



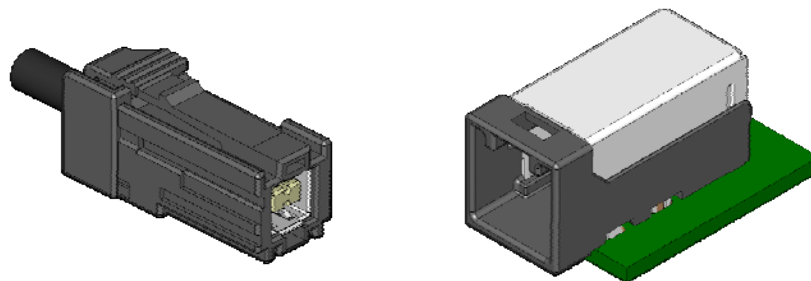
Automotive USB 2.0 Standard Compatible Connector

CONNECTOR

MX49 Series

MB-0252-1

October 2012



Recently for car navigation systems, USB connectivity with hand-held digital audio players and smartphones, and the functions to play audio and images from those devices, has been increasing.

And as the features in car navigation systems become ever more advanced and the number of parts mounted on the board increases, there is a demand for smaller connectors.

To meet these demands, JAE has developed the MX49 Series of connectors for automotive USB 2.0 transmission.

The MX49 Series has a reduced height, width and depth compared to our previous product, achieving a 48% reduction in volume.

The MX49 Series is compatible with high-speed signals and has transmission performance that satisfies the USB 2.0 standard. The MX49 Series also features the environment resistance that is required for an automotive connector.

Features

- Achieves a 48% reduction in volume compared to our previous product.
- 2.0mm pitch, 2 rows, 4 position (2 signal lines, power, ground)
- Compatible with USB 2.0 standard transmission.
- Board connector is available in DIP type and reflow type.
- Different keying versions available for mis-mating prevention.
(DIP type: 5 versions; reflow type: 4 versions)
- Mechanical lock and twist-resistant structure for mated connector.
- Dual-shield structure with ground terminals for EMI control.
- Available as a completed harness to ensure transmission performance reliability.

General Specifications

- No. of Contacts: 4 positions
- Dielectric Withstanding Voltage: AC1000 Vr.m.s. (applied voltage) per minute (mated condition)
- Operating Temperature: -40 Deg. C to +85 Deg. C
- Insulation Resistance: 100M Ω min. (mated condition)
- Applicable Board Thickness: 1.6mm
- Applicable Wire: Signal line is shielded twisted pair wire (for harness)
- Connector Insertion Force: 70N max.

Materials and Finishes

■ Angle Pin Connector

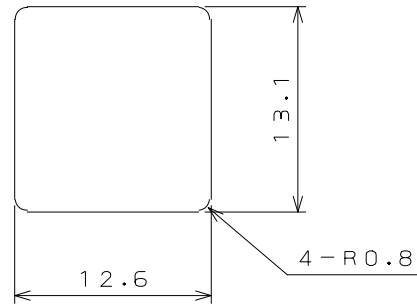
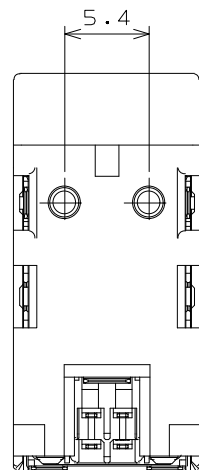
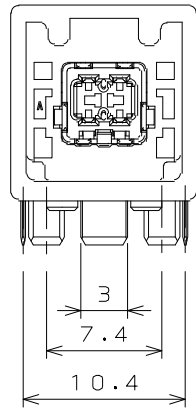
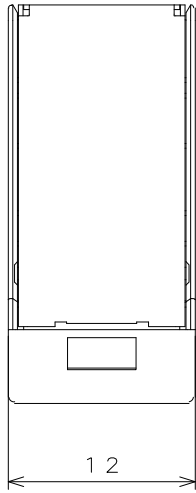
| Component | Material / Finish |
|-------------------------|---|
| Signal / Power Terminal | Brass / Contact Area: Au plating over Ni Board Termination Area: Sn plating |
| External Housing | DIP Type: SPS-GF30 Reflow Type: PPS-GF40 |
| Internal Housing | DIP Type: SPS-GF30 Reflow Type: LCP-GF35 |
| Ground Terminal | Copper alloy / Sn plating |
| Shield Shell | DIP Type: Copper alloy / Sn plating Reflow Type: Brass / Sn plating |

■ Socket Connector

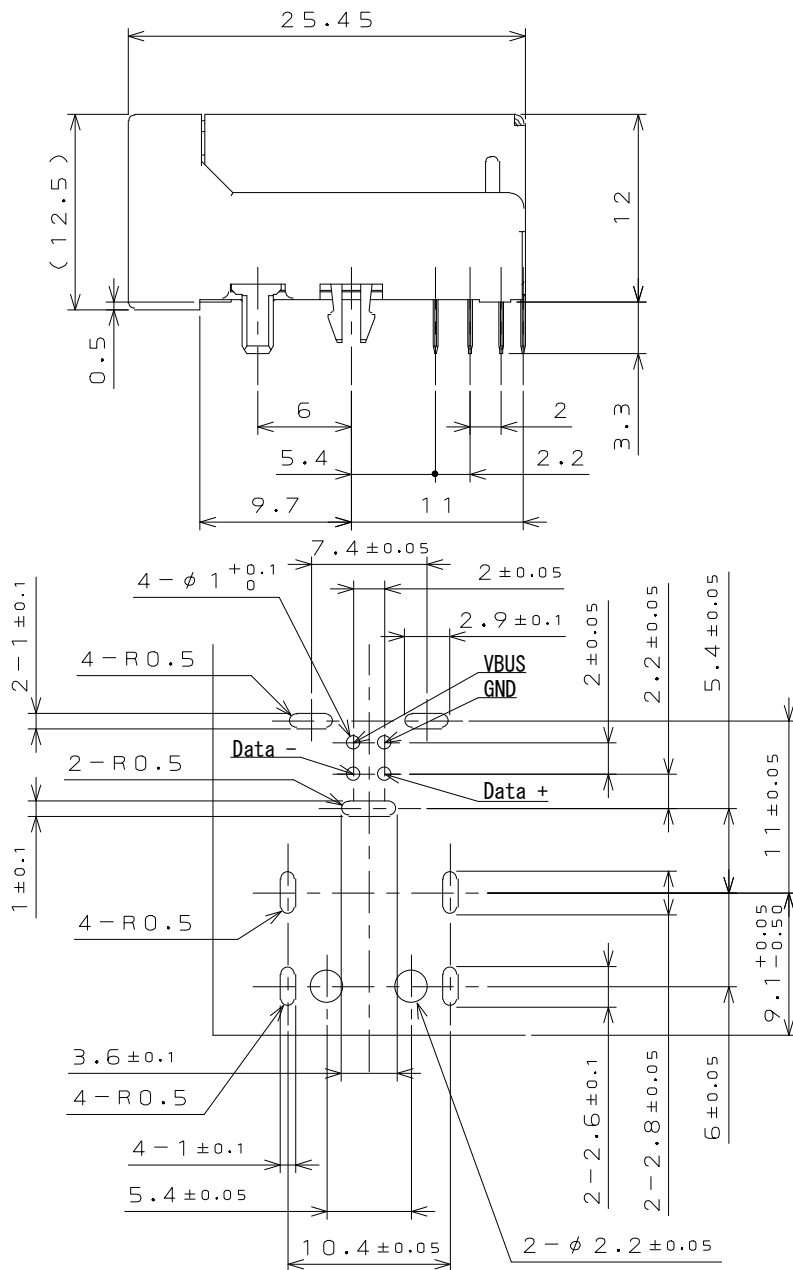
| Component | Material / Finish |
|------------------------------|---|
| Signal / Power Terminal | Copper alloy / Contact Area: Au plating over Ni Wire Termination Area: Sn plating |
| External Housing Retainer | PBT |
| Internal Housing Holder | LCP-GF35 |
| Ground Terminal | Copper alloy / Sn plating |
| Cover Shell Sleeve | Brass / Sn plating |

■ Angle Pin Connector DIP (MX49004NQ1)
 Drawing No.: SJ110136

Unit: mm



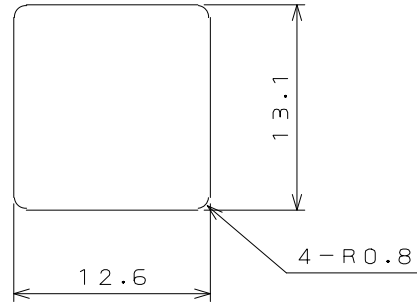
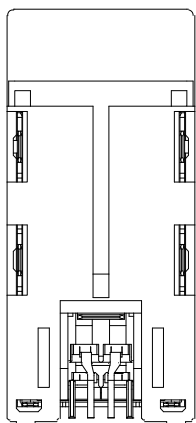
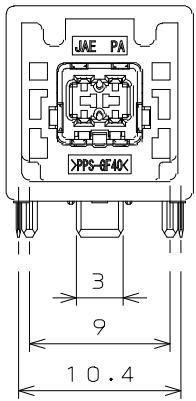
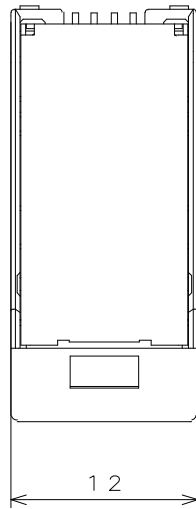
PANEL CUT OUT DIMENSION (REF.)



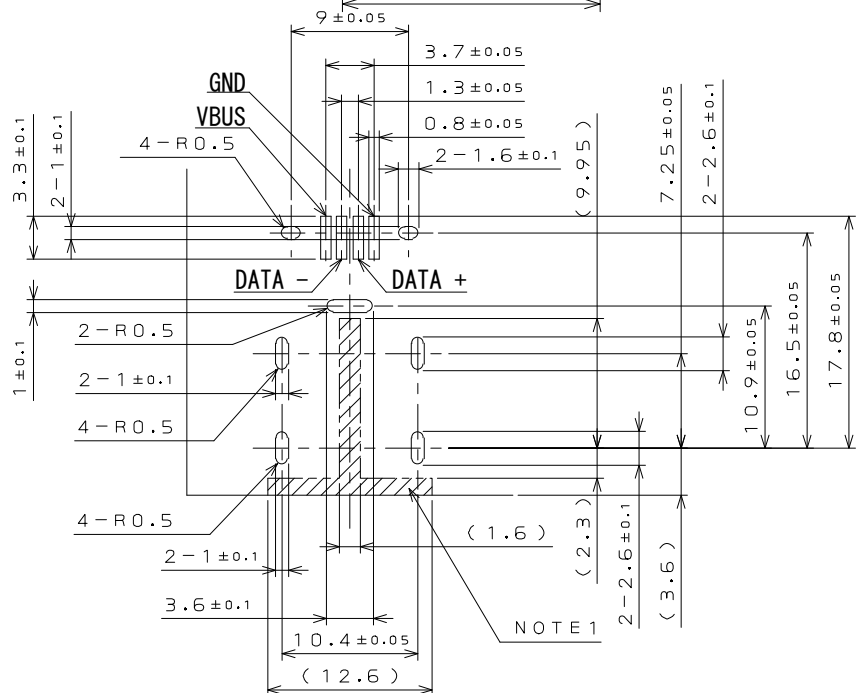
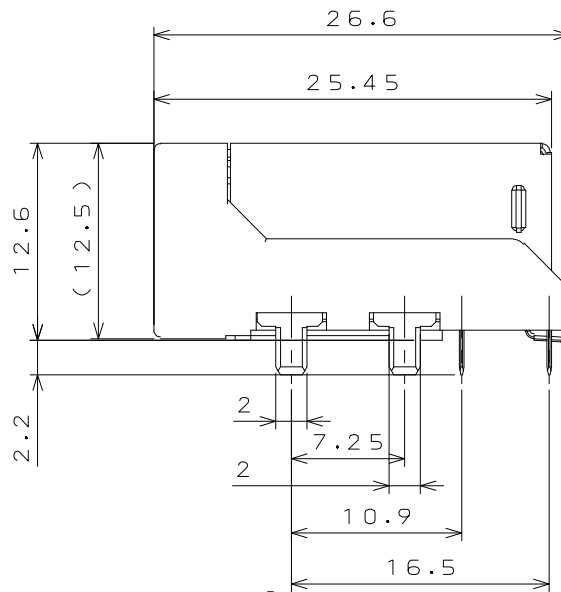
APPLICABLE P.C.B. DIMENSION (REF.)

Angle Pin Connector Reflow Type (MX49004HQ1) Drawing No.: SJ110812

Unit: mm



PANEL CUT OUT DIMENSION (REF.)






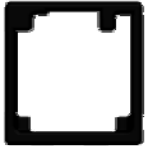










APPLICABLE P.C.B. DIMENSION (REF.)

Note 1: Shaded portion of this drawing is pattern prohibited area.

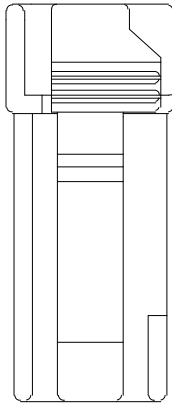
■ Key Type (Shape) / Insulator Color

Unit: mm

| Key Type | Socket Connector | Pin Connector | | External Insulator Color |
|----------|---|---|--|--------------------------|
| | | DIP Type | Reflow Type | |
| A |  |  |  | Gray |
| B |  |  |  | Black |
| C |  |  |  | Brown |
| D |  |  |  | Green |
| E |  |  | / | Light Blue |

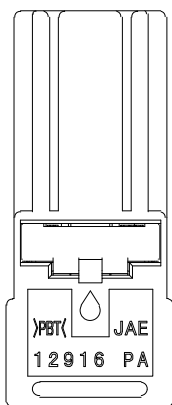
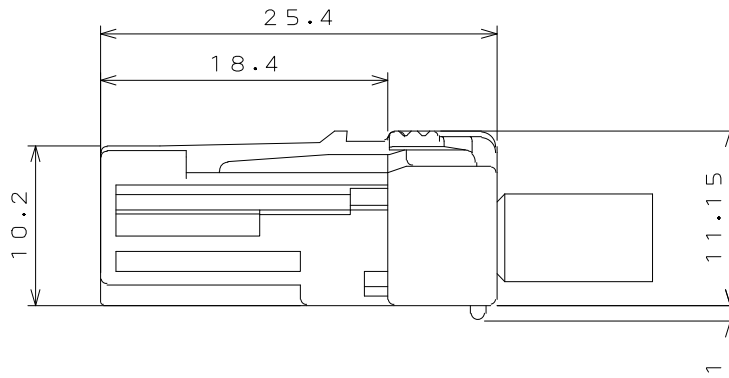
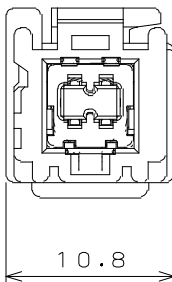
■ Socket Connector (for reference)

Unit: mm



Note:

**Socket connector is a harness product.
It is not sold as an individual connector.**



Other

Specifications

JACS-10656

Notice: Products shown in this brochure are made for the applications listed below. However, if the above-mentioned products are to be used in aerospace devices, marine cable-connection devices, atomic power control systems, medical equipment for life-support systems, or any other specific application requiring extremely high reliability, please contact JAE for further information.
Recommended applications: Computers, Office machines, Measuring devices, Telecommunication devices (Terminals, Mobile devices), AV devices, Household applications, FA devices, etc.

Japan Aviation Electronics Industry, Limited

Product Marketing Division
Aobadai Building, 3-1-19, Aobadai, Meguro-ku, Tokyo 153-8539
Phone: +81-3-3780-2787 FAX: +81-3-3780-2946

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