

HJ1 Series

Board-to-Cable LCD Interface Connector

Connector Training Module

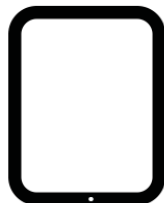
Technology to Inspire Innovation



JAE HJ1 Series Board-to-Cable LCD Interface Connector

Application Examples

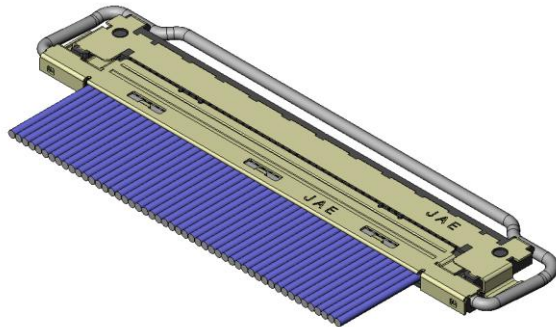
- Laptops
- Tablets
- Monitors
- Gaming devices
- POS terminals
 - TVs
- Medical Devices



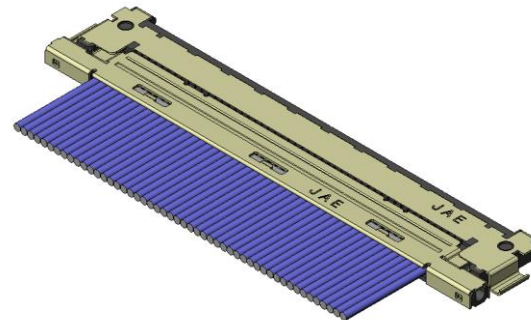
HJ1 Series Overview

The need for high-speed signal transmission such as eDP (embedded DisplayPort™) is rapidly increasing. Especially in new LCD panels, the volume of data required is increasing to support higher resolution screens with fast refresh rates.

To fulfill these demands, JAE has developed the HJ1 Series, a low profile, 0.4mm pitch, horizontal mating board-to-cable connector. It is ideal for transmission of eDP version 1.4 (5.4 Gbps) signals, a standard for LCD interfaces in next generation laptop PCs and tablets. The HJ1 features multiple ground points between the plug and receptacle, and also between the receptacle and the PCB. This improves noise suppression at high frequencies. There is an optional pull bar which can be purchased separately which assists when extracting the connector, and also acts as a latch when the connector is fully mated.



With pull-bar

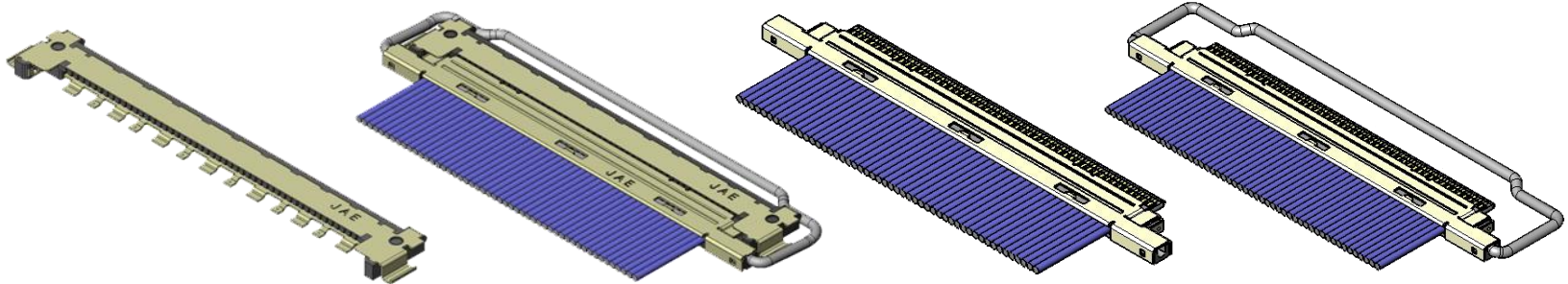


Without pull-bar

HJ1 Series Features

High Speed, Low-Profile Connector

- 0.4mm pitch, 1.0mm mated height max
- Compatible with discrete wires up to AWG#34 (1A per position max)
- Ideal for eDP v1.4 (5.4 Gbps) high-speed transmission
- Multiple ground points to improve shielding performance
- Pull bar can be used as a mechanical latch to improve retention force
- Discrete and micro coaxial hybrid cable assembly compatible
- Pb-free and Halogen-free



Receptacle

Mated plug
with pull-bar

Plug without
pull-bar

Plug with
pull-bar

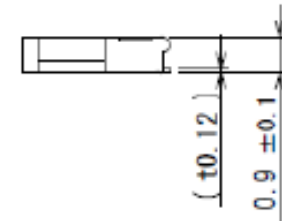
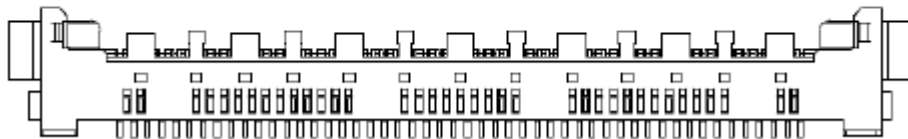
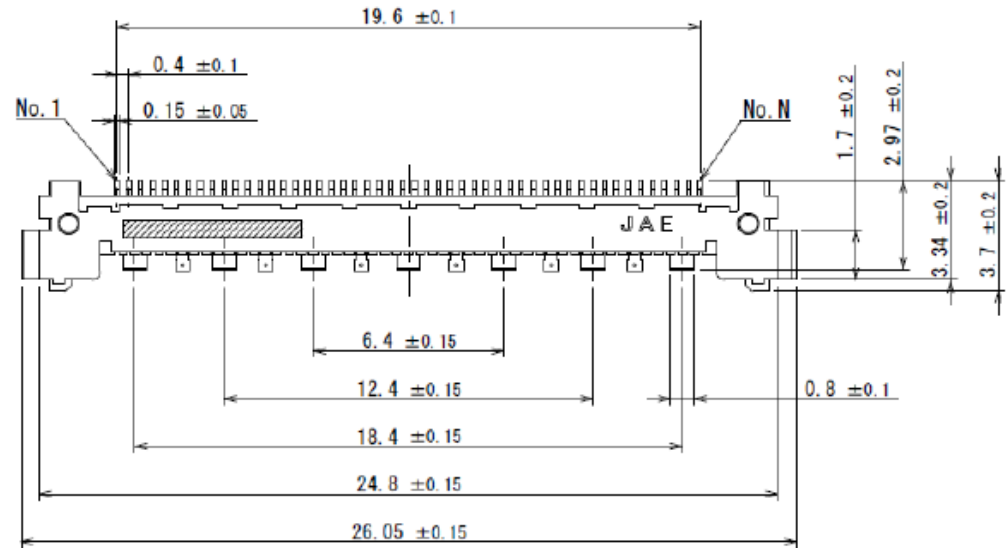
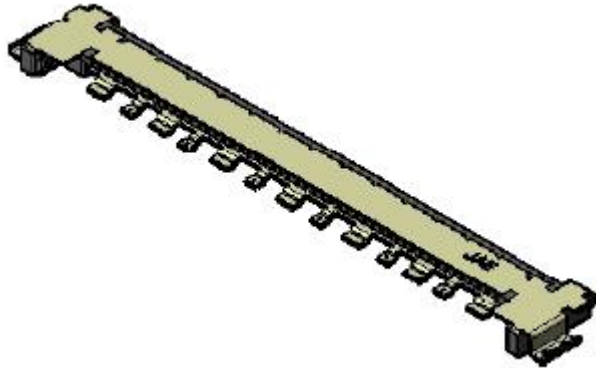
General Specifications

Number of Contacts	50
Contact Pitch	0.4mm
Mated Height	0.9mm (1mm max)
Contact resistance	70mΩ max
Insulation Resistance	1000M Ω min
Dielectric Withstanding Voltage	AC 250Vr.m.s (for 1 minute)
Operating Temperature Range	-40 to +85°C
Current Rating	0.1A AC/DC per contact (AWG#44) 0.24A AC/DC per contact (AWG#42) 0.3A AC/DC per contact (AWG#40) 0.8A AC/DC per contact (AWG#36) (Power) 1.0A AC/DC per contact (AWG#34) (Power)
Voltage Rating	100V AC/DC per contact
Applicable Cable	AWG#34 ~ AWG#36 (Discrete wire) AWG#36 ~ AWG#44 (Micro coaxial cable)

Basic Dimensions

*All units in mm

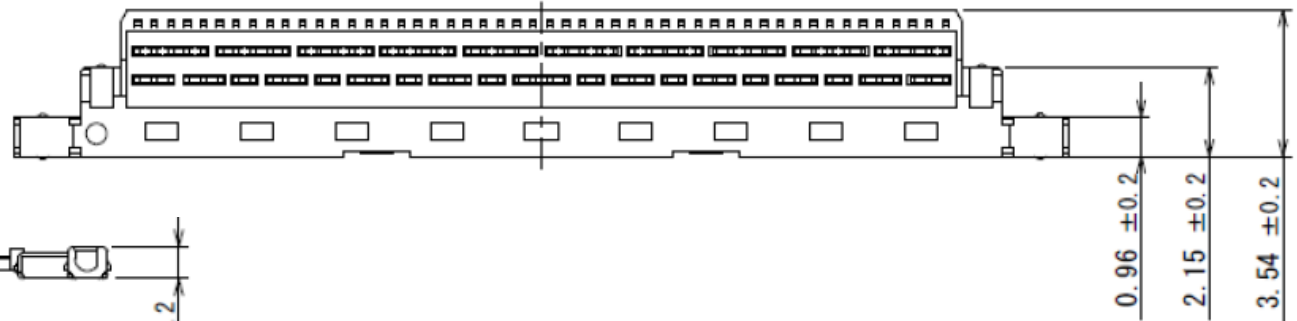
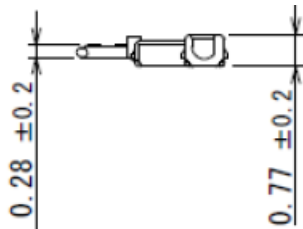
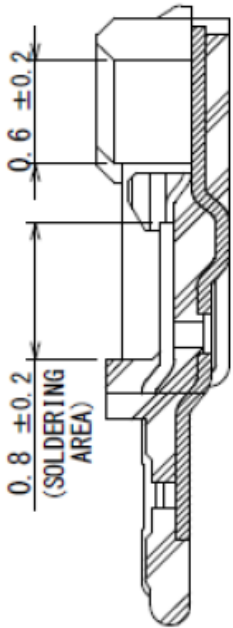
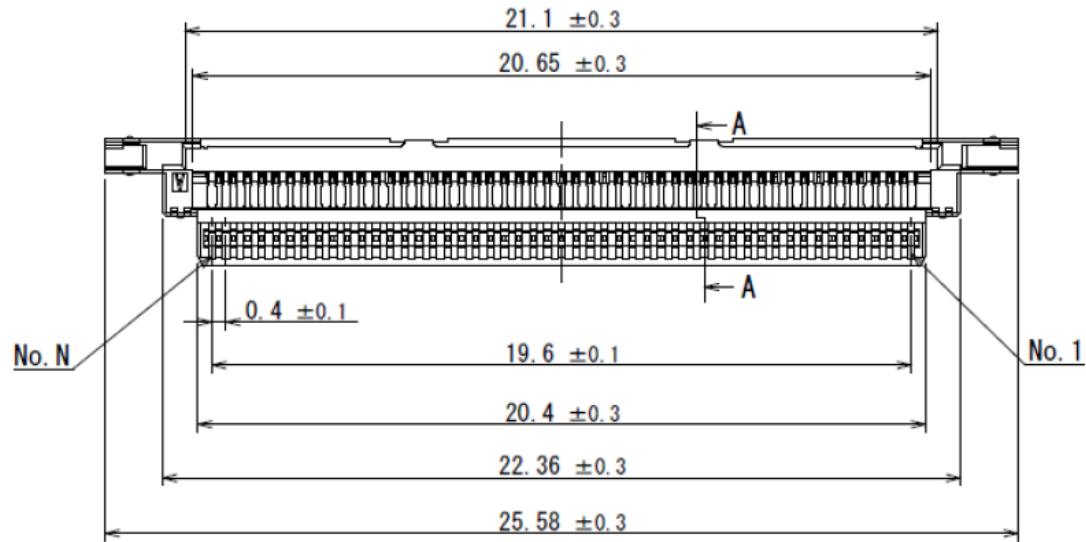
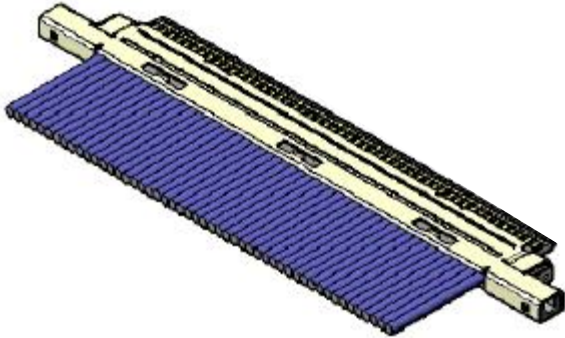
Receptacle



Basic Dimensions

*All units in mm

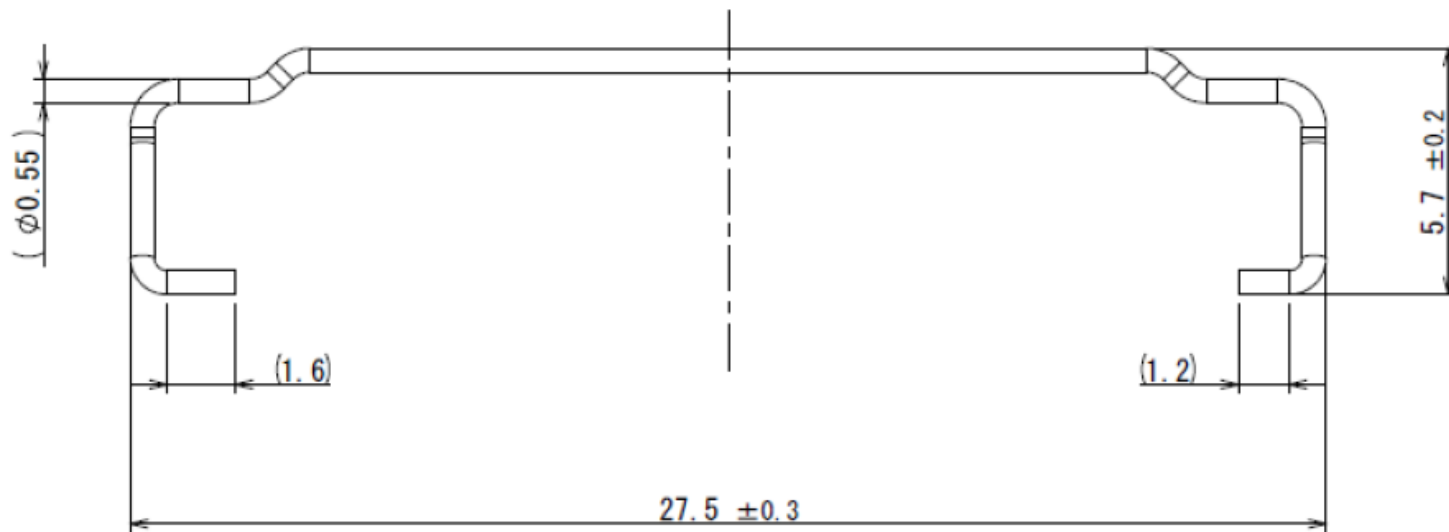
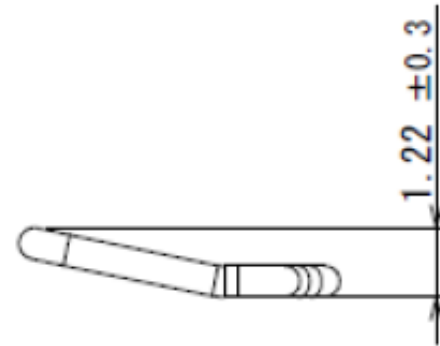
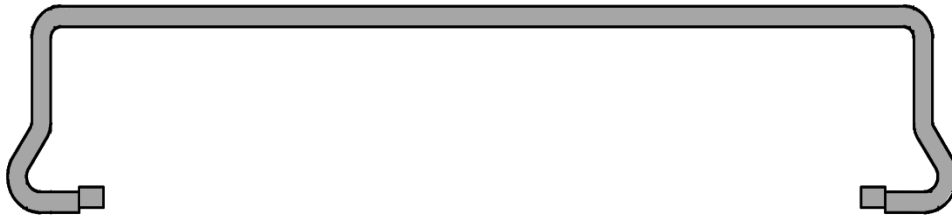
Plug



Basic Dimensions

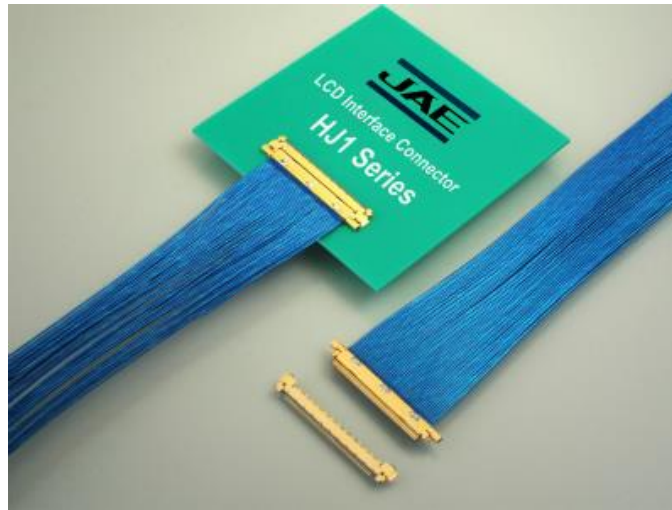
*All units in mm

Pull Bar Lock



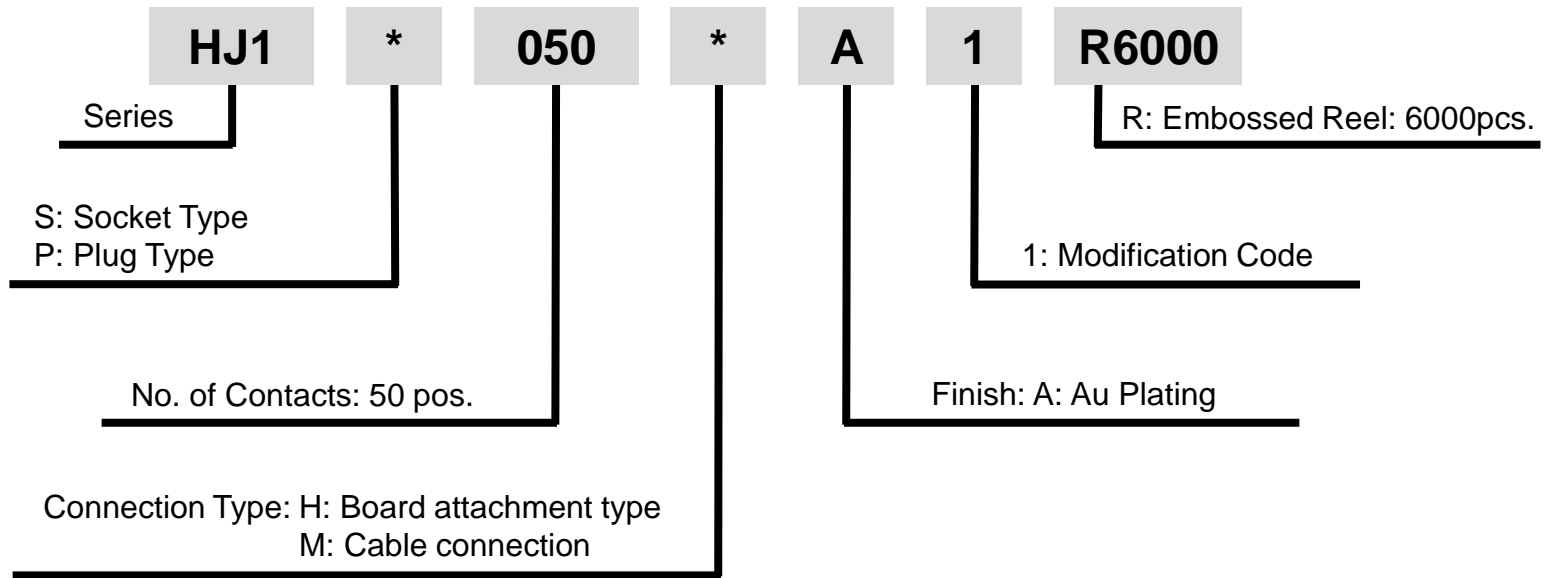
Materials and Finishes

Part Type	Component	Material/Finish
Board Side Connector (Receptacle)	Contact	Copper Alloy / Contact area: Gold plating over Nickel
	Insulator	Heat-resistant Plastic / None
	Shell	Copper Alloy / Gold plating over Nickel
Plug Side Connector	Contact	Copper Alloy / Gold plating over Nickel
	Insulator	Heat-resistant Plastic / None
	Base Shell	Copper Alloy / Gold plating over Nickel
Cover Shell for Plug	Cover Shell	Copper Alloy / Gold plating over Nickel
Pull Bar Lock	Pull Bar	Stainless Steel / None

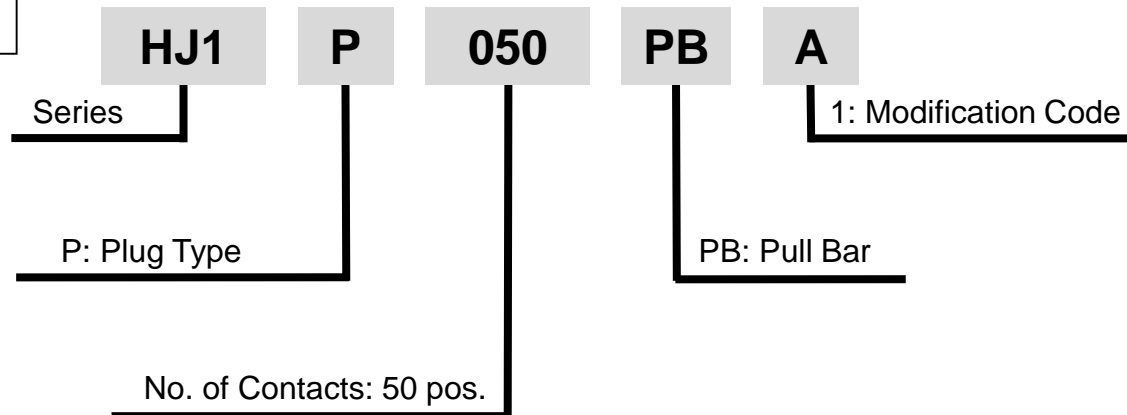


Ordering Information

Plug & Receptacle



Pull Bar Lock



Summary

- 0.4mm pitch board-to-cable LCD interface connector
- Compatible with eDP1.4 (5.4 Gbps) high-speed transmission
- High shielding with multiple ground points
- Hybrid wire connection
- Optional pull-bar
- Pb-free and Halogen-free



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