CONNECTOR
MB-0339-1
November 2018

MX68 Series

RoHS Compliant

JAE has developed the MX68 Series connectors for high-speed transmission between in-vehicle information and communication technology (ICT) units.
Recently, multi-function and high-performance ICT in the automotive market have been progressing rapidly. Further sophistication, leading to greater number of incorporated units, is expected to be required to support new technologies such as ADAS, autonomous driving, and connected car. These advances have also resulted in an increase in the volume of information, and therefore demands for high-speed transmission compatible connectors that are still compact, to help connect the increasing number of the installed units.
To cater to these trending requirements, JAE has developed the MX68 Series high-speed transmission connector.
The MX68 Series is compatible with 4.8Gbps class LVDS / GVIF differential transmission (depending on configuration and usage). The mounting method is through-hole reflow, and the mounting area is reduced by about 26% compared with our conventional products. As a result, we have been able to minimize the size of the product while meeting the high speed and reliability requirements for in-vehicle units.
Furthermore, we have also developed a lineup of MX68B products which are compatible with USB2.0, to meet the needs of our customers.

Applicable Market

Various types of in-vehicle ICT units, ideal for wiring between equipment requiring high-speed transmission.

Features

- Supports vehicle-mounted LVDS / GVIF(GVIF is a trademark of Sony Corporation) differential signals (MX68A)
- Supports USB 2.0 signals (MX68B)
- Impedance matching design compatible with high-speed transmission
- Supplied as complete harness to ensure transmission performance and reliability
- Compatible with STP cables

General Specifications

	MX68A	MX68B
Number of Contacts	2 positions	8 positions, hybrid type <2 positions (USB signal) + 6 positions>
	2 positions + 2 positions (2 row type)	
Operating Temperature Range	-40 ˚C ~ + 85 ˚C	-40 ˚C ~ + 85 ˚C
Insulation Resistance	100MΩ Min	100MΩ Min
Applicable Wire	STP (AWG 28 x 1P)	・USB signal STP (AWG 28 x 1P) ・0.64 terminal (CHFUS 0.5㎟)

Ordering Information

MX68A02HQ1(R150)

Series: MX68

A: LDVS/GVIF
B: USB2.0

Number of Contacts
2: 2 positions
4: 4 positions (2 pos. + 2 pos.)
8: 8 positions (2 pos. + 6 pos.)

H: Angle pin header
V: Straight pin header

1: Key type A
2: Key type B
3: Key type C
4: Key type D

Reeled Part Number

Part Number and Drawing Number

Right Angle Pin Header (LVDS/GVIF)		
Part Number	Drawing Number	Specification
MX68A02HQ1	SJ115373	JACS-11139
MX68A02HQ1R150	SJ117594	
MX68A02HQ3	SJ115375	
MX68A02HQ3R150	SJ117596	
MX68A02HQ4	SJ115376	
MX68A02HQ4R150	SJ117597	
MX68A04HQ1	SJ115381	
MX68A04HQ1R150	SJ117598	
MX68A04HQ2	SJ115382	
MX68A04HQ2R150	SJ117599	
Note) Right angle pin header is supplied in reel.		

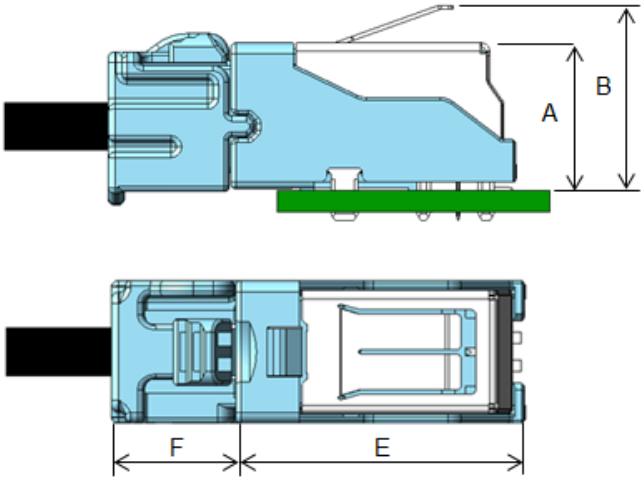
Straight Pin Header (LVDS/GVIF)		
Part Number	Drawing Number	Specification
MX68A02VQ1	SJ115377	JACS-11139
MX68A02VQ2	SJ115378	
MX68A02VQ3	SJ117123	
MX68A02VQ4	SJ117124	
Note) Straight pin header is supplied in tray.		

Right Angle Pin Header (USB2.0)		
Part Number	Drawing Number	Specification
MX68B08HQ1	SJ115384	JACS-11141
MX68B08HQ1R150	SJ117600	
Note) Right angle pin header is supplied in reel.		

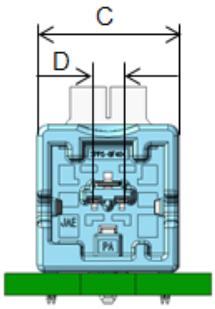
Outer Dimensions

■Right Angle Pin Header (LVDS/GVIF)

Drawing when mated with socket



Mating side of pin header

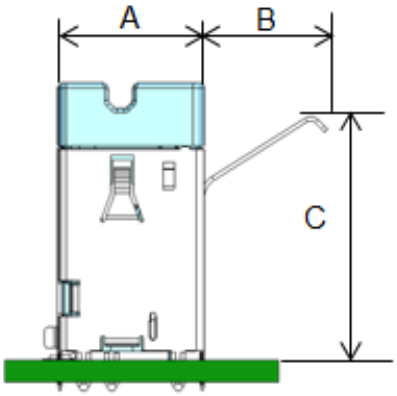


Unit: mm

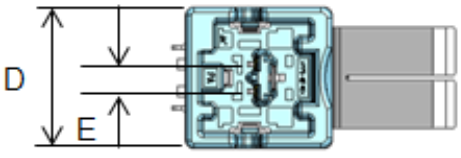
Part Number	Key Type	Color	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E	Dimension F
MX68A02HQ1	A	Light Blue	10.8	13.65	10.3	2.0	21.0	9.0
MX68A02HQ3	C	Green						
MX68A02HQ4	D	Natural						
MX68A04HQ1	A	Brown			20.0			
MX68A04HQ2	B	Gray						

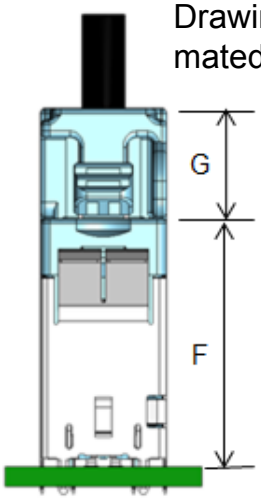
■Straight Pin Header (LVDS/GVIF)

Drawing when mated with socket



Mating side of pin header





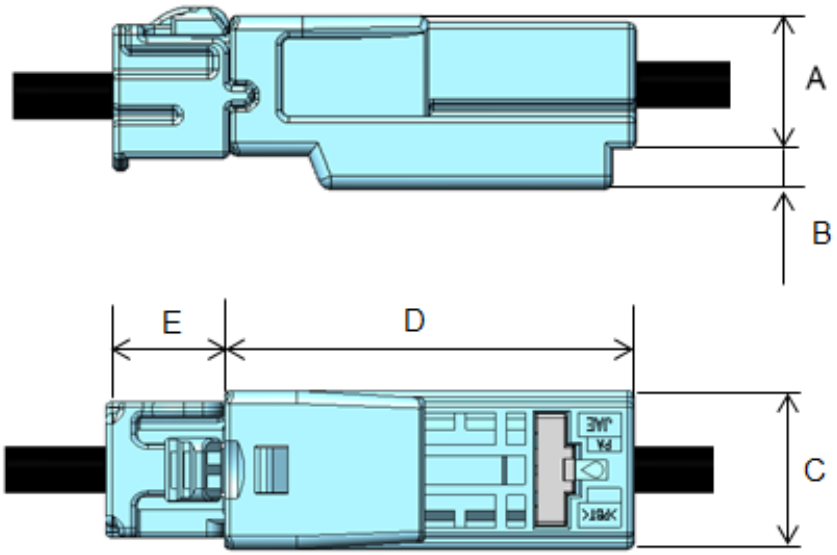
Unit: mm

Part Number	Key Type	Color	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E	Dimension F	Dimension G
MX68A02VQ1	A	Light Blue	10.7	9.0	17.75	10.3	2.0	20.25	9.0
MX68A02VQ2	B	Black							
MX68A02VQ3	C	Green							
MX68A02VQ4	D	Natural							

Outer Dimensions

■Inline Plug (LVDS/GVIF)

Drawing when mated with socket



Unit: mm

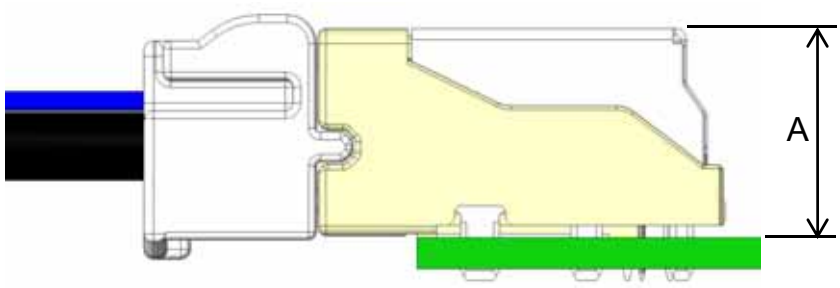
Part Number	Key Type	Color	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E
MX68A02MQ1	A	Light Blue	10.2	3.1	12.0	31.0	9.0
MX68A02MQ4	D	Natural					

Note) This product is sold only as a cable harness and is not provided as an individual connector.

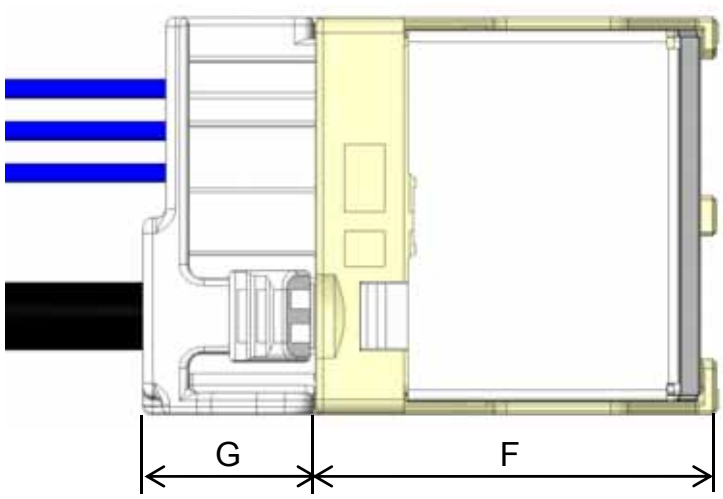
Outer Dimensions

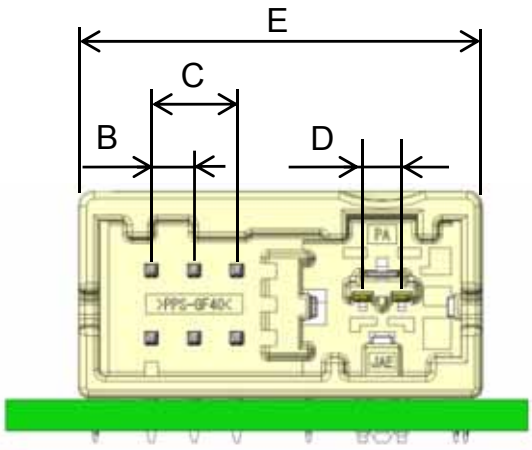
■Right angle pin header (USB2.0)

When mated with socket



Mating side of pin header





Unit: mm

Part Number	Key Type	Color	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E	Dimension F	Dimension G
MX68B08HQ1	A	Natural	10.8	2.2	4.4	2.0	20.8	21.0	9.0

Note) This product is sold only as a cable harness and is not provided as an individual connector.

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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