



Molex leads the industry as the first manufacturer of the HDMI Micro Type D connector, the world's smallest standard I/O interconnect to deliver high-definition video and images from digital cameras and mobile devices to flat-panel screens

Molex's HDMI Type D Micro connector is the hand-held industry's smallest, commoditized I/O solution for consumer electronics and portable hand-held device makers worldwide. Developed by the HDMI Consortium, the new HDMI connector standard was designed to meet growing demands of high-definition (HD) and high-resolution content of the digital still camera, mobile and smart phone markets. Based on a single digital connection, the new technology supports transfer and viewing of HD videos, very high-resolution photos, and downloaded HD content from these handheld devices onto large HD displays. The current Type C (Mini) HDMI connector is too large to support the newer and more compact designs of such handheld devices.

Molex was chosen to lead in the HDMI Type D connector development and proposal of the connector design and specification, making it the first connector manufacturer to offer a complete solution to early adopters of this new technology.

The Molex HDMI Type D Micro connector meets all mechanical and electrical requirements of the HDMI 1.4 Specification and is only half the size of the current Type C (Mini) connector. It offers significant space-saving and real estate advantages and is the industry's only I/O solution that allows customers to surpass HD consumer demand. Despite its smaller size, the new Type D connector delivers equivalent mechanical strength and electrical characteristics of its larger Type C predecessor.

Molex's HDMI Type D I/O interconnect family of products include SMT receptacles of three different mount designs, Category 2 HDMI Type D-to-Type A cable assemblies with a variety of cable lengths and wire gauge options, and a HDMI Type D Plug-to-Type A Receptacle adapter cable. For more information, visit our website at www.molex.com.

0.40mm (.016") Pitch HDMI* Type D Micro Connectors

46765 SMT Right Angle Receptacles

68786 Type D-to-Type A Cable Assemblies and Cable Adapter



FEATURES

BENEFITS

■ Satisfy HDMI 1.4 Specification mechanical and electrical requirements	■ Customers enjoy all features and benefits of the HDMI 1.4 Specification
■ 0.40mm (.016") pitch dual-row receptacle	■ Half the size of the current Type C (Mini) HDMI receptacle
■ 5,000 mating cycles for receptacles	■ Meets durability requirements for mobile applications
■ Full SMT, through hole and hybrid shell options available	■ Offers multiple PCB mounting configurations and flexibility to suit customer applications and design requirements
■ Friction lock on receptacle shell	■ Offers excellent retention force and tactile feel when mating
■ Rear receptacle-shell-over-housing design	■ Prevents damage to PCB receptacle from over-insertion of the cable plug
■ Receptacle terminal hold-down feature	■ Prevents terminal stubbing

SPECIFICATIONS (Receptacles)

Reference Information

Packaging: Embossed Tape on Reel
Mates With: Series 68786 HDMI Type D-to-Type A Cable Assemblies and Adapter Cable
Designed In: mm

Electrical

Voltage (max.): 30V
Current (max.): 0.8A at 25°C
Contact Resistance (max.): 10 milliohms
Dielectric Withstanding Voltage: 250V AC (rms)
Insulation Resistance: 100 Megaohms min.

Mechanical

Mating Force (max.): 44.1N
Unmating Force (min.): 5N initial
Durability: 5,000 cycles

Physical

Housing: LCP, 30% Glass-filled
Contact: Brass Alloy
Plating:
 Contact Area — 0.76mm (30m") Gold
 Solder Tail Area — 0.05mm (2m") Gold Flash Underplating — 2.00mm (80m") Nickel
Operating Temperature: -30 to +85°C

SPECIFICATIONS (Cable Assemblies)

Reference Information

Mates With: Series 46765 HDMI Type D Micro Connectors and Molex HDMI Type A Connectors

Electrical

Cable Impedance : 100 ohms \pm 15%
Propagation Delay (max.): 2.42ns per cable

Mechanical

Cable Flex: 100 cycles in each of two planes
Wrenching Strength: 0-20N (Plug or Receptacle)
(Mated Connectors) 20-40N (Receptacle)
Cable Pull-out Force (min.): 40N

Physical

Operating Temperature: 0 to +50°C

*High Definition Multimedia Interface and HDMI are trademarks of HDMI Licensing, LLC.

MARKETS AND APPLICATIONS

Regional Markets, Applications

- Mobile phones
- Smart phones
- Compact handheld devices that can record, store and play digital video
- Car Navigation
- Adaptors and Peripherals
- Ethernet Channel



0.40mm (.016") Pitch HDMI Type D Micro Connectors



46765 SMT Right Angle Receptacles

68786 Type D-to-Type A Cable Assemblies and Adapter Cable

Users can now view high resolution photos and downloaded high definition content on large high definition displays

ORDERING INFORMATION

Connectors

Order No.	Mounting Configurations	Description
46765-0001	SMT	0.40mm (.016") Pitch HDMI* Type D Micro Connector, Right Angle Receptacle, SMT, with Kapton Tape, 19 Circuits, Lead free
46765-1001	SMT with through hole shell tabs	0.40mm (.016") Pitch HDMI* Type D Micro Connector, Right Angle Receptacle, SMT, with Through Hole Shell Tabs and Kapton Tape, 19 Circuits, Lead free
46765-2001	Hybrid SMT (with both vertical and horizontal shell tabs)	0.40mm (.016") Pitch HDMI* Type D Micro Connector, Right Angle Receptacle, SMT, Hybrid Type Mount, with Kapton Tape, 19 Circuits, Lead free

Cable Assemblies

Order No.	AWG	Cable Length (mm)	Description
68786-0001	34	1000	HDMI Type D-to-Type A Cable Assembly, CAT 2, AWG 34, 1.0m (3.28'), Lead free
68786-0002	34	1500	HDMI Type D-to-Type A Cable Assembly, CAT 2, AWG 34, 1.5m (4.92'), Lead free
68786-0003	32	2000	HDMI Type D-to-Type A Cable Assembly, CAT 2, AWG 32, 2.0m (6.56'), Lead free
68786-0004	34	100	HDMI Type D-to-Type A Cable Assembly, CAT 2, AWG 34, 0.1m (3.94"), Lead free
68786-0005	34	200	HDMI Type D-to-Type A Cable Assembly, CAT 2, AWG 34, 0.2m (7.87"), Lead free
68786-0006	36	1500	HDMI Type D-to-Type A Cable Assembly, CAT 2, AWG 36, 1.5m (4.92'), Lead free
68786-0007	32	200	HDMI Type D Plug-to-HDMI Type A Receptacle Cable Adapter, CAT 2, AWG 32, 0.2m (7.87"), Lead free

Remarks: For custom requirements of Micro HDMI cable assemblies, please contact a Molex sales person

: Molex HDMI cable assemblies with HEAC (HDMI Ethernet and Audio Return Channel) are available if required. Speak to a Molex sales person for any applications requiring this.

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one company, a world of innovation