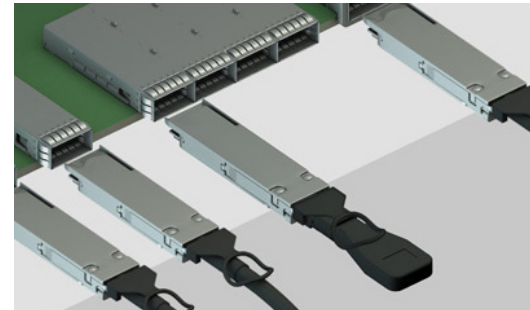


DATA CENTER CABLE ASSEMBLY TESTING FROM MOLEX

Cloud computing, the Internet of Things, the proliferation of mobile devices — developments in everyday technology have made innovative, highly efficient data centers more necessary than ever. And the reliability of cable assemblies is crucial to a data center's performance.



100 Percent Testing

Molex supports comprehensive data center solutions by testing each signal pair of every cable assembly it produces, providing industry-leading quality control. As a result, customers can rely on every cable's performance and the consistency of that performance. Furthermore, saving customers from having to conduct tests themselves enables immediate installation while removing the risk of having to troubleshoot faulty cables later.

Molex has the ability to test every single cable assembly it produces by leveraging its automated laboratory-grade equipment. Automation enables analysis to be done efficiently, in Molex plants, as part of the manufacturing process, and Molex engineers can address any issues immediately on the production line. Consequently, cable assemblies come off the line proven to meet both industry standards and customer specifications.

MOLEX TESTING PROCESS

Molex's testing processes include opens, shorts, mis-wires and hi-pot, as well as S-parameters — impedance, skew, etc. Moreover, Molex develops testing systems on a product-by-product basis, according to each customer's specifications and the industry standards the cable assembly needs to meet. For example, a QSFP28 assembly typically undergo a group of measurements that include traditional and mixed mode S-parameters to ensure it meets applicable IEEE standards, and other elements could also be analyzed according to the requirements of its specific application.

An overview of Molex's testing process:

- 1 Lab equipment captures full data from the cable assembly (from 2 to 32+ signal pairs).
- 2 Customized testing software analyzes data.
- 3 If there is an issue, diagnostics pinpoint the problem:
 - Failure analysis by mining database
 - Molex engineers troubleshoot and solve the problem
 - Molex-developed reporting tools track failure rates, trends in failure modes, process capability, etc., to support ongoing quality control efforts
- 4 Data is saved to a testing database:
 - Aids future production runs and analyses
- 5 Cable is packaged and shipped only after it meets all specifications.

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DATA CENTER CABLE ASSEMBLY TESTING FROM MOLEX

EXAMPLES OF DATA CENTER CABLE ASSEMBLIES MOLEX TESTS

- I/O
- Direct attached cables (DACs)
- External cables
- Internal cables
- High-speed signal



APPLICATIONS

Data Centers

- Switches/routers
- High-speed channel designs
- Servers
- Storage
- Open19

Telecommunications/Networking

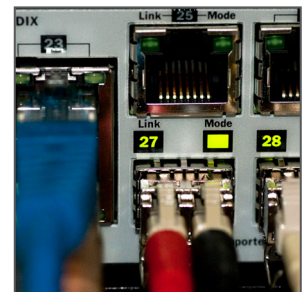
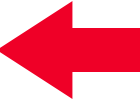
- Servers
- Routers
- Switches
- Cellular infrastructure
- Multi-platform service systems

Data/Computing

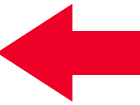
- Switches
- Routers
- Servers
- Storage



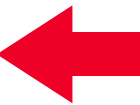
Data Centers



Switches/Routers



Telecommunications



THE MOLEX ADVANTAGE

Automated laboratory-grade equipment supports testing efficiency and enables Molex to test 100% of the cable assemblies it produces and to deliver high-performance systems to customers quickly. Moreover, Molex leverages more than a decade of testing expertise in developing system software for each cable program and analyzing the parameters specific to that cable assembly. This thoroughness means customers know they can rely on Molex cables for both consistency and high performance. Additionally, Molex's database houses customers' cable assembly data. This stored information is analyzed via mining software and used to create efficiencies for future cable assembly production, optimizing quality and turnaround.

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www.molex.com/capabilities/datacentercat.html

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