



External PCI Express (PCIe)

x1, x4, x8, x16

I/O Products





### *Molex interconnects extend PCI Express outside the box*

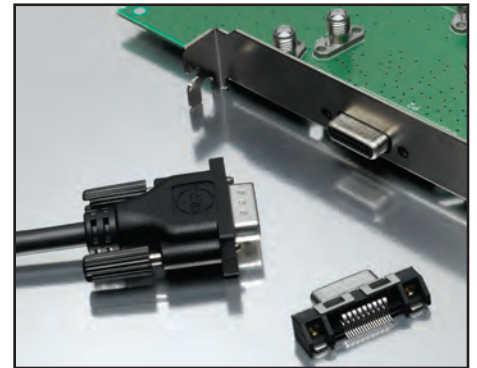
External PCI Express is a new, multi-purpose, hot-pluggable input/output (I/O) interface that can be used across the computing industry, from mobile equipment through high-end servers as well as communication equipment. These connectors were designed to fit all popular mechanical architectures without special or custom versions.

Molex technology provides future scalability and flexibility by supporting Generation 1 PCIe data rates at 2.5Gbps through Generation 2 data rates of 5.0 Gbps.

The broad usage and versatility of this technology allows for cabled-system extensions to external I/O subsystems, meeting the needs for specific applications which include:

- Split systems or disaggregate PCs, desktop consoles that contain removable media drives, memory modules, I/O ports and audio jacks
- I/O expansion to extend the I/O card capabilities of the main system for support of different form factors, including legacy systems for test and measurement and for instrumentation
- Server expansion I/O to support conventional PCI Express add-in cards and express modules
- Graphic subsystems (controller and memory) located external to the main system

PCIe connectors and cables from Molex are available in multiple configurations including a high durability x1 configuration (rated for 1500 mating cycles) and x4, x8 and x16 configurations (rated for 250 mating cycles). In addition, test boards are available to meet customer evaluation and development requirements.



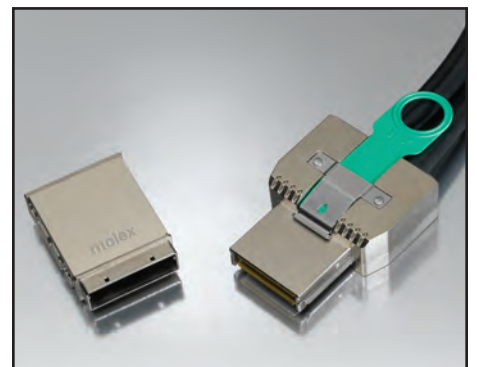
**x1 18-Circuit TDP™**



**x4 38-Circuit iPass™**



**x8 68-Circuit iPass™**



**x16 136-Circuit iPass™**

### **PCIe Protocol**

	Generation 1	Generation 2
Bandwidth (Gbps)	2.5	5.0

For more detailed product information visit the following Molex sites:

- <http://www.molex.com/product/iPass.html>
- <http://www.molex.com/product/pciexpress.html>

For more information on the specification:

- <http://www.pcisig.com/specifications/pciexpress>





## 0.64mm (.025") Pitch PCIe x1

### x1 Receptacle (Series 74150)

#### Reference Information

Packaging: Tape and reel  
UL File No.: Pending  
CSA File No.: Pending  
Mates With: Series 74155 Plug  
Designed In: Millimeters

#### Electrical

Voltage: 40V  
Current: 1.5A per contact  
Contact Resistance: 20 milliohm max. (20 milliohms max. at initial, and only 10 milliohm max. change from initial)  
Dielectric Withstanding Voltage: 500V  
Insulation Resistance: 100 Megohms min.  
Impedance: 100 +/-10 Ohms differential

#### Mechanical

Contact Insertion Force: 0.60N (0.13 lbf) per circuit  
Insertion Force to PCB: 44.50N (10.00 lbf) total  
Mating Force: 11.17N (2.51 lbf) per circuit  
Unmating Force: 6.7N (1.5 lbf) per circuit  
Durability: Meets the PCIe durability requirements for 1,500 cycles

#### Physical

Housing: Black LCP UL 94V-0  
Contact: Copper (Cu) Alloy  
Plating:  
Contact Area — 15µ" (0.38µm) Gold (Au)  
Solder Tail Area — Matte Tin (Sn)  
Underplating — Nickel (Ni)  
RoHS Compliant: Yes  
Operating Temperature: -20 to +85°C

### x1 Plug (Series 74155)

#### Reference Information

Packaging: Tube  
UL File No.: Pending  
CSA File No.: Pending  
Mates With: Series 74150 Receptacle  
Designed In: Millimeters

#### Electrical

Voltage: 40V  
Current: 1.5A per contact  
Contact Resistance: 20 milliohms max. (20 milliohms max. at initial, and only 10 milliohm max. change from initial)  
Dielectric Withstanding Voltage: 500V  
Insulation Resistance: 100 Megohms min.  
Impedance: 100 +/-10 Ohms differential

#### Mechanical

Contact Insertion Force: 0.60N (0.13 lbf) per circuit  
Insertion Force to PCB: 44.50N (10.00 lbf) total  
Mating Force: 11.17N (2.51 lbf) per circuit  
Unmating Force: 6.7N (1.5 lbf) per circuit  
Durability: Meets the PCIe durability requirements for 1,500 cycles

#### Physical

Housing: Black LCP UL 94V-0  
Contact: Phosphor Bronze Alloy  
Plating:  
Contact Area — 15µ" (0.38µm) Gold (Au)  
Solder Tail Area — Matte Tin (Sn)  
Underplating — Nickel (Ni)  
RoHS Compliant: Yes  
Operating Temperature: -20 to +85°C

### x1 Cables (Series 74576)

#### Reference Information

Mates With: Series 74150 Receptacle, use with series 74155 Plug  
Designed In: Millimeters

#### Electrical

Voltage: 40V  
Current: 1.5A per contact  
Impedance: 100 +/-10 Ohms differential

#### Mechanical

Durability: Meets the PCIe durability requirements for 1,500 cycles  
Bend radius: 24AWG = 29.25mm (1.151")  
28AWG = 26.10mm (1.028")  
Bend cycle: 100 cycles

#### Physical

Standard Overmold Cable Color: Black  
RoHS Compliant: Yes  
Operating Temperature: -40 to +85°C

## 0.80mm (.031") Pitch PCIe x4, x8

### x4 and x8 Receptacle (Series 75586)

#### Reference Information

Packaging: Tape and Reel  
UL File No.: Pending  
CSA File No.: Pending  
Mates With: Series 74546 Cable Assembly  
Use With: Series 74540 Guide Frame  
Designed In: Millimeters

#### Electrical

Voltage: 30V  
Current: 0.5A max.  
Contact Resistance: 30 milliohms  
Dielectric Withstanding Voltage: 500V AC  
Insulation Resistance: 1000 Megohms min.

#### Mechanical

Contact Retention to Housing: 4.45N (1 lbf)  
Mating Force: 1.25N (0.28 lbf) per circuit  
Unmating Force: 0.25N (0.06 lbf) per circuit  
Durability: 250 cycles

#### Physical

Housing: High-Temperature Thermoplastic  
Glass Filled, UL 94V-0, Black  
Contact: Copper (Cu) Alloy  
Plating:  
Contact Area — 15µ" (0.38µm) or 30µ" (0.76µm) Gold (Au)  
Solder Tail Area — Tin (Sn)  
Under Plating — Nickel (Ni)  
RoHS Compliant: Yes  
Operating Temperature: -40 to +85°C

### x4 and x8 Guide Frame (Series 74540)

#### Reference Information

Packaging: Tray  
Mates With: Series 74546 Cable Assembly  
Designed In: Millimeters

#### Mechanical

Retention to PCB: Threaded Screw (M2)

#### Physical

Housing: Zinc (Zn) diecast  
Plating: Nickel (Ni) over Tin (Sn)  
RoHS compliant: Yes  
Operating Temperature: -20 to +85°C

### x4 and x8 Cable Assembly (Series 74546)

#### Reference Information

Packaging: Box  
UL File No.: Pending  
CSA File No.: Pending  
Mates With: Series 75586  
Use With: Series 74540  
Designed In: Millimeters

#### Electrical

Voltage: 30V  
Current: 1.0A  
Contact Resistance: 30 milliohms  
Dielectric Withstanding Voltage: 240V  
Insulation Resistance: 40 Megohms

#### Mechanical

Latch to Cage Retention Force: 88.96N (20 lbf) min.  
x4 Mating Force: 40N (9 lbf) max.  
x4 Unmating Force: 21N (4.72 lbf) max.  
x8 Mating Force: 62.2 (13.98 lbf) max.  
x8 Unmating Force: 34.3N (7.71 lbf) max.  
Durability: 250 cycles

#### Physical:

Cable Housing: Zinc (Zn) die cast  
PCB Contact: Gold (Au) over Nickel (Ni)  
Housing Plating: Nickel (Ni) over Zinc (Zn)  
RoHS Compliant: Yes  
Operating Temperature: -40 to +85°C

## 0.80mm (.031") Pitch PCIe x16

### x16 Integrated Stacked Connector and Cable Assembly (Series 75581)

#### Reference Information

Packaging: Trays  
UL File No.: Pending  
CSA File No.: Pending  
Mates With: Series 74546 Cable Assembly  
Designed In: Millimeters

#### Electrical

Voltage: 30V  
Current: 0.5A  
Remove Contact Resistance  
Dielectric Withstanding Voltage: 500V AC  
Insulation Resistance: 1000 Megohms min.

#### Mechanical

Mating Force: 1.17N per circuit  
Unmating Force: 0.78 N per circuit  
Durability: 250 cycles

#### Physical

Housing: LCP  
Contact: Copper (Cu) Alloy  
Plating:  
Contact Area — 15µ" (0.38µm) or 30µ" (0.76µm) Gold (Au)  
Solder Tail Area — 100µ" (0.25µm) Tin (Sn) min.  
Under plating — 50µ" (0.13µm) Nickel (Ni)  
PCB Thickness: 1.77mm (.070") min.  
RoHS Compliant: Yes  
Operating Temperature: -40 to +85°C

### x16 Cable (Series 74546)

#### Reference Information

Packaging: Box  
UL File No.: Pending  
CSA File No.: Pending  
Mates With: Series 75581 Integrated Connector and Cage Assembly  
Designed In: Millimeters

#### Electrical

Voltage: 30V  
Current: 1.0A  
Contact Resistance: 30 milliohms  
Dielectric Withstanding Voltage: 240V  
Insulation Resistance: 40 Megohms

#### Mechanical

Latch to Cage Retention Force: 88.96N (20 lbf) min.  
Mating Force: 109.4N (24.59 lbf) max.  
Unmating Force: 62.6 (14.07 lbf) max.  
Durability: 250 cycles

#### Physical

Cable Housing: Zinc (Zn) die cast  
PCB Contact: Gold (Au) over Nickel (Ni)  
Housing Plating: Nickel (Ni) over Zinc (Zn)  
RoHS Compliant: Yes  
Operating Temperature: -40 to +85°C



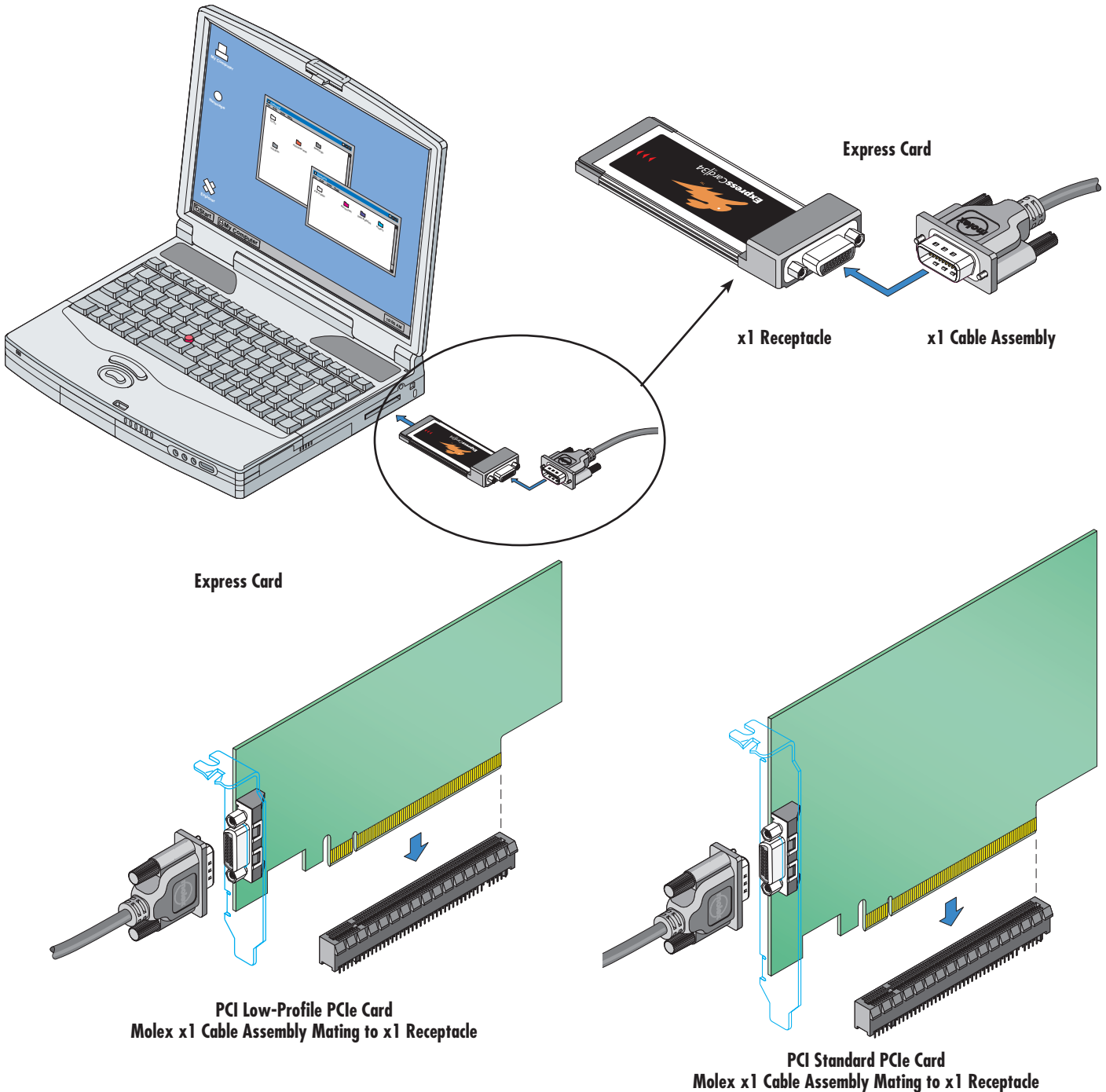
## APPLICATIONS



**0.64mm (.025") Pitch  
PCIe x1, 18 Circuit**

- Computers
  - Modular I/O hubs
  - High-speed peripheral devices
  - Notebooks
  - Express Card
- Consumer devices
  - HDTV consol stations and devices
  - TV tuners
  - High-end device interconnection
  - CAD stations
- Test equipment
- Instrumentation equipment
- Industrial
  - High-end digital cameras
  - Document cameras
  - High-end printers
- Medical imaging

**74150 Receptacle**  
**74155 Plug**  
**74962 Hex Jack Post**  
**74576 Cable Assembly**







**0.64mm (.025") Pitch**  
**PCIe x1, 18 Circuit**


**74150 Receptacle**

**74155 Plug**


**74962 Hex Jack Post**

**74576 Cable Assembly**


### Receptacle

	Order No.	Component	Features and Benefits
	74150-0001	Receptacle	■ Shielded, dual-row cable-to-board, input/output system for high speed and controlled impedance
	74962-0001	Jackpost	■ Tape-and-reel packaging for receptacle allows high-volume PCB processing

### Plug

	Order No.	Tail Plating	<ul style="list-style-type: none"> <li>■ 1,500 mating cycles with 15µ" Gold for high reliability</li> <li>■ Split-beam receptacle contact provides 2 points of contact, assuring optimal signal integrity</li> <li>■ 1.5A continuous power per pin allows for higher power throughput</li> <li>■ Lead-free process compatible and RoHS compliant to meet future manufacturing requirements</li> <li>■ SMT solder tails meet current SMT process requirements</li> </ul>
	74155-0001*	Tin	
	74155-0002	Nickel	<ul style="list-style-type: none"> <li>■ Data rates up to 5 Gbps with 100 Ohm impedance designed for high-speed and high-performance applications</li> <li>■ Low mating and un-mating force (42 grams per contact) for ease of mating and un-mating</li> <li>■ Two first-mate/last-break (FMLB) terminals on the plug prevent damage to electrical circuitry in the system by having the ground pin mate first</li> </ul>

### Cable Assembly

	Order No.	Cable Length	Features and Benefits
	74576-0000	0.5m (1.64')	■ Standard and custom cable assembly product offering provides cable solutions for virtually any application
	74576-0001	1.0m (3.28')	
	74576-0003	3.0m (9.84')	■ 360° electromagnetic interference (EMI) shielding for EMI and radio frequency interference (RFI) protection
	74576-0004	4.0m (13.12')	
	74576-0005	5.0m (16.40')	■ Overmold finish provides a firm-grip surface and an attractive finish at a competitive cost
	74576-0006	6.0m (19.68')	
	74576-0007	7.0m (22.96')	■ 4/40 jackscrews assure reliable mating retention
			■ Generation I and II PCIe compliant to ensure flexibility for system upgrades

\*Denotes most popular and readily available version.



## APPLICATIONS



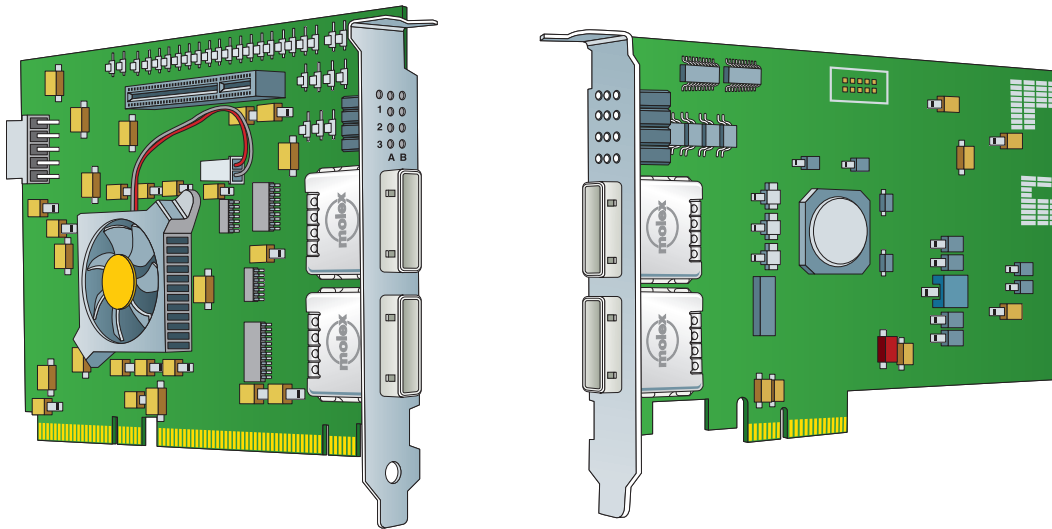
**0.80mm (.031") Pitch**  
**PCIe x4 and x8**  
**38 (x4) and 68 (x8) Circuit**

**75586 SMT Host Connector**

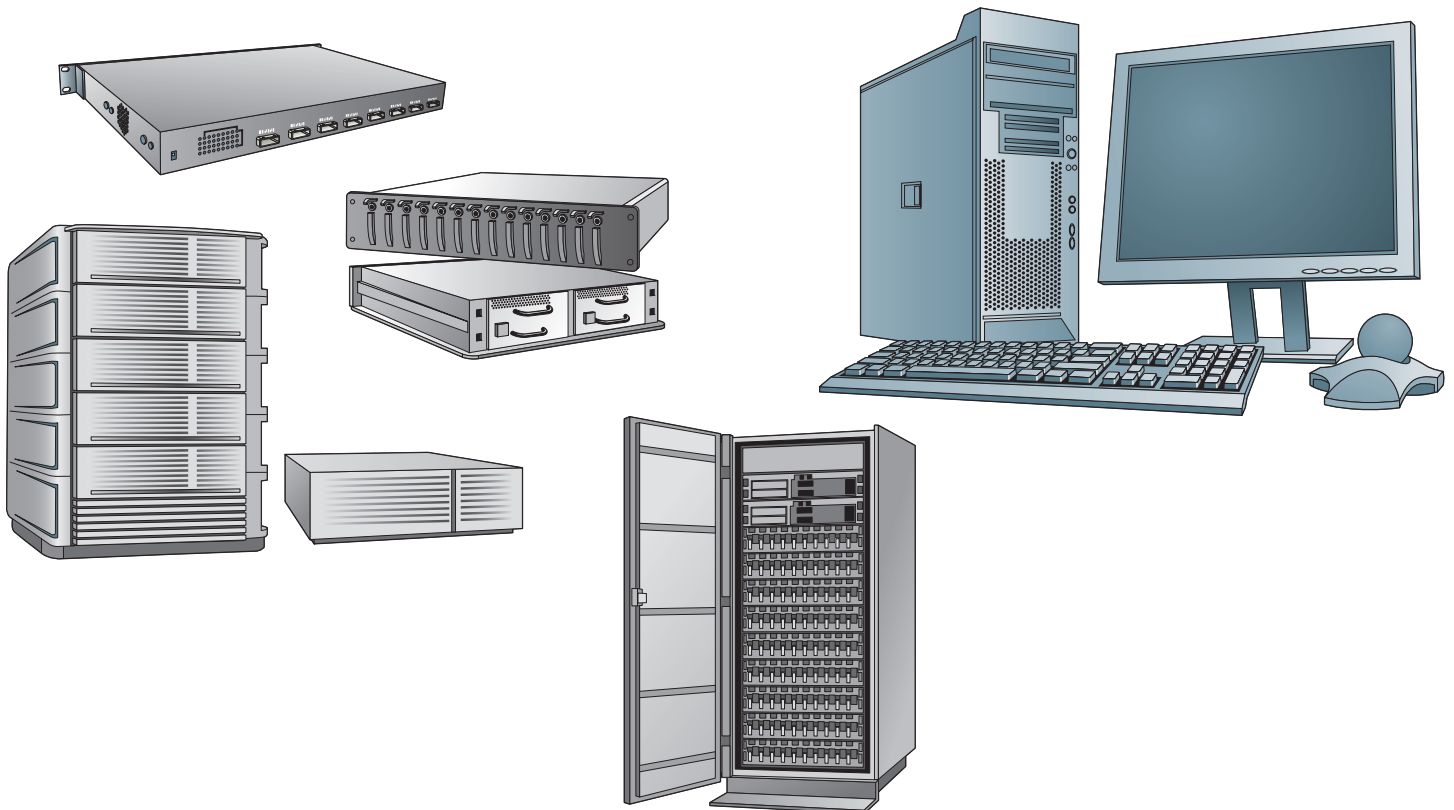
**74540 Guide Frame**

**74546 Cable Assembly**

- Server storage
  - HBAs (Host Bus Adapters)
  - Servers and server expansion (add-in cards)
  - Storage racks
  - Switches and routers
  - RAIDs (Redundant Array of Individual Discs)
  - JBODs (Just a Bunch of Discs)
- Computer applications
  - Industrial computers
  - Workstations
  - Split systems
    - Removable media drives
    - Memory modules
    - Graphic subsystems
    - Networking
- Networking equipment



**x4 External Application  
PCIe Expansion Link Card**



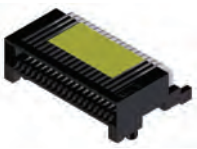






**0.80mm (.031") Pitch**  
**PCIe x4 and x8**  
**38 (x4) and 68 (x8) Circuit**

**75586 SMT Host Connector**  
**74540 Guide Frame**  
**74546 Cable Assembly**



### SMT External Host Connector

	Order No.	Lane	Circuits	Plating	Features and Benefits
	75586-0010	x4	38	15µ" Gold	<ul style="list-style-type: none"> <li>0.80mm (.031") pitch SMT host connector designed for placement beneath guide frame is ideal for external applications</li> <li>High-temperature thermoplastic housing withstands lead-free processing</li> <li>Alignment posts provide stability for placement on the PCB</li> <li>SMT design allows for ease of routing and provides the option for placement on both sides of the PCB</li> </ul>
	75586-0011	x4	38	30µ" Gold	
	75586-0002	x8	68	15µ" Gold	
	75586-0007	x8	68	30µ" Gold	

### Guide Frame

 	Order No.	Lane	Degree	Application	Features and Benefits
	74540-0401	x4	1	PCIe add-in cards	<ul style="list-style-type: none"> <li>Diecast guide frame provides robust cable-to-chassis interface</li> <li>Guide frame panel-mount gaskets provide improved EMI performance</li> <li>Screw attachment for the guide frame to the PCB provides a durable Input/Output connection for large cable bundles during the cable management process</li> <li>Multiple guide frame configurations provide board design flexibility</li> <li>Alignment posts provide stability for placement on the PCB</li> </ul>
	74540-0501	x4	0	Standard host boards	
	74540-0101	x8	1	PCIe add-in cards	
	74540-0201	x8	0	Standard host boards	

### Cable Assembly

 	Order No.	Lane	Length	Features and Benefits
	74546-0401	x4	1.0m (3.28')	<ul style="list-style-type: none"> <li>Reduced plug width allows customers to populate 2, x4 ports and 2, x8 ports on a standard PCI Express card</li> <li>Streamlined, narrow, latch-pull design allows for more dense cable management applications</li> <li>Flexible color-coded latch-pull provides an intuitive latch and unlatch mechanism and identifies PCIe applications</li> <li>Lower external-plug profile reduces cable bend radius versus standard 4x LaneLink™ cable assemblies</li> </ul>
	74546-0402		2.0m (6.56')	
	74546-0403		3.0m (9.84')	
	74546-0404		4.0m (13.12')	
	74546-0405		5.0m (16.40')	
	74546-0406		6.0m (19.68')	
	74546-0407		7.0m (22.96')	
	74546-0801	x8	1.0m (3.28')	<ul style="list-style-type: none"> <li>Integrated EMI gaskets in the back shell assembly and mating snout provide EMI seal to case interface and reduces emissions from the back shell seams</li> <li>High-performance paddle card design provides improved impedance control and minimizes crosstalk</li> </ul>
	74546-0802		2.0m (6.56')	
	74546-0803		3.0m (9.84')	
	74546-0804		4.0m (13.12')	
	74546-0805		5.0m (16.40')	
	74546-0806		6.0m (19.68')	
	74546-0807		7.0m (22.96')	

1 Lane = 1 transmit pair plus 1 receive pair, per the PCIe specification.

Note: PCIe transition cables are available in x4 to x1 and x8 to x4 configurations. Contact Molex for availability.



## APPLICATIONS



**0.80mm (.031") Pitch  
PCIe x16, 136 Circuit**

■ Networking and storage equipment

- Switches
- Routers
- Storage racks

■ High-end graphic cards (gaming)

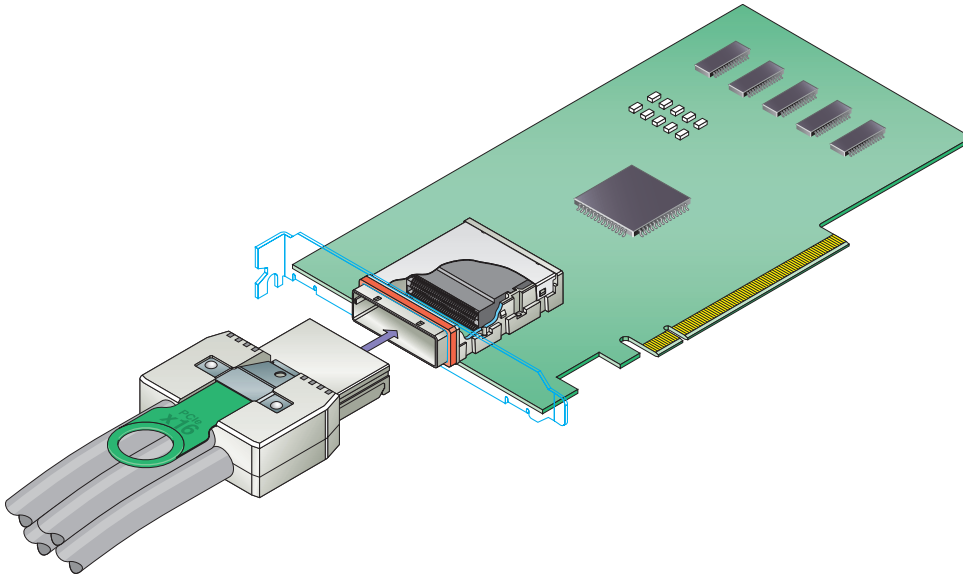
- PCIe add-in cards
- Industrial computer systems

■ Datacommunication equipment

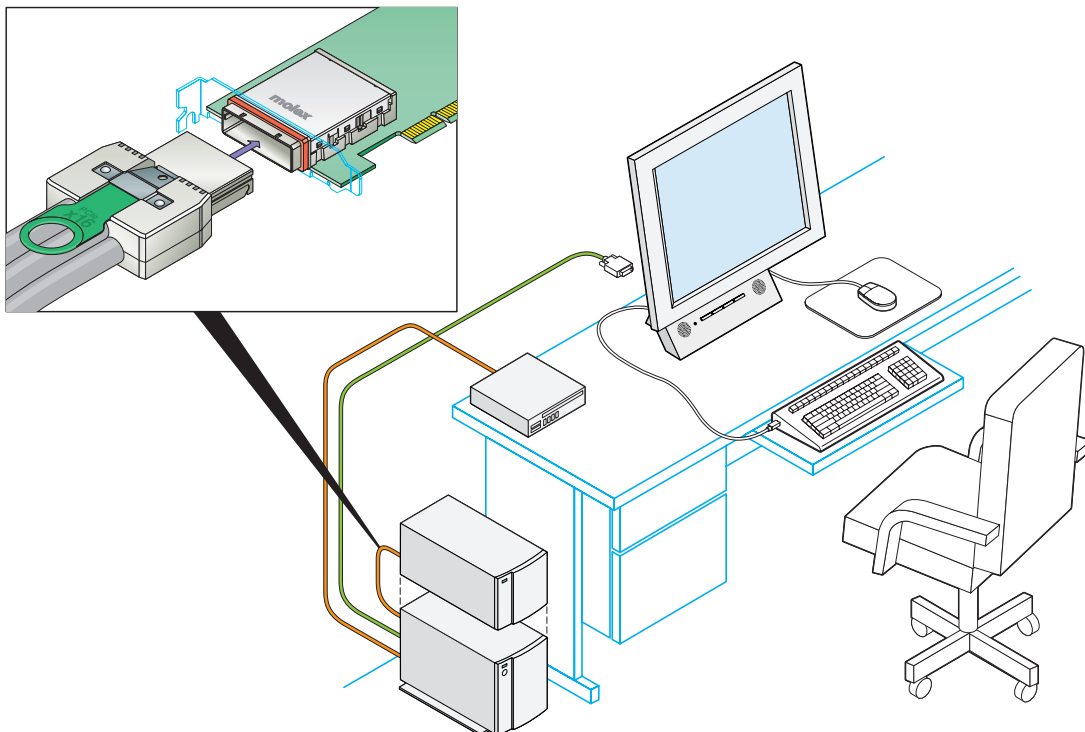
- High-end and mid-range servers
- Workstations

**75581 Integrated Stacked  
Connector and Cage  
Assembly**

**74546 Cable Assembly**



**Graphic Card with Integrated Stacked Connector and Cage Assembly Mounted**



**External Graphic Box with Cable Assembly Mating to Integrated Stacked Connector and Cage Assembly**



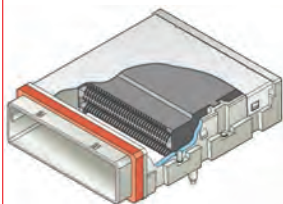


**0.80mm (.031") Pitch**  
**PCIe x16, 136 Circuit**

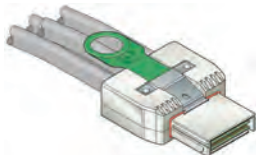
**75581 Integrated Stacked  
Connector and Cage  
Assembly**

**74546 Cable Assembly**

### Integrated Stacked Connector and Cage Assembly

	Order No.	Circuits	Plating	Features and Benefits
	75581-0001	136	15µ" Gold	<ul style="list-style-type: none"> <li>■ Integrated press-fit connector assembly with cage provides one-step placement to PCB</li> <li>■ Four integral screw-mount hold downs applied from bottom of PCB provide optimal retention of die-cast assembly to PCB without taking up additional board real estate</li> <li>■ Low-profile height [13.13mm (.517")] accommodates standard and low-profile PCIe add-in cards</li> </ul>
	75581-0002	136	30µ" Gold	<ul style="list-style-type: none"> <li>■ Two robust guide pins located on each side ensure assembly alignment to PCB</li> <li>■ Front elastomeric gasket provides improved EMI protection to face plate</li> <li>■ Eight ground-pad alleys are located at the rear of the die-cast assembly providing ease of routing off top layers of PCB</li> </ul>

### Cable Assembly

	Order No.	Length	Features and Benefits
	74546-1601	1.0m (3.28')	<ul style="list-style-type: none"> <li>■ Streamlined, narrow, latch-pull design allows for more dense cable management applications</li> </ul>
	74546-1602	2.0m (6.56')	
	74546-1603	3.0m (9.84')	<ul style="list-style-type: none"> <li>■ Flexible latch-pull provides an intuitive latch and unlatch mechanism</li> </ul>
	74546-1604	4.0m (13.12')	
	74546-1605	5.0m (16.40')	<ul style="list-style-type: none"> <li>■ Reduced plug width using dual paddle card design allows 32 differential pair on a standard card (PCI standard, half height, AMC)</li> </ul>
	74546-1606	6.0m (19.68')	
	74546-1607	7.0m (22.96')	<ul style="list-style-type: none"> <li>■ Integrated EMI gaskets in the back shell assembly and mating snout provide improved EMI seal to cage interface and reduces emissions from the back shell seams</li> <li>■ High-performance paddle card design provides improved impedance control and minimizes cross talk</li> </ul>

1 Lane = 1 transmit pair plus 1 receive pair, per the PCIe specification.

Note: PCIe transition cables are available in x16 to x8 configurations. Contact Molex for availability.

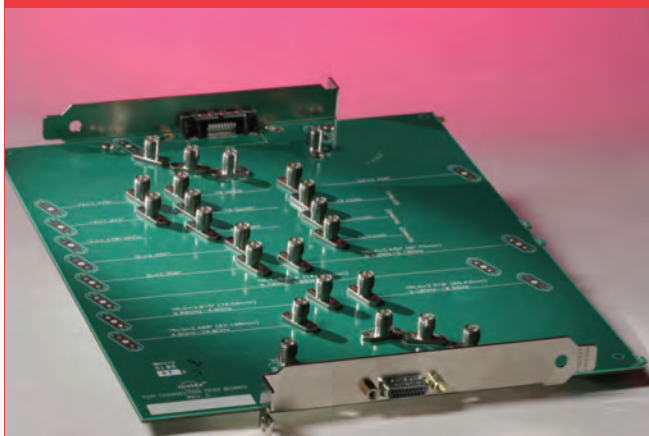




# PCle x1, x4, x8, x16 Test Boards

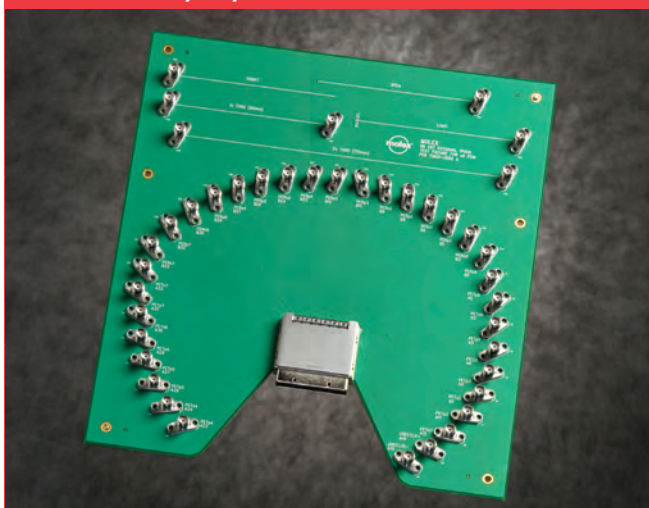
## 73931 x1, x4, x8, x16

### Test Boards x1



Order No.	Lane	Circuits	Features and Benefits
73931-2752	x1	18	<ul style="list-style-type: none"> <li>High-speed, low-loss material (Nelco)</li> <li>Compression contact SMAs</li> <li>Electrical length and impedance matched traces</li> <li>Cal traces (short, open and load) so the effects of the board can be minimized</li> <li>x1 includes provisions for connector housings and brackets</li> <li>Supports creation of s-parameter models for PCIe cable assemblies</li> </ul>

### Test Boards x4, x8, x16



73931-2642	x4	38	<ul style="list-style-type: none"> <li>Supports creation of s-parameter models for PCIe cable assemblies</li> </ul>
73931-2652	x8	68	
73931-2662	x16	136	



**x1 Connector Pin Assignment**

Pin Numbers	Signals	Description
A1-A2	PER0	Differential PCI Express Receiver Lanes
A3	RSVD	Reserved
A4	SB_RTN	Signal Return for Single-Ended Sideband Signals
A5-A6	CREFLK	Differential 100 MHz Cable Reference Clock
A7	PWR_RTN	Return for +3.3V Power (Optional)
A8	CPERST#	Cable PERST#
A9	GND	Ground Reference for PCI Express Transmitter Lane
B1	GND	Ground Reference for PCI Express Receiver Lane
B2	RSVD	Reserved
B3	CWAKE#	Power Management Signal for Wakeup Events (Optional)
B4	CPRSNT#	Cable Installed / Downstream Subsystem Powered-up
B5	GND	Ground Reference for Cable Reference Clock
B6	PWR	+3.3V Power (Optional)
B7	CPWRON	Upstream Subsystem's Power Valid Notification
B8-B9	PET0	Differential PCI Express Transmitter Lanes

Reference: PCI Express External Cabling Specification, Section 5.2.1, Table 5-1

**x4 Connector Pin Assignment**

Pin Numbers	Signals	Description
A1-A13	PET0-PET3	Differential PCI Express Transmitter Lanes
A14-A16	CREFLK	Differential 100 MHz Cable Reference Clock
A17	SB_RTN	Signal Return for Single-Ended Sideband Signals
A18	CPRSNT#	Cable Installed / Downstream Subsystem Powered-up
A19	CPWRON	Upstream Subsystem's Power Valid Notification
B1-B13	PER0-PER3	Differential PCI Express Receiver Lanes
B14-B15	PWR	+3.3V Power (Optional)
B16-B17	PWR_RTN	Return for +3.3V Power (Optional)
B18	CWAKE#	Power Management Signal for Wakeup Events (Optional)
B19	CPERST#	Cable PERST#

Reference: PCI Express External Cabling Specification, Section 5.3.1, Table 5-9

**x8 Connector Pin Assignment**

Pin Numbers	Signals	Description
A1-A13	PET0-PET3	Differential PCI Express Transmitter Lanes
A14-A16	CREFLK	Differential 100 MHz Cable Reference Clock
A17-A18	RSVD	Reserved
A19	SB_RTN	Signal Return for Single-Ended Sideband Signals
A20	CPRSNT#	Cable Installed / Downstream Subsystem Powered-up
A21	CPWRON	Upstream Subsystem's Power Valid Notification
A22-A34	PET4-PET7	Differential PCI Express Transmitter Lanes
B1-B13	PER0-PER3	Differential PCI Express Receiver Lanes
B14-B16	PWR	+3.3V Power (Optional)
B17-B19	PWR_RTN	Return for 3.3V Power (Optional)
B20	CWAKE#	Power Management Signal for Wakeup Events (Optional)
B21	CPERST#	Cable PERST#
B-22-B34	PER4-PER7	Differential PCI Express Receiver Lanes

Reference: PCI Express External Cabling Specification, Section 5.4.1, Table 5-16.

Note: Above pin outs are based on PCI Express™ External Cabling Specification Revision 0.7 dated 2/06.





## x16 Connector Pin Assignment

Pin Numbers	Signals	Description
A1-A13	PER1-PER7	Differential PCI Express Receiver Lanes (odd # lanes)
A14-A16	PWR	+3.3V Power (Optional)
A17	SB_RTN	Signal Return for Single-Ended Sideband Signals
A18-A20	CREFLK	Differential 100 MHz Cable Reference Clock
A21-A33	PER9-PER15	Differential PCI Express Receiver Lanes (odd # lanes)
A34	RSVD	Reserved
B1-B13	PER0-PER6	Differential PCI Express Receiver Lanes (even # lanes)
B14-B16	PWR_RTN	Return for 3.3V Power (Optional)
B17	CPWRON	Upstream Subsystem's Power Valid Notification
B18	CWAKE#	Power Management Signal for Wakeup Events (Optional)
B19	CPRSNT#	Cable Installed / Downstream Subsystem Powered-up
B20	CPERST#	Cable PERST#
B21-B33	PER8-PER14	Differential PCI Express Receiver Lanes (even # lanes)
B34	RSVD	Reserved
C1-C13	PET1-PET7	Differential PCI Express Transmitter Lanes (odd # lanes)
C14-C16	PWR	+3.3V Power (Optional)
C17-C20	RSVD	Reserved
C21-C33	PET9-PET15	Differential PCI Express Transmitter Lanes (odd # lanes)
C34	RSVD	Reserved
D1-D13	PET0-PET6	Differential PCI Express Transmitter Lanes (even # lanes)
D14-D16	PWR_RTN	Return for +3.3V Power (Optional)
D17-D20	RSVD	Reserved
D21-D33	PET8-PET14	Differential PCI Express Transmitter Lanes (even # lanes)
D34	RSVD	Reserved

Reference: PCI Express External Cabling Specification, Section 5.5.1, Table 5-23

Note: Above pin outs are based on PCI Express™ External Cabling Specification Revision 0.7 dated 2/06

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