



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

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.

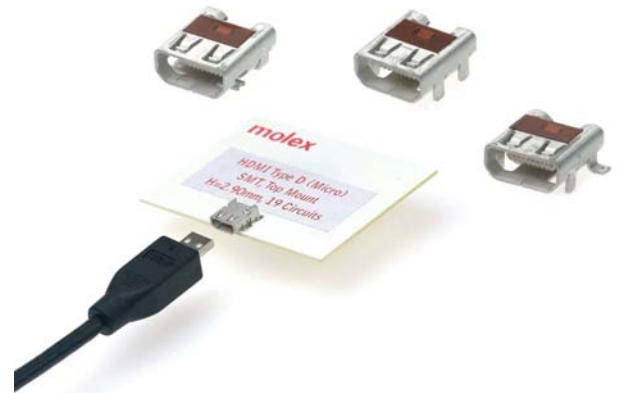
Molex's HDMI Type D I/O interconnect family of products include SMT receptacles of three different mount designs, Category 2 HDMI Type D-to-Type A cable assemblies with a variety of cable lengths and wire gauge options, and a HDMI Type D Plug-to-Type A Receptacle adapter cable. For more information,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

46765

SMT Right Angle Receptacles

68786

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



| FEATURES | BENEFITS |
|---|---|
| <ul style="list-style-type: none"> Satisfy HDMI 1.4 Specification mechanical and electrical requirements | <ul style="list-style-type: none"> Customers enjoy all features and benefits of the HDMI 1.4 Specification |
| <ul style="list-style-type: none"> 0.40mm (.016") pitch dual-row receptacle | <ul style="list-style-type: none"> Half the size of the current Type C (Mini) HDMI receptacle |
| <ul style="list-style-type: none"> 5,000 mating cycles for receptacles | <ul style="list-style-type: none"> Meets durability requirements for mobile applications |
| <ul style="list-style-type: none"> Full SMT, through hole and hybrid shell options available | <ul style="list-style-type: none"> Offers multiple PCB mounting configurations and flexibility to suit customer applications and design requirements |
| <ul style="list-style-type: none"> Friction lock on receptacle shell | <ul style="list-style-type: none"> Offers excellent retention force and tactile feel when mating |
| <ul style="list-style-type: none"> Rear receptacle-shell-over-housing design | <ul style="list-style-type: none"> Prevents damage to PCB receptacle from over-insertion of the cable plug |
| <ul style="list-style-type: none"> Receptacle terminal hold-down feature | <ul style="list-style-type: none"> 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: | |
| Unmated: 250V AC (rms) | |
| Mated: 150V AC (rms) | |
| Insulation Resistance: | |
| Unmated: 100 Megaohms min. | |
| Mated: 10 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 — 0.76µm (30µ") Gold | |
| Solder Tail Area — 0.05µm (2µ") Gold Flash | |
| Underplating — 2.00µm (80µ") 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 ± 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.

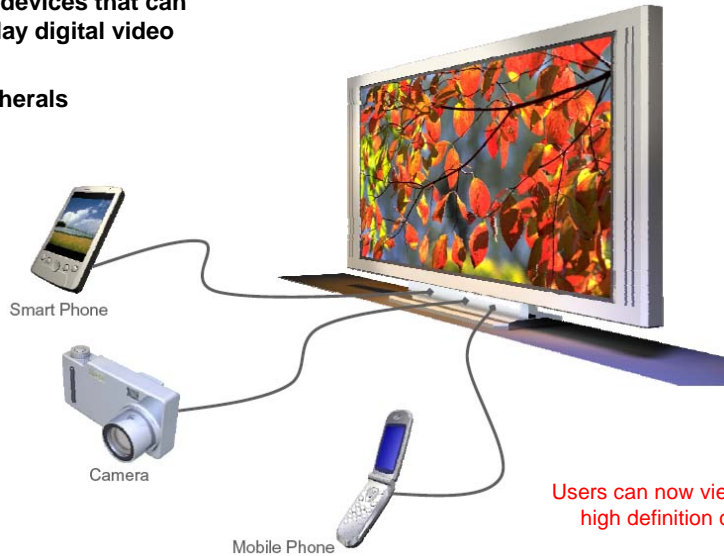
MARKETS AND APPLICATIONS



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

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



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.

