

Datasheet for 76650-0143

General Information

Kit Part Number:	76650-0143
Connector Type:	I/O
Solution:	I/O Connectors
Molex Family:	DisplayPort, USB, Multi A/V
Certificates:	N/A
Country of Origin:	Kit assembled in U.S.A

Specifications

Current Rating:	0.5, 1, 1.5, 1.8, 3A
Mounting Style:	PCB Through Hole, SMT (Surface Mount Technology)
Orientation:	Cables, Plugs, Right Angle Receptacles, Upright, Vertical Receptacles
Pitch:	.065mm (.0256"), 0.50mm (.020"), 1.00mm (.254")
Speed:	2.5 GHz, 4.95 Gbps, 480 Mbps, 5 Gbps, 9.9 Gbps
Voltage Rating:	100V, 150V, 30V, 40V, 750V

Product Highlights

The MicroCross™ DVI (Digital Visual Interface) connector family is based on an innovative use of "crossing" ground blades to provide high-speed electrical performance and a high-bandwidth in a low-cost connector. Molex®'s HDMI (High Definition Multimedia Interface) connectors and cable assemblies provide an uncompressed digital link between consumer electronics equipment and audio/video monitors. HDMI is a small, user-friendly interconnect that can carry up to 5 Gbps of combined video and audio in a single cable. This system eliminates the cost, complexity and confusion of multiple cables used to connect current A/V systems. High Definition Multimedia Interface and HDMI are trademarks of HDMI Licensing, LLC. The DisplayPort* is designed for internal and external system solution for high bandwidth audio and video data transfer in the notebook and PC market. It reduces cost (by having high definition digital audio-video and graphics stream via the interface through the same cable) and provides ease of use (through the plug-and play feature), making it user-friendly for consumers. It also provides performance scalability for future developments of high quality displays, high color depths and high refresh rates display. * DisplayPort is a Trademark of VESA The USB (Universal Serial Bus) connector has been one of the most popular I/O connectors for the PC industry due to its low cost and hot plugging feature. It was developed to integrate a variety of existing PC I/O ports into a single interface with hot-plugging, automatic configuration capabilities and increased bandwidth to enhance serial I/O throughput. Molex®'s mini-B™ USB OTG (On-The-Go) connectors and cables help enable mobile devices to exchange data directly without the need for a host PC. All Molex® USB OTG connectors are compatible with the On-The-Go supplement (Rev. 1.0) to the USB 2.0 specification, and operate at speeds up to 480Mbps. The new Micro-USB connector technology has given the opportunity for portable device and mobile phone makers to further reduce their real estate in their applications. The Molex® Micro-USB supports the current USB OTG supplement. This allows communication between portable devices without going through a host.

Features and Benefits

- Supports both analog and digital signals
- Plug and play interface (without shutting down or reconfiguring)
- Excellent EMI/RFI (Fully Shielded)
- LFHT™ contact design is rugged and reliable, provides two points of contact for optimal signal integrity
- Protruding shield, first make - last break for ESD considerations
- Single and dual link digital signaling allows high speed digital transmission (4.95 Gbps and 9.9 Gbps)
- Analog coaxial lines allow high speed transmission (2.5 GHz)
- Carries uncompressed audio / video in a single cable (5 Gbps)
- HDMI to DVI cables are DVI backward compatible

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- Fully shielded ESD protection
- Triad signal layout, low impedance mismatch
- Detent locks, strong mating between plug and receptacle
- Metal shielding on all sides against EMI
- Small footprint, less PCB real estate
- Latches, for long cable latching
- Solder tab, secure PCB retention

Applications

- Desktop computers
- Multimedia equipment
- Flat panel displays
- Digital TVs/Plasma Displays/LCDs
- Audio/Video Receivers
- Set-Top Boxes
- DVD Players/Recorders/D-VHS Players
- High Definition Monitors
- PC (Personal Computer)
- External display interconnect
- Projector
- TV display
- DVD player

Bill of Materials

Molex Part No.	Description	Quantity
74320-9010	DVI-I Receptacle Header, Right Angle Panel Mount	1
74320-5000	DVI-D Receptacle Header, Vertical Panel Mount, 0.72Åµm (30Åµm) Gold	1
74320-1000	DVI-I Receptacle Header, Right Angle	1
74320-4000	DVI-D Receptacle Header, Right Angle Panel Mount	1
74320-3000	DVI-I Receptacle Header, Vertical Panel Mount	1
47151-0002	1.00mm (.039") Pitch HDMI* Receptacle, Rt Angle with Screw Flange, without Back Cover	1
47151-1002	1.00mm (.039") Pitch HDMI* Receptacle, Rt Angle with Screw Flange, with Back Cover	1
47151-1005	1.00mm (.039") Pitch HDMI* Receptacle, Right Angle, Gold	1
47272-0001	0.50mm (.020") Pitch DisplayPort* Male Receptacle, Right Angle, SMT	1
67068-8000	USB Type B Receptacle, Right Angle, Black	1
67068-9000	USB Type B Receptacle, Right Angle, White	1
48037-1000	USB Plug, Type A, Right Angle, Surface Mount, 0.72Åµm (30Åµm) Gold Plating,	1
88728-3200	USB-A Plug to Pigtail White Cable Full-Rated 810mm	1
48037-0001	USB Plug, Type A, Right Angle, Through Hole	1
89485-8000	USB Type A Receptacle, Single Upright, Right Angle	1
54819-0519	USB (OTG) mini-B Receptacle, Right Angle, Through Hole	1
47491-0001	0.65mm (.0256") Pitch Micro-USB B Receptacle, Mid-Mount, SMT, Lead Free	1
47346-0001	0.65mm (.0256") Pitch Micro-USB B Receptacle, Bottom Mount, SMT, Lead Free	1
53462-0629	IEEE 1394-1995 Receptacle, Right Angle, SMT	1
67503-1020	USB On-The-Go (OTG) mini-B Receptacle, Right Angle, SMT	1
500075-1517	USB On-The-Go (OTG) mini-B Receptacle, Vertical, Through Hole	1
68784-0001	USB Shielded I/O Cable Assembly: USB A to Micro-USB B, 1.0m (3.28')	1
88768-3500	HDMI* to DVI-Digital Cable Assembly, 28 AWG, 1.00m (3.30')	1
88732-9000	USB Shielded I/O Cable Assembly: A-to-B Full-Rated, 0.82m (2.69')	1
88732-8600	USB (OTG) Shielded I/O Cable, USB-A To mini-B, USB 2.0, 1.0m (3.28'), White	1

Recommended Molex Tool

Molex Part No.	Description
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