

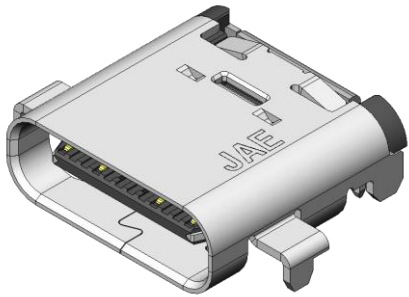
USB Type-C® Compatible DX07 Series SMT Contact Right Angle Receptacle

CONNECTOR
MB-0297-12
Dec. 2024

RoHS Compliant



On-board Type



Mid-mount Type

Overview

The DX07 Series connectors are USB Type-C compliant and have become a popular standard interface for personal computers, smartphones, mobile devices, audiovisual equipment, and portable gaming devices.

In addition, due to the progress of in-vehicle infotainment (IVI) and higher functionality of vehicles, the USB Type-C interface is being adopted as a user interface connection with consumer devices. It is able to support higher data rates and faster charging compared to other interfaces.

This product is a 2-row SMT type receptacle connector with a mounting area space-saving design.

Specific products have been tested to automotive specifications.

Note) USB Type-C®, USB-C® are trademarks of USB Implementers Forum.

Application

Smartphones, tablets, PCs, digital still cameras, headphones, and others

Features

- Compliant with Universal Serial Bus Type-C Specification Release 2.4
- Compatible with 10Gbps x2 (20Gbps) Super Speed communication. (USB 3.2)
- Supports 240W (5A/48V) maximum power supply.
(Compatible with USB Power Delivery Extended Power Range)
- Reversible plug orientation makes possible to insert both ways up.
- Lock structure with superior durability.

*Not compatible with IATF.

General Specifications

Number of Contacts	24 Positions
Rated Current	V _{BUS} (Terminal No. A4, A9, B4, B9) DC 5A (Total)
	GND (Terminal No. A1, A12, B1, B12) DC 6.25A (Total)
	V _{CONN} (Terminal No.B5) DC 1.25A
	Others DC 0.25A
Rated Voltage	48Vr.m.s.
Contact Resistance	40mΩ max. (initial)
Dielectric Withstanding Voltage	100Vr.m.s. (per minute)
Insulation Resistance	100MΩ (initial)
Durability	10,000 times
Operating Temperature	-40 deg. C to +85 deg. C (general products) -40 deg. C to +125 deg. C (for products evaluated to automotive specifications, including temperature rise when energized)

Ordering Information

DX07 * * 24 J * * R****

Series
DX07: USB Type C

S: On-board, B: Mid-mount

Modification Code #1

No. of Contacts: 24 pos.

Reeled pcs. / reel

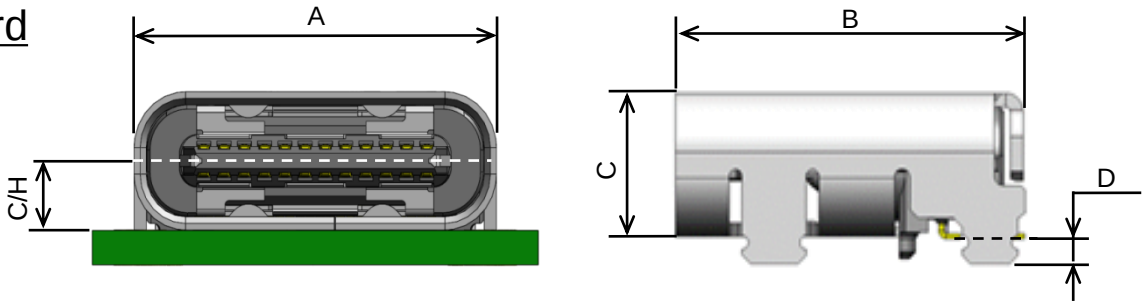
Modification Code #2

Plating Specification
J: Contact area: Au flash over Palladium Ni over Ni plating
A: Contact area: Au plating over Ni

Board Connection Type
J: 2 row SMT horizontal

Outer Dimensions

On-board



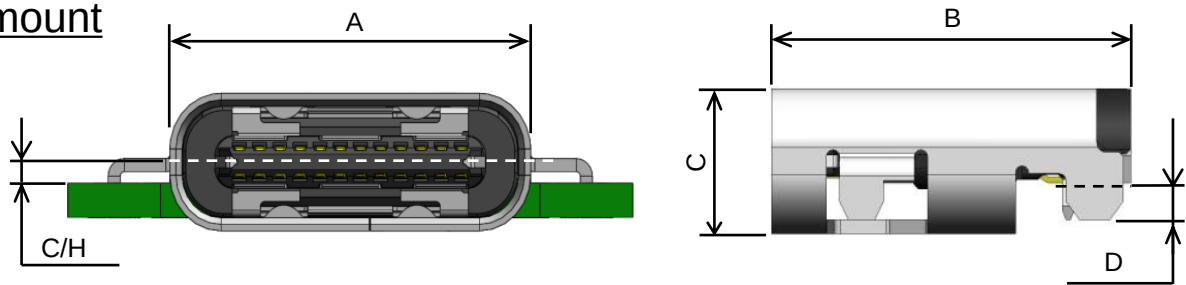
*Products compatible with automotive specification tests.

Unit: mm

Part Number		C/H	Dimension A	Dimension B	Dimension C	Dimension D	Mating Length	Rear Shield	Note		
DX07S024JA1*		1.57	8.94	8.17	3.14	0.6	4.7	Yes	Insert mold		
DX07S024JA2*						1.2					
DX07S024JJ1						0.6			Shell 2-point contact DIP		
DX07S024JJ2									--		
DX07S024JJ3				8.97		1.2	5.5	Yes	--		
DX07S024JJ7											
DX07S024JJ4						0.9					
DX07SD24JJ3		2.0	8.57	8.57		0.6	5.1		--		

Outer Dimensions

Mid-mount



Unit: mm

Part Number		C/H	Dimension A	Dimension B	Dimension C	Dimension D	Rear Shield	Note
DX07B024JJ1		0.47	8.94	8.17	3.14	0.8	Yes	--
DX07B024JJ2							No	--
DX07BN24JA2		-0.64	9.27	11.1	3.6	0.8		--

Part Numbers and Product Drawings

On-board

Part Number	Drawing Number	Specifications	Handling Instructions	Package Quantity
DX07S024JA1 DX07S024JA1R300 DX07S024JA1R1300	SJ119361 SJ121696 SJ119362	JACS-30353-19 (General specification)	JAHL-30353-5	300 pieces/reel (Note) 1,300 pieces/reel
DX07S024JA2 DX07S024JA2R1200	SJ121711 SJ121712	JACS-30503 (Automotive spec tested product)		1,200 pieces/reel
DX07S024JJ1 DX07S024JJ1R1300	SJ115848 SJ115849	JACS-30353	JAHL-30353-1	1,300 pieces/reel
DX07S024JJ2 DX07S024JJ2R1300	SJ115946 SJ115947			
DX07S024JJ3 DX07S024JJ3R1300	SJ115994 SJ115995			
DX07S024JJ4 DX07S024JJ4R1300	SJ117264 SJ117265			
DX07S024JJ7 DX07S024JJ7R1200	SJ119223 SJ119224			1,200 pieces/reel
DX07SD24JJ3 DX07SD24JJ3R1100	SJ117525 SJ117526			1,100 pieces/reel

Note) 300 pieces/reel package quantity are available as samples only.

Part Numbers and Product Drawings

Mid-mount

Part Number	Drawing Number	Specifications	Handling Instructions	Package Quantity
DX07B024JJ1 DX07B024JJ1R1500	SJ115850 SJ115851	JACS-30353	J AHL-30353-1	1,500 pieces/reel
DX07B024JJ2 DX07B024JJ2R1500	SJ115996 SJ115997			
DX07BN24JA2 DX07BN24JA2R1300	SJ119577 SJ119578			1,300 pieces/reel

Remarks: Large selection of connector variations are available in DX07 Series
Please refer to the chart below for brochures of other variations.

Brochure Number	Brochure Name
MB-0333-*	DX07 Waterproof Receptacle
MB-0335-*	DX07 Hybrid Contact Receptacle
MB-0336-*	DX07 Vertical Receptacle
MB-0350-*	DX07 16-position Receptacle
MB-0362-*	DX07 USB4 Gen3 Compatible Receptacle
MB-0301-*	DX07 Plug Series
MB-0332-*	DX07 Vertical Plug
MB-0324-*	DX07 Harness

Note: The asterisk (*) stands for revision number.

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 :
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.

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