Features

1. Mated Height (1.9mm to 2.4mm NOM)
   The maximum height from the board surface when the plug and Receptacle are mated is 2.0 to 2.0mm Max. depending on the plug for a low profile. (Refer to diagram on right)

2. Receptacle
   Small and light weight with a mass of 15.7mg and occupied mounting space of 7.7mm². Compatible with board mounting. (Embossed packaging)

3. Frequency
   Plug U.FL(A) : Up to 18GHz
   Plug U.FL : Up to 8GHz
   Receptacle can be used with both U.FL(A) and U.FL.

4. Plug compatible with ultra-fine coaxial (fluorinated resin insulated) cable
   φ1.37, φ1.32, φ1.13, φ0.95, φ0.81

5. Various Accessories
   Plug insertion/extraction tools, adapter for inspection and internal wiring, and SMA, MMCX, and TNC connectors for U.FL back end connection are available.

6. Tactile Mating
   Tactile click sensation confirms fully mated condition, assuring complete electrical and mechanical connection.

7. Environmental Compatibility
   ◆Halogen Free
   Chlorine and bromine above the standard values are not used for receptacle and plug harnesses.
   *As defined by IEC61249-2-21
   Br-900 ppm maximum, Cl-900 ppm maximum, Cl+Br combined-1,500 ppm maximum
   ◆ROHS2 Compatible

Applications

Wireless LAN Devices (Wi-Fi 6), Bluetooth devices, Car navigation, drone, PDA, GPS, wireless transmission devices, electronic measuring devices, etc.
## Product Specifications

<table>
<thead>
<tr>
<th>Ratings</th>
<th>Spec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal characteristic impedance (50Ω)</td>
<td>Frequency range: DC to 8GHz</td>
</tr>
</tbody>
</table>

### Operating temperature range

-40°C to +105°C

#### Operating humidity
90% RH max.

#### Storage temperature range
-30°C to +70°C

#### Storage humidity
90% RH max.

### Contact Resistance

1. **Center**: 20mΩ max. (50mΩ max.)
2. **Outer**: 10mΩ max. (20mΩ max.)

(U.FL(A))

10mA max.

### Insulation Resistance
500MΩmin.

### Withstanding Voltage

- No flashover or insulation breakdown.
- 100V DC

### V.S.W.R.*

- **Cable Type**: DC~3GHz: 1.3 Max, 6~8GHz: 1.4 Max
- **U.FL-LP-040HF**: 1.081
- **U.FL-LP(V)-040HF**: 1.081
- **U.FL-LP-066HF**: 1.21.3
- **U.FL-LP-062HF**: 1.3 Max
- **U.FL-LP-088HF**: 1.3.17
- **U.FL(A)-LP(P)-068**: 1.1.3
- **U.FL(A)-LP(P)-088**: 1.1.37

### Female Contact Retention Force

- 0.15N Min./0.1N Min. (062 Plug, U.FL(A))
- Measured with ø0.475 pin gauge

### Durability (mating / un-mating, with corresponding plug)

- Initial Value: 5mΩ

### Vibration

- No electrical discontinuity of 1μs min.
- No damage, cracks or parts dislocation.

### Shock

- Frequency: 10 to 100Hz, single amplitude of 1.5mm, acceleration of 59m/s², for 5 cycles in the direction of each of the 3 axes.

### Humidity (Steady state)

- Insulation Resistance: 10MΩ min. (High Temperature) 500MΩ min. (When Dry)
- 96 hours at temperature of 40°C and humidity of 95%.

### Temperature Cycle

- No damage, cracks or parts dislocation.
- Contact resistance: 25mΩ max. (Center) 15mΩ max. (Outer)
- Temperature: -40°C to +5°C to +105°C to +5°C to +35°C Time: 30min. → 3min. → 30min. → 3min.
- 5 cycles

### Salt spray

- V.S.W.R.: Satisfies initial value
- 5% salt water solution, 48 hours

### V.S.W.R. Measurement System

The above V.S.W.R. standard values were measured using the measurement connection shown below.

![Network Analyzer Test Set Test Port](image)

D.U.T Termination

Note 1: Cable type connectors were measured with SMA conversion adapters attached to both ends of the harness product of a suitable 100cm cable.

Note 2: Board type connectors were mounted to a 500 glass epoxy board and measurements were conducted with SMA conversion adapters attached.

## Material / Finish

### Plug-right angle

#### Part

<table>
<thead>
<tr>
<th>Material</th>
<th>Finish/Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shell</td>
<td>Phosphor bronze / Silver plated / Nickel plated (Contact gold plated) (U.FL(A))</td>
</tr>
<tr>
<td>Insulator</td>
<td>PBT, Color: Gray / UL94HB (LP(V)-040HF)</td>
</tr>
<tr>
<td></td>
<td>LCP, Color: Milky-white / UL94V-0 (040HF, 066HF, 088HF)</td>
</tr>
<tr>
<td></td>
<td>LCP (Black) / UL94V-0 (U.FL(A))</td>
</tr>
<tr>
<td>Female center contact</td>
<td>Phosphor bronze / Gold plated</td>
</tr>
</tbody>
</table>

### Receptacle

#### Part

<table>
<thead>
<tr>
<th>Material</th>
<th>Finish/Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shell</td>
<td>Phosphor bronze / Silver plated (U.FL-R-SMT-1) / Gold Plated (U.FL-R-SMT-K)</td>
</tr>
<tr>
<td>Insulator</td>
<td>LCP, Color: Milky-white / UL94V-0 (U.FL-R-SMT-1)</td>
</tr>
<tr>
<td></td>
<td>LCP (Black) / UL94V-0 (U.FL-R-SMT-K)</td>
</tr>
<tr>
<td>Male center contact</td>
<td>Brass / Gold plated</td>
</tr>
</tbody>
</table>
**U.FL Series**

**Light Weight Micro SMT Coaxial Connector, 1.9mm to 2.4mm Mated Height**

**Receptacle**

- **Shell**: Silver plated
- **Part No.**
  - U.FL-R-SMT-1(01)
  - U.FL-R-SMT-1(60)
  - U.FL-R-SMT-1(80)
- **HRS No.**
  - 331-0472-2 01
  - 331-0472-2 60
  - 331-0472-2 80
- **Packaging**
  - 100 pcs/pack
  - 4,000 pcs/reel
- **Packaging Mass**
  - 15.7/mg

**Shell**: Gold plated

- **Part No.**
  - U.FL-R-SMT-K(800)
- **HRS No.**
  - 480-0761-0 00
- **Packaging**
  - 10,000 pcs per reel
- **Mass**
  - 15.7/pc

**Embosed Carrier Tape Dimensions (IEC 60286-3 compliant)**

- **U.FL-R-SMT-1(60)**: 8mm pitch
- **U.FL-R-SMT-1(80)**: 4mm pitch

**Recommended PCB Mounting Pattern**

- No conductive traces in this area

**Recommended Metal Mask Dimensions**

- Mask Thickness: 0.1mm/0.12mm

**Reel Dimensions**

- **Material**:
  - PS(Black) U.FL-R-SMT-1
  - PS(White) U.FL-R-SMT-K

(Note 1) The sales unit of the (01) specification receptacle is one pack (100 units per pack). Please order based on the number of packs.

(Note 2) The sales unit of the (60) specification receptacle is 1 reel (4,000 pcs per reel) so please order based on the number of reels.

(Note 3) The sales unit of the (80) specification receptacle is 1 reel (10,000 pcs per reel), so please order based on number of reels.

(Note 4) Tolerance value of mold resin applied to center contact.

(Note 5) The sales unit of the receptacle is 1 reel (10,000 pcs per reel), so please order based on the number of reels.
Plug (Center Solder Type)

- **U.FL Plug**
  - The center contact is gold plated and the outer contact is silver plated.

<table>
<thead>
<tr>
<th>Cable Guide</th>
<th>Cable Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Cable Type</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Dia.0.81mm</td>
<td>04</td>
</tr>
<tr>
<td>Coaxial</td>
<td></td>
</tr>
<tr>
<td>Dia.1.13mm</td>
<td>068</td>
</tr>
<tr>
<td>Coaxial</td>
<td></td>
</tr>
<tr>
<td>Dia.1.32mm</td>
<td>066</td>
</tr>
<tr>
<td>Coaxial</td>
<td></td>
</tr>
<tr>
<td>Dia.0.95mm</td>
<td>062</td>
</tr>
<tr>
<td>Coaxial</td>
<td></td>
</tr>
<tr>
<td>Dia.1.37mm</td>
<td>088</td>
</tr>
<tr>
<td>Coaxial</td>
<td></td>
</tr>
<tr>
<td>Dia.1.37mm</td>
<td>088</td>
</tr>
<tr>
<td>Coaxial</td>
<td></td>
</tr>
</tbody>
</table>

(Attenuation is a reference value.)
* SA : Silver plated annealed copper wire, TA : Tin plated annealed copper wire

[Plugs can be ordered only as terminated cable assemblies.]
Plug (No Solder Type)

U.FL(A) Plug
- Harness product guarantees frequency up to 18GHz and impedance matching.
- The inner and outer contact portion are gold plated (the main body is nickel plated).
- The receptacle can be mated with U.FL-R-SMT-1 (shell : silver plated) and U.FL-R-SMT-K (shell : gold plated).
- The SMA inspection adapter and extraction tool are only for the U.FL(A) Plug.
- Controls variation and improves extraction force by 50% compared to conventional products and competing products (Approx. 30N).

It is difficult to remove the connector even when bending the cable.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>U.FL(A)-LP(P)-068</th>
<th>U.FL(A)-LP(P)-088</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mated Height</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2mm Max. (2.1mm Nom.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applicable cable</td>
<td>#1.13</td>
<td>#1.37</td>
</tr>
<tr>
<td></td>
<td>Weight (mg)</td>
<td>56</td>
<td>58</td>
</tr>
</tbody>
</table>

U.FL(A) Inspection SMA Conversion Adapter
(Mated Portion: U.FLA Jack- SMA Plug)

U.FL(A) Insertion/Extraction Tool
For removing from the mated condition

(Note) Since the U.FL side mated portion has a weaker lock than standard products, it cannot be used for purposes other than performance measurement.
The Procedure for ordering patch cord
Please select the specifications in 3 steps. No need product name for ordering patch cords.

STEP 1 : Single end or both ends

STEP 2 : Cable and mating height

STEP 3 : Cable length (mm)

Patch cord name example
Characters that are not red are for Hirose internal identification.

Plugs (Center Solder Type)

Plugs (No Solder Type)
# Conversion Adapter

**● SMA Conversion Adapter (Mated Portion: U.FL Jack - SMA Plug)**

![Image of U.FL to SMA conversion adapter](image_url)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRMP-U.FLJ(40)</td>
<td>311-0300-2 40</td>
</tr>
</tbody>
</table>

(Note) Since the U.FL side mating portion has a weaker lock than standard products, it cannot be used for purposes other than performance measurement.

**● SMA Conversion Adapter (Mated Portion: U.FL Plug - SMA Jack)**

![Image of U.FL to SMA conversion adapter](image_url)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRMJ-U.FLP(40)</td>
<td>311-0301-5 40</td>
</tr>
</tbody>
</table>

(Note) Since the U.FL side mating portion has a weaker lock than standard products, it cannot be used for purposes other than performance measurement.

**● SMA Conversion Adapter (Mated Portion: U.FL Plug - SMA Jack)**

![Image of U.FL to SMA conversion adapter](image_url)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRMJ-U.FLP-ST1(40)</td>
<td>311-0385-5 40</td>
</tr>
</tbody>
</table>

This connector is used by pressing the mating portion of the U.FL side with the mating portion of U.FL-R-SMT.

**● SMA Conversion Adapter (Mated Portion: SMA Jack (Measuring Device Connection Side) - SMA Plug)**

![Image of SMA to SMA conversion adapter](image_url)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM-PJ(P)-1(40)</td>
<td>323-0805-9 40</td>
</tr>
</tbody>
</table>

(Note) HRMJ-U.FLP-ST1 absorbs misalignment when mated with the plug (coupling side) and connecting the jack with the measuring device.

(Refer to next page)
● probe for inspect of multiple narrow pitch receptacles (mated portion: U.FL plug (no lock) - ML51 jack)

(Note) Hirose’s ML51 is used for the measuring device interface. It is ideal for simultaneous inspection of multiple narrow pitch mounted receptacles.

● harness for narrow pitch probe connection (mated portion: SMA plug (measuring device connection side) - ML55 plug)

(Note) Used to connect U.FLP-ML51J-PA(F)-ST and the measuring device. It is recommended to provide slack to the cable length so that it can absorb misalignment smoothly.

### Inspection Probe

**● HRMJ-U.FLP-ST1 and HRM-PA-PJ(F)1 Combination and Usage**

<table>
<thead>
<tr>
<th>Flange to Board Surface</th>
<th>(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>recommendation for measurement</td>
<td>32.5±0.2</td>
</tr>
<tr>
<td>Starting Load</td>
<td>33.2</td>
</tr>
</tbody>
</table>

Shortest Pitch for Adjacency

**● U.FLP-ML51J-PA(F)-ST and HRMP-ML51LP-DTR178-350RS Combination and Usage**

<table>
<thead>
<tr>
<th>Flange to Board Surface</th>
<th>(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>recommendation for measurement</td>
<td>15.1±0.2</td>
</tr>
<tr>
<td>Beginning Load</td>
<td>16</td>
</tr>
</tbody>
</table>

Shortest Pitch for Adjacency

*For the inspection probe do not tilt the tip contact from the tensile load of the connecting cable.*
Inspection Receptacle
Receptacle for inspecting the conduction and withstanding voltage of harness products.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.FL-R-1</td>
<td>331-0466-0</td>
</tr>
</tbody>
</table>

(Note 1) Product cannot be used for purposes other than conduction or withstanding voltage inspection because there is no lock on the mating portion.

Inspection Assistance Device
● SMA Mating Push On Conversion Adapter

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRMP(PO)-HRMJ</td>
<td>323-0741-8</td>
</tr>
</tbody>
</table>

Converts SMA plug mating portion to push on type, reducing the number of steps required for repeated SMA mating.

Insertion Tool
Tool for plug insertion.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.FL-LP-IN</td>
<td>331-0334-9</td>
</tr>
</tbody>
</table>

Extraction Tool
Tool for unmating.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable Plug</th>
</tr>
</thead>
</table>

(Note) U.FL-LP-N is also used with E.FL Series.
# Usage Precautions

## 1. Plugs

### (1) Mating / unmating

1. To disconnect connectors, insert the end portion of U.FL-LP-N-2 and U.FL-LP(V)-N-2 under the connector flanges and pull off vertically, in the direction of the connector mating axis. However for U.FL(A) (Solderless connection type, use U.FL(A)-LP-IN.OUT and pull out vertically. When removing the connector directly, hold the connector lid and pull out vertically in relation to the connector mating axis. (Be careful not to damage the connector with fingers or nails.)

2. To mate the connectors, the mating axes of both connectors must be aligned and the connectors can be mated. The "click" will confirm fully mated connection. Do not attempt to insert on an extreme angle.

### (2) Pull forces on the cable after connectors are mated.

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Force (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preheat (130 to 180°C)</td>
<td>1N max (U.FL-LP(V)-040HF, U.FL-LP-062HF)</td>
</tr>
<tr>
<td>250°C max. for 10 seconds</td>
<td>3N max (U.FL-LP(V)-040HF, U.FL-LP-062HF)</td>
</tr>
<tr>
<td>200°C</td>
<td>1N max (U.FL-LP(V)-040HF, U.FL-LP-062HF)</td>
</tr>
<tr>
<td>160°C</td>
<td>3N max (U.FL-LP(V)-040HF, U.FL-LP-062HF)</td>
</tr>
<tr>
<td>120°C</td>
<td>1N max (U.FL-LP(V)-040HF, U.FL-LP-062HF)</td>
</tr>
<tr>
<td>80°C</td>
<td>3N max (U.FL-LP(V)-040HF, U.FL-LP-062HF)</td>
</tr>
<tr>
<td>40°C</td>
<td>1N max (U.FL-LP(V)-040HF, U.FL-LP-062HF)</td>
</tr>
<tr>
<td>0°C</td>
<td>3N max (U.FL-LP(V)-040HF, U.FL-LP-062HF)</td>
</tr>
</tbody>
</table>

### (3) Precautions

Do NOT forcefully twist or deform wires.

## 2. Receptacles

### (1) Recommended reflow temperature profile

- **Preheat** (130 to 180°C) - 120 seconds max.
- **230°C** - 50 seconds max.
- **250°C max. for 10 seconds** - 60 seconds max.

### (2) Recommended manual soldering

- **Manual soldering** : 350°C for 5 seconds

### (3) Recommended metal mask thickness

0.1 to 0.12mm

### (4) Reflow cycles

2 times

## 3. Operating environment and storage conditions

### (1) Operating environment

The connectors are not designed to operate in the following environments:
- Exposed to excessive amounts of fine particles and dust
- Regions and places having a high density of sulfur dioxide, hydrogen sulfide, nitrogen dioxide or other corrosive gasses.
- Environments having large rapid variations in temperature.

### (2) Storage conditions - Receptacle

Store in the Hirose Electric packaging.
- **Temperature** : -10 to +40°C
- **Humidity** : 85% max.
- Use within 6 months of delivery.
- Receptacles for which the storage period has elapsed must be tested for solderability to the PC board mounting surface.

### (3) Silver Plating Discoloration

Discoloration occurs only on the plating surface. Since the contact portion is wiped, there is no effect on the electrical contact.
Standard Connectors that Connect with U.FL

SMA Cable Type

● Straight Plug

![Image of Straight Plug]

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM-200-040PBN(40)</td>
<td>323-0790-3 40</td>
<td>Dia. 0.81 type</td>
<td>SMA (Male Contact)</td>
</tr>
<tr>
<td>HRM-200-066PBN(40)</td>
<td>323-0791-6 40</td>
<td>Dia. 1.13, Dia. 1.32 type</td>
<td></td>
</tr>
<tr>
<td>HRM-200-088PBN(40)</td>
<td>323-0800-5 40</td>
<td>Dia. 1.37 type</td>
<td></td>
</tr>
</tbody>
</table>

● Straight Jack

![Image of Straight Jack]

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM-200-040JBN(40)</td>
<td>323-0792-9 40</td>
<td>Dia. 0.81 type</td>
<td>SMA (Female Contact)</td>
</tr>
<tr>
<td>HRM-200-066JBN(40)</td>
<td>323-0793-1 40</td>
<td>Dia. 1.13, Dia. 1.32 type</td>
<td></td>
</tr>
<tr>
<td>HRM-200-088JBN(40)</td>
<td>323-0801-8 40</td>
<td>Dia. 1.37 type</td>
<td></td>
</tr>
</tbody>
</table>

● Panel mount Jack (Four Screws)

![Image of Panel mount Jack]

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM-200-040PJ4BN(40)</td>
<td>323-0795-7 40</td>
<td>Dia. 0.81 type</td>
<td>SMA (Female Contact)</td>
</tr>
<tr>
<td>HRM-200-066PJ4BN(40)</td>
<td>323-0796-0 40</td>
<td>Dia. 1.13, Dia. 1.32 type</td>
<td></td>
</tr>
<tr>
<td>HRM-200-088PJ4BN(40)</td>
<td>323-0803-3 40</td>
<td>Dia. 1.37 type</td>
<td></td>
</tr>
</tbody>
</table>
### U.FL Series: Light Weight Micro SMT Coaxial Connector, 1.9mm to 2.4mm Mated Height

#### Panel mount Jack (Two Screws)

![Panel mount Jack (Two Screws)](image)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM-200-040PJ2BN (40)</td>
<td>323-0794-4 40</td>
<td>Dia. 0.81 type</td>
<td>SMA (Female Contact)</td>
</tr>
<tr>
<td>HRM-200-066PJ2BN (40)</td>
<td>323-0788-1 40</td>
<td>Dia. 1.13, Dia.1.32 type</td>
<td></td>
</tr>
<tr>
<td>HRM-200-088PJ2BN (40)</td>
<td>323-0802-0 40</td>
<td>Dia. 1.37 type</td>
<td></td>
</tr>
</tbody>
</table>

#### Panel mount Jack (Bulkhead)

![Panel mount Jack (Bulkhead)](image)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM-200-040BPJBN (40)</td>
<td>323-0797-2 40</td>
<td>Dia. 0.81 type</td>
<td>SMA (Female Contact)</td>
</tr>
<tr>
<td>HRM-200-066BPJBN (40)</td>
<td>323-0798-5 40</td>
<td>Dia. 1.13, Dia.1.32 type</td>
<td></td>
</tr>
<tr>
<td>HRM-200-088BPJBN (40)</td>
<td>323-0804-6 40</td>
<td>Dia. 1.37 type</td>
<td></td>
</tr>
</tbody>
</table>

#### Panel Cutouts

![Panel Cutouts](image)

#### Panel mount Jack (Bulkhead, Waterproof Mounting Surface Type)

![Panel mount Jack (Bulkhead, Waterproof Mounting Surface Type)](image)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM-200-040WBPJBN</td>
<td>323-0945-8</td>
<td>Dia. 0.81 type</td>
<td>SMA (Female Contact)</td>
</tr>
<tr>
<td>HRM-200-066WBPJBN</td>
<td>323-0946-0</td>
<td>Dia. 1.13, Dia.1.32 type</td>
<td></td>
</tr>
<tr>
<td>HRM-200-088WBPJBN</td>
<td>323-0920-7</td>
<td>Dia. 1.37 type</td>
<td></td>
</tr>
</tbody>
</table>
### SMA-U.FL Cable Assembly Representative Product

#### SMA Straight Plug-U.FL Plug

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Cable (Color)</th>
<th>L mm</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRMP-UFLHF6-04N2TV-A200RS</td>
<td>321-0753-0-04</td>
<td>∅0.81 (Black)</td>
<td>200±4</td>
<td>SMA (Female Contact)</td>
</tr>
<tr>
<td>HRMP-UFLHF6-068N2T-A200RS</td>
<td>321-0854-0-02</td>
<td>∅1.13 (Black)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HRMP-UFLHF6-066N2-A200RS</td>
<td>321-0862-0-05</td>
<td>∅1.32 (Black)</td>
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<td></td>
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<tr>
<td>HRMP-UFLHF6-088N2T-A200RS</td>
<td>321-0755-0-07</td>
<td>∅1.37 (Black)</td>
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</tr>
</tbody>
</table>

#### SMA Straight Jack-U.FL Plug

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Cable (Color)</th>
<th>L mm</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRMJ-UFLHF6-04N2TV-A200RS</td>
<td>321-0881-0-02</td>
<td>∅0.81 (Black)</td>
<td>200±4</td>
<td>SMA (Male Contact)</td>
</tr>
<tr>
<td>HRMJ-UFLHF6-068N2T-A200RS</td>
<td>321-0869-0-03</td>
<td>∅1.13 (Black)</td>
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<tr>
<td>HRMJ-UFLHF6-066N2-A200RS</td>
<td>321-0868-0-02</td>
<td>∅1.32 (Black)</td>
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<tr>
<td>HRMJ-UFLHF6-088N2T-A200RS</td>
<td>321-0904-0-04</td>
<td>∅1.37 (Black)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### SMA Panel Mount Jack (Four Screws)-U.FL Plug

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Cable (Color)</th>
<th>L mm</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPJ-UFLHF6-04N2TV-A200RS</td>
<td>321-0965-0-02</td>
<td>∅0.81 (Black)</td>
<td>200±4</td>
<td>SMA (Female Contact)</td>
</tr>
<tr>
<td>HPJ-UFLHF6-068N2T-A200RS</td>
<td>321-3660-0-02</td>
<td>∅1.13 (Black)</td>
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<tr>
<td>HPJ-UFLHF6-066N2-A200RS</td>
<td>321-0905-0-01</td>
<td>∅1.32 (Black)</td>
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</tr>
<tr>
<td>HPJ-UFLHF6-088N2T-A200RS</td>
<td>321-0911-0-03</td>
<td>∅1.37 (Black)</td>
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<td></td>
</tr>
</tbody>
</table>

◆For cable lengths, cable colors and connector combinations other than those listed above, please contact a Hirose representative.
U.FL Series Light Weight Micro SMT Coaxial Connector, 1.9mm to 2.4mm Mated Height

● SMA Panel Mount Jack (Two Screws)-U.FL Plug

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Cable (Color)</th>
<th>L (mm)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPJ2-UFLHF6-04N2TV-A200RS</td>
<td>321-0969-0-03</td>
<td>0.81 (Black)</td>
<td>200±4</td>
<td>SMA (Female Contact)</td>
</tr>
<tr>
<td>HPJ2-UFLHF6-068N2T-A200RS</td>
<td>321-1083-0-03</td>
<td>1.13 (Black)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPJ2-UFLHF6-066N2-A200RS</td>
<td>321-1084-0-03</td>
<td>1.32 (Black)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPJ2-UFLHF6-088N2T-A200RS</td>
<td>321-0812-0-04</td>
<td>1.37 (Black)</td>
<td></td>
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</tbody>
</table>

● SMA Panel Mount Jack (Bulkhead)-U.FL Plug

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Cable (Color)</th>
<th>L (mm)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBPJ-UFLHF6-04N2TV-A200RS</td>
<td>321-0964-0-02</td>
<td>0.81 (Black)</td>
<td>200±4</td>
<td>SMA (Female Contact)</td>
</tr>
<tr>
<td>HBPJD-UHF6-068N2T-A200 (Note)</td>
<td>321-5463-0-02</td>
<td>1.13 (Black)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HBPJD-UHF6-066N2-A200 (Note)</td>
<td>321-5464-0-02</td>
<td>1.32 (Black)</td>
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</tr>
<tr>
<td>HBPJD-UHF6-088N2T-A200 (Note)</td>
<td>321-5600-0-02</td>
<td>1.37 (Black)</td>
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</tr>
</tbody>
</table>

(Note) Die Cast Body on SMA Side (Different product than those listed on the SMA Cable Type Page)

● SMA Panel Mount Jack (Bulkhead, Waterproof Mounting Surface)-U.FL Plug

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Cable (Color)</th>
<th>L (mm)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HWBPJ-UFLHF6-068N2T-A200</td>
<td>321-1235-0-03</td>
<td>1.13 (Black)</td>
<td>200±4</td>
<td>SMA (Female Contact)</td>
</tr>
<tr>
<td>HWBPJ-UFLHF6-088N2T-A200</td>
<td>321-0760-0-04</td>
<td>1.37 (Black)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*For cable lengths, cable colors and connector combinations other than those listed above, please contact a Hirose representative.*
## Standard Connectors that Connect with U.FL

### SMA/R Cable Type

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA(R)-200-040PBN</td>
<td>323-0925-0</td>
<td>Dia. 0.81 type</td>
<td>Reverse (Female Contact)</td>
</tr>
<tr>
<td>SMA(R)-200-066PBN</td>
<td>323-0930-0</td>
<td>Dia. 1.13, Dia.1.32 type</td>
<td></td>
</tr>
<tr>
<td>SMA(R)-200-088PBN</td>
<td>323-0905-3</td>
<td>Dia. 1.37 type</td>
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</tr>
</tbody>
</table>

### Straight Plug

![Straight Plug Diagram]

### Straight Jack

![Straight Jack Diagram]

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA(R)-200-040JBN</td>
<td>323-0926-3</td>
<td>Dia. 0.81 type</td>
<td>Reverse (Male Contact)</td>
</tr>
<tr>
<td>SMA(R)-200-066JBN</td>
<td>323-0931-3</td>
<td>Dia. 1.13, Dia.1.32 type</td>
<td></td>
</tr>
<tr>
<td>SMA(R)-200-088JBN</td>
<td>323-0904-0</td>
<td>Dia. 1.37 type</td>
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</table>

### Panel Mount Jack (Four Screws)

![Panel Mount Jack (Four Screws) Diagram]

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA(R)-200-040PJ4BN</td>
<td>323-0928-9</td>
<td>Dia. 0.81 type</td>
<td>Reverse (Male Contact)</td>
</tr>
<tr>
<td>SMA(R)-200-066PJ4BN</td>
<td>323-0932-6</td>
<td>Dia. 1.13, Dia.1.32 type</td>
<td></td>
</tr>
<tr>
<td>SMA(R)-200-088PJ4BN</td>
<td>323-0934-1</td>
<td>Dia. 1.37 type</td>
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</tr>
</tbody>
</table>
**Panel Mount Jack (Two Screws)**

![Image of Panel Mount Jack (Two Screws)](image)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA(R)-200-040PJ2BN</td>
<td>323-0929-1</td>
<td>Dia. 0.81 type</td>
<td>SMA Reverse (Male Contact)</td>
</tr>
<tr>
<td>SMA(R)-200-066PJ2BN</td>
<td>323-0933-9</td>
<td>Dia. 1.13, Dia.1.32 type</td>
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</tr>
<tr>
<td>SMA(R)-200-088PJ2BN</td>
<td>323-0935-4</td>
<td>Dia. 1.37 type</td>
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</tbody>
</table>

**Panel Mount Jack (Bulkhead)**

![Image of Panel Mount Jack (Bulkhead)](image)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA(R)-200-040BPJBN</td>
<td>323-0927-6</td>
<td>Dia. 0.81 type</td>
<td>SMA Reverse (Male Contact)</td>
</tr>
<tr>
<td>SMA(R)-200-066BPJBN</td>
<td>323-0902-5</td>
<td>Dia. 1.13, Dia.1.32 type</td>
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<tr>
<td>SMA(R)-200-088BPJBN</td>
<td>323-0901-2</td>
<td>Dia. 1.37 type</td>
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</tbody>
</table>

**Panel Mount Jack (Bulkhead, Waterproof Mounting Surface Type)**

![Image of Panel Mount Jack (Bulkhead, Waterproof Mounting Surface Type)](image)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA(R)-200-040WBPJBN</td>
<td>323-0947-3</td>
<td>Dia. 0.81 type</td>
<td>SMA Reverse (Male Contact)</td>
</tr>
<tr>
<td>SMA(R)-200-066WBPJBN</td>
<td>323-0948-6</td>
<td>Dia. 1.13, Dia.1.32 type</td>
<td></td>
</tr>
<tr>
<td>SMA(R)-200-088WBPJBN</td>
<td>323-0949-9</td>
<td>Dia. 1.37 type</td>
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</tr>
</tbody>
</table>
Standard Connectors that Connect with U.FL

TNC Cable Type

● Panel Jack (Bulkhead, Waterproof Panel Mounting Surface Type)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNC-WBPJ-088-1</td>
<td>313-0004-0</td>
<td>Ø1.37 cable</td>
</tr>
</tbody>
</table>

*Please order the product after designating the harness specifications including product length, etc.

TNC/R Cable Type /R : Reverse Polarity SMA Connector

● Panel Jack (Bulkhead, Waterproof Panel Mounting Surface Type)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Applicable cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNC(R)-WBPJ-088</td>
<td>313-0003-0</td>
<td>Ø1.37 cable</td>
</tr>
</tbody>
</table>

*Please order the product after designating the harness specifications including product length, etc.

TNC/R Conversion Adapter /R : Reverse Polarity SMA Connector

● Panel Mount Adapter (Two Screws)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNC(R)-J-U.FLJ-PA-2</td>
<td>311-0416-7</td>
<td>TNC Reverse (Male Contact)</td>
</tr>
</tbody>
</table>
SMA Conversion Adapter

Note: Please avoid mating with the U.FL(A) plug.

● Panel Mount Adapter (Four Screws)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRMJ-U.FLJ-PA4</td>
<td>311-0465-2</td>
<td>SMA (Female Contact)</td>
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</tbody>
</table>

● Panel Mount Adapter (Two Screws)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRMJ-U.FLJ-PA2</td>
<td>311-0467-8</td>
<td>SMA (Female Contact)</td>
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</tbody>
</table>

● Panel Mount Adapter (Bulkhead)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRMJ-U.FLJ-BPAD-5</td>
<td>311-1004-0</td>
<td>SMA (Female Contact) Body: Die Cast Type</td>
</tr>
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</table>

● PCB Mount Adapter

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRMJ-U.FLJ-PC</td>
<td>311-0411-3</td>
<td>Nickel Exterior</td>
</tr>
</tbody>
</table>
**SMA/R Conversion Adapter**  
R : Reverse Polarity SMA Connector  
Note : Please avoid mating with the U.FL(A) plug.

- **● Panel Mount Adapter (Four Screws)**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA(R)J-U.FLJ-PA4</td>
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<td>Reverse Polarity SMA (Male Contact)</td>
</tr>
</tbody>
</table>

- **● Panel Mount Adapter (Two Screws)**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA(R)J-U.FLJ-PA2</td>
<td>311-0468-0</td>
<td>Reverse Polarity SMA (Male Contact)</td>
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</tbody>
</table>

- **● Panel Mount Adapter (Bulkhead)**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>HRS No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMA(R)J-U.FLJ-BPA-4</td>
<td>311-0464-0</td>
<td>Reverse Polarity SMA (Male Contact)</td>
</tr>
</tbody>
</table>