# 16-Position USB Type-C™ Receptacles with Single Row SMT Terminals Added to the "DX07 Series"


JAE has developed and launched 16-position USB Type-C receptacles that have all contacts arranged into a single row of SMT terminals for easier PCB termination and routing compared to standard dual row receptacles. They will be made available to customers as part of the "DX07 Series" family of products, which also includes cable harnesses, receptacle connectors, and plug connectors.

The USB Type-C interface is widely used as a standard interface for portable devices such as PCs, smartphones, and gaming machines. In addition, the usage of USB Type-C is increasing for specialized power supply applications such as power adapters, power banks (mobile batteries), and as a replacement for the conventional standard USB 2.0 Type-A as well as standard and Type B connectors.

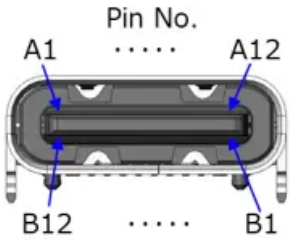
To cater to these needs, we have added a new variation of a USB Type-C receptacle with only 16-positions by eliminating the high-speed signaling pins (SuperSpeed pin) which are not required for USB 2.0 and power-supply only applications. This product achieves a shorter connector depth and improved solder repairability by using one row of SMT mounted terminals rather than 2 rows of SMT terminals required for standard 24 position receptacles. This contributes to downsizing

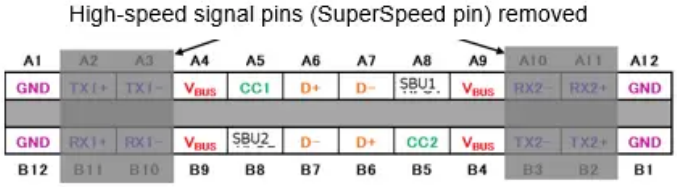
devices, and improves the ease of PCB design with less layers.

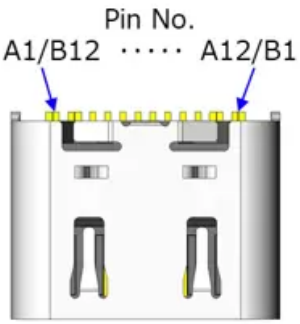
As a manufacturer who has taken part in the development and standardization of the USB Type-C specification, JAE will continuously work to expand product variations of receptacles, plugs, and cable harnesses in the DX07 Series.

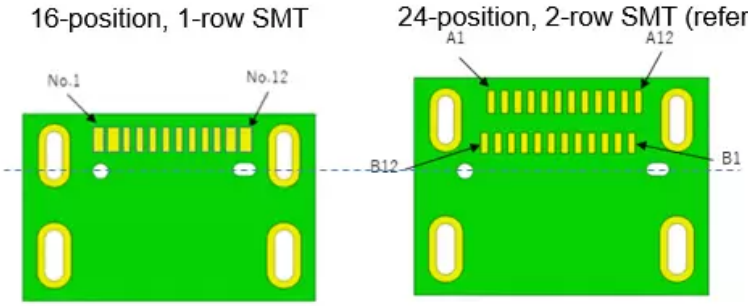
Note 1) USB Type-C™ is a trademark of USB Implementers Forum, Inc.
Note 2) SMT (surface mount technology): a component mounting method to fix the components to the surface of the PCB board by placing the components on printed solder paste, and later melting the solder paste in the heating (reflow) oven to form solder joints for fixation.

## Product Specifications




16-position, 1-row SMT type Pin Assignment

| Pad No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pin No. | A1/B12 | A4/B9 | A5 | B8 | B7 | A6 | B6 | A7 | B5 | A8 | B4/A9 | A12/B1 |
| Assign | GND | VBUS | CC1 | SBU2 | D- | D+ | D+ | D- | CC2 | SBU1 | VBUS | GND |

## Features

Compliant with Universal Serial Bus Type-C Specification Release 2.0

Compatible with USB Power Delivery 3.0 / Supports 5 A max. power supply

16-position (after removing the SuperSpeed pins), supporting USB2. 0 (480Mbps) transmission

Standard SMT on-board type, which is in high demand for a wide range of applications

Single row SMT terminals for easy inspection and repair of solder joints

## General Specifications

| | |
|---|---|
| **Item** | 1 row SMT, 16-position, On-board Receptacle Connector |
| **Part Number** | DX07S016JA1 (shell-DIP length 0.9mm)<br>DX07S016JA3 (shell-DIP length 1.2mm) |
| **Rated Current** | 5 A Maximum ($V_{bus}$) |
| **Number of Contacts** | 16 position |
| **Rated Voltage** | AC20V r.m.s. |
| **Contact Resistance** | Initial 40mΩ max. |
| **Dielectric Withstanding Voltage** | AC100V r.m.s. (1 minute) |
| **Insulation Resistance** | 100 MΩ min. |
| **Operating Temperature Range** | -40°C ~ +85°C |
| **Durability** | 10,000 times |

## DX07 Series (RECEPTACLE) (For more details) >

Information and details given here are as of the date of publication.

Please note that the details may be changed.