

**NEW**



0.4mm Pitch, Stacking Type  
Board-to-Board (FPC) Connector

CONNECTOR

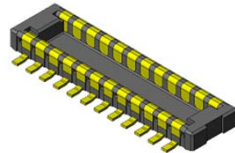
MB-0228-3

September 2017

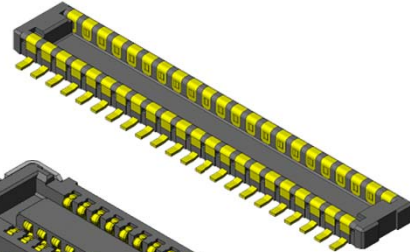
# WP7 Series

**RoHS Compliant**

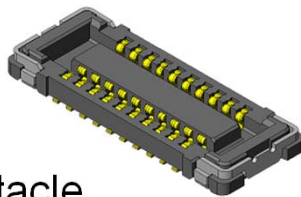
Plug



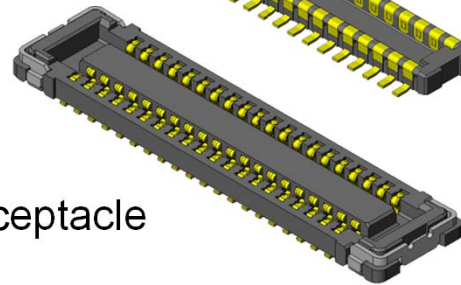
Plug



Receptacle



Receptacle



The WP7 Series is a low-profile board-to-board (FPC) connector with 0.4mm pitch spacing that is ideal for high-density mounting in slim information communication devices like mobile phones, smartphones, LCD, and notebook PC.

To satisfy different product function requirements, a low pin count type and a high pin count type (WP7A / WP7B) are available with the same mounting pattern.

## Features

- 0.4mm pitch, 2 rows, 0.7mm stacking height.
- Contact structure ensures high wear-resistance and high contact reliability.
- Secure hold-downs prevent insulator breakage and peeling from FPC.
- 2-point contact design to resist twisting stress.
- Pb-free (Ni barrier on contact prevents solder wicking.)
- Receptacle contacts adopt an optimal configuration according to the pin counts.  
High removal force WP7A (low pin count: 10-32 pos.)  
Low insertion force WP7B (high pin count 34-70 pos.)
- Signal contact supports 10 Gbps transmission rate.
- Supports MIPI, USB3.1 Gen2, and PCIe Gen3 transmission.

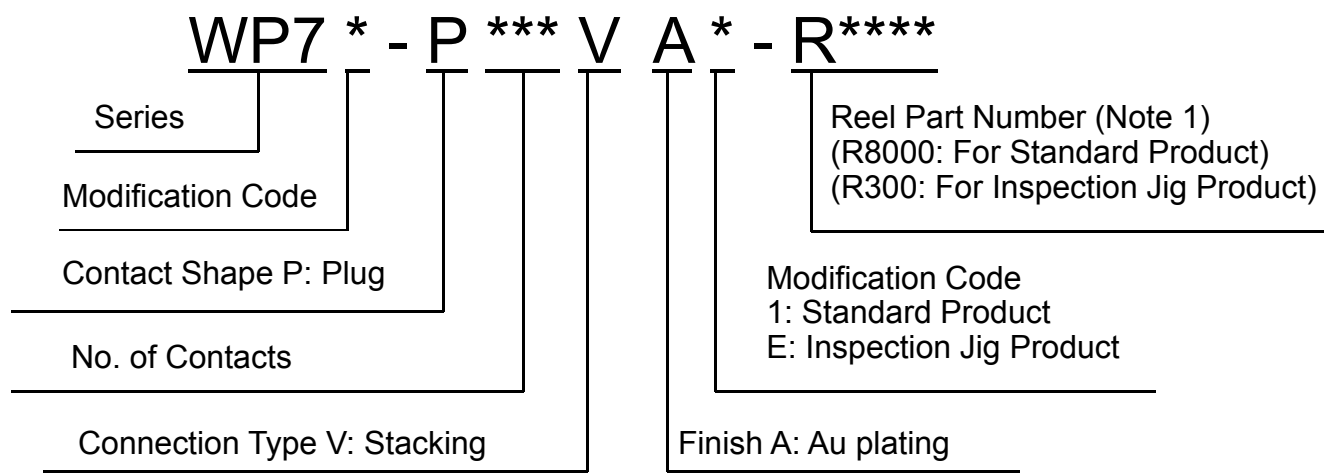
## General Specifications

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>■(WP7A) No. of Contacts:<br/>10, 16, 20, 22, 24, 26,<br/>28, 30, 32 pos.</li> <li>■(WP7B) No. of Contacts:<br/>34, 40, 50, 60, 70 pos.</li> <li>■Pitch: 0.4mm, 2 rows</li> <li>■Operating Temperature:<br/>-40 Deg. C to +85 Deg. C</li> <li>■Contact Resistance:<br/>70mΩ max. (initial)</li> <li>■Life Time: 30 mating cycles</li> </ul> | <ul style="list-style-type: none"> <li>■Rated Current: AC, DC 0.3A each per terminal</li> <li>■Rated Voltage: AC, DC 50V</li> <li>■Insulation Resistance: 100MΩ min. (initial)</li> <li>■Dielectric Withstanding Voltage:<br/>AC250Vr.m.s for 1 minute</li> <li>■(WP7A) total insertion force:<br/>1.50N x n max. (n: No. of pos.)</li> <li>■(WP7A) total removal force:<br/>0.15N x n min. (n: No. of pos.)</li> <li>■(WP7B) total insertion force:<br/>1.00N x n max. (n: No. of pos.)</li> <li>■(WP7B) total removal force:<br/>0.10N x n min. (n: No. of pos.)</li> </ul> |
|---|---|

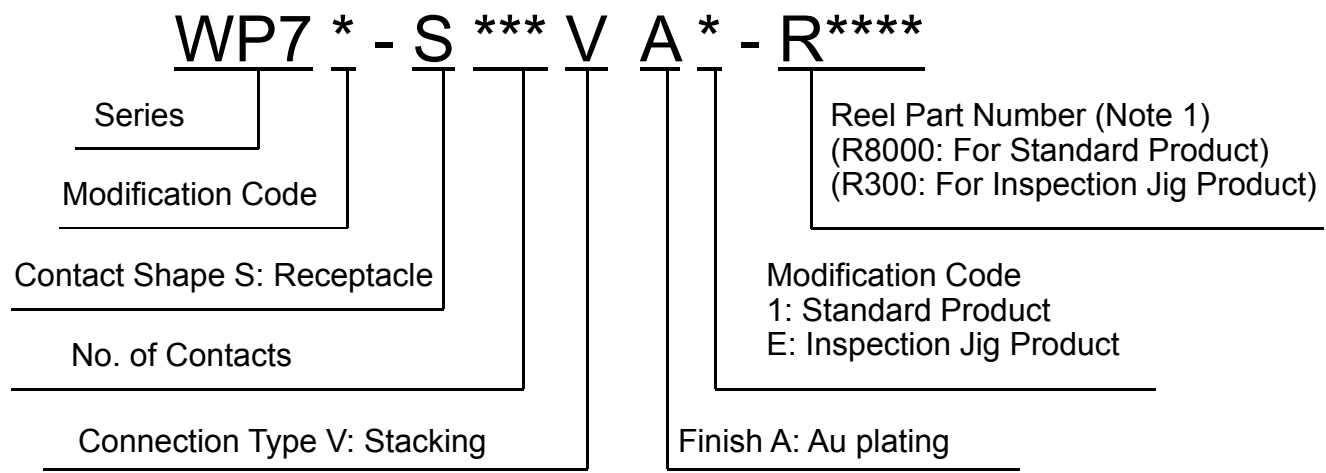
Materials and Finishes

|           |  |
|-----------|--|
| Component | Material / Finish  |
| Contact   | Cu alloy / Au plating  |
| Insulator | Heat-resistant plastic   |
| Hold-Down | Plug: Cu alloy / Au plating<br>Receptacle: Cu alloy / Sn plating |

Ordering Information (Plug)



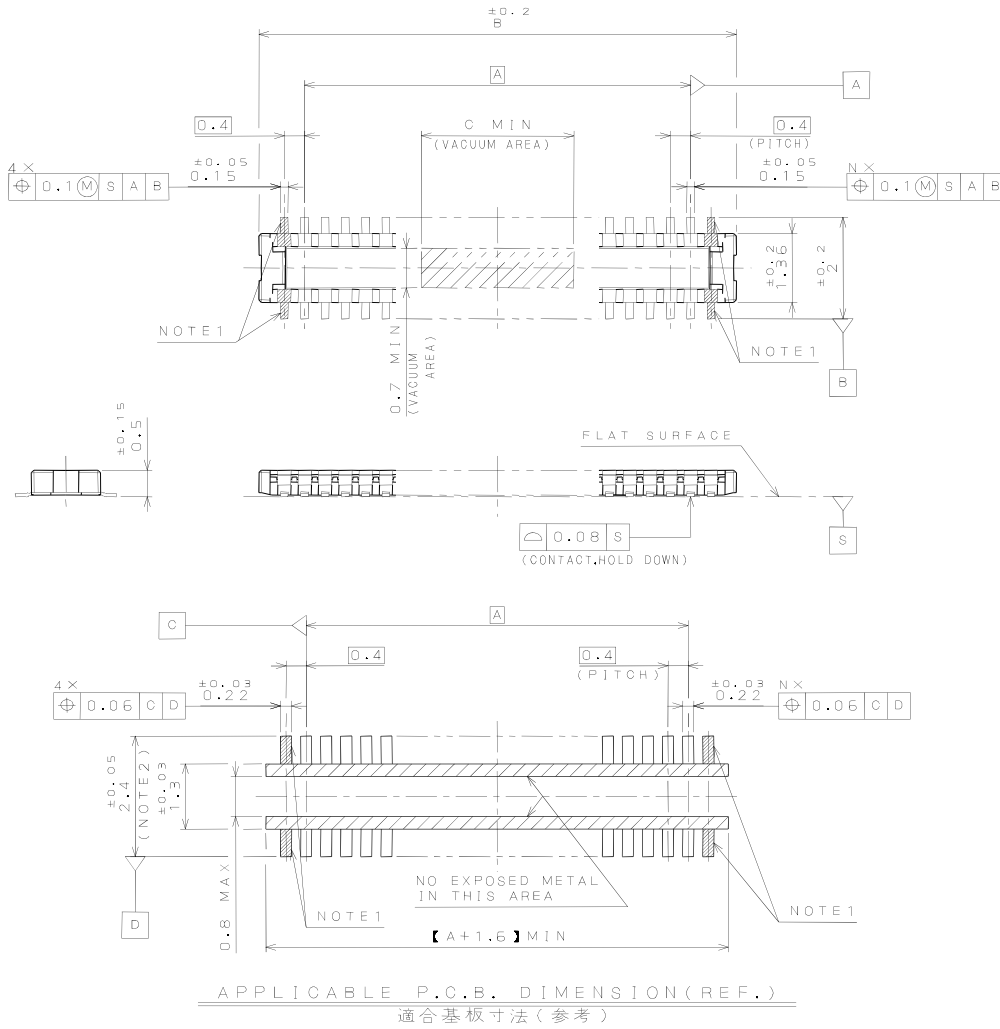
Ordering Information (Receptacle)



Note 1) An embossed tape reel contains 8,000 pieces of standard product, or 300 pieces of inspection jig product.  
Please contact us for details on embossed tape specifications.

|             |             |
|-------------|-------------|
| Part Number | WP7-P***VA1 |
| SJ Drawing  | SJ111875    |

# WP7A Plug



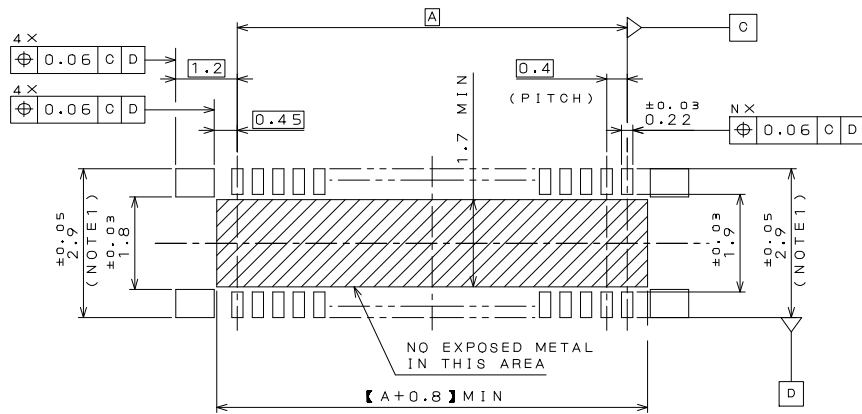
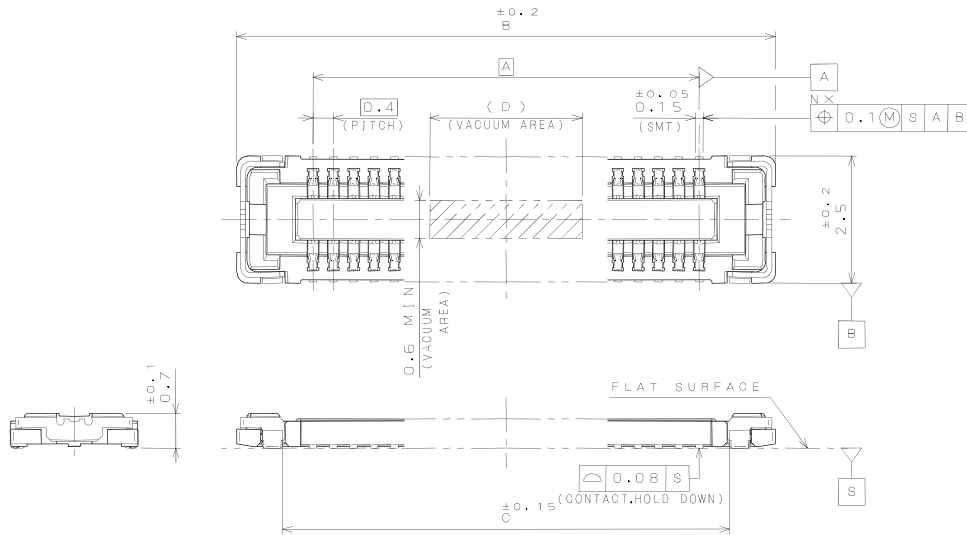
| DIMENSIONS<br>寸法 | NUMBER OF CONTACT<br>芯数 |     |     |
|------------------|-------------------------|-----|-----|
|                  | A                       | B   | C   |
| 10               | 1.6                     | 3.4 | 2.0 |
| 16               | 2.8                     | 4.6 | 2.0 |
| 20               | 3.6                     | 5.4 | 2.0 |
| 22               | 4.0                     | 5.8 | 2.0 |
| 24               | 4.4                     | 6.2 | 2.0 |
| 26               | 4.8                     | 6.6 | 5.0 |
| 28               | 5.2                     | 7.0 | 5.0 |
| 30               | 5.6                     | 7.4 | 5.0 |
| 32               | 6.0                     | 7.8 | 5.0 |

Note 1) Four corners are hold-downs. (Cannot be used for electrical connection.)  
 ex. Connector with 10 (N) pos. will have same amount of SMT terminals as 14 (N+4) pos.

Note 2) Dimension  $3 \pm 0.05$  is recommended in case repair is needed.

|             |              |
|-------------|--------------|
| Part Number | WP7A-S***VA1 |
| SJ Drawing  | SJ111877     |

# WP7A Receptacle



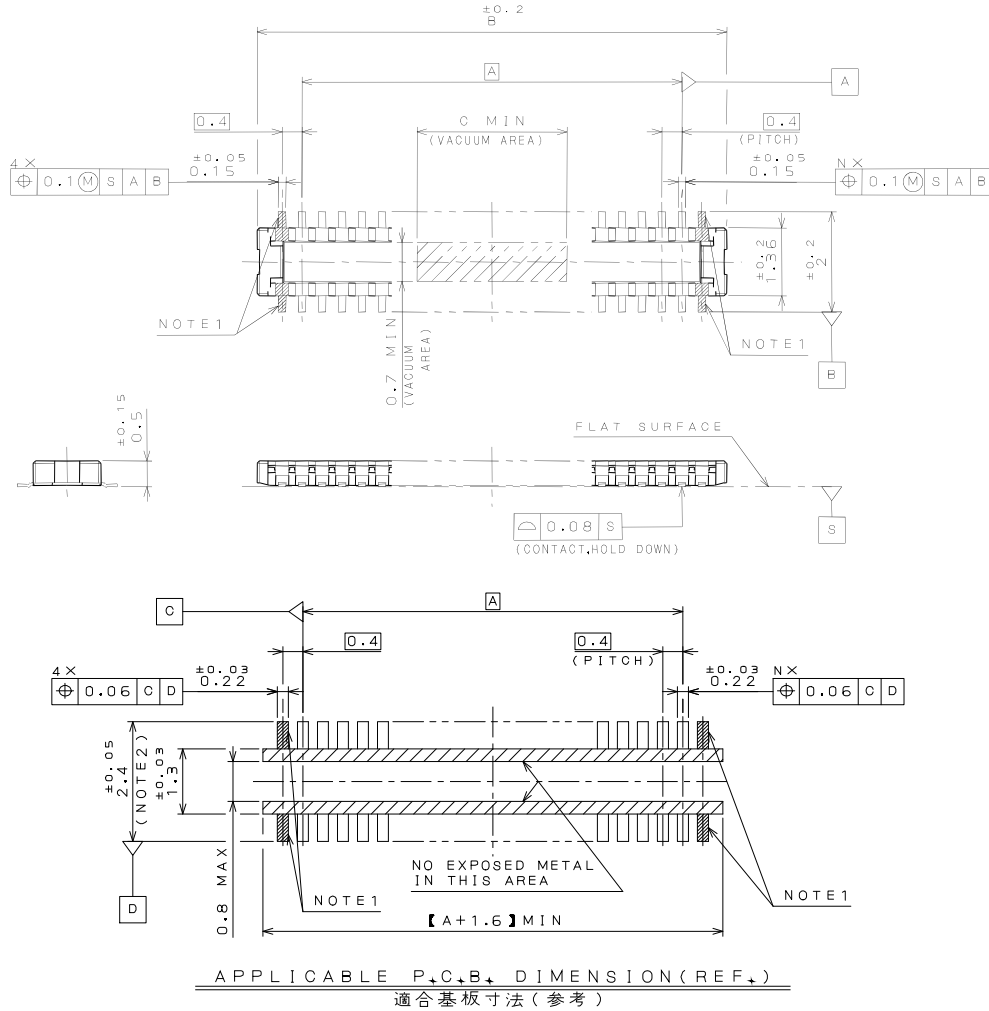
APPLICABLE P.C.B. DIMENSION (REF.)  
適合基板寸法 (参考)

| NUMBER OF CONTACT<br>芯数 | DIMENSIONS<br>寸法 |     |     |     |
|-------------------------|------------------|-----|-----|-----|
|                         | A                | B   | C   | D   |
| 10                      | 1.6              | 4.6 | 2.8 | 2.0 |
| 16                      | 2.8              | 5.8 | 4.0 | 2.0 |
| 20                      | 3.6              | 6.6 | 4.8 | 2.0 |
| 22                      | 4.0              | 7.0 | 5.2 | 2.0 |
| 24                      | 4.4              | 7.4 | 5.6 | 2.0 |
| 26                      | 4.8              | 7.8 | 6.0 | 5.0 |
| 28                      | 5.2              | 8.2 | 6.4 | 5.0 |
| 30                      | 5.6              | 8.6 | 6.8 | 5.0 |
| 32                      | 6.0              | 9.0 | 7.2 | 5.0 |

Note 1) Dimension  $3.5 \pm 0.05$  is recommended in case repair is needed.

|             |              |
|-------------|--------------|
| Part Number | WP7B-P***VA1 |
| SJ Drawing  | SJ111879     |

# WP7B Plug



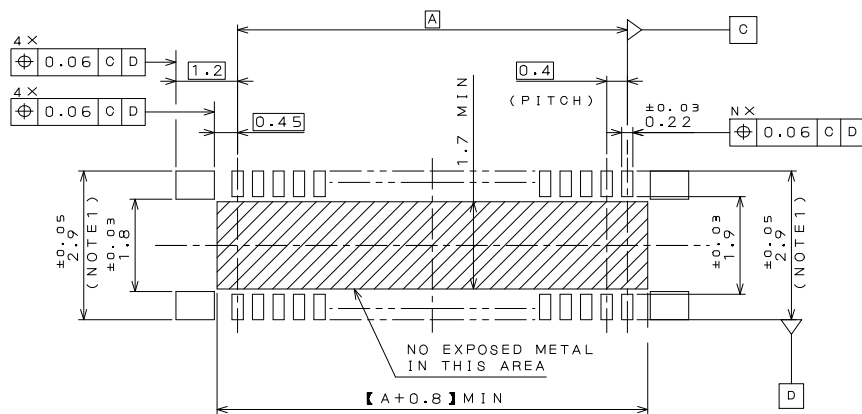
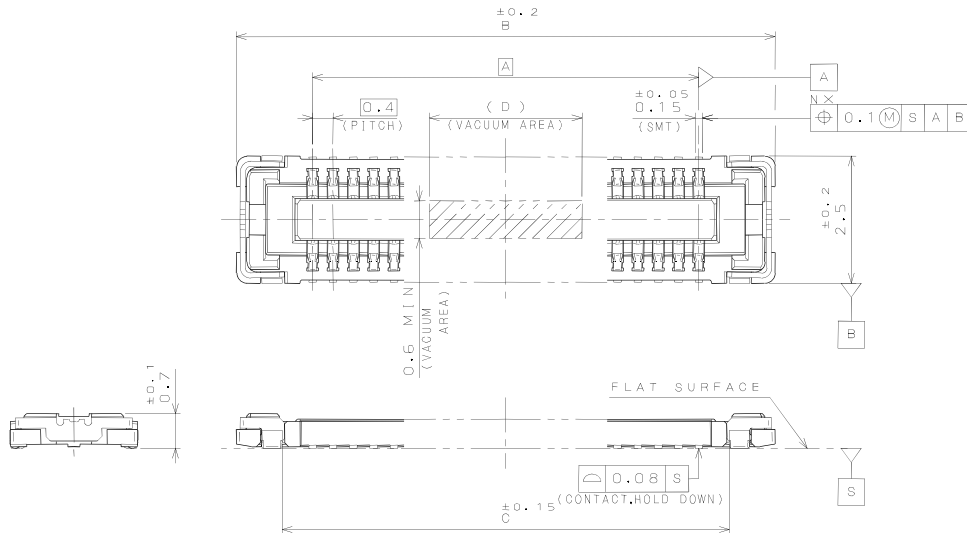
| NUMBER OF CONTACT<br>芯数 | DIMENSIONS<br>寸法 |      |     |
|-------------------------|------------------|------|-----|
|                         | A                | B    | C   |
| 34                      | 6.4              | 8.2  | 5.0 |
| 40                      | 7.6              | 9.4  | 5.0 |
| 50                      | 9.6              | 11.4 | 5.0 |
| 60                      | 11.6             | 13.4 | 5.0 |
| 70                      | 13.6             | 15.4 | 5.0 |

Note 1) Four corners are hold-downs. (Cannot be used for electrical connection.)  
ex. Connector with 40 (N) pos. will have same amount of SMT terminals as 44 (N+4) pos.

Note 2) Dimension  $3 \pm 0.05$  is recommended in case repair is needed.

|             |              |
|-------------|--------------|
| Part Number | WP7B-S***VA1 |
| SJ Drawing  | SJ111881     |

# WP7B Receptacle



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

| NUMBER OF CONTACT<br>芯数 | DIMENSIONS<br>寸法 |      |      |     |
|-------------------------|------------------|------|------|-----|
|                         | A                | B    | C    | D   |
| 34                      | 6.4              | 9.4  | 7.6  | 5.0 |
| 40                      | 7.6              | 10.6 | 8.8  | 5.0 |
| 50                      | 9.6              | 12.6 | 10.8 | 5.0 |
| 60                      | 11.6             | 14.6 | 12.8 | 5.0 |
| 70                      | 13.6             | 16.6 | 14.8 | 5.0 |

Note 1) Dimension 3.5±0.05 is recommended in case repair is needed.

|                 |
|-----------------|
| Product Line-up |
|-----------------|

| Types                    | WP7A (10-32 pos.)                                      | WP7B (34-70pos.)                                       |
|--------------------------|--|--|
| Drawings<br>(Plug)       | Individual Product: SJ111875<br>Reel Product: SJ118068 | Individual Product: SJ111879<br>Reel Product: SJ118070 |
| Drawings<br>(Receptacle) | Individual Product: SJ111877<br>Reel Product: SJ118069 | Individual Product: SJ111881<br>Reel Product: SJ118071 |
| Specifications           | JACS-10814   | JACS-10818   |
| Handling<br>Instructions | JAHL-10814   | JAHL-10818   |
| Summary<br>Reports       | SR-C-1023  | SR-C-1024  |

**Notice:**

1. The values specified in this brochure are only for reference. The products and their specifications are subject to change without notice. Contact our sales staff for further information before considering or ordering any of our products. For purchase, a product specification must be agreed upon.

2. Users are requested to provide protection circuits and redundancy circuits to ensure safety of the equipment, and sufficiently review the suitability of JAE's products to the equipment.

3. The products presented in this brochure are designed for the uses recommended below. We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.

(1) Applications that require consultation:

(i) Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:

Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster prevention equipment, etc.

(ii) We may separately give you our support with a quality assurance program that you specify, when you think of a use such as :

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(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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\* The specifications in this brochure are subject to change without notice. Please contact JAE for information.

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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

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- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
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#### Как с нами связаться

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**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

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