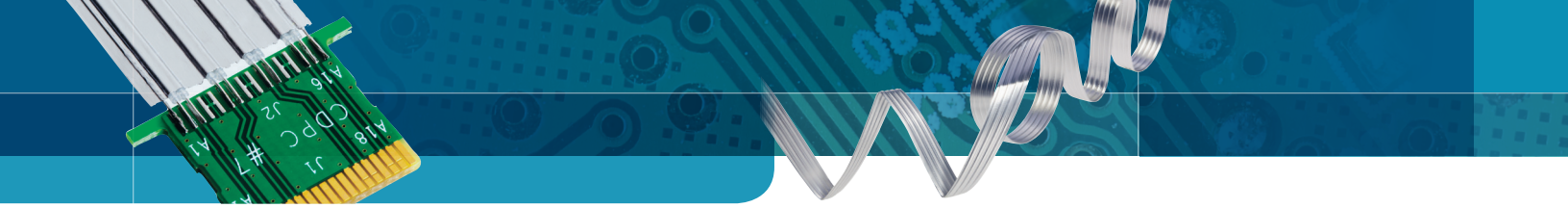


3M™ Twin Axial Cable

SL8800 Series

Your system should be built around performance, not around your cables.

The 3M Internal Twin Axial Ribbon Cable SL8800 Series is a new ultra low-profile, high-speed, high signal density cable. The products in the SL8800 Series are only the first of a new family of high-performance cables from 3M.

Currently available in four-channel 100 ohm 30 AWG versions, the SL8800 Series Cable is the optimum solution for space-constrained systems. This cable is unjacketed, extremely thin, very flexible and can even be folded with minimal loss or performance impact. Some high density offerings sacrifice performance to achieve density. For example, flex circuits are often used for tight packaging requirements, but flex circuitry can be cost prohibitive and can have limited bandwidth. SL8800 Series Cable can route along the sides of cabinets and through narrow openings in densely packaged equipment with little to no effect on performance.

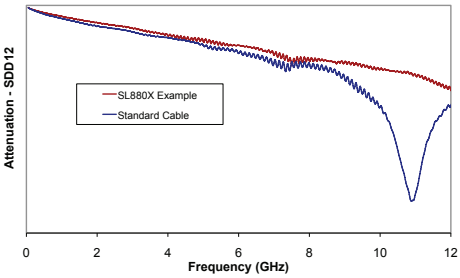
No compromises

The SL8800 Series Cable is not just for densely packaged systems. The electrical performance places this cable in an elite category for skew control, low attenuation and high bandwidth. Even if your system does not require low-profile cable, the SL8800 Series still provides you with a quality high performance cable for your high-speed signal requirements.

SL8800 Cable Series is a longitudinally shielded cable construction and is made to exacting tolerances. The cable suffers little to no resonance or "suck out," where traditionally spiral wrapped twin axial cables exhibit an enormous loss of signal at a particular range of frequency. The cable is also low skew, and the ribbon construction allows customers to further control any skew that can sometimes be introduced when trying to manage individual channels. This is especially critical at speeds beyond 10 Gbps. High speed applications continue to demand more performance out of the cables, and the SL8800 Series Cable will deliver that performance for years to come.

As signal speeds continue to increase, cable can improve but the termination can still be a weak point. The SL8800 Series Cable standard ribbon format supports high performance termination, repeatability, and a reduced possibility for pinout error. When stripped in parallel, and then applied in parallel, each channel results in an identical termination length. Control and placement of individual channels is not required, eliminating the variation in performance and rework due to incorrect placement.

3M™ Twin Axial Cable SL8800 Series is longitudinally shielded and made to exacting tolerances.



3M™ Twin Axial Cable SL8800 Series exhibits low loss and no "suckout."

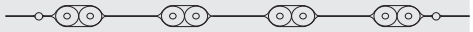
3M™ Twin Axial Cable SL8800 Series is flexible, foldable and highly routable.

The 3M™ Twin Axial Cable SL8800 Series is ideally suited for paddle card terminated cable assemblies, such as mini serial attached SCSI (miniSAS). The cable has been functionally tested in SAS 2.0 applications and passes those requirements in a 6 Gbps environment. Depending on length and attenuation requirements, applications to 10 Gbps and beyond can be implemented with SL8800 Series Cable.

3M will support you and your system requirements as bandwidth demands increase. Look for future versions of 3M high speed cable in other wire gauges, form factors and increased performance.

Cables should not be a design constraint. Make them a design enabler.

Initially released versions are as follows:

3M Part Number	Configuration	Drawing #	Spec#	Attenuation (@ 5 GHz)	Skew	Cross Section
SL8801/12-111A5-00	4 Pairs, 100ohm, 2 outside grounds with 4 Sidebands Sn plated, Solid Polyolefin dielectric	78-5100-2360-5	PS-0079	4 db/m	<10ps/m	
SL8801/12-101A5-00	4 Pairs, 100ohm, 2 outside grounds with 4 Sidebands Ag plated, Solid Polyolefin dielectric	78-5100-2360-5	PS-0079	3 db/m	<10ps/m	
SL8802/08-211N5-00	4 Pairs, 100ohm, 2 outside grounds No-Sideband Sn plated, Solid Polyolefin dielectric	78-5100-2361-3	PS-0079	4 db/m	<10ps/m	
SL8802/08-201N5-00	4 Pairs, 100ohm, 2 outside grounds No-Sideband Ag plated, Solid Polyolefin dielectric	78-5100-2361-3	PS-0079	3 db/m	<10ps/m	

Technical Information

- 100 Ohm differential pairs
- Four pairs with and without sidebands
- Solid polyolefin insulation
- .88 mm thick
- RoHS* compliant
- The cable is UL AWM 21008 (150V, 80C); file number E42769
- Halogen free**

Cable Preparation Support Documentation

Document Number	Title
78-9101-2706-3	3M Twin Axial Cable SL8800 Series - Stripping Blades - Application
78-9101-2705-5	3M Twin Axial Cable SL8800 Series - General Cable Prep

*"RoHS Compliant 2002/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.

** Halogen Free is defined as both 1) no halogen compounds that are intentionally added to the product or used in the manufacturing process for the product and 2) any impurities present are less than 900 ppm bromine, less than 900 ppm chlorine and/or less than 1500ppm total bromine and chlorine. The latter are the levels set forth in certain industry standards for printed circuit boards, such as the International Electrotechnical Commission (IEC) 61249-2-21 standard. This information represents 3M/s knowledge and belief which may be based in whole or in part on information provided by 3rd party suppliers to 3M.

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