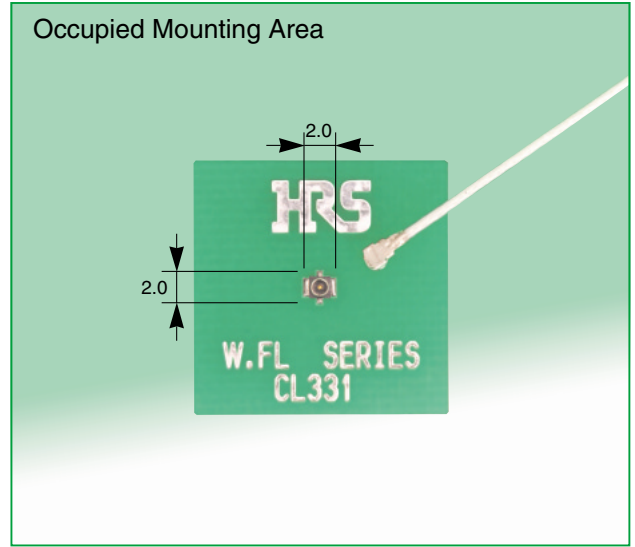
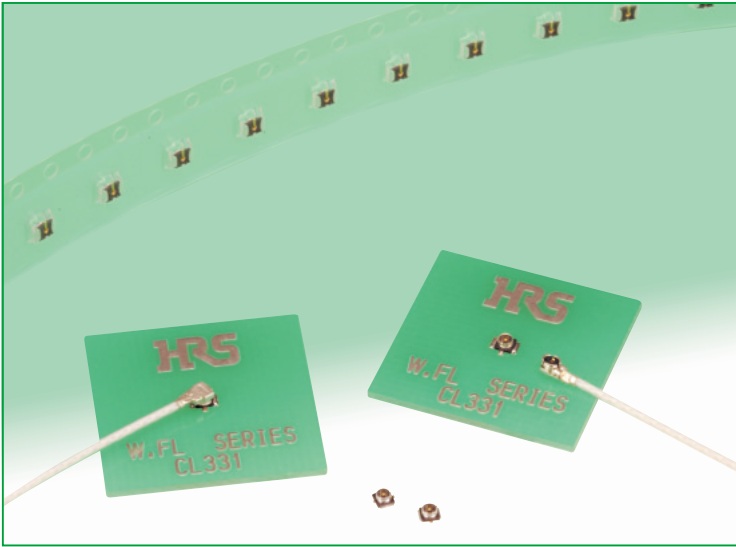


NEW

Ultra Small Surface Mount Coaxial Connectors – 1.4mm Mated Height

W.FL Series – Further downsizing of FL series in response to the market needs.



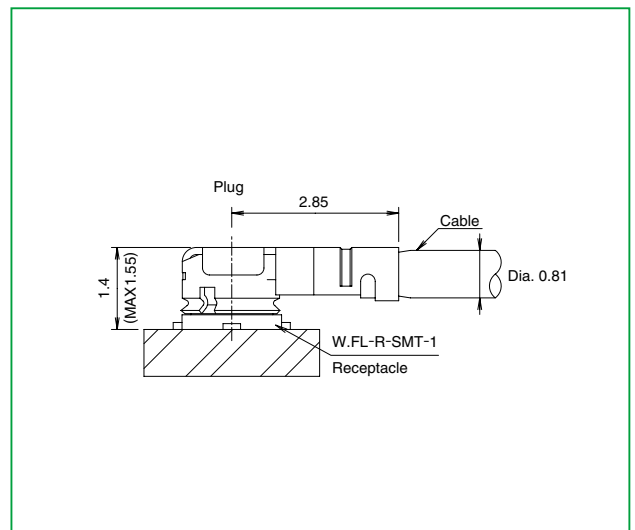
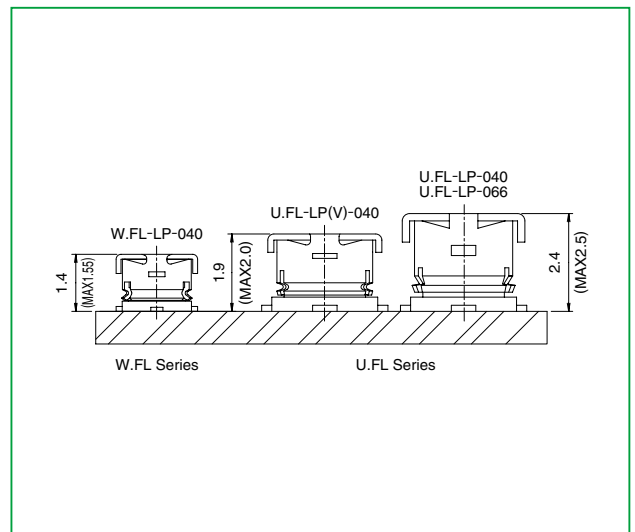
■ Features

1. Mounting area of only 3.4mm²
2. The board mounted receptacle weights only 5.6 mg
3. Accepts high frequency transmission of DC to 6GHz
4. Receptacle supplied on tape-and-reel for placement on the board with automatic equipment
5. Plugs are terminated with ultra-fine Teflon® insulated coaxial cables
6. Un-mating with a simple tool

■ Applications

Mobile phones, Wireless LAN, Bluetooth protocol devices, PDA, GPS, electronic measuring instruments and any application requiring high frequency transmission over coaxial line, where space is limited.

● Mated Height Comparison(With U.FL series)



* Teflon is a registered trademark of DuPont.

Product Specifications

| | | | | |
|---------|----------------------------------|------------|-----------------------------|--|
| Ratings | Nominal characteristic impedance | 50 ohms | Operating temperature range | -40°C to +90°C (Relative humidity 90% max.) |
| | Frequency range | DC to 6GHz | Operating humidity | -40°C to +70°C (Relative humidity 90% max.) |

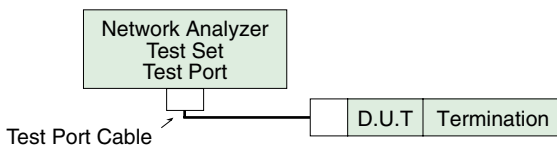
Materials and Finishes

| Item | Specification |
|--------------------------|--|
| 1. Contact resistance | Center: 20m ohms max. Outside: 10m ohms max. |
| 2. Insulation resistance | 500M ohms min., 100V DC |
| 3. Withstanding voltage | 200V AC / 1 minute |
| 4. V.S.W.R.(Note) | 1.3 max. (Up to 3GHz) |
| | 1.35 max. (3 to 6GHz) |

Note: V.S.W.R. Measurement System

Measured as shown on the block diagram below.

Test connection and measurement setup.



Note1: Cable type connector measurements.

With SMA conversion adapters mated with W.FL plug at each end of the 100cm long ultra-fine coaxial cable.

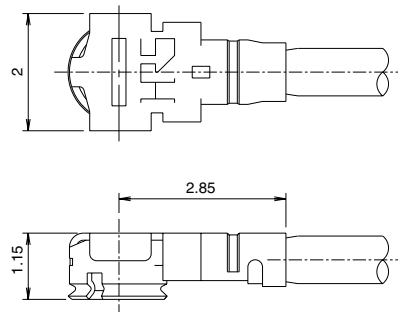
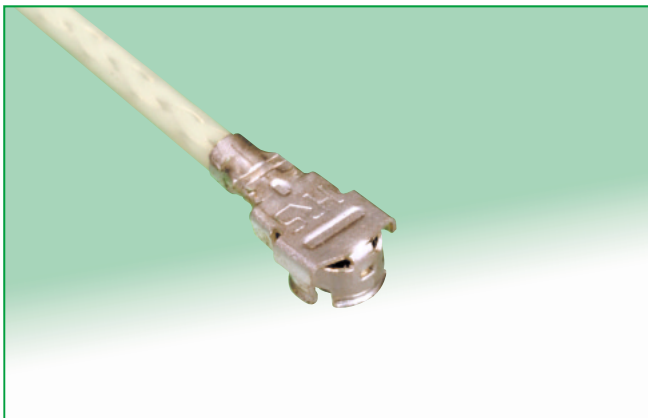
Note2: Board type connector measurements.

Mounted on a 50 ohms glass epoxy board. Measurements were conducted with SMA conversion adapters attached.

Material/Finishes

| Part | Component | Material | Finish/Remarks |
|------------|-----------------------|-----------------|----------------|
| Plug | Shell | Phosphor bronze | Silver plated |
| | Insulator | PBT | Black, UL94V-0 |
| | Socket center contact | Phosphor bronze | Gold plated |
| Receptacle | Shell | Phosphor bronze | Silver plated |
| | Insulator | LCP | Black, UL94V-0 |
| | Pin center contact | Brass | Gold plated |

Plug



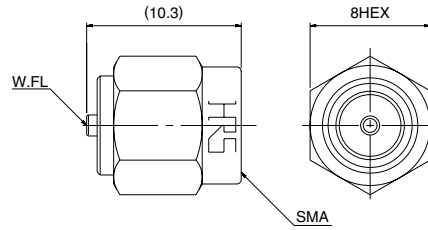
Plugs can be ordered only terminated to the cable.

■ Conversion Adapters

● SMA Conversion Adapter (W.FL side jack – SMA side plug)



Note:Used for performance measurements only.
The W.FL mating side has lower retention force than the regular product when mated to the corresponding part.

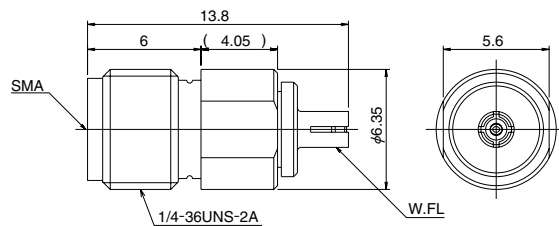


| Part No. | CL No. |
|------------|------------|
| HRMP-W.FLJ | 311-0367-3 |

● SMA Conversion Adapter (W.FL side plug – SMA side jack)



Note:Used for performance measurements only.
The W.FL mating side has lower retention force than the regular product when mated to the corresponding part.

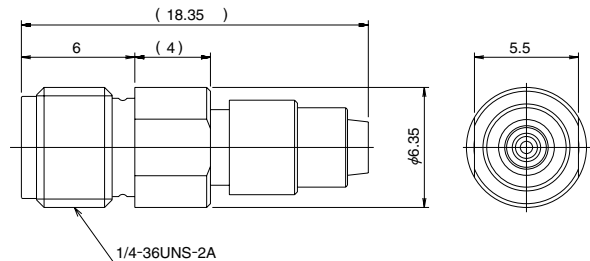


| Part No. | CL No. |
|------------|------------|
| HRMJ-W.FLP | 311-0368-6 |

● SMA Conversion Adapter



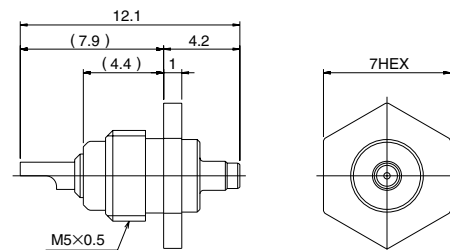
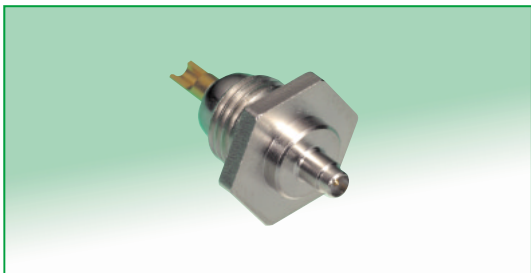
Note:When mating with corresponding part (W.FL-R-SMT-1) it must be pressed down and held to make complete connection.



| Part No. | CL No. |
|----------------|------------|
| HRMJ-W.FLP-ST1 | 311-0386-8 |

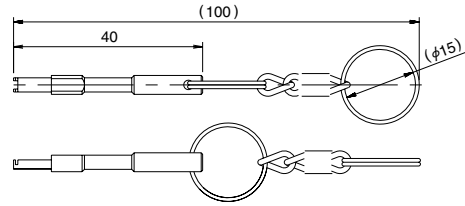
■ Receptacle Inspection Adapter

● Used for inspecting the performance parameters of the cable assembly.



| Part No. | CL No. |
|----------|------------|
| W.FL-R-1 | 331-0483-9 |

■ Plug Extraction Tool-Used for Un-mating of the plug

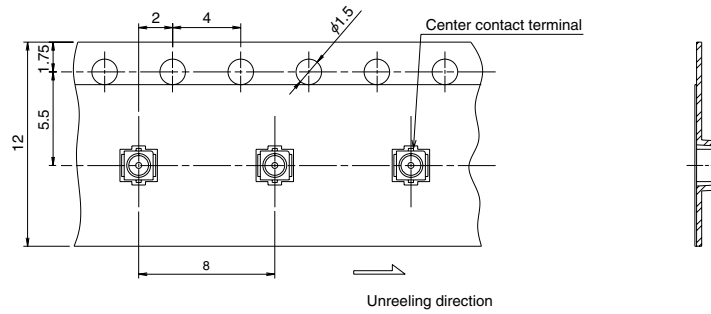


| Part No. | CL No. |
|-----------|------------|
| W.FL-LP-N | 331-0492-0 |

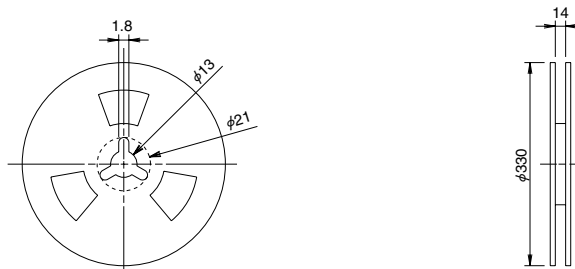
◆ Packaging Specifications- Receptacle

W.FL-R-SMT-1(10)

Embossed Carrier Tape Dimensions

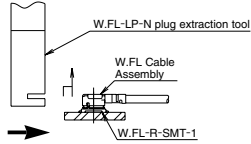
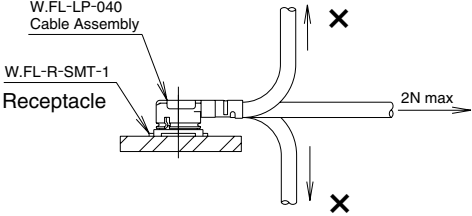


Reel Dimensions

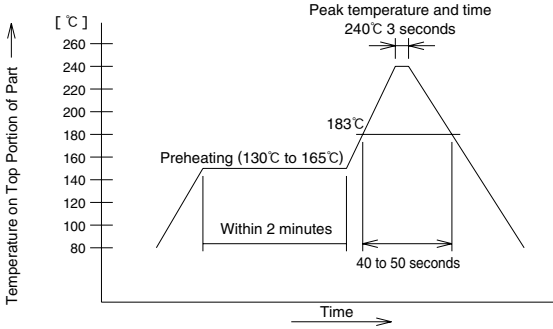


Usage Precautions

1. Plugs

| | |
|------------------------------|--|
| <p>(1) Mating/ un-mating</p> | <p>1) Mating. Both parts must be aligned on the axis to mate correct. Press down firmly. A tactile “click” will confirm fully mated condition.</p> <p>2) Un-mating. Fully insert the tool under the plug’s flanges as shown. Apply even force upward until the plug is free.</p>  |
| <p>(2) Cable handling</p> | <p>Do not twist, apply excessive forces or sharp bends to the cable.</p>  |
| <p>(3) Precautions</p> | <p>Do NOT forcefully twist or deform wires.</p> |

2. Receptacles

| | |
|--|---|
| <p>(1) Recommended soldering temperature profile</p> |  <p>1) The temperature profile indicates the board surface temperature at the point of contacts with the connector terminals.</p> <p>2) The temperature may vary, depending on the board size, the solder paste type and thickness.</p> |
| <p>(2) Recommended screen thickness</p> | <p>0.1 to 0.12 mm</p> |



HIROSE ELECTRIC CO.,LTD.

5-23,OSAKI 5-CHOME,SHINAGAWA-KU,TOKYO 141-8587,JAPAN
 PHONE: 81-3-3491-9741, FAX: 81-3-3493-2933
<http://www.hirose.com>
<http://www.hirose-connectors.com>