



## Plateau HS Mezz™

### High Speed Mezzanine for 10.0 Gbps Bandwidth

75003, 75005

#### High Speed Mezzanine Connectors Feature Innovative Plated Plastic Housing for Outstanding Performance

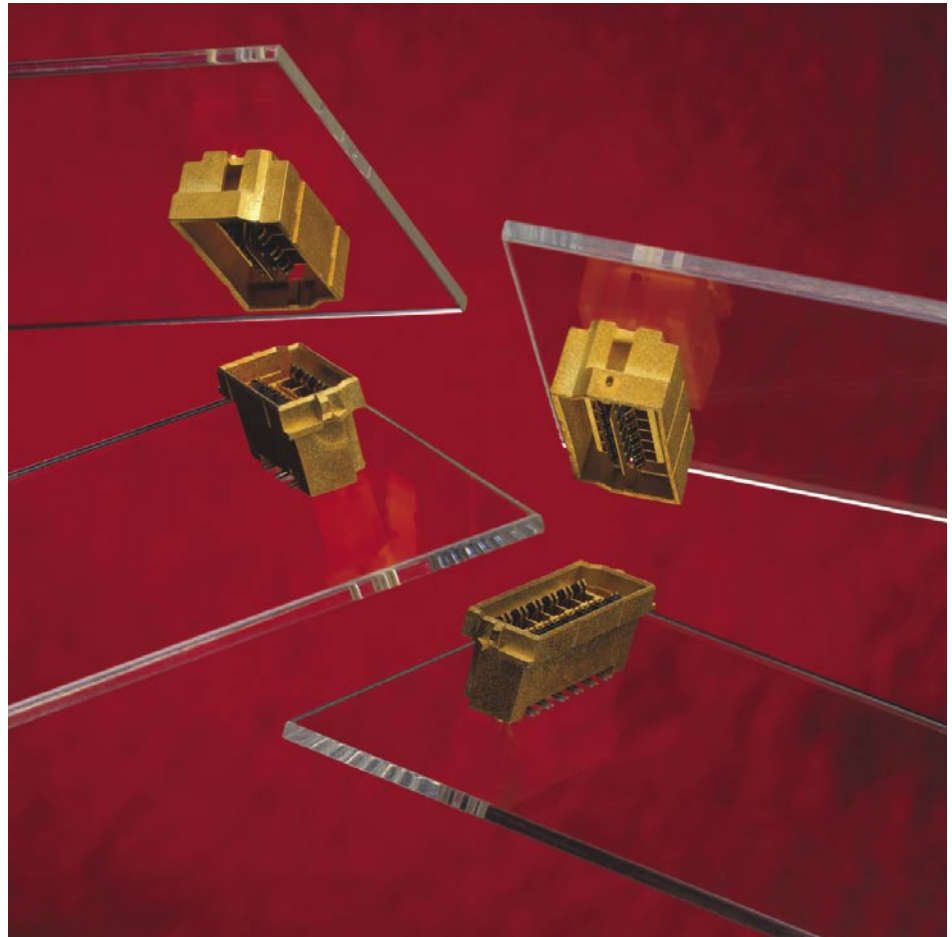
Molex utilizes its proprietary Plateau Technology™ to create a high-speed, superior performance surface-mounted mezzanine connector system. This technology permits the customer to use a smaller footprint connector than other typical designs, translating into savings on circuit count and board space.

The shielding properties of the plated housing effectively isolate each differential pair, eliminating the need to use signal pins for ground.

These mezzanine connectors are ideal for servers, mainframe computers, workstations, test equipment and telecommunications equipment such as switches and routers.

#### Features and Benefits

- Advanced gold-plated plastic housings with integrated shielding system support high-speed differential signaling in excess of 10.0 Gbps
  - Impedance of  $100 \pm 10$  ohms at 50 psec risetime (10/90%) maintained for all stack heights to ensure very low crosstalk between signals
  - Contacts on 1.20mm (.047") pitch arranged in isolated differential pairs on 3.50mm (.138") pitch for controlled impedance
  - Two points of contact on each signal ensure high reliability
  - Multiple stack heights from 9.00 to 23.00mm (.354 to .906") to meet nearly every parallel board requirement, with capability up to 25.00mm (.984")
- Available in 6, 12, 24 and 36 differential pair sizes (12, 24, 48 and 72 total contacts) to accommodate a range of applications
  - Molded and plated housing pegs facilitate attachment to PCB ground plane



#### SPECIFICATIONS

##### Reference Information

Packaging: Tape and Reel or Tube  
Designed In: Millimeters  
UL File No.: E29179  
CSA File No.: LR19980

##### Electrical

Voltage: 30V DC  
Current: 1.5A max.  
Contact Resistance: 25 milliohms  
Dielectric Withstanding Voltage: 500V  
Insulation Resistance: 1,000 Megohms  
Impedance:  $100 \pm 10$  Ohms @ 50psec risetime

##### Mechanical

Mating Force: 2.0N (.45lb) max. per circuit  
Unmating Force: 0.9N (.20lb) min. per circuit  
Durability: 25 cycles

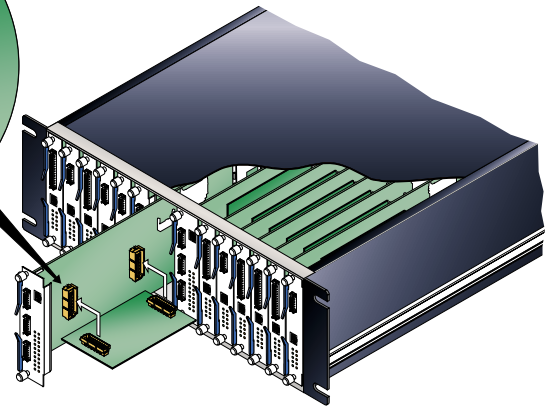
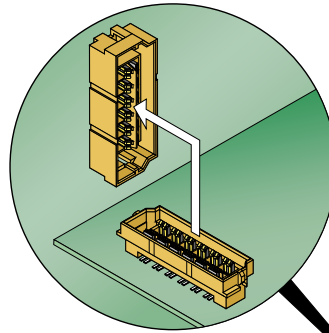
##### Physical

Housing: LCP  
Contact: Copper Alloy  
Plating: Contact Area –  $0.76\mu\text{m}$  ( $30\mu''$ ) min. select Gold and  $3.81\mu\text{m}$  ( $150\mu''$ ) min. select Tin/Lead over  $1.27\mu\text{m}$  ( $50\mu''$ ) min. Nickel overall  
Housing –  $0.10\mu\text{m}$  ( $4\mu''$ ) max. Gold over  $3.81\mu\text{m}$  ( $150\mu''$ ) min. Nickel over  $3.81\mu\text{m}$  ( $150\mu''$ ) min. Nickel over  $3.81\mu\text{m}$  ( $150\mu''$ ) min. Copper  
Operating Temperature: -20 to +85°C  
SMT Lead Coplanarity: 0.102mm (.004")

## APPLICATIONS

The Plateau HS Mezz connector system is specifically suited for mezzanine applications where high differential signal speeds and cost efficiency are desired, including:

- Switches and hubs
- Routers
- Servers and blade servers
- Workstations
- Storage devices



**75003, 75005**

## ORDERING INFORMATION

Mated Stack Height	No. of Differential Pairs	No. of Circuits	Plug Height	Receptacle Height	Order No.	
					Plug	Receptacle
10.00mm (.394")	6	12	5.50mm (.217")	4.50mm (.117")	75003-0305	75005-0304
	12	24			75003-0005	75005-0004
	24	48			75003-0105	75005-0104
	36	72			75003-0205	75005-0204
12.00mm (.472")	6	12	5.50mm (.217")	6.50mm (.256")	75003-0305	75005-0306
	12	24			75003-0005	75005-0006
	24	48			75003-0105	75005-0106
	36	72			75003-0205	75005-0206
13.00mm (.512")	6	12	8.50mm (.335")	4.50mm (.117")	75003-0308	75005-0304
	12	24			75003-0008	75005-0004
	24	48			75003-0108	75005-0104
	36	72			75003-0208	75005-0204
15.00mm (.591")	6	12	10.50mm (.413")	4.50mm (.117")	75003-0310	75005-0304
	12	24			75003-0010	75005-0004
	24	48			75003-0110	75005-0104
	36	72			75003-0210	75005-0204
	6	12	8.50mm (.335")	6.50mm (.256")	75003-0308	75005-0306
	12	24			75003-0008	75005-0006
	24	48			75003-0108	75005-0106
	36	72			75003-0208	75005-0206
17.00mm (.669")	6	12	10.50mm (.413")	6.50mm (.256")	75003-0310	75005-0306
	12	24			75003-0010	75005-0006
	24	48			75003-0110	75005-0106
	36	72			75003-0210	75005-0206
20.00mm (.787")	6	12	5.50mm (.217")	14.50mm (.571")	75003-0305	
	12	24			75003-0005	75005-0014
	24	48			75003-0105	75005-0114
	36	72			75003-0205	75005-0214
23.00mm (.906")	6	12	8.50mm (.335")	14.50mm (.571")	75003-0308	
	12	24			75003-0008	75005-0014
	24	48			75003-0108	75005-0114
	36	72			75003-0208	75005-0214
25.00mm (.984")	6	12	10.50mm (.413")	14.50mm (.571")	75003-0310	
	12	24			75003-0010	75005-0014
	24	48			75003-0110	75005-0114
	36	72			75003-0210	75005-0214

Contact Molex for availability

**Americas Headquarters**  
Lisle, Illinois 60532 U.S.A.  
1-800-78MOLEX  
amerinfo@molex.com

**Far East North Headquarters**  
Yamato, Kanagawa, Japan  
81-462-65-2324  
feninfo@molex.com

**Far East South Headquarters**  
Jurong, Singapore  
65-6-268-6868  
fesinfo@molex.com

**European Headquarters**  
Munich, Germany  
49-89-413092-0  
eurinfo@molex.com

**Corporate Headquarters**  
2222 Wellington Ct.  
Lisle, IL 60532 U.S.A.  
630-969-4550  
Fax: 630-969-1352

Visit our website at [www.molex.com/product/hsmezz.html](http://www.molex.com/product/hsmezz.html)