

**Automotive USB 3.2 / DP1.4 Compatible
MA07 Series**

CONNECTOR
MB-0389-2
Jul.2024

RoHS Compliant



<Receptacle>



<Plug Harness>



<Inline Harness>

Overview

There is an increasing demand for transmitting video signals between ECUs and displays as well as communicating with PCs, smartphones, and gaming devices in the car, and JAE has developed the "MA07 Series" USB and DisplayPort transmission compatible connector and harness solution.

Applications

In-vehicle Infotainment (IVI) systems including the use case between head unit and I/O box

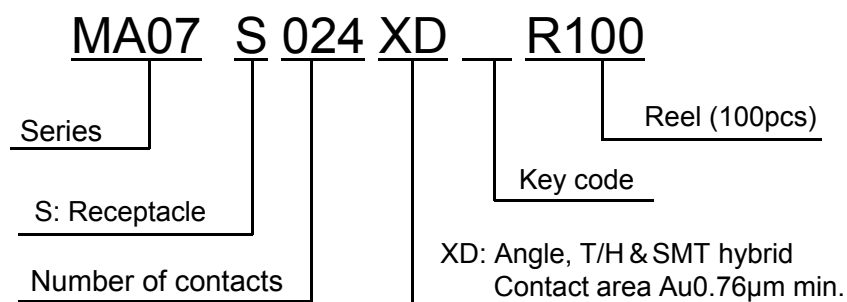
Features

- Tested to USCAR2 specifications.
- Transmission signals
USB 3.2 Gen 2: Maximum bandwidth 20Gbps (10Gbps x2 lanes)
DisplayPort 1.4: Maximum bandwidth 32.4Gbps (8.1Gbps x4 lanes)
- Receptacle is available in tape and reel packaging, and is through-hole reflow compatible. Plug and inline receptacle are supplied as a complete harness.
- Robust structure with outer housing to prevent slanted insertion.
- Four types of key variations preventing mismatching.
- Adopting interior structure of market-proven connector products.
- Clips can be added to the inline harness as an option.
- STP cable is used for the high-speed transmission lines of the cable.

General Specifications

Number of Contacts	24 positions (Plug 22 positions)
Operating Temperature Range	-40 °C to +105 °C
Rated Current / Voltage	Signal 0.25A, GND 3A / 20V *Contact us for details.
Insulation Resistance	10MΩ Min.(Mated)
Dielectric Withstanding Voltage	AC 100Vr.m.s (For 1 minute)
Applicable PCB Thickness	t1.2 -1.6mm
Applicable Cable	Custom Cable *Contact us for details.

Ordering Information

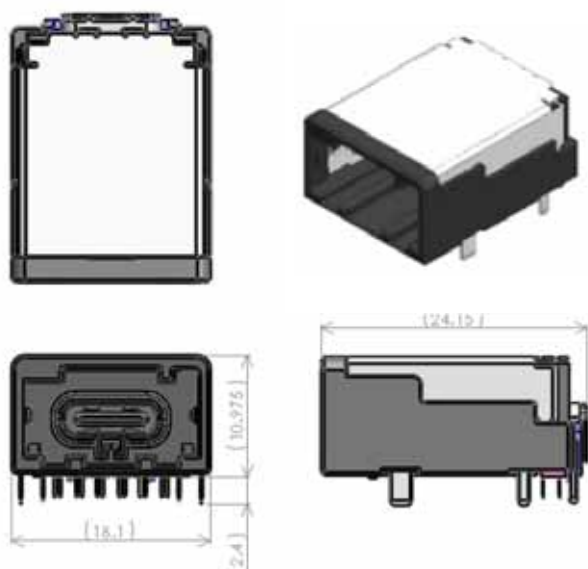


Connector Part Number and Drawing Number

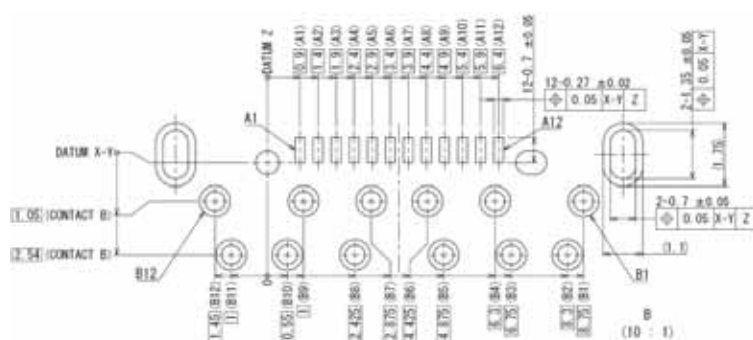
Receptacle

No.	Emboss Reeled Product Part Number	Drawing Number (Connector)	Drawing Number (Reel)	Key Code (Color)
1	MA07S024XD1R100	SJ124387	SJ124388	A (Black)
2	MA07S024XD2R100	SJ125792	SJ125793	B (Gray)
3	MA07S024XD3R100	SJ125794	SJ125795	C (Green)
4	MA07S024XD4R100	SJ125796	SJ125797	D (Blue)

Outer Dimensions

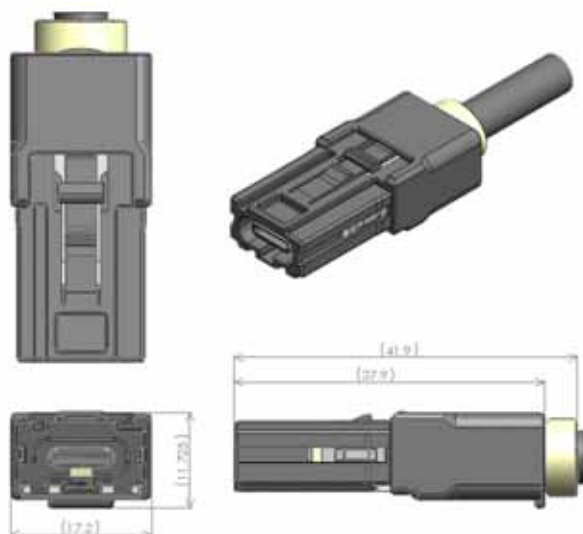


Recommended Board Dimensions



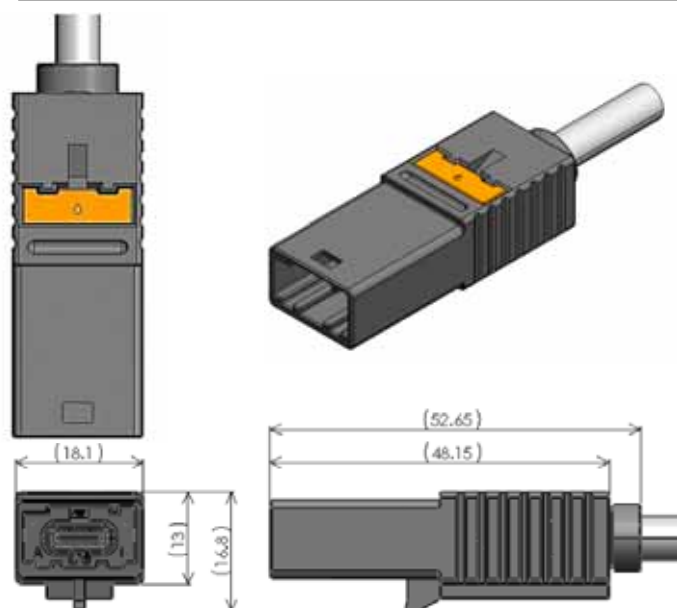
Please refer to the latest document of drawings for dimensional information.

Plug Connector Outer Dimensions



Reference SJ124385
(MA07P022A1A)

Inline Connector Outer Dimensions



Reference SJ125800
(MA07M024MD1)

Please refer to the latest document of drawings for dimensions.
Plug and Inline connectors are sold as a harness product.
Please contact us for the details.

Technical Documents

Connector Specification	JACS-11375
Harness Specification	JACS-40244
Instruction Manual	JAHL-11375
Summary Report	SR-M-0386

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.

Japan Aviation Electronics Industry, Limited

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