MM60 Series
PCI Express (PCIe) Mini Card Connector

Connector Training Module

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Application Examples

- Integrated Wireless Network Interface Controller Card (WNIC) Interface
- PC and Server internal communication transmission interface
- Internal integrated GPS card interface
- USB transmission interface
- SIM card for GSM and WCDMA applications
- Solid State Hard-Drive (SSD) applications for notebook or netbook computer
- Memory module interface for notebook or netbook computer

MM60 Series Overview

PCI Express Mini Card (also known as Mini PCI Express, Mini PCIe, and Mini PCI-E) is a replacement for the Mini PCI based on PCI Express specifications standardized by the PCI-SIG. It can be used for connection with PCI Express and modules for USB transmission. Most laptop computers built after 2005 are based on PCI Express and can have several Mini Card slots.

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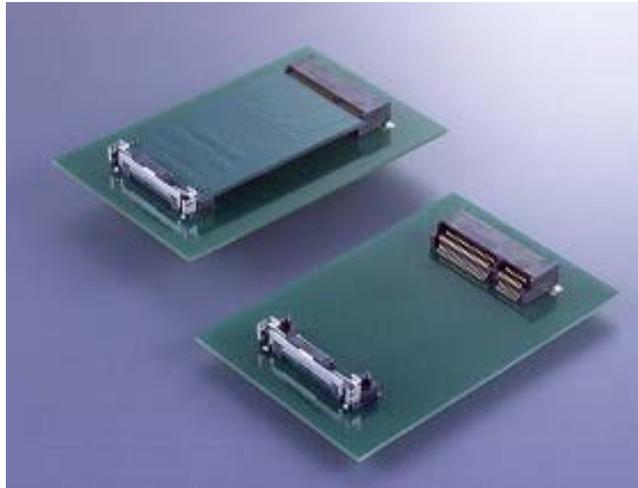
MM60 Series Features

- JAE MM60 Series is a module socket compatible with specifications standardized by PCI-SIG

- Compatible to PCI Express Mini Card Electromechanical SPEC

- Can be used for connection with PCI Express and modules for USB 2.0 transmission

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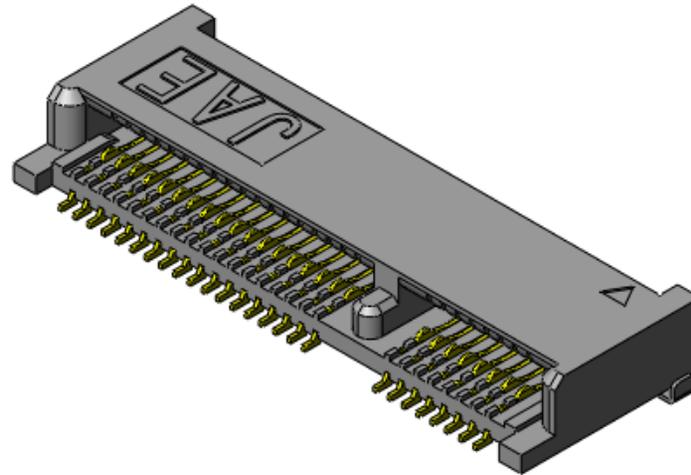
MM60 Series Features

Mounting Options


Automatic Latch
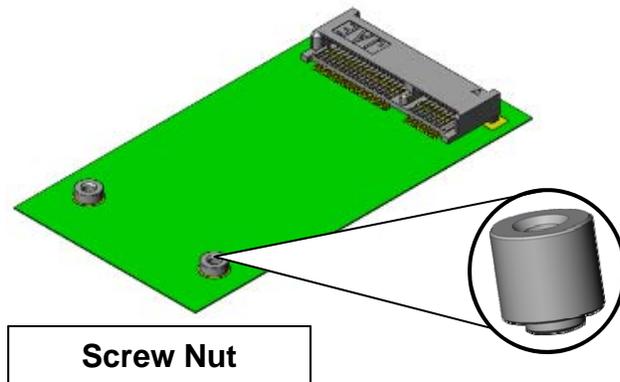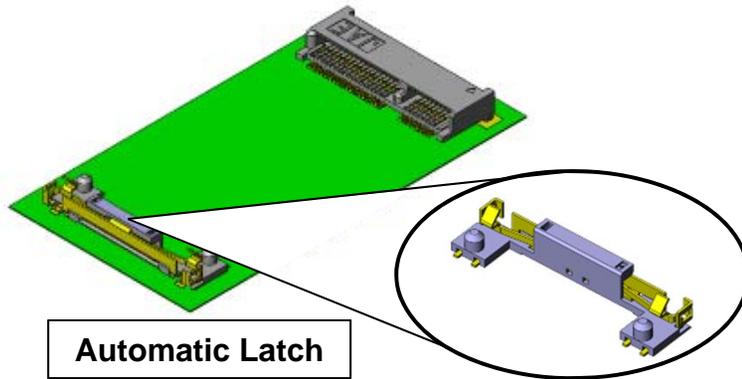
Screw Nut

- 2 SMT mounting card hold down options are available
    1. Automatic latch type
    2. screw nut type

- Automatic latch type – no tool is needed

- Screw nut type – compatible with widely available M2 threaded screw

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MM60 Series Features

MM60 Series Offerings

Connector	Stacking Height	Boss	Automatic Latch	Screw Nut
MM60-52B1-E1	5.9 ± 0.2	Yes	MM60-EZH059-B5	NT4R
MM60-52B1-G1	4.0 ± 0.2	Yes	MM60-EZH039-B5	NT1R

Automatic Latch

Screw Nut

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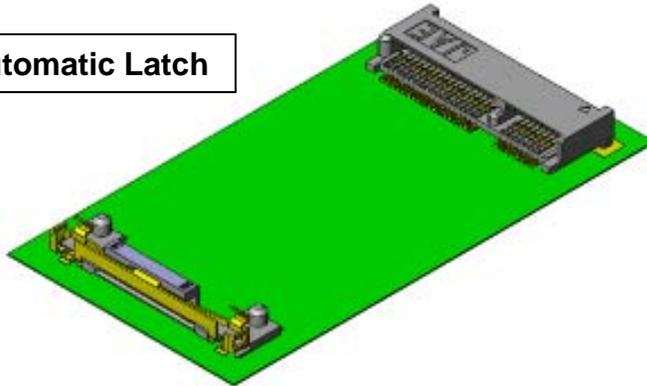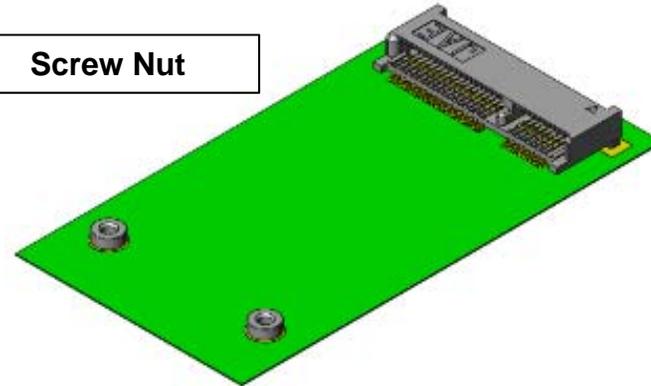
General Specifications

Number of Contacts	52 pos.
Pitch	0.8mm
Contact Resistance	55m Ω max (initial)
Dielectric Withstanding Voltage	AC 300Vr.m.s (per minute)
Operating Temperature	-40 to +80°C
Rated Current	0.5A per pin
Life Cycle	50 times
Insertion Loss	-1dB min. (1.25GHz max.) / -5dB min. (3.75GHz max.)
Return Loss	-12dBmax. (1.3GHz max.) / -7dB max. (2GHz max.) / -4dB (3.75GHz max.)
Cross Talk (near end)	-32dB max. (1.25GHz max.) / -26dB max. (3.75GHz max.)

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Basic Dimensions

Unit: mm

	Connector	Latch	Screw Nut
X (Height)	3.9, 4.0, 5.9	4.8, 6.8	2.15, 4.15
Y (Length)	29.7	29.0	4.0
Z (Depth)	Insertion side *Side view 5.0 5.0	7.9	4.0

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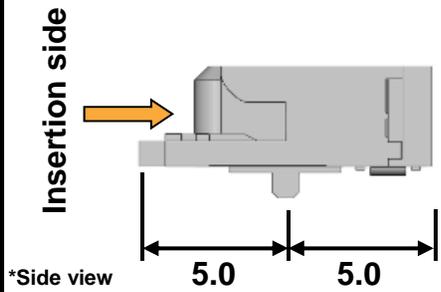
Materials and Finishes

Connector
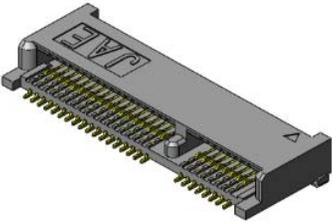
Component	Material / Finish
Contact	Copper alloy / Contact area: Au plating over Ni Terminal area: Au flash over Ni
Insulator	Heat resistant material (UL94V-0)
Hold down	Copper alloy / Sn plating

Automatic Latch
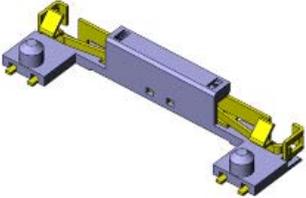
Component	Material / Finish
Contact	Stainless steel / Sn plating
Insulator	Heat resistant material (UL94V-0)

Screw Nut

Component	Material / Finish
Contact	Brass / Sn plating

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Summary

- MM60 series is a PCI Express (PCIe) mini card connector.

- Module socket compatible with specifications standardized by PCI-SIG

- Widely adopted as wireless-to-wireless communication interface

- Compatible to PCI Express Mini Card Electromechanical SPEC

- Used for Connection with PCI Express and modules for USB transmission

- Automatic latch mounting type is ideal for on field module upgrade or maintenance applications

- Screw nut mounting type is ideal for applications that deal with constant vibration

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