

FX23 Series, 0.5mm Pitch, Floating, Board-to-Board Connectors for High Speed Transmission

The FX23 series has been introduced to meet the requirement for floating connectors that can handle high current ratings and high speed transmission.

The connector range consists of headers and receptacles that allow a parallel or right angle board-to-board connection.

The header has a unique floating structure embedded inside the fixed base of the housing. This allows an alignment movement in XY directions of +/- 0.6mm minimum (max) to absorb mounting misalignment, vibration and dimensional errors when mated.

High speed transmission of up to 6 Gbps (max) is supported by the innovative contact design to ensure impedance matching. The ground contacts are situated between the adjacent differential pair contacts to reduce crosstalk for better performance.

The connector has a hybrid structure featuring power and signal contacts. Four built-in power contacts that can carry up to 3A (Amps) current rating each are located along the mating guides to save space. The signal contacts can carry 0.5A each.

By using a PCB thickness of 1.6mm the top and bottom sides of a PCB can be utilised to mount the FX23 series. This is due to the design of the single metal post that does not protrude out to the other side of the PCB allowing space saving. For the metal posts the pin-in-hole soldering is applicable.

Ideal applications are industrial equipment, broadcast equipment, POS terminals, medical devices, BTS, servo motors, PLC and car navigation equipment.

Key Features

- Contact sizes: 80, 100, 120 (other sizes under development)
- Current rating: 0.5A signal/ 3A power (4 x power contacts total = 12A)
- Pitch: 0.5mm
- Versions: Right angle, Parallel
- Stack height: 15, 20, 25 & 30mm (some heights under development, please check availability)
- Voltage rating: 50V
- Mating cycles: 100

For more information please contact Hirose.

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