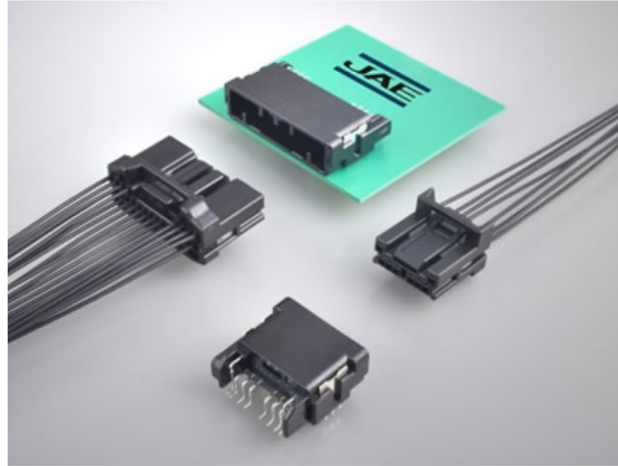


## Compact Low-profile Automotive ECU Connector "MX77A series" Has Been Developed



JAE has developed a board-to-cable connector MX77A Series for automotive ECUs. It is significantly smaller in size and lower in height than our conventional automotive products.

Recently, installation of ADAS sensors and communication equipment ECUs (Electronic Control Units) for Connected Cars are increasing, and due to limited installation space, there are demands for smaller and thinner ECUs. Along with the shift to electric motorization, requirements for small-sized and low-profile connectors are growing for use in BMS (Battery Management System) systems that monitor battery voltages. To satisfy these requirements we have developed the MX77A Series of board-to-cable connectors that have been miniaturized while meeting the strict requirements for in-vehicle applications.

It is significantly smaller in height (9.7 mm mounting height) compared with our conventional products. By carrying out simulations and evaluation testing for resistance against twisting and engagement locking strength, it realizes an optimum structure which is compatible with vehicle-mounted specifications while remaining compact and low-profile.

In addition to its small size and low height, the product is designed to be compatible with SMT (surface mount technology) in response to changes in mounting methods in the automotive market. Sufficient strength against twisting forces is achieved with reflow solder-able through-hole legs on both ends of connector. The MX77A Series is capable of meeting the various needs of customers by expanding the pin counts from 4 to 40 positions.

Note) Leg is a part that reinforces attachment of the connector

### :: Features

- ▶ Compatible with Vehicle-mounted Specifications
- ▶ Terminal area for signal: 1.8mm pitch, terminal for power: 2.1mm pitch
- ▶ Compact right angle SMT type connector with 9.7mm mounting height
- ▶ Ultra-compact, terminal size 0.4mm (width of pin)
- ▶ Socket contact is a box type which is strong against external force.

### :: Applicable Markets

Automotive body-based ECU/BMS (Battery Management System), etc.

### :: General Specifications

<b>Number of Contacts</b>	4,8,12,16,20,24,32,40
<b>Operating Temperature Range</b>	-40°C to + 85°C
<b>Maximum Operating Temperature</b>	130°C (Ambient temperature + temperature rise due to conduction)
<b>Applicable Wires</b>	CHFUS 0.13mm <sup>2</sup> /CIVUS 0.13mm <sup>2</sup>
	CHFUS 0.22mm <sup>2</sup> /CIVUS 0.22mm <sup>2</sup>
	CHFUS 0.35mm <sup>2</sup> /CIVUS 0.35mm <sup>2</sup> /AVSS 0.3mm <sup>2</sup>

## :: Materials and Finishes

### •Angle Pin Header

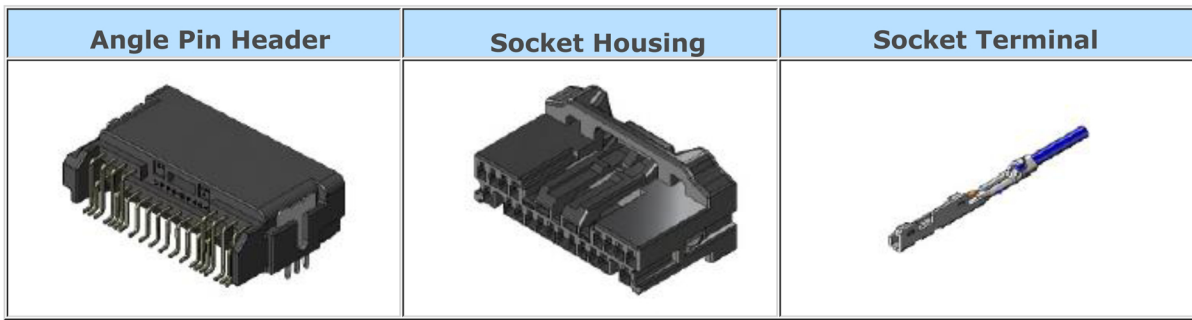
Component	Material / Finish
Pin Housing	PPS-GF40
Pin Terminal	Copper alloy / Sn plating
Leg	Brass / Sn plating

### •Socket Housing

Component	Material / Finish
Socket Housing	PBT
Retainer	PBT

### •Socket Terminal

Component	Material / Finish
Socket Terminal	Copper alloy / Sn plating



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