

Automotive USB 3.0 High Speed Connector

CONNECTOR

MB-0298-2

May.2021

MX62 Series

RoHS Compliant

Right Angle Pin Connector



Socket Connector



Relay Connector



USB 3.0 transmission connectors have become increasingly popular within the automotive markets as more design engineers integrate the USB 3.0 standard for on-board infotainment applications.

To cater to these demand, the MX62 Series has been developed to comply with USB 3.0 protocols for automotive applications.

MX62 Series is an automotive connector compatible with USB 3.0 transmission specifications to provide 5Gbps transmission speeds.

The MX62 Series satisfies these requirements and achieves both mechanical and environmental performance for vehicle-mounted requirements.

Shielded wires developed exclusively for automotive use are used for applicable wires.

Features

- Horizontal pitch 2.0 mm, 2 rows with 10 contacts
- Impedance-matching design for high-speed transmissions comply with USB 3.0 standard
- 5Gbps equivalent differential line: 2 pairs
- 480Mbps equivalent differential line: 1 pair
- USB 3.0 supports compatibility with other high-speed transmissions
- Double shielding structure with metal shell is adopted as EMI countermeasure
- Ruggedized design considering automotive applications
- General automotive cable layout is considered, and relay type is also available
- Supplied as a harness solution to ensure reliable transmission performance

General Specifications

- | | |
|---|--|
| ■ Number of contacts: 10 contacts | ■ Rated current: ~ 3A (power / GND line) |
| ■ Operating temperature: -40°C ~ +85°C | ■ Withstand voltage: AC 1,000V (applied for 1minute) |
| ■ Contact resistance: 8 mΩ or less (initial) | ■ Applicable PCB thickness: 1.6 mm |
| ■ Insulation resistance: 100 MΩ or more (mated) | ■ Applicable wire: Shielded twisted pair cabling |

(Only available as a harness solution to ensure performance)

Materials and finishes

■ Right Angle Pin Connector

Component	Material/Finish
Outer housing	PPS-GF40
Inner housing	LCP-GF35
Terminal	Brass Contact area: Gold plating Terminal area: Tin plating
Inner shell	Copper alloy / Tin plating
Outer shell	Copper alloy / Tin plated

NOTE) Please check and consult with us about the packing type.

■ Socket connector

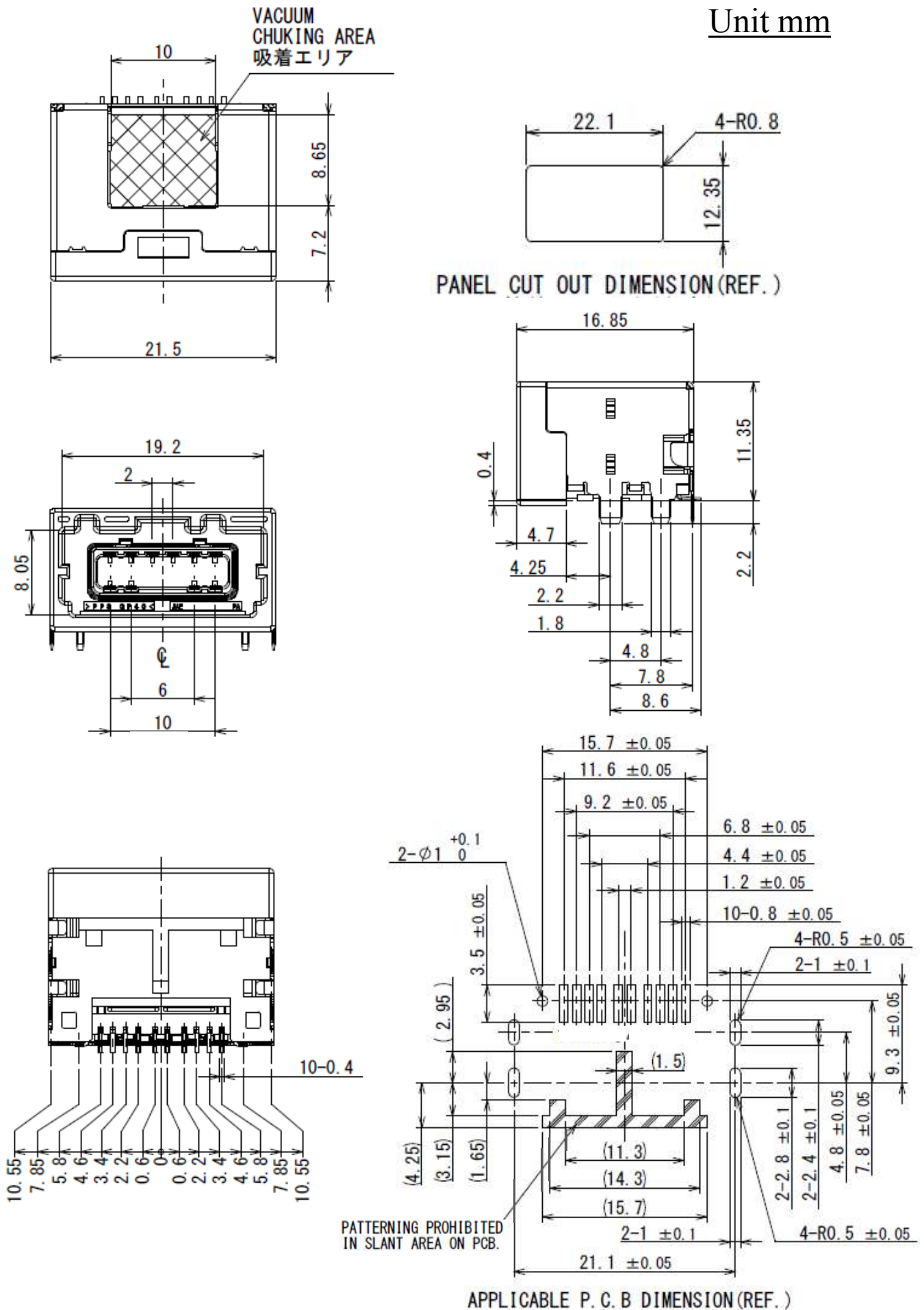
Component	Material / Finish
Outer housing, retainer, rear cover	PBT
Inner housing	LCP-GF35
Holder	9TNy-GF45
Terminal	Copper alloy Contact area: Gold plating Terminal area: Tin plating
Shell A	Copper alloy / Tin plating
Shell B	Copper alloy / Tin plated
Sleeve	Copper alloy / Tin plated

■ Relay connector

Component	Material / Finish
Outer housing, retainer, rear cover	PBT
Inner housing	LCP-GF35
Holder	9TNy-GF45
Terminal	Brass Contact area: Gold plating Terminal area: Tin plating
Shell A	Copper alloy / Tin plating
Shell B	Copper alloy / Tin plated
Sleeve	Copper alloy / Tin plated

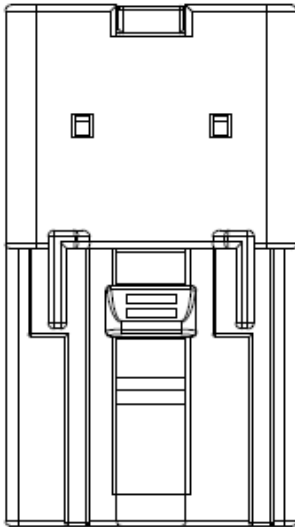
■ Angle pin connector (MX62010HQ1) Drawing number: SJ113305

Unit mm

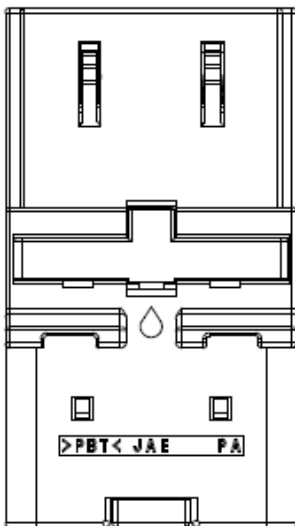
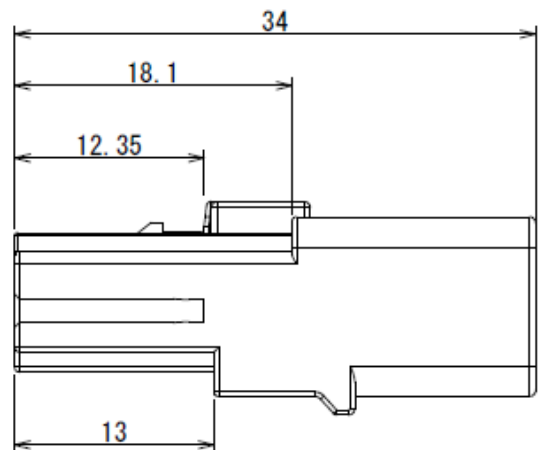
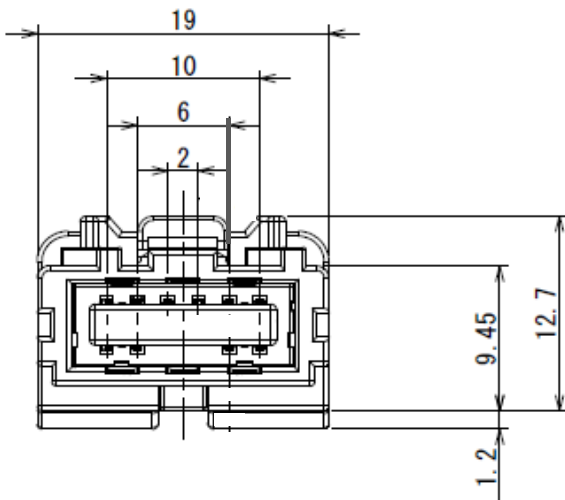


■ Socket Connector (MX62010FQ1) Drawing number: SJ113309

Unit mm

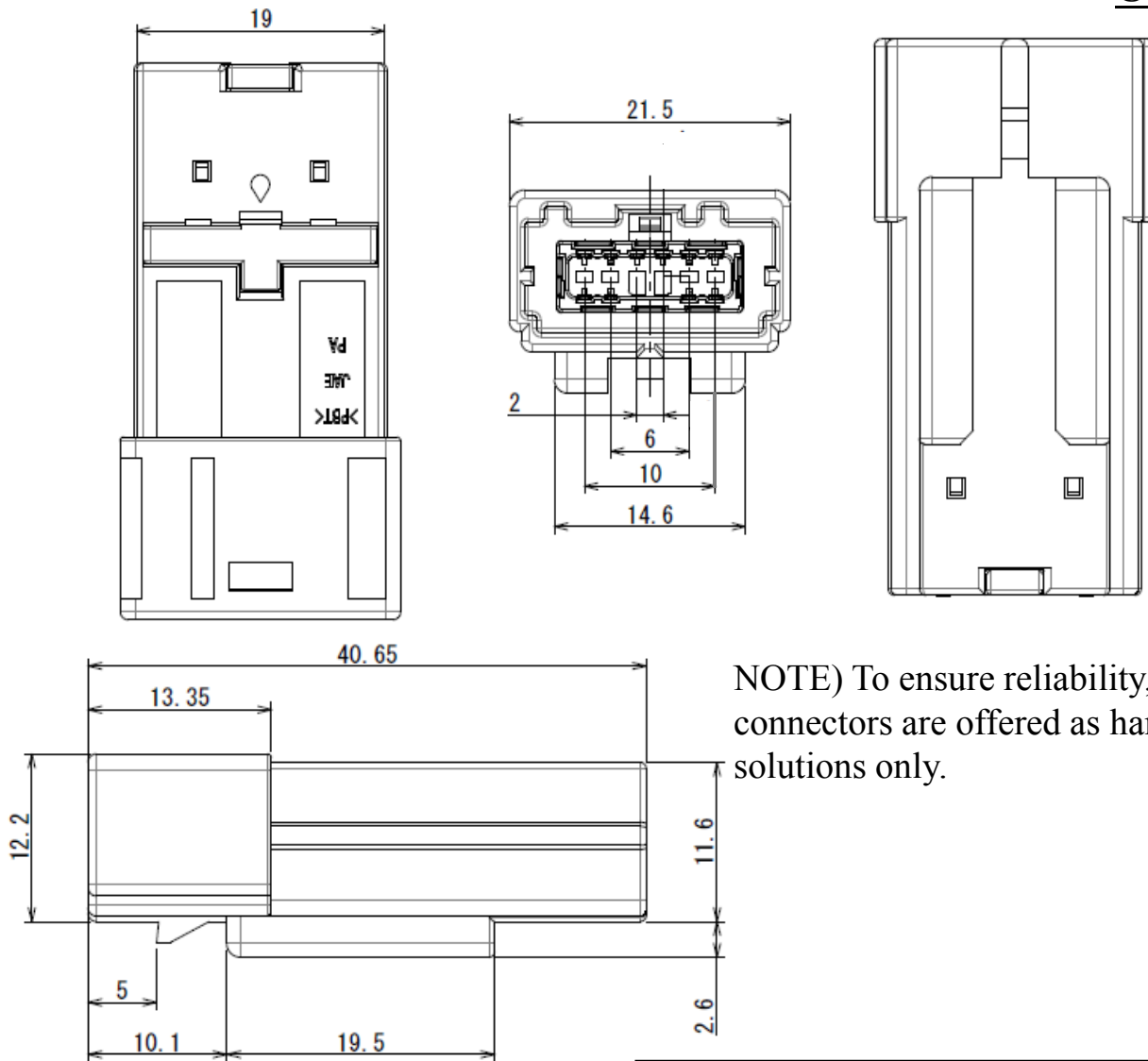


NOTE) To ensure reliability, the socket connector are offered as harness solutions only.



■ Relay Connector (MX62010MQ1) Drawing No. SJ113827

Unit mm



NOTE) To ensure reliability, relay connectors are offered as harness solutions only.

Product specifications JACS-10959

Notice:

- 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.
- 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.
- 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.
 - Applications that require consultation:
 - 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.
 - 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.
 - 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

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