

3M Unveils High-Speed Twin Axial Ribbon Cable SL8800 Series

3M today announced the availability of its first-generation of high-speed Twin Axial Ribbon Cable – the industry’s first flat, foldable and longitudinally shielded high performance twin axial ribbon cable. The 3M Twin Axial Cable SL8800 Series is the only cable solution currently available on the market for high data-rate applications that can make sharp turns and fold with little to no impact on electrical performance. The cable outperforms typical cable constructions in bend radius, signal integrity and overall routability. These unique characteristics allow the cable to fit through narrow openings and free up valuable space in tightly packed systems.

The first products in this new family of high-speed 3M Twin Axial Cable solutions are for serial digital signaling over differential pair for internal cabling applications. They are available in four channel 100 ohm 30AWG versions. At 0.88 mm thick, two layers of SL8800 cables are less than half the thickness of conventional bundled twin axial cable. The flexibility and unique, low-profile form factor allows system designers to consider entirely new cable routing pathways, leading to better thermal management, greater system density and higher overall performance.

“Dell’s customers look to us to deliver advanced technologies in our products and solutions to help solve their IT and data center challenges and drive continuous improvements in efficiency. As a result we are constantly reviewing and evaluating new components from partners,” said Tom Garvens, head of server advanced engineering, Dell. “Based on early testing, the new 3M cable addresses the electrical demands of high-speed data while also helping with system congestion and airflow requirements.”

The electrical performance places 3M Twin Axial Cable solutions in an elite category, beyond solving the spatial challenges caused by densely packaged systems. The cable’s built-in wire-to-board registration to the paddle card termination area enables easy termination with repeatable consistency and reliability and is ideal for automation in the assembly process. The longitudinal shielded construction provides resonance-free attenuation up to 20 GHz and can support transmission speeds from 1 Gbps to 25 Gbps and beyond. These cables can be folded in multiple locations with less than 0.5 ohm impedance local variation at each fold, which separates this cable from other options currently on the market.

“3M understands the trends of miniaturization and increased performance in data centers, storage and high performance computing, and continues to drive technological advancement in high-speed copper and optical interconnect solutions,” said Jim White, Ph.D., technical director, 3M Electronic Solutions Division. “3M Twin Axial Cable SL8800 allows our customers to optimize routing and bandwidth, with state-of-the-art cable and assemblies that leverage 3M’s core

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materials technology in thin films, specialty adhesives and precision processing.”

The first products in the SL8800 cable series are well suited for internal mini serial attached SCSI (miniSAS) and PCI Express cable assemblies. 3M will continue to expand the SL family of high-performance cable solutions with additional internal cable offerings and a number of new products to support various external high-speed serial protocols (e.g. SAS2.1, SFP/SFP+, QSFP, etc.).

For more information on 3M Twin Axial Cable solutions, visit www.3Mtwinox.com [1].

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[1] <http://www.3Mtwinox.com>