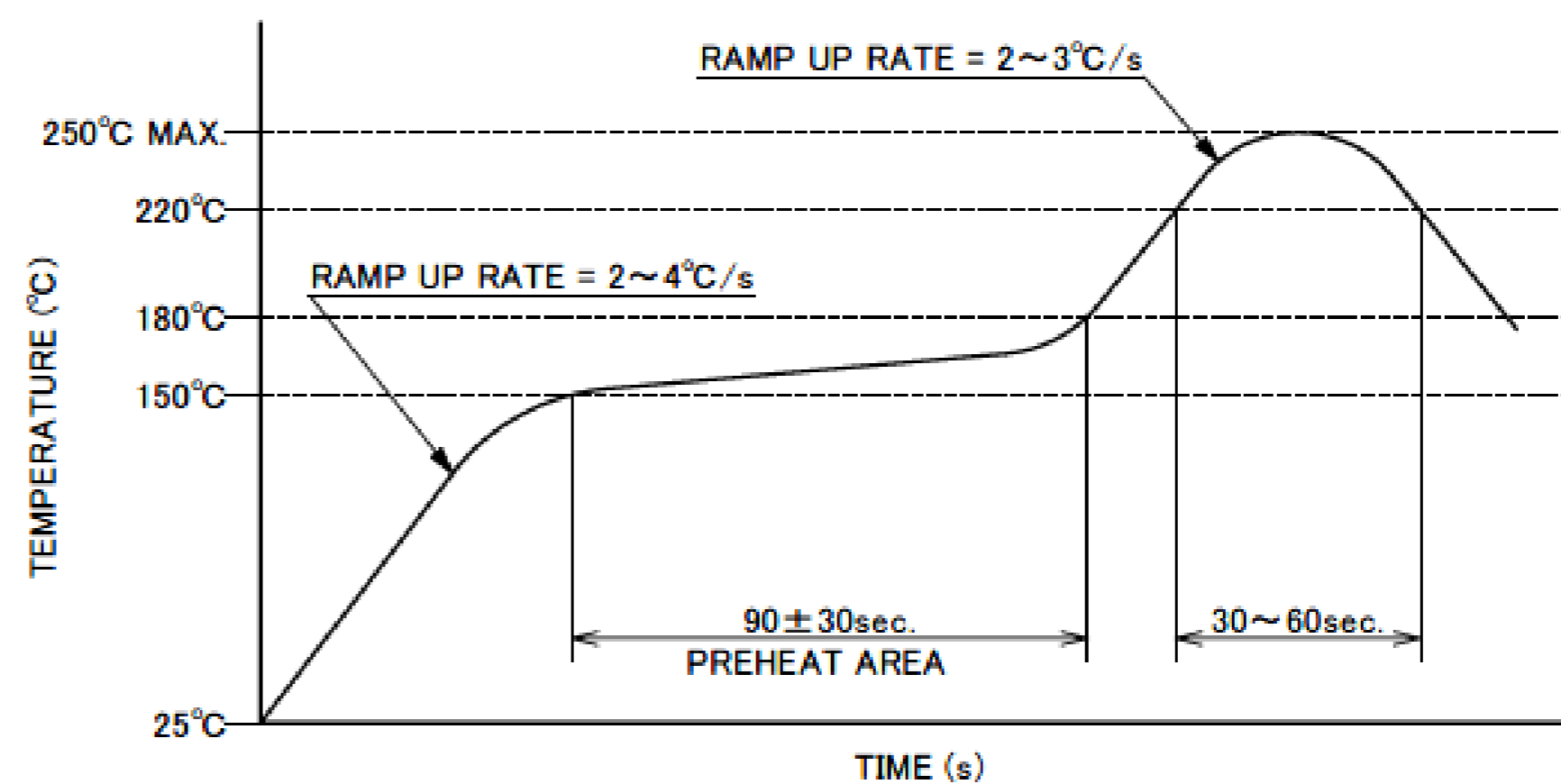
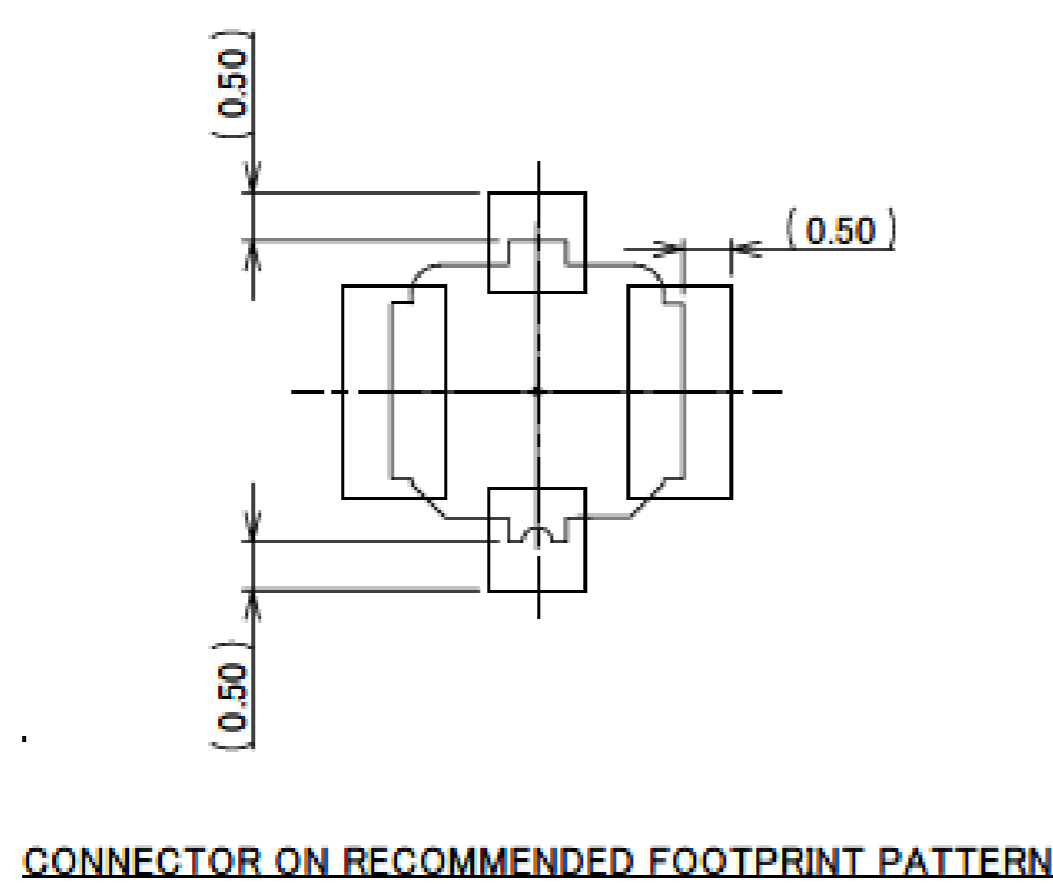
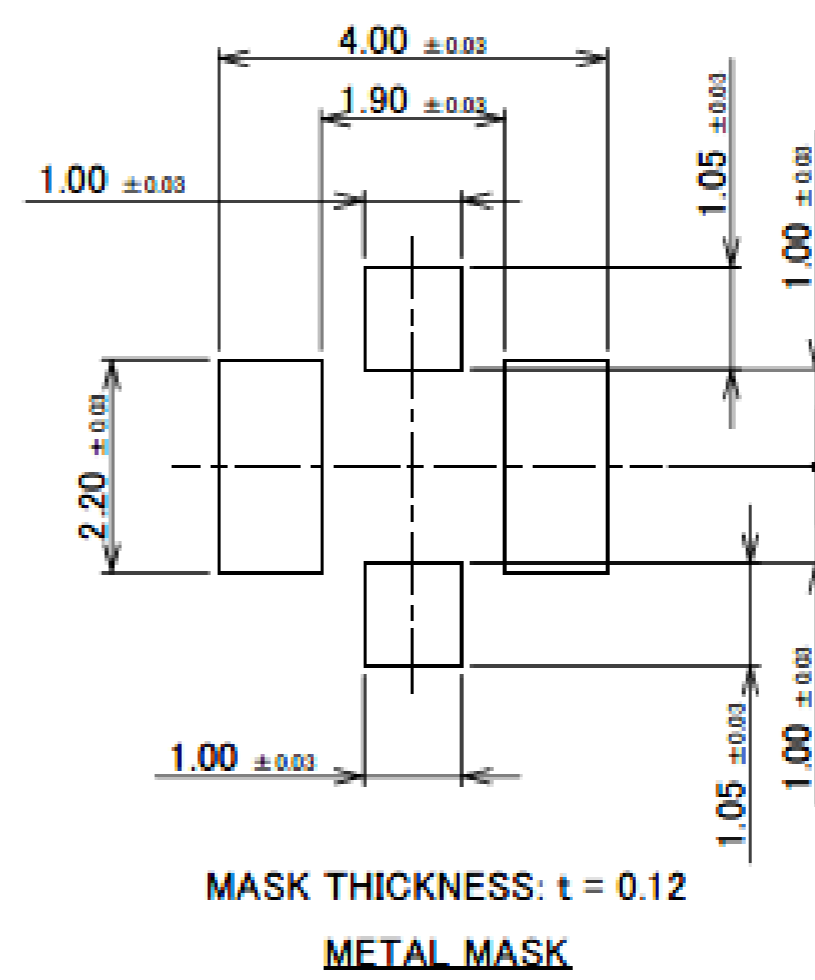
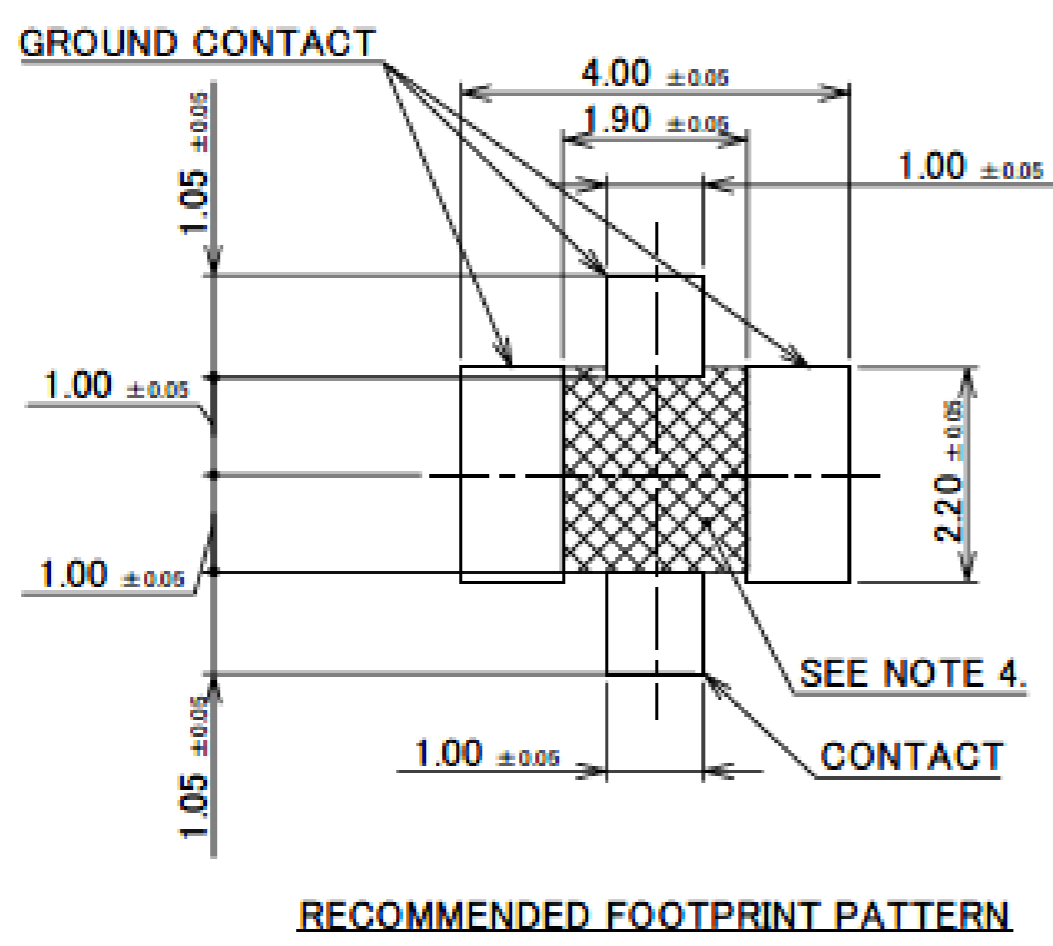


- NOTES:
- APPLICABLE CONNECTOR PART NUMBER:  
MHF I PLUG  
20278-112R-\*\*-  
20351-1\*\*R-37  
20670-001R-\*\*-  
20767-001R-20  
MHF II PLUG  
20311-011R-\*\*-  
20686-001R-08
  - COPLANARITY: 0.1mm MAX.
  - THIS IS "Pb-FREE" CONNECTOR.

| NO. | DISCRPTION     | MATERIAL        | FINISH, REMARKS   |
|-----|----------------|-----------------|---|
| 3   | GROUND CONTACT | PHOSPHOR BRONZE | ALL OVER Ni 1.00 $\mu$ m MIN.<br>CONTACT PART Au 0.03 $\mu$ m MIN.<br>SOLDERING PART Au 0.03 $\mu$ m MIN. |
| 2   | CONTACT        | BRASS           | ALL OVER Ni 1.00 $\mu$ m MIN.<br>CONTACT PART Au 0.10 $\mu$ m MIN.<br>SOLDERING PART Au 0.03 $\mu$ m MIN. |
| 1   | HOUSING        | LCP             | UL94V-0, BLACK  |

- \*LENGTH: 4.0  $\pm$  0.4 AT PLUG PART NO. 20670-001R-08, 20670-001R-13, 20670-001R-32  
4.7  $\pm$  0.4 AT PLUG PART NO. 20670-001R-18, 20670-001R-37  
5.6 AT PLUG PART NO. 20767-001R-20 (REFERENCE DIMENSION)  
3.8  $\pm$  0.3 AT PLUG PART NO. 20686-001R-08, 20311-011R-\*\*-  
\*MATING HEIGHT: 2.5 MAX. AT PLUG PART NO. 20670-001R-\*\*-  
(2.9 MAX. AT MHF I LK LOCKED CONDITION)  
3.0 MAX. AT PLUG PART NO. 20767-001R-20  
2.0  $\pm$  0.1 AT PLUG PART NO. 20686-001R-08, 20311-011R-\*\*-

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NOTE  
4. NO GROUND, SIGNAL, RESIST IN THIS AREA.

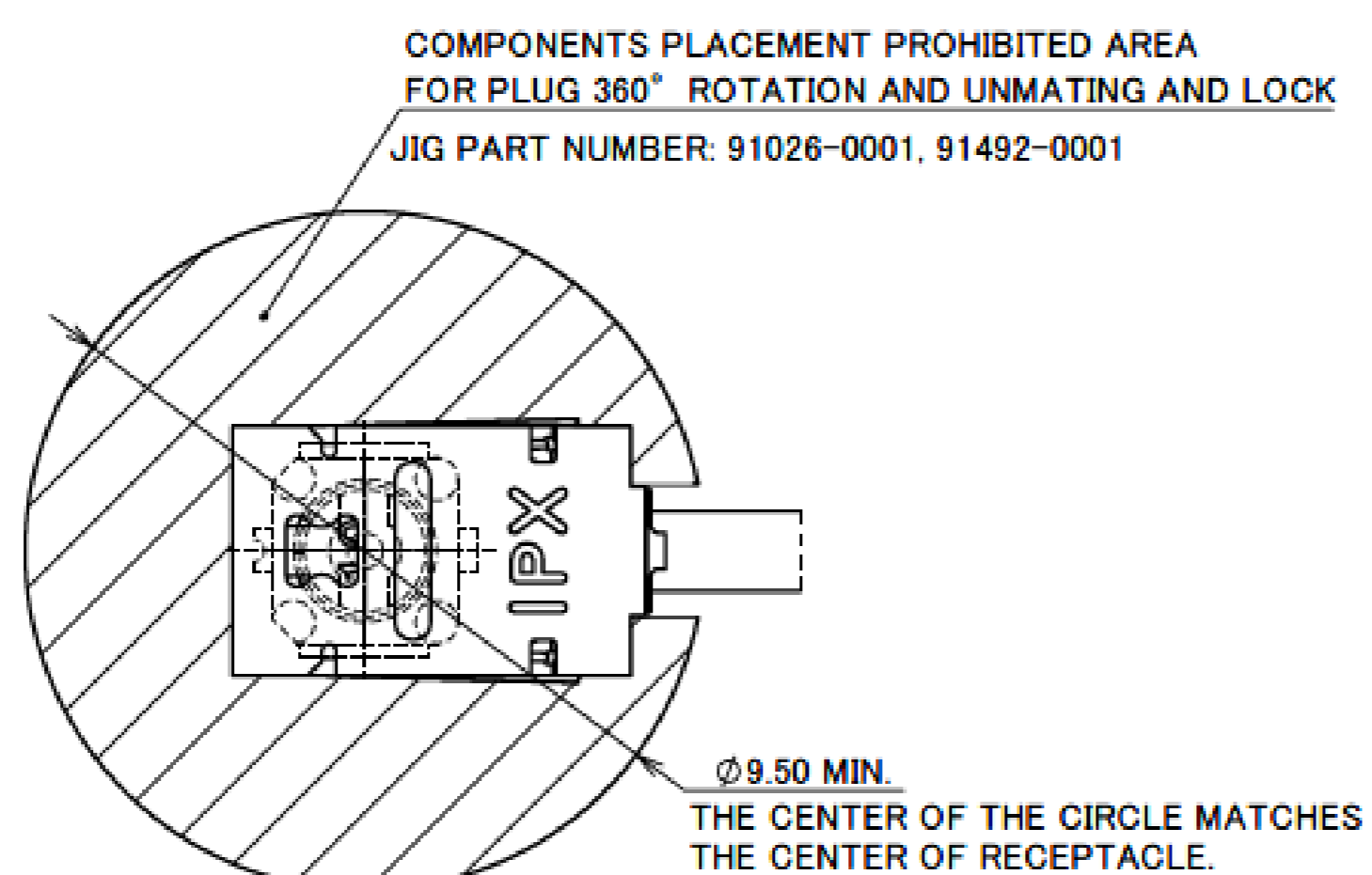
Rev.7



# MHF® I Receptacle (4pads/Black color HSG)

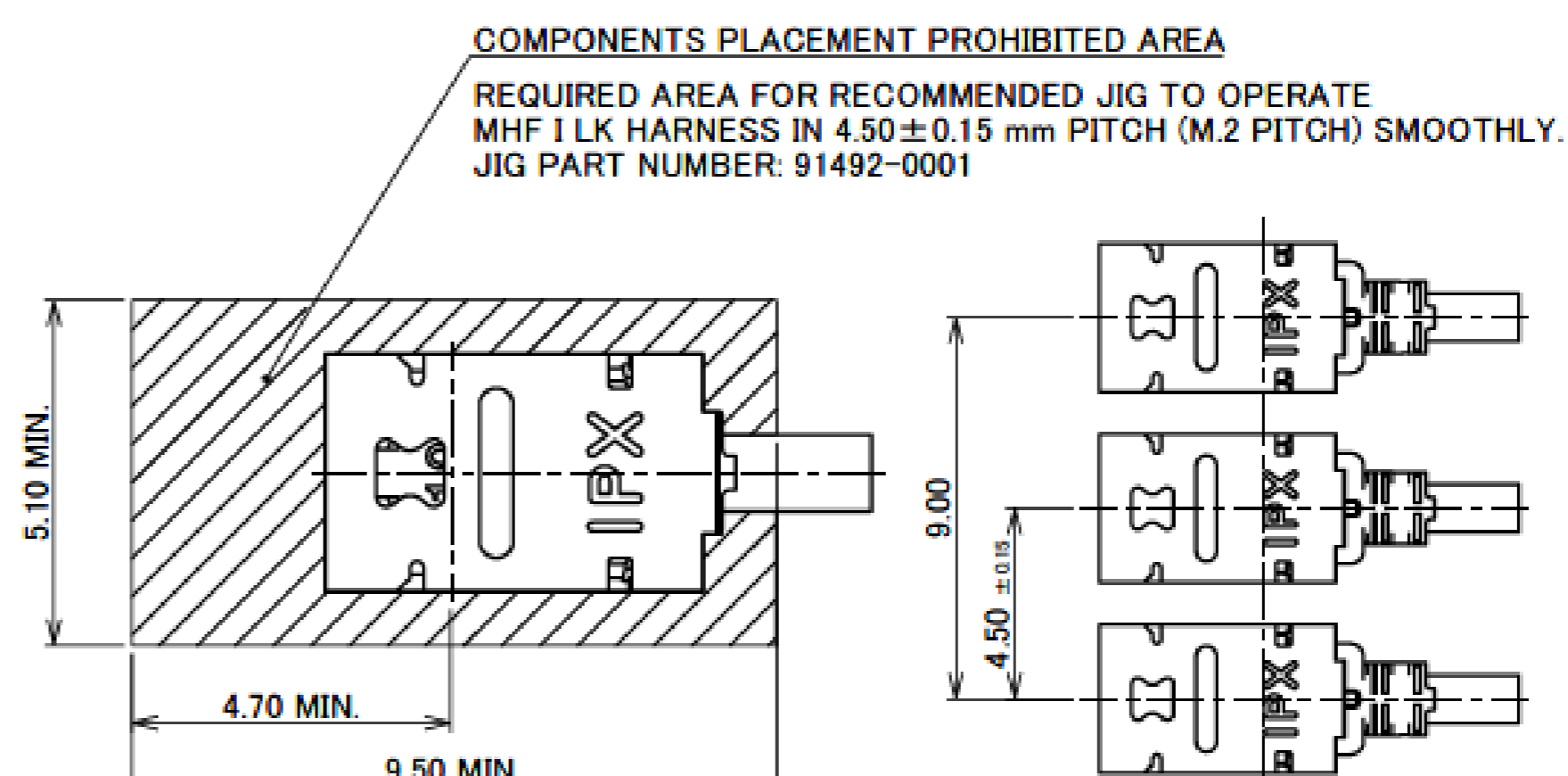
## COMPONENT PLACEMENT PROHIBITED AREA FOR MHF I/II RECEPTACLE MATED WITH MHF I LK HARNESS REQUIRED AREA FOR RECOMMENDED JIG TO OPERATE

### SINGLE CONNECTOR LAYOUT



MATING AND LOCK CONDITION  
WITH MHF I LK HARNESS

### MULTIPLE CONNECTORS LAYOUT



Rev.7

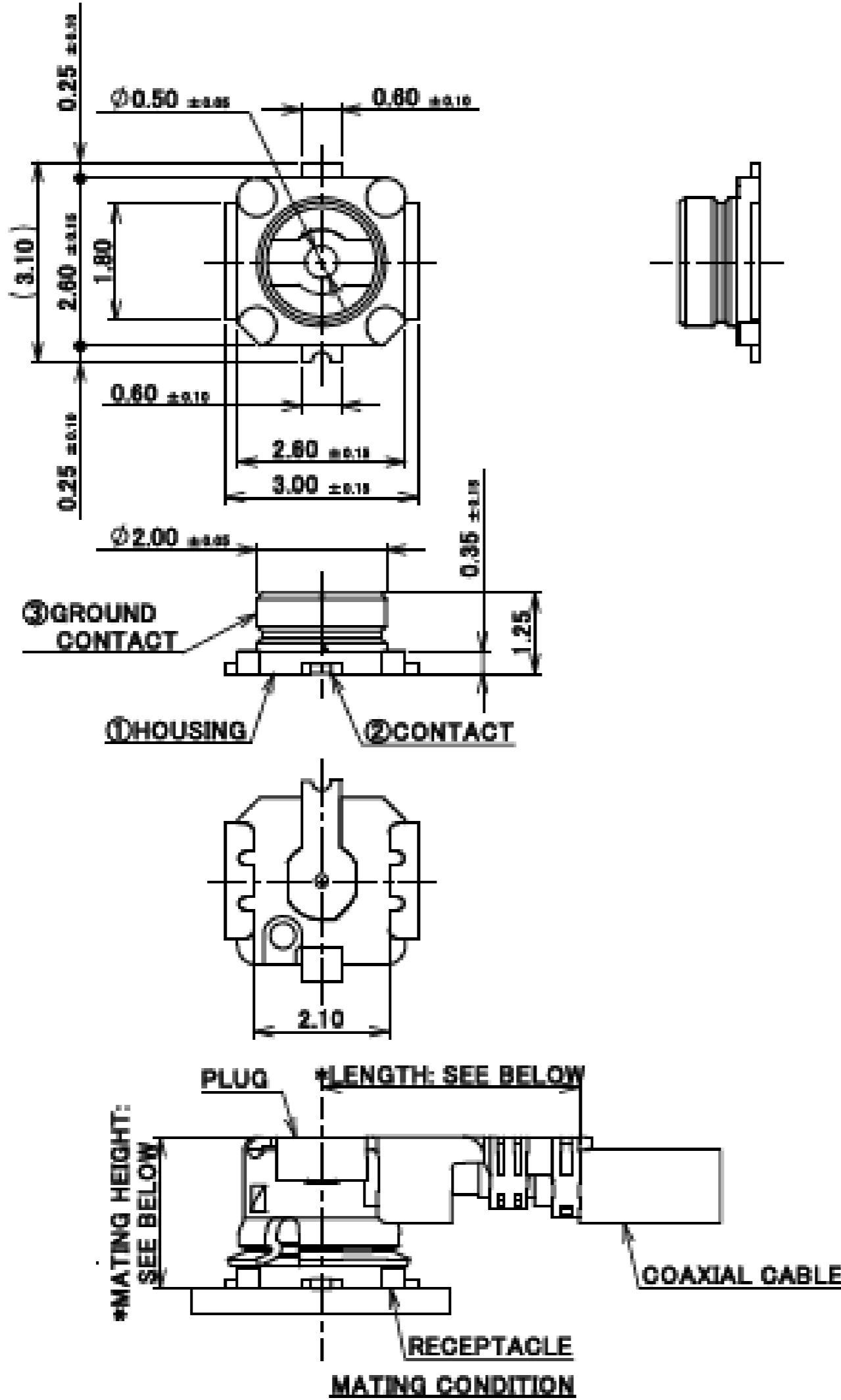
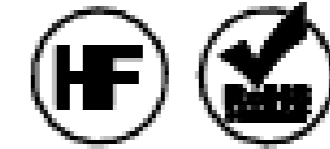
| ITEMS  | SPECIFICATION  |                                    |   |                                    |  |
|--|--|------------------------------------|---|------------------------------------|--|
| RECOMMENDED APPLICABLE CONNECTOR PART NO.          | 20278-001R-**<br>(MHF I PLUG 1.80, 1.32, 1.13, 0.81)                           | 20351-001R-**<br>(MHF I PLUG 1.37) | 20670-001R-**<br>(MHF I PLUG Ni TOP 1.80, 1.37, 1.32, 1.13, 0.81) | 20767-001R-20<br>(MHF I PLUG 2.00) | 20686-001R-08<br>(MHF II PLUG Ni TOP 0.81) |
| RATING VOLTAGE                                     | 60 V AC (R.M.S)  |                                    |   |                                    |  |
| RATING FREQUENCY                                   | DC~9GHz  |                                    |   |                                    |  |
| OPERATING TEMPERATURE                              | 233~363K (-40°C~+90°C)   |                                    |   |                                    |  |
| VSWR<br>(MATED WITH SMA ADAPTER PART No.90193-002) | RECEPTACLE: 1.30 MAX. AT 0.1~3 GHz, 1.40 MAX. AT 3~6 GHz, 1.80 MAX. AT 6~9 GHz |                                    |   |                                    |  |
| MAIN CONTACT RESISTANCE                            | INITIAL : 20 mohm MAX.<br>AFTER TEST : 25 mohm MAX.                            |                                    | INITIAL : 20 mohm MAX.<br>AFTER TEST : $\Delta$ R 20 mohm MAX.    |                                    |  |
| GROUND CONTACT RESISTANCE                          | INITIAL : 10 mohm MAX.<br>AFTER TEST : 15 mohm MAX.                            |                                    | INITIAL : 20 mohm MAX.<br>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: 5 N MIN.<br>AFTER TEST: 3 N MIN.                                      |                                    |   |                                    | INITIAL: 4 N MIN.<br>AFTER TEST: 2 N MIN.  |
| PRODUCT SPECIFICATION                              | PRS-1676   | PRS-1726                           | PRS-2105  | PRS-2490                           | PRS-2106                                   |
| TEST REPORT  | TR-12044   | TR-12096                           | TR-15059  | TR-18041                           | TR-15060                                   |
| PACKING STANDARD                                   | 300-596  |                                    |   |                                    |  |
| INSTRUCTION MANUAL                                 | HIM-10002  |                                    | HIM-17017   |                                    | HIM-12010                                  |
| APPEARANCE CRITERIA No.                            | QLS-A***   |                                    |   |                                    |  |

Rev.7

# MHF® I Receptacle (4pads/Natural color HSG)

Recommended P/N 20431-001E-01

PART No.  
20431-001E-01

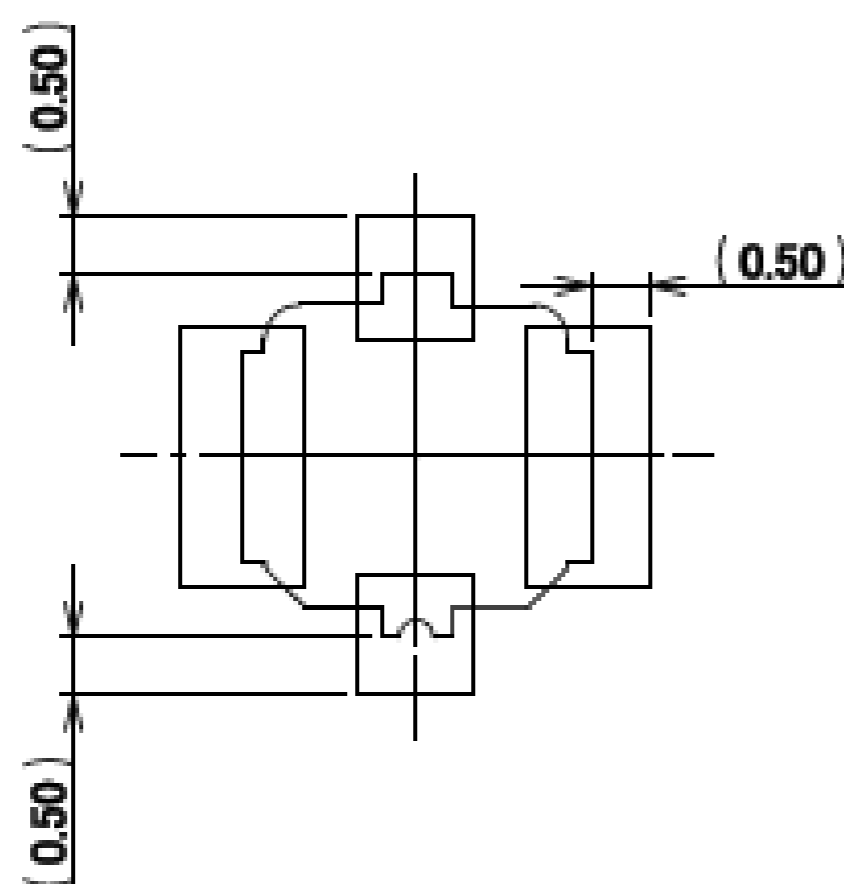
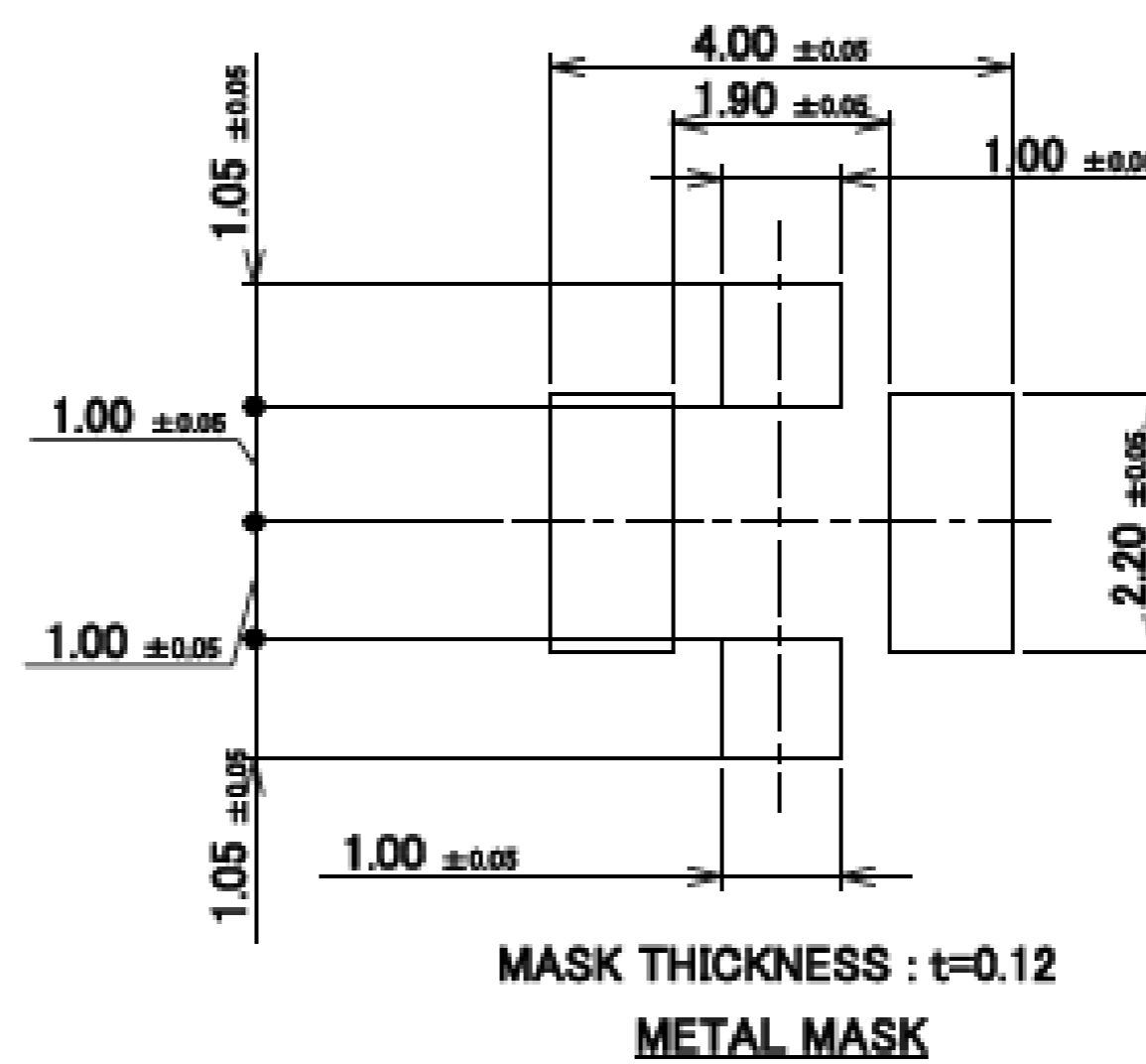
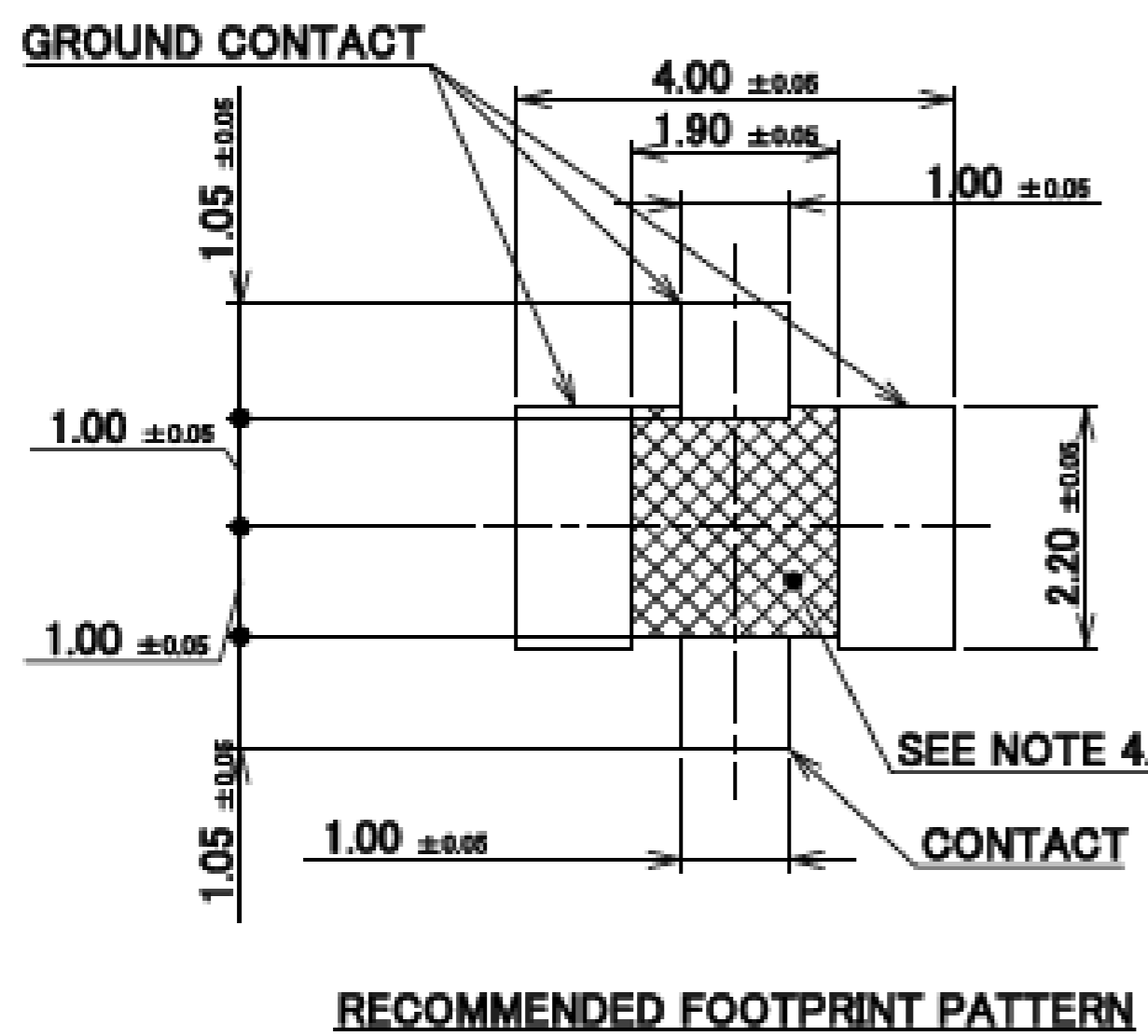


- NOTES.
- APPLICABLE CONNECTOR PART NUMBER:  
MHF I PLUG  
20278-112R-\*\*\*  
20351-1\*\*R-37  
20670-001R-\*\*\*  
20767-001R-20  
MHF II PLUG  
20311-011R-\*\*\*  
20686-001R-08
  - COPLANARITY: 0.1mm MAX.
  - THIS IS "Pb-FREE" CONNECTOR.

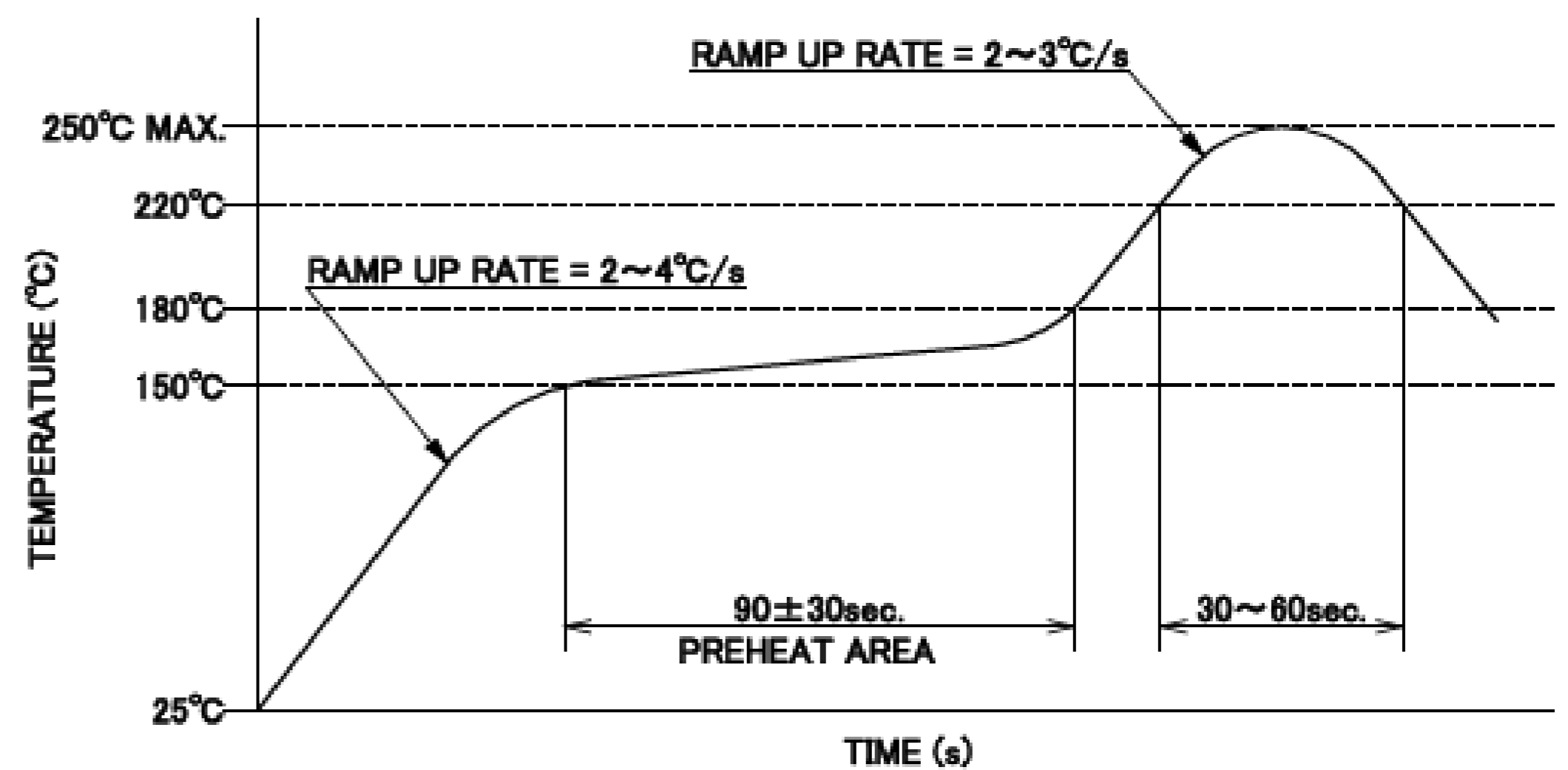
| NO. | DISCRIPTION    | MATERIAL        | FINISH . REMARKS   |
|-----|----------------|-----------------|--|
| 3   | GROUND CONTACT | PHOSPHOR BRONZE | ALL OVER NI 1.00 μm MIN.<br>CONTACT PART Au 0.03 μm MIN.<br>SOLDERING PART Au 0.03 μm MIN. |
| 2   | CONTACT        | BRASS           | ALL OVER NI 1.00 μm MIN.<br>CONTACT PART Au 0.10 μm MIN.<br>SOLDERING PART Au 0.03 μm MIN. |
| 1   | HOUSING        | LCP             | UL94V-0, WHITE   |

- \*LENGTH: 4.0 ±0.4 AT PLUG PART NO. 20670-001R-08, 20670-001R-13, 20670-001R-32  
4.7 ±0.4 AT PLUG PART NO. 20670-001R-18, 20670-001R-37  
5.8 AT PLUG PART NO. 20767-001R-20 (REFERENCE DIMENSION)  
3.8 ±0.3 AT PLUG PART NO. 20686-001R-08, 20311-011R-\*\*\*
- \*MATING HEIGHT: 2.5 MAX. AT PLUG PART NO. 20670-001R-\*\*\*  
3.0 MAX. AT PLUG PART NO. 20767-001R-20  
2.0 ±0.1 AT PLUG PART NO. 20686-001R-08, 20311-011R-\*\*\*

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CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



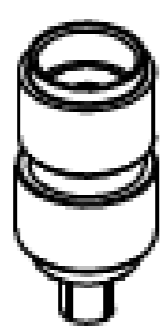
REFLOW TEMPERATURE PROFILE  
SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

# MHF® I Receptacle (4pads/Natural color HSG)

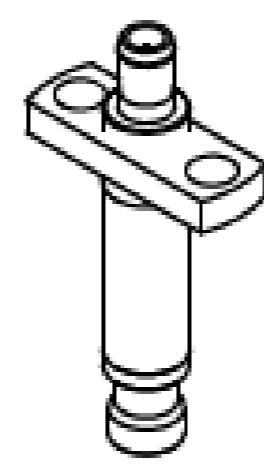
| ITEMS                                     | SPECIFICATION   |  |
|---|---|--|
| RECOMMENDED APPLICABLE CONNECTOR PART NO. | 20670-001R-**<br>(MHF I PLUG Ni TOP (1.80, 1.37, 1.32, 1.13, 0.81))       | 20686-001R-08<br>(MHF II PLUG Ni TOP (0.81)) |
| RATING VOLTAGE                            | 60 V AC (R.M.S)   |  |
| RATING FREQUENCY                          | DC~9GHz   |  |
| OPERATING TEMPERATURE                     | 233~363K (-40°C~+90°C)  |  |
| VSWR                                      | RECEPTACLE: 1.3 MAX AT 0.1~3 GHz, 1.4 MAX AT 3~6 GHz, 1.8 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: $\Delta$ 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.<br>AFTER TEST: 3 N MIN.                                 | INITIAL: 4 N MIN.<br>AFTER TEST: 2 N MIN.    |
| PRODUCT SPECIFICATION                     | PRS-2105  | PRS-2106                                     |
| TEST REPORT                               | TR-15059  | TR-15060                                     |
| PACKING STANDARD                          | PST-17011   |  |
| INSTRUCTION MANUAL                        | HIM-10002   | HIM-12010                                    |
| APPEARANCE CRITERIA No.                   | QLS-A***  |  |

Rev.4

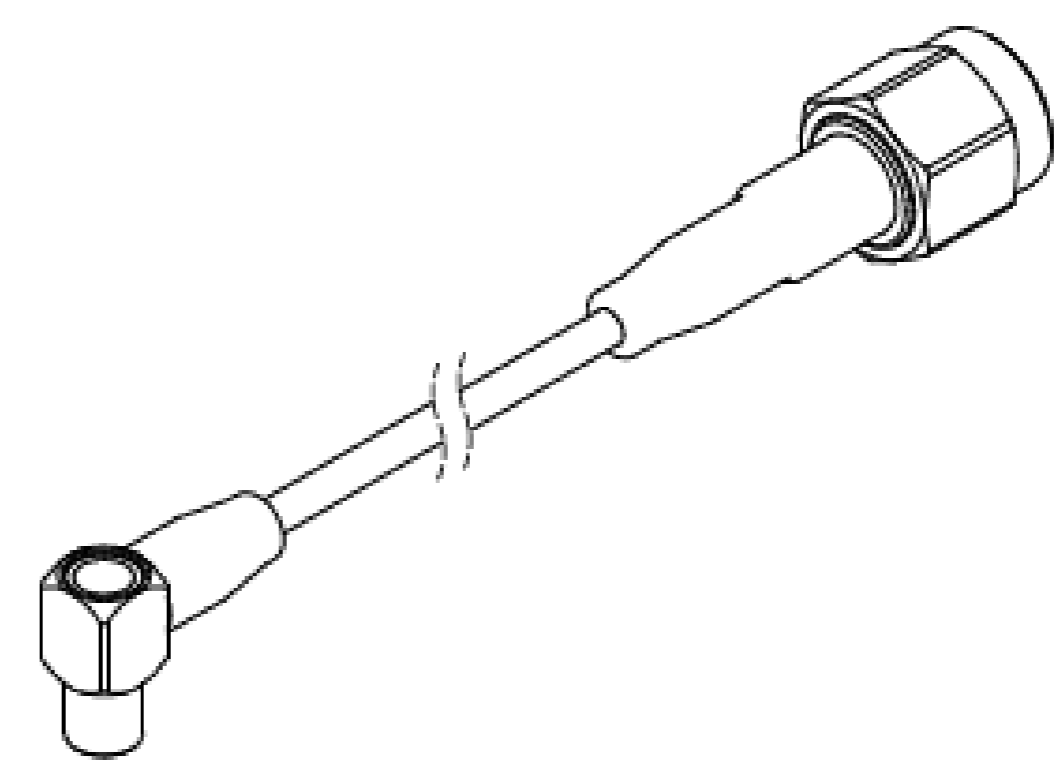
## Accessories for MHF® I Receptacle



MHF I/II SMA ADAPTOR  
PART NO. 90193-002



4.5MM HIGH CYCLE TEST PROBE FOR MHF/MHF A  
PART NO. 90575-0001



4.5MM HIGH CYCLE TEST PROBE CABLE ASS'Y  
PART NO. 90577-\*\*\*\*

\* 90575-0001 AND 90577-\*\*\*\* SHOULD BE USED TOGETHER.

Rev.4



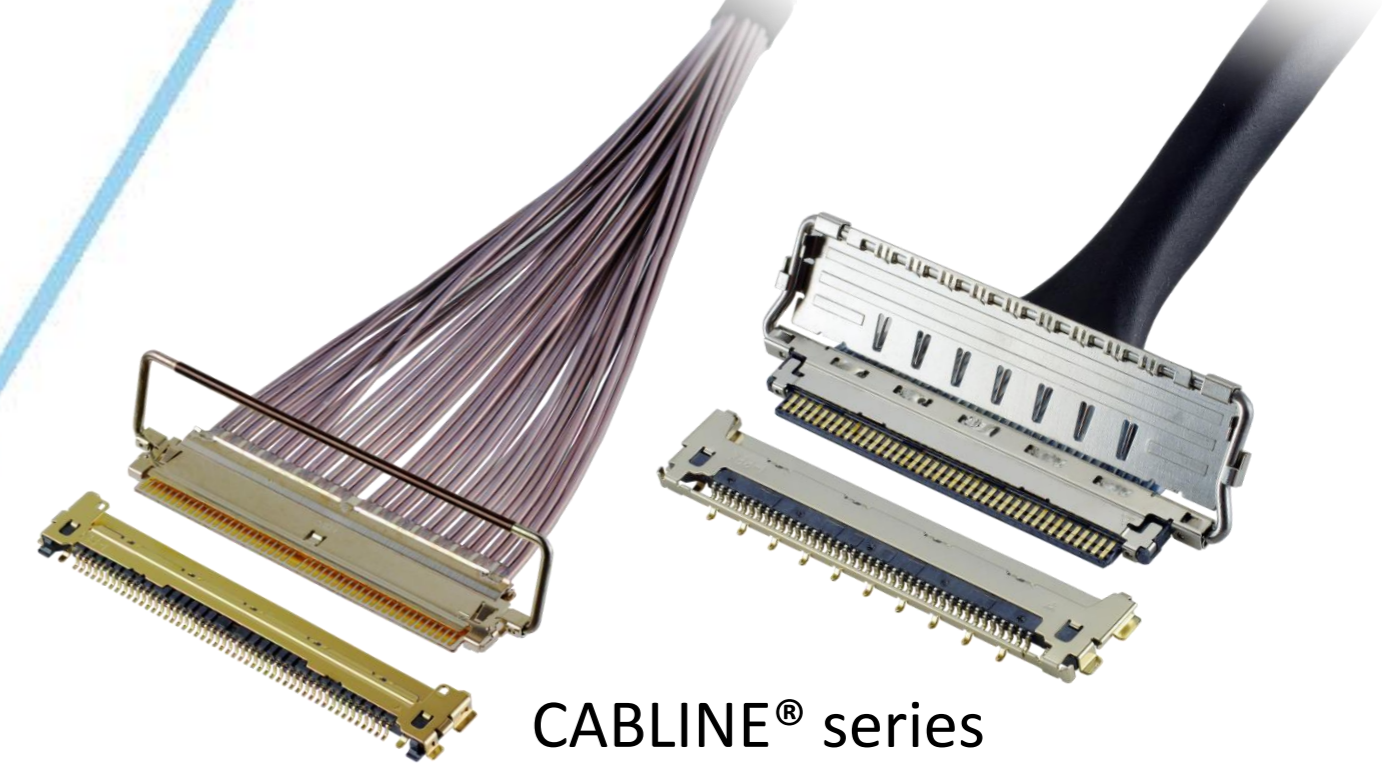
# Custom Products Available

## RF Connector

MHF® series



## Micro-coaxial/Twinax/ Discrete Wire Connector



CABLINE® series

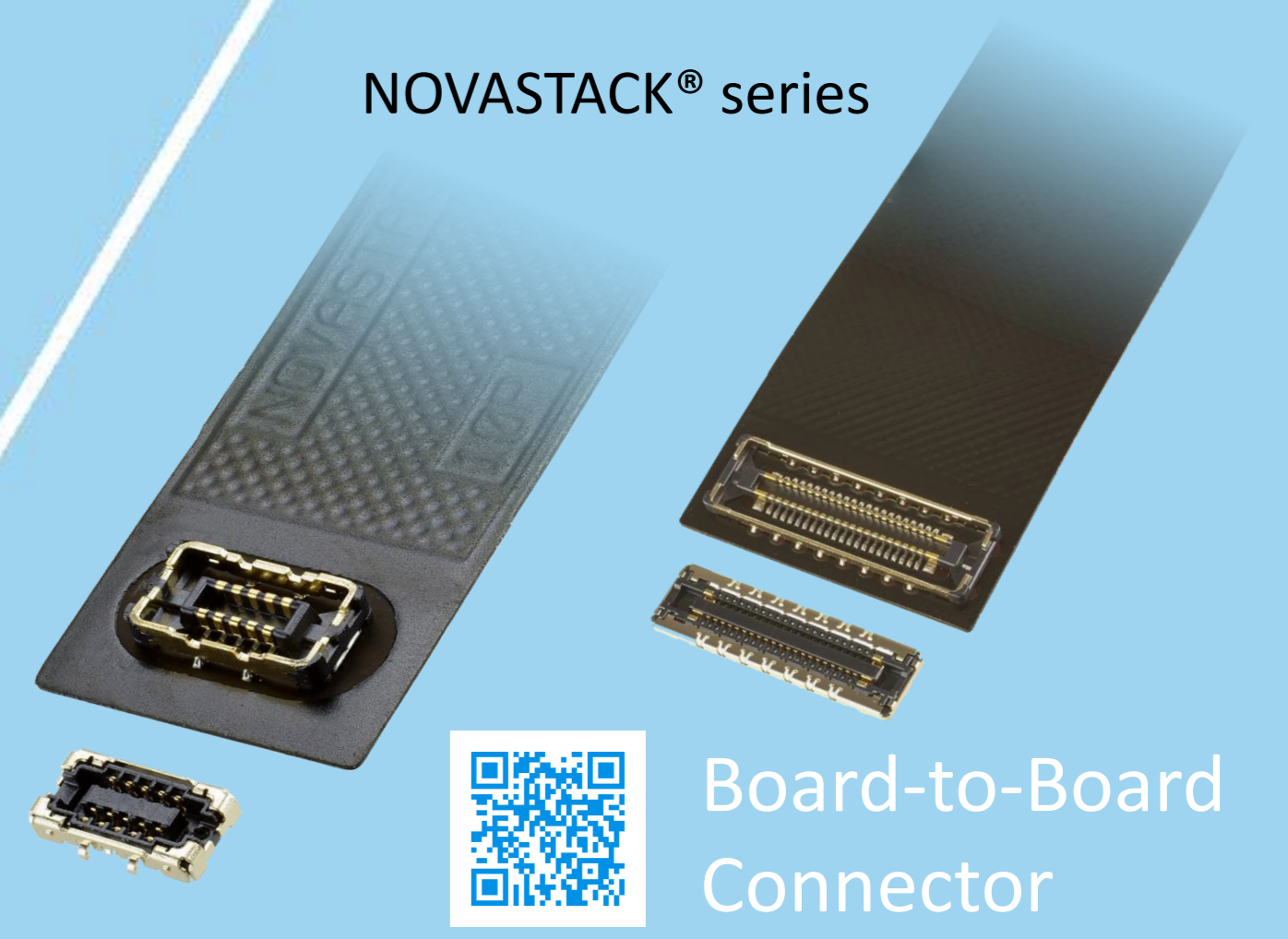


## Optical Module

LIGHTPASS® series



NOVASTACK® series



## Board-to-Board Connector



## Power Connector/ Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series



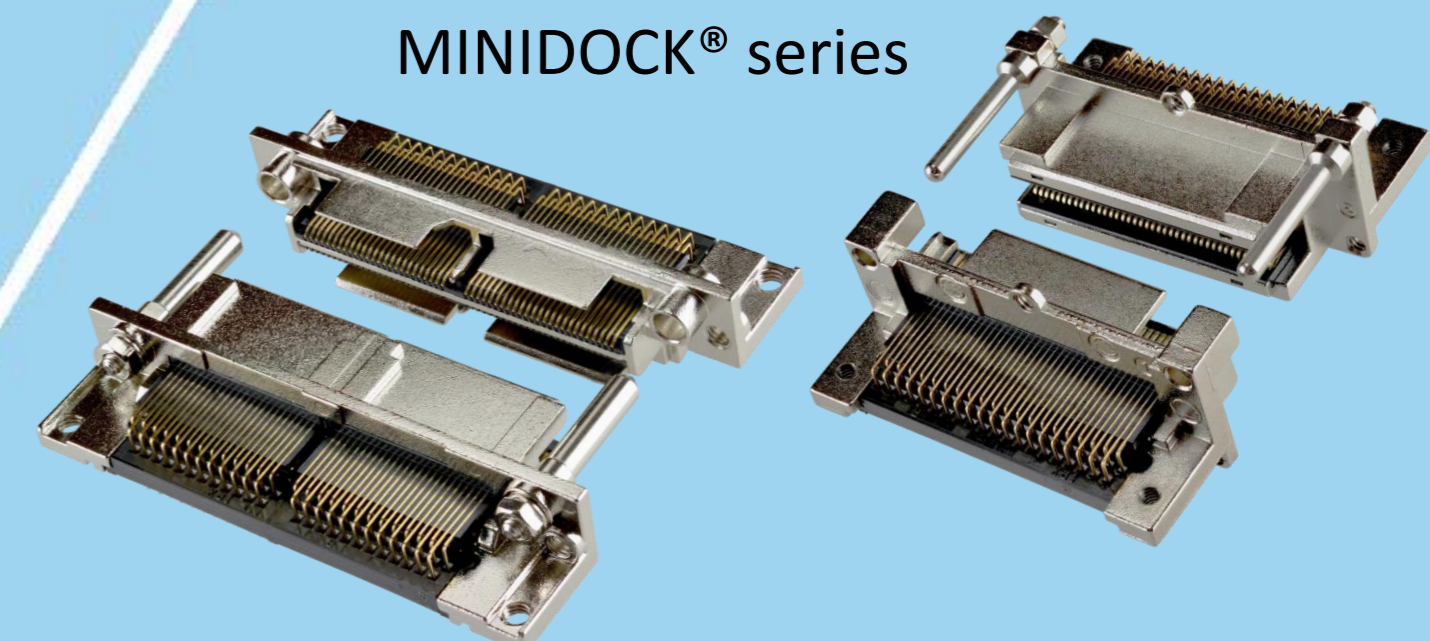
## FPC FFC Connector



Inquiry



MINIDOCK® series



## I/O Connector

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