

SpeedEdge™ Edge-Card and Mezzanine Connector System

molex®

SpeedEdge Edge-Card Connector System is rugged enough to mate safely with large PCBs in high-cycle applications while providing a high-density, low-profile solution with data rates to over 40 Gbps per differential pair

Features and Benefits

Mechanically robust with thicker walls and higher stack height when compared to SpeedStack™ Connectors and other mezzanine systems

Securely holds thick PCBs; delivers durability and high-mating cycles

Split-pad PCB design

Allows for electrical tuning performance to reach data rates to over 40 Gbps per differential pair

Design includes contacts with gradual lead-in

Lessens risk of contact stubbing and supports high-mating cycles. Accommodates PCBs with blunt chamfers

Multiple circuit sizes (22, 60 and 82) with a range of 6 to 32 differential pairs

Offers high-density signal solution with flexible pin counts

Low profile (as low as 7.00mm)

Delivers superior signal integrity performance via optimal airflow. Provides real estate savings in space-constrained applications

Shares the same footprint as SpeedStack™ receptacles

Drop-in replacement for rugged edge-card applications

Compatible with SpeedEdge™ Plug for a robust mezzanine solution

Provides high speed and design flexibility to address PCB space constraints

92-Ohm impedance

Provides superior impedance control

85-Ohm impedance versions in development

Will support PCIe Generation (Gen) 3.0 and Intel QuickPath Interconnect (QPI) requirements for next-generation I/O and memory signaling

Robust insert-molded wafer with protected shrouded housing

Provides support to the terminal location to improve electrical balance within the signals for low-profile, high-density systems



SpeedEdge™ Product Family Plugs and Receptacles

Applications

Telecommunication Applications

- Remote radio antennas
- Base stations
- Mobile

Networking

- Servers
- Routers
- Switch
- Storage

Military and Medical

- Scanning equipment

Consumer

- Camera
- Handheld scanners

Automotive

- Front camera module
- Infotainment unit



High-End Servers



Medical Equipment



Infotainment Unit

Specifications

REFERENCE INFORMATION

Packaging: Tape and Reel
 UL File No.: TBD
 CSA File No.: N/A
 Mates With: SpeedEdge™ edge-card
 Designed In: Millimeters
 RoHS: Yes
 Halogen Free: Yes

ELECTRICAL

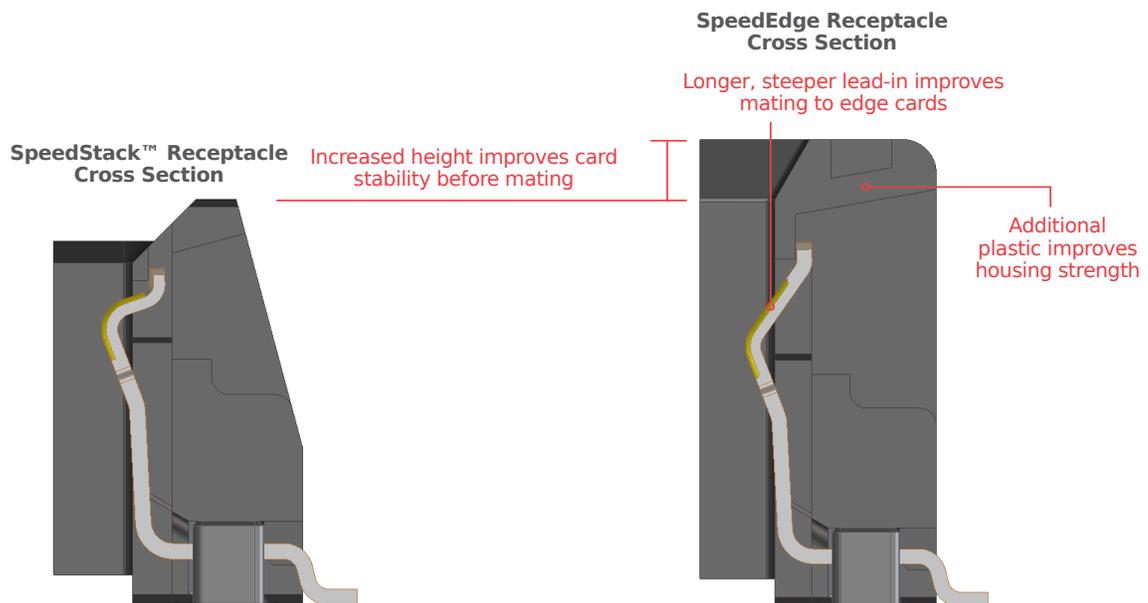
Voltage (max.): 250 VAC
 Current (max.): 1.0A per pin
 Contact Resistance: 20 milliohms
 Dielectric Withstanding Voltage: 300 VAC
 Insulation Resistance: 10 Megaohms

PHYSICAL

Housing: Glass-Filled Thermoplastic (94-V0)
 Contact: Copper (Cu) Alloy
 Plating:
 Contact Area — 0.76µm Gold (Au) Min
 Solder Tail Area — 0.76 to 1.52µm Tin (Sn) Min
 Underplating — 1.27µm Nickel (Ni) Min

Operating Temperature: -40 to +105°C

SpeedStack™ and SpeedEdge Stack Height Housing and Terminal Comparison



Ordering Information

Receptacle

Series No.	SpeedMezz Connector Subfamily	Gender	Component Height Range	Circuit Count
173300	SpeedEdge™	TSU Deep-UV Transparent Coating	050 ± 03	363 ± 10

Plug

Series No.	SpeedMezz Connector Subfamily	Gender	Component Height Range	Circuit Count
173305	SpeedEdge™	Plug, mates to SpeedStack	2.9-3.9mm	22, 60
Preliminary Product	SpeedEdge™	Plug, Differential	TBD	22, 60

Custom Product	Description
Contact Molex	SpeedEdge™ Connector Options

www.molex.com/link/speedmezz.html