WP10 Series

<Outline>
The WP10 Series is a stacking type board-to-board (FPC) connector which is low-profile and saves space. It is ideal for high-current connection areas like battery connections in compact hand-held devices in smartphones, wearable devices, and tablet PCs.

This product features a high-current compatible power terminal and allows for power distribution of 10A. The hold-down structure which has a lock area prevents damage to the connector during mating, improves operability for customers and also has a high extraction force to prevent disengagement of the product.

Features

- 2 rows, 0.7mm stacking height
- Power terminals compatible with 10A power supply. (5.0A / pin x 4 pin)
- 2-point structure design for both power and signal terminals to resist twisting stress.
- Durable hold-down structure which has a lock area that enhances retention force and adds protection to the mating surface to prevent damage to the plastic insulator. (Armored)
- Improved workability for customers with a clear click feeling during mating.
- Contact structure ensures high wear-resistance and high conduct reliability.
- Pb-free. (Nickel barrier in contact finish prevents solder migration.)

General Specifications

- No. of Contacts:
  (Signal terminal) 2 pos.
  (Power terminal) 4 pos.
- Pitch: 0.4mm, 2 row
- Operating temperature: -40 Deg. C to +85 Deg. C
- Contact Resistance:
  (Signal terminal) 40mΩ max. (initial)
  (Power terminal) 20mΩ max. (initial)
- Durability: 30 cycles
- Rated Current:
  (Signal terminal) AC, DC 0.4A / pin
  (Power terminal) AC, DC 5.0A / pin
- Rated Voltage: AC, DC 50V
- Insulation Resistance: 100MΩ min. (initial)
- Dielectric Withstanding Voltage: AC250Vr.m.s for 1 minute
- Total Insertion Force: 40N max.
- Total Extraction Force: 10N min.
### Materials and Finishes

<table>
<thead>
<tr>
<th>Component</th>
<th>Material and Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;Signal&gt; Contact (Plug / Receptacle)</td>
<td>Copper alloy / Au plating</td>
</tr>
<tr>
<td>&lt;Power&gt; Contact (Plug / Receptacle)</td>
<td>Copper alloy / Au plating</td>
</tr>
<tr>
<td>Insulator</td>
<td>Heat-resistant Plastic</td>
</tr>
<tr>
<td>Hold-down (Plug / Receptacle)</td>
<td>Copper alloy / Au plating</td>
</tr>
</tbody>
</table>

### Ordering Information (Plug)

![Ordering Information Diagram](image)

### Ordering Information (Receptacle)

![Ordering Information Diagram](image)

**Note 1)** An embossed tape reel contains 15,000 pieces. 
Please contact us for details on embossed tape specifications.
### WP10 Plug

<table>
<thead>
<tr>
<th>Part Number</th>
<th>WP10-P***VA10</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJ Drawing</td>
<td>SJ116135</td>
</tr>
</tbody>
</table>

#### Dimensions

<table>
<thead>
<tr>
<th>NUMBER OF CONTACT</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1.8</td>
<td>4.8</td>
</tr>
</tbody>
</table>

**Unit:** mm
**Part Number** | WP10-P***VA10
---|---
**SJ Drawing** | SJ116135

**WP10 Plug**

**Note 1)** Dimension 3±0.05 is recommended in case repair is needed.

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**APPLICABLE P.C.B DIMENSION (REF.)**

**RECEPTACLE (SJ116137)**

**MATED CONDITION (REF.)**
**WP10 Receptacle**

- **Part Number**: WP10-S***VA10
- **SJ Drawing**: SJ116137

**Dimensions** (Unit: mm)

<table>
<thead>
<tr>
<th>Number of Contact</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>1.8</td>
<td>5.68</td>
</tr>
</tbody>
</table>

(Note: S indicates the flat surface, and other annotations refer to specific electrical contact points and dimensions. Refer to the drawing for exact measurements and annotations.)

**Notes**:
- [POWER CONTACT, SIGNAL CONTACT, HOLD DOWN]
- [POWER CONTACT SMT]
- [SIGNAL CONTACT SMT]
- [VACUUM AREA]

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Part Number | WP10-S***VA10
---|---
SJ Drawing | SJ116137

WP10 Receptacle

Note 1) Dimension $3 \pm 0.05$ is recommended in case repair is needed.
<table>
<thead>
<tr>
<th>Series</th>
<th>WP10</th>
</tr>
</thead>
</table>
| **Product Drawing (Plug)** | Individual Connector: SJ116135  
Reeled Product: SJ116136 |
| **Product Drawing (Receptacle)** | Individual Connector: SJ116137  
Reeled Product: SJ116138 |
| **Specifications** | JACS-11080  |
| **Handling Instructions** | JAHL-11080 |
| **Summary Report** | SR-C-1461 |

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   (ii) We may separately give you our support with a quality assurance program that you specify, when you think of a use such as: Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.
(2) Recommended applications include: Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc.

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