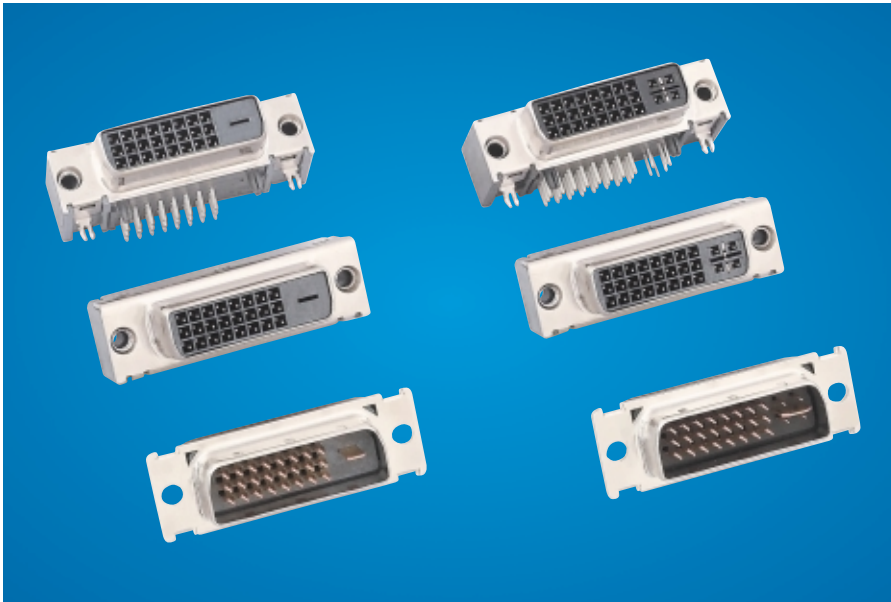


Digital Visual Interface (DVI) Connector System



Description

The new Digital Visual Interface (DVI) connector system from FCI provides high-performance digital-only and integrated digital/analog interface between a host device and display device in high-resolution video applications. The connectors are compliant with the DVI 1.0 Specification established by the Digital Display Working Group (DDWG *). The purpose of this specification is to provide the industry specification for a digital interface between a computing device and a display device.

FCI's DVI connector series supports one or two digital channels driven by Transition Minimized Differential Signaling (TMDS™). TMDS provides the technical basis for the DVI 1.0 Specification. The DVI uses Silicon Image's TMDS for the base electrical interconnection, and the TMDS link is used to send graphics data to the monitor.

The product offering includes: digital only (DVI-D) right angle receptacles, vertical receptacles, and cable plugs with 24 positions; combined digital and analog (DVI-I) right angle receptacles, vertical receptacles, and cable plugs with 29 positions; DVI-D cable plugs with 18 positions; and mounting screws for receptacles. The DVI-I connector conserves PCB real estate and allows for digital and analog support in a single connector instead of two connections.

Target Markets and Applications

Computing

- Desktop PCs, notebook computers, workstations, servers, graphics cards

PC Peripherals

- Digital and analog CRT monitors, LCD flat panel displays, projectors

Consumer Electronics

- Set-top boxes, DVDs, digital TVs, digital display devices with DVI interface

Industrial and Instrumentation

- POS terminals

* DDWG Promoters are Intel, Silicon Image, Compaq, Fujitsu, Hewlett-Packard, IBM, and NEC. TMDS is a trademark of Silicon Image, Inc.

Features and Benefits

- Fully compliant with the DDWG's DVI 1.0 Specification
- Interface provides "lossless" transmission of image data, improving image quality by means of digital signaling from the PC's graphic subsystem to the display
- 24-position, digital-only (DVI-D) right angle and vertical receptacles, and cable plugs
- 29-position, integrated digital/analog (DVI-I) right angle and vertical receptacles, and cable plugs
- 18-position DVI-D cable plug with single-link digital signaling
- 24-position DVI-D cable plug with dual-link digital signaling

Receptacle

- Single-piece shell with integral board locks
- Tail guide in right angle receptacle prevents pin bending and ensures pin alignment
- Recessed pin tips provide Electrostatic Discharge (ESD) protection
- # 4 - 40 UNC mounting screws for receptacles are available

Cable Plug

- Fully-shielded for excellent Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI) performance
- Detents provide EMI protection
- Staggered pins facilitate the soldering process
- Solder cups on pins also enable easy soldering
- Tail guide ensures pin retention
- Optional First Mate Last Break (FMLB) for hot plugging



<http://www.fciconnect.com>

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Technical Data

Materials

Receptacle

- Housing: Glass-filled thermoplastic, UL 94 V-0
- Contacts: Copper alloy
- Shell: Steel

Cable Plug

- Housing: Glass-filled thermoplastic, UL 94 V-0
- Contacts: Copper alloy
- Shell: Steel

Mechanical Performance

- Mating force: 4.5 kg max. @ 25 mm/minute

- Unmating force: 1.0 kg min. and 4.0 kg max. @25 mm/minute
- Durability: 100 mating cycles

Electrical Performance

- Insulation resistance: 1000 MΩ min.
- Dielectric withstanding voltage: 500 V DC rms ±50 V, 60 Hz
- Current rating: 1.5 A min.
- Shell resistance: 50 mΩ max. initial; 50 mΩ max. change from initial
- Contact resistance: 20 mΩ max. initial per contact mated pair; 10 mΩ max. change from initial per contact mated pair

Environmental Properties

- Operating temperature range: -20°C to +85°C

Packaging

- Trays: 50 pieces per tray; 13 trays per box

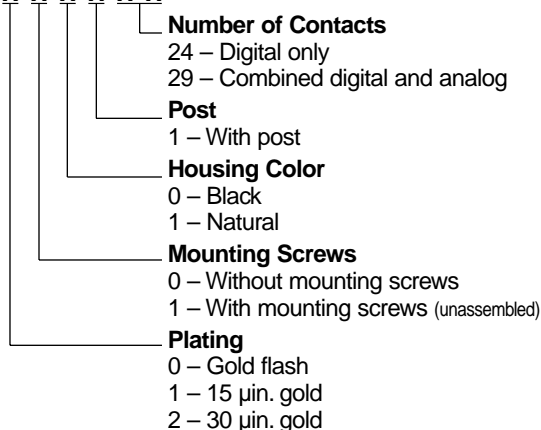
Specifications

- Product specification: GES-12-159
- Packaging specification: GES-14-530

Ordering Information

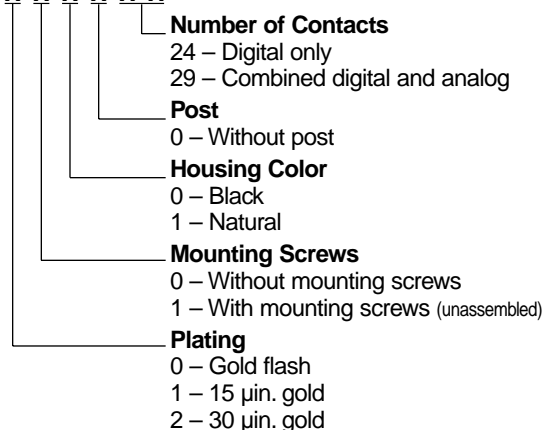
Right Angle Receptacle

5 2 5 2 0 - X X X X X X



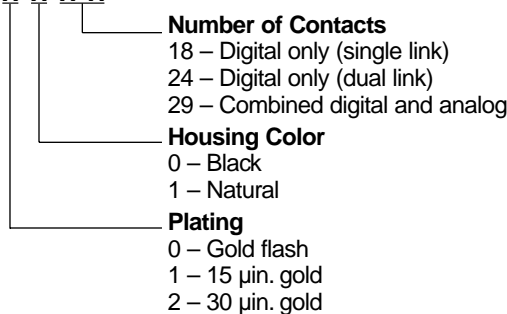
Vertical Receptacle

5 2 5 2 7 - X X X X X X



Cable Plug

5 2 5 6 9 - X X X X



Mounting Screws for Receptacles

Part Number 52554-001 # 4 - 40 UNC Mounting Screws

