

# **WP10 Series**

## **High Power Board-to-Board (FPC) Connector**

Connector Training Module

Technology to Inspire Innovation



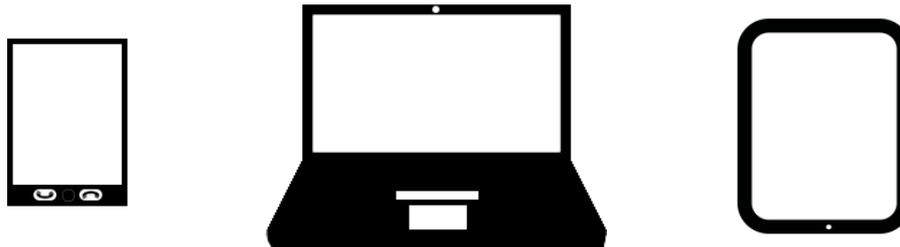
# JAE WP10 Series

High Power Board-to-Board (FPC) Connector

## Application Examples

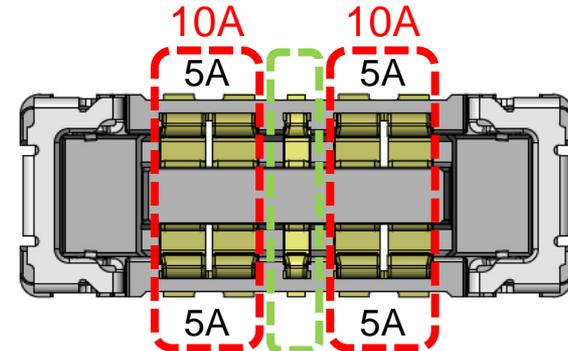
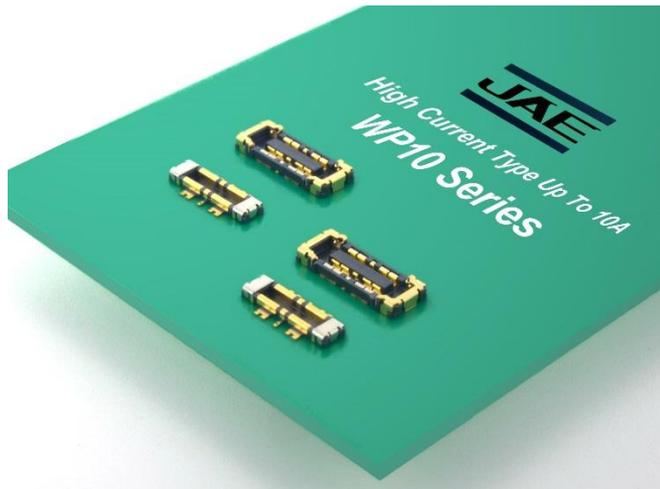
Connecting rechargeable battery in:

- Smart phone
- Tablet
- Wireless speaker
- Digital camera
- Portable charger / power pack
- Other portable wireless devices



# WP10 Series Overview

The WP10 series is a low-profile board-to-board connector with large power contacts that are capable of transmitting up to 5A per contact, for a maximum of 10A power and 10A return per connector. There are also signal contacts incorporated for low power data communication. The metal hold downs serve multiple roles: they protect the top of the connectors to prevent damage to the insulator when there is misaligned mating, and they also have friction lock springs to increase the retention for secure mating. The WP10 series is ideal for connecting battery packs to the main board in portable devices such as smart phones, digital cameras and wireless speakers

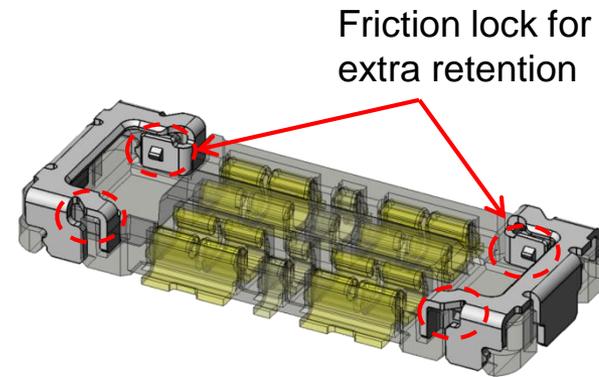
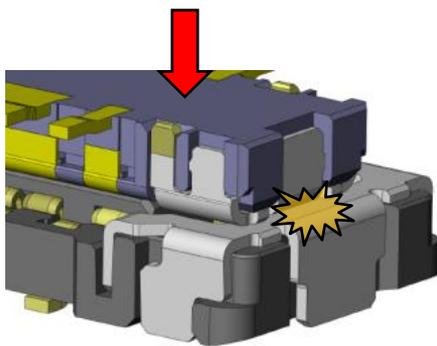


4 power contacts supporting 5A each and 2 signal contacts

# WP10 Series Features

## Low-Profile, Saves Space

- High power contacts included that can handle up to 5A per contact
- Compact size with 2.2mm width and 0.7mm mated height
- Metal hold downs protect the mating surface of the connectors in case of misaligned mating, and also incorporate friction locks for extra retention
- Contact structure ensures high retention force and contact reliability
- Secure hold-downs prevent insulator breakage and peeling from FPC
- Pb and Halogen free



# General Specifications

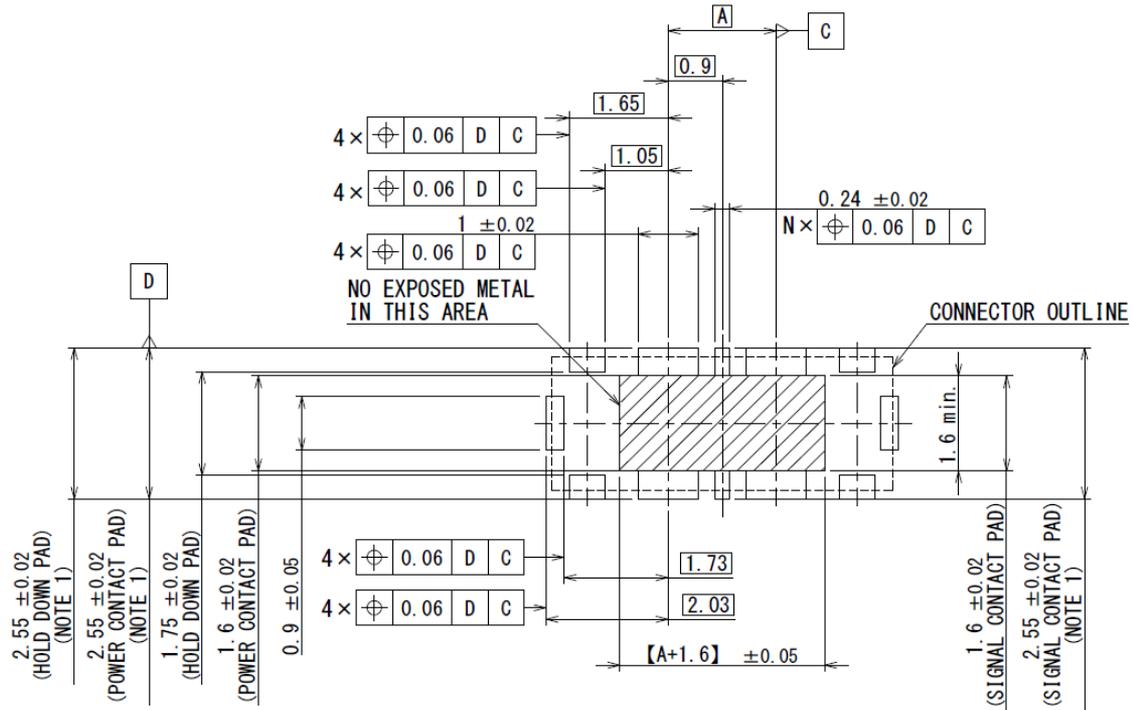
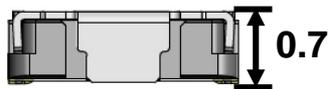
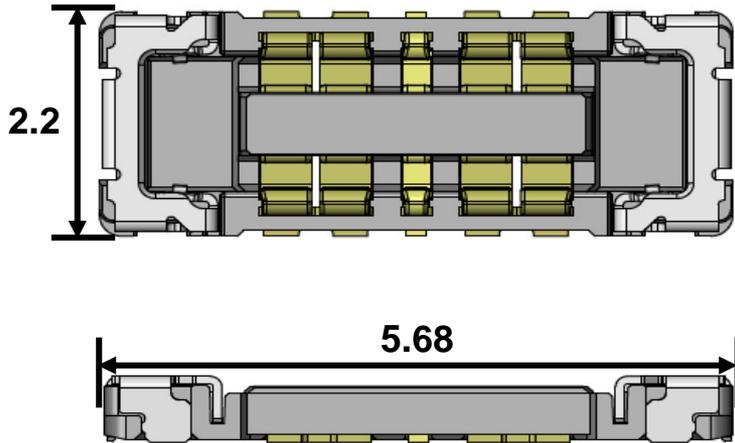
<b>Number of Contacts</b>	2 signal contacts, 4 power contacts
<b>Pitch</b>	0.4mm
<b>Stacking Height</b>	0.7mm
<b>Contact Resistance</b>	Signal Contact: 40 mΩ Maximum Power Contact: 20 mΩ Maximum
<b>Insulation Resistance</b>	100MΩ min (Initial)
<b>Dielectric Withstanding Voltage</b>	AC 250Vr.m.s (for 1 minute)
<b>Operating Temperature Range</b>	-40 to +85°C
<b>Current Rating</b>	Signal Contact: AC, DC 0.4A per contact Power Contact: AC, DC 5.0A per contact
<b>Voltage Rating</b>	AC, DC 50V
<b>Mating Durability</b>	30 cycles

# Basic Dimensions

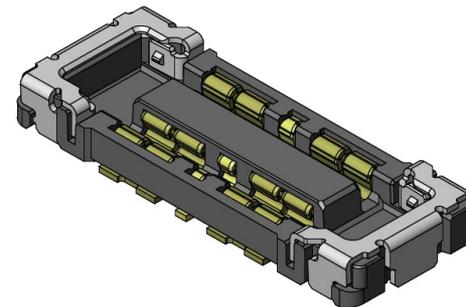
\*All units in mm

\*All units in mm

Receptacle



APPLICABLE P.C.B DIMENSION (REF.)  
適合基板寸法 (参考)

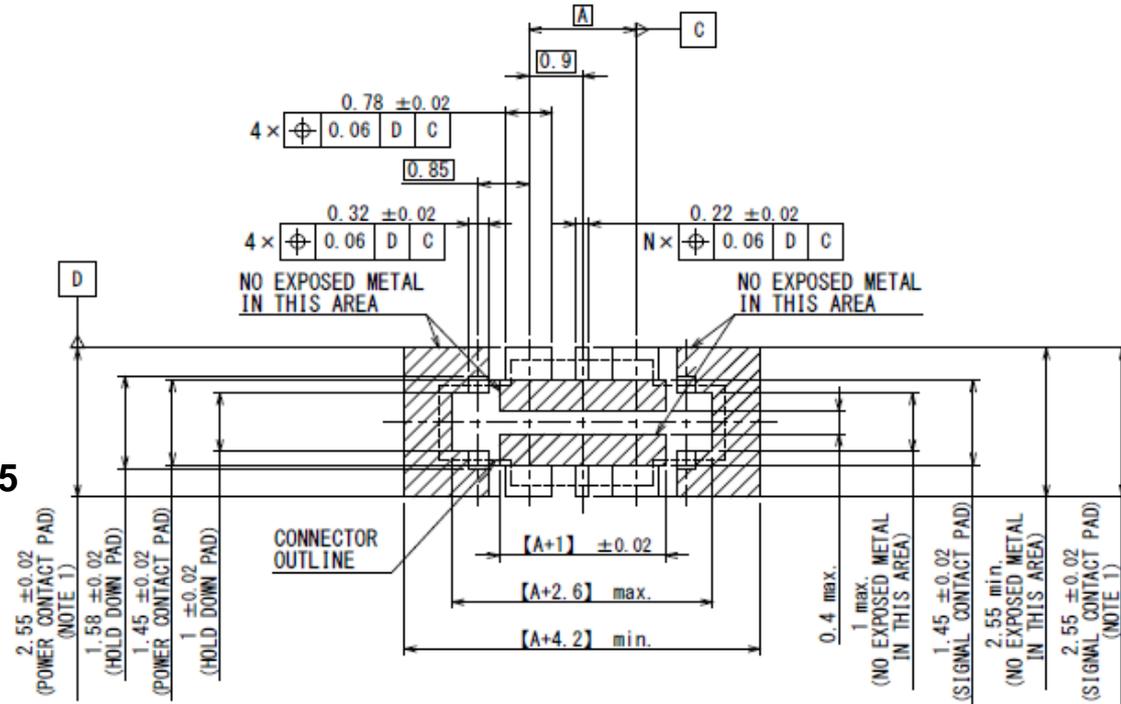
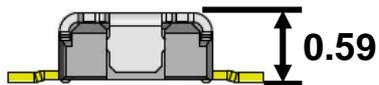
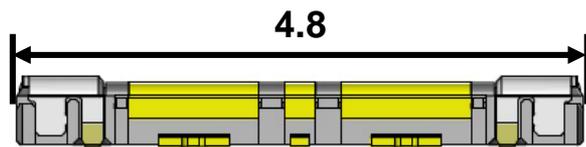
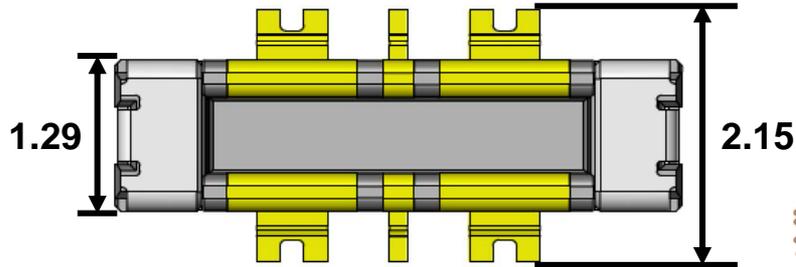


# Basic Dimensions

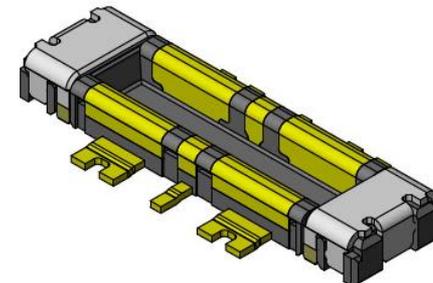
\*All units in mm

\*All units in mm

Plug

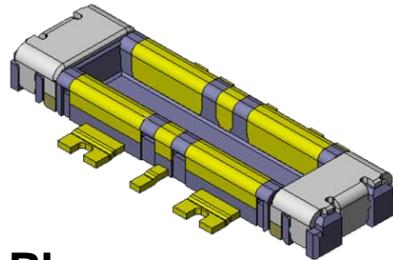


APPLICABLE P. C. B DIMENSION (REF.)  
適合基板寸法(参考)

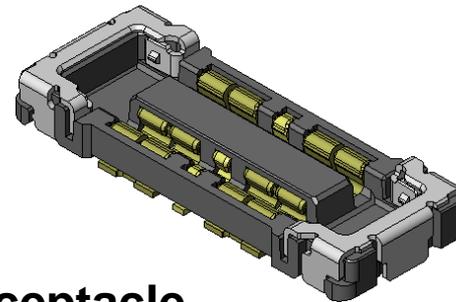


# Materials and Finishes

Components	Material / Finish
<b>Contact</b>	Contact area: Cu alloy / Au (0.1 $\mu$ m min.) over Ni plating Mounting area: Cu alloy / Au (0.05 $\mu$ m min.) over Ni plating
<b>Insulator</b>	Heat-resistant plastic
<b>Hold-down</b>	Cu alloy / Au flash over Ni plating

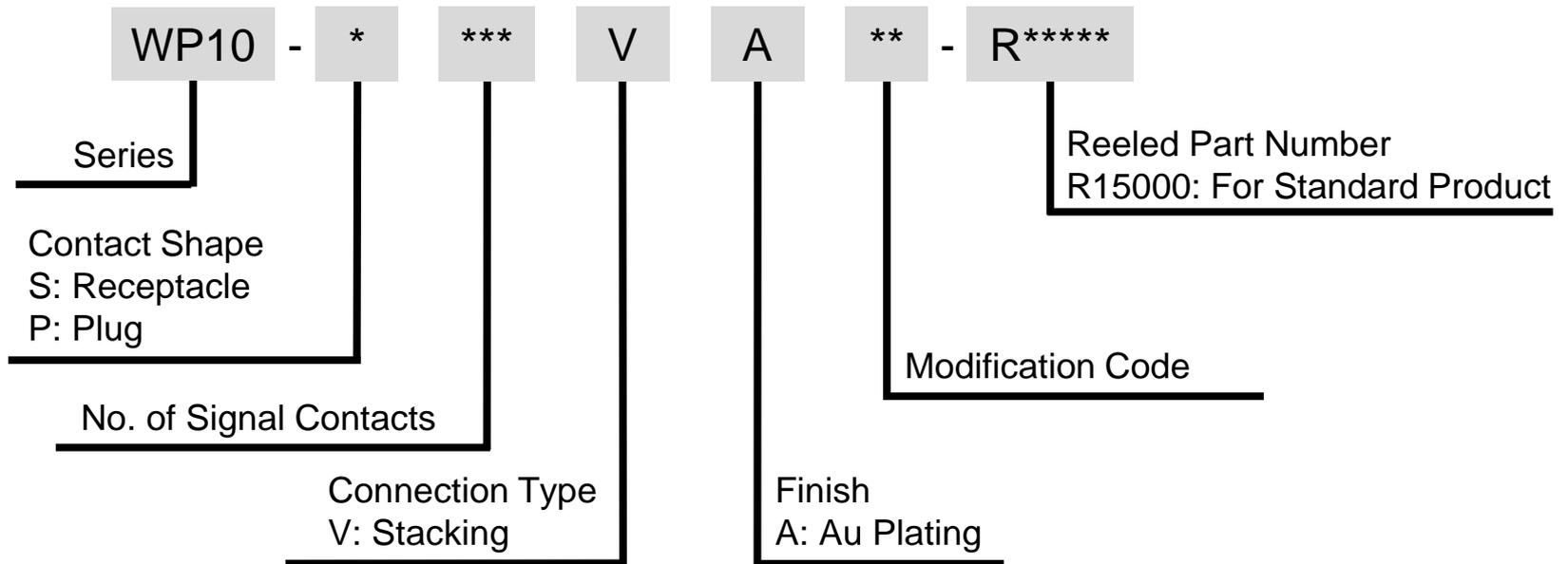


**Plug**



**Receptacle**

# Ordering Information



Product Drawings and Specifications	
<b>Series</b>	WP10
<b>SJ Drawing (Plug)</b>	Individual Product: SJ116135 Reeled Product: SJ116136
<b>SJ Drawing (Receptacle)</b>	Individual Product: SJ116137 Reeled Product: SJ116138
<b>Specifications</b>	JACS-11080
<b>Handling Instructions</b>	JAHL-11080
<b>Summary Report</b>	SR-C-1461

## Summary

- High power contacts included that can handle up to 5A per contact
- Compact size with 2.2mm width and 0.7mm mated height
- Metal hold downs protect the mating surface of the connectors in case of misaligned mating,
- Contact structure ensures high retention force and contact reliability
- Secure hold-downs prevent insulator breakage and peeling from FPC
- Pb and Halogen free



Technology to Inspire Innovation

**JAE**