



Enabling Industrial IoT

ASMGAxxxXA113S11

I-PEX MHF® 4L to SMA-Female Front Mount Bulkhead Pigtail Cable Assembly



100 MIV

LoRa

200 MIV

5G

New Radic



Key Features

- Connector 1: I-PEX MHF® 4L
- Connector 2: SMA Female Bulkhead Front Mount
- 1.13mm Coaxial Cable
- Impedance: 50Ω
- Lengths: 100mm / Customisation Available
- Suggested Working Frequency: DC to 6GHz

Typical Applications

- I-PEX MHF® 4L micro coaxial connector, ideal for a small form factor, high-frequency performance.
- IP67 SMA Female Bulkhead Front Mount connector for secure rear-side installation.
- Cellular Modules, Wi-Fi/Bluetooth Devices, Drones/Robotics, Medical Devices and Wearable Devices.

Environmental Specifications

- Operating Temperature: -40 to +90 °C
- RoHS and REACH compliant

Ordering Details:

| Part Number | Description |
|-------------------|--|
| ASMGA003XC113S11 | I-PEX MHF® 4L TO SMA Female Bulkhead Front Mount 30 MM 1.13 Cable |
| ASMGA005XC113S11 | I-PEX MHF® 4L TO SMA Female Bulkhead Front Mount 50 MM 1.13 Cable |
| ASMGA0075XC113S11 | I-PEX MHF® 4L TO SMA Female Bulkhead Front Mount 75 MM 1.13 Cable |
| ASMGA010XC113S11 | I-PEX MHF® 4L TO SMA Female Bulkhead Front Mount 100 MM 1.13 Cable |
| ASMGA0125XC113S11 | I-PEX MHF® 4L TO SMA Female Bulkhead Front Mount 125 MM 1.13 Cable |
| ASMGA015XC113S11 | I-PEX MHF® 4L TO SMA Female Bulkhead Front Mount 150 MM 1.13 Cable |

Customisation Available: We also offer customisation of cable lengths to meet your specific requirements. Whether you need a shorter or longer cable, we can tailor the solution to fit your exact needs - siretta@sales.com

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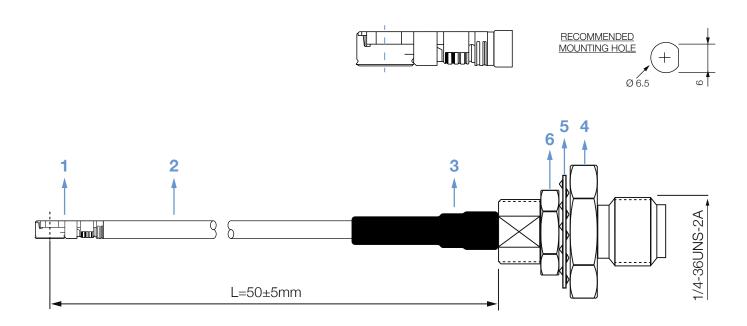
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I-PEX MHF® 4L to SMA-Female Front Mount Bulkhead Pigtail Cable Assembly

Dimensional Drawing



Electrical Data

- 100% continuity, short circuit test.
- Impedance: 50 Ω

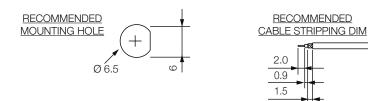
| No. | Description | Quantity |
|-----|---|----------|
| 1 | I-PEX MHF® 4L Plug | 1 |
| 2 | 1.13 Coaxial Cable (Gray) | 1 |
| 3 | Heat Shrink (Black) | 1 |
| 4 | SMA Straight Bulkhead (Frount Mount) Jack | 1 |
| 5 | Washer | 1 |
| 6 | Nut | 1 |

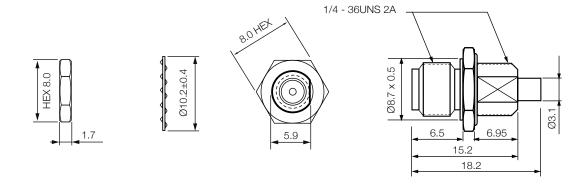


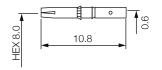


I-PEX MHF® 4L to SMA-Female Front Mount Bulkhead Pigtail Cable Assembly

SMA-F Detailed Drawing









| 7 | _ | 0 | | | A |
|------|---|---|-----|---|----------|
| 01.1 | | 4 | 7.3 | - | Ø1.2 |

| No. | Description | Material | Quantity |
|-----|-------------|----------|----------|
| 1 | Body | Brass | 1 |
| 2 | Insulator A | Teflon | 1 |
| 3 | Center Pin | Be.Cu | 1 |
| 4 | Insulator B | Teflon | 1 |
| 5 | Sleeve | Brass | 1 |
| 6 | Washer | Brass | 1 |
| 7 | Nut | Brass | 1 |

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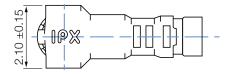
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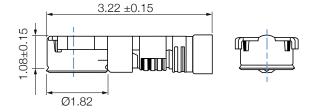


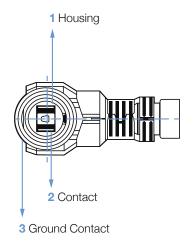


I-PEX MHF® 4L to SMA-Female Front Mount Bulkhead Pigtail Cable Assembly

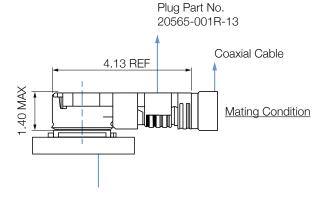
I-PEX MHF® 4L Detailed Drawing







| No. | Description | Material | Finish/Remarks | | | |
|-----|-------------------|--------------------|---|--|--|--|
| 1 | Housing | LCP | UL94V-0 Black (GF 30%) | | | |
| 2 | Contact | Phosphor Bronze | All over Ni 1.00 µm min. Contact part Au 0.05 µm min | | | |
| 3 | Ground Contact | Phosphor Bronze | All over Ni 1.00 µm min. Contact part Au 0.05 µm min. [Ni plating area] Ni only | | | |

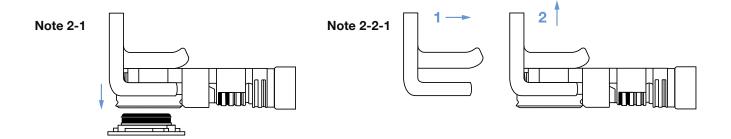


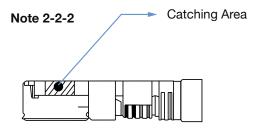




I-PEX MHF® 4L to SMA-Female Front Mount Bulkhead Pigtail Cable Assembly

I-PEX MHF® 4L Detailed Drawing (Installation)





NOTE:

- 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.

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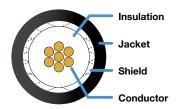
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I-PEX MHF® 4L to SMA-Female Front Mount Bulkhead Pigtail Cable Assembly

1.13 Coaxial Cable Specification





| Jacket | Braided Shield | Insulation | Conductor |
|-------------------------|-------------------|------------------------------|----------------------|
| Material | Material | Material | Material |
| FEP | Tinned Copper | FEP | Silver Coated Copper |
| Colour | Construction | Average Thickness | Construction |
| Grey/Black/Custom | 16 / 4 / 0.050 mm | 0.22 mm | 32AWG (7/0.085 mm) |
| Average Thickness | Coverage | Colour | Diameter |
| 0.12 mm | 90% | Clear | 0.26 mm |
| Diameter 1.13±0.1 mm | | Diameter 0.70±0.03 mm | |

Electrical Specifications

| Impedance: | $50 \pm 3 \Omega$ |
|------------------------|-------------------|
| Conductor Resistance: | 314 Ω/km 20°C Max |
| Insulation Resistance: | 3000 MΩ-km Min |
| Capacitance: | 96± 3 pF/M |
| Dielectric Strength: | AC 500 V/Minute |
| Spark Test: | 1 KV |
| Nom. Vel. of. Prop: | 69% |
| VSWR Test (0~6 GHz): | 1.35 Max |
| VSWR Test (6~8 GHz): | 1.45 Max |
| Flame Test: | VW-1 OK |

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I-PEX MHF® 4L to SMA-Female Front Mount Bulkhead Pigtail Cable Assembly

Physical Specifications

| Item: | 1.13 mm (32AWG) |
|------------------------------|---------------------------------|
| Rating Temp Voltage: | 105°C 30V |
| Minimum Bend Radius: | 5.0 mm |
| Recognised: | UL 1979 |
| Operating Temperature range: | -40°C ~ +200°C |
| Storage Temperature range: | -40°C ~ +200°C |
| Insulation - Unaged | |
| Tensile Strength: | 2500 PSI Min (1.76 Kg / (mm²) |
| Elongation: | 200% Min |
| Insulation - Aged | |
| Tensile Strength: | UNAGED Min.75% (232°C×168HRS) |
| Elongation: | UNAGED Min.75% (232°C×168HRS) |
| Jacket - Unaged | |
| Tensile Strength: | 2500 PSI Min. (1.76 Kg / (mm²) |
| Elongation: | 200% Min |
| Jacket - Aged | |
| Tensile Strength: | UNAGED Min.75% (232°C×168HRS) |
| Elongation: | UNAGED Min.75% (232°C×168HRS) |

Attenuation (across frequency)

| Frequency (GHz) | 1 GHz | 2 GHz | 3 GHz | 4 GHz | 5 GHz | 6 GHz | 7 GHz | 8 GHz |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| dB/1m | 2.20 | 3.10 | 3.90 | 4.50 | 5.00 | 5.50 | 6.10 | 6.70 |
| dB/ft | 0.67 | 0.95 | 1.19 | 1.37 | 1.52 | 1.68 | 1.86 | 2.04 |

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