3M™ High Routability Internal Serial Attached SCSI (SAS) Cable Assemblies

8U, 8F36 and 8F68 Series

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

The 3M High Routability Internal miniSAS Cable Assemblies utilize 3M's new ultra low profile, high speed, high signal density 3M™ Twin Axial Cable SL8800 Series. Available with and without sidebands, these cable assemblies are ideal for space constrained systems. Cable assemblies are typically available unjacketed. MiniSAS has an optional ultra-thin jacket (UTJ) applied over each strip, and miniSAS HD assemblies are available with a mesh sleeve. The cable can be folded with minimal loss or performance impact. These assemblies can route along the sides of cabinets and through narrow openings between fans or heat sinks. Right angle terminations or sharp turns are easy to navigate, due to the foldability of this unique cable.

No compromises

The High Routability Internal miniSAS Cable Assemblies are not just for tightly packaged systems. The high performance SL8800 Series Cable used in the construction of these assemblies also provides excellent transmission properties, allowing your signals to go the distance. The excellent performance of the cable may allow an even longer cable to be used. This performance benefit will stretch your loss budget, allowing you to use extra length to route the cable through a more convenient location, out of the way of airflow, or around difficult obstructions.

High Routability Internal Assemblies are available for 36- and 68-position SFF 8087 styles (miniSAS), for SFF-8643 (miniSAS HD) and for hybrids of the two. Whether or not you need the routability of these cables, they have the performance to help keep your system running at top speed. If you need a little extra "edge" in your SAS environment or you have a challenging packaging situation, look at the 3M High Routability miniSAS Cable Assemblies.

3M has tested these assemblies in folded configurations, and each fold impacts the impedance at that location by approximately only one ohm, well within the tightest impedance specifications (and note that the impedance at each fold is not cumulative, but is only a variation at that point). Similarly, S-parameter performance metrics are not degraded, even with multiple folds. Should your design require any folding, be sure to restrain the cable with the appropriate cable clamps to prevent repeated flexure at the folds.

3M™ High Routability Internal MiniSAS HD Cable Assembly

3M™ High Routability Internal miniSAS Assembly using 3M™ Twin Axial Cable wSL8800 Series low profile cable

36-position, 8F36 Series   68-position, 8F68 Series

3M™ Internal MiniSAS HD to Internal MiniSAS 36-Position Hybrid Cable Assembly

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3M™ High Routability Internal Serial Attached SCSI (SAS) Cable Assemblies

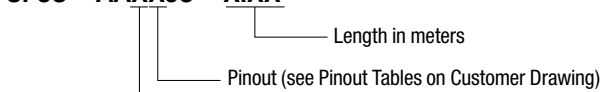| Configuration	Drawing #	Spec #
miniSAS, High Routability Cable Assemblies, 8F36 Series	78-5100-2363-9	PDS-0082
miniSAS, High Routability Cable Assemblies, 8F68 Series	78-5100-2450-9	PDS-0082
miniSAS HD High Routability Cable Assemblies, 8U Series	78-5100-2555-0	PDS-0147
miniSAS HD to miniSAS High Routability Cable Assemblies, 8UH Series	78-5100-2622-8	PDS-0195

Technical Information

- 100 Ohm differential pairs
- Bi-directional SAS channels with or without sidebands
- SAS 2.1 and SAS 3.0 performance compliant
- Solid insulation
- RoHS compliant*
- The cable used in this assembly is UL AWM 21008 (150V, 80C)
- The connector materials (resin/PCB) are rated 94 V-0

Ordering Information

MiniSAS, 68-position, 8F68 Series

8F68 – AAXX05 – X.XX

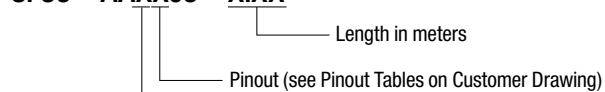Length in meters

Pinout (see Pinout Tables on Customer Drawing)

Cable Used
G = 4-lane with sidebands, SN-plated signal, cable P/N SL8801/12-21DA5-00
J = 4-lane with sidebands, AG-plated signal, cable P/N SL8801/12/20DA5-00

*For cables without sidebands or other configurations, contact a 3M sales representative

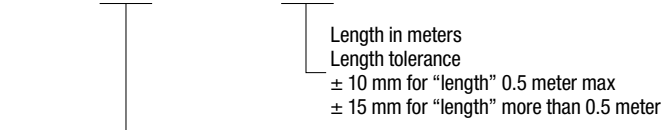### MiniSAS, 36-position, 8F36 Series

8F36 – AAXX05 – X.XX

Length in meters

Pinout (see Pinout Tables on Customer Drawing)

Cable Used
A = 4-lane with sidebands, SN-plated signal, cable P/N SL8801/12-11DA5-00
B = 4-lane with sidebands, AG-plated signal, cable P/N SL8801/12/10DA5-00
C = 4-lane no sidebands, SN-plated signal, cable P/N SL8802/08-21DN5-00
D = 4-lane no sidebands, AG-plated signal, cable P/N SL8802/08-20DN5-00
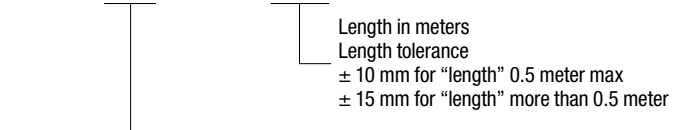
MiniSAS HD, 8U Series

8US4 – XXX19 – 00 – X.XX

Length in meters
Length tolerance
± 10 mm for "length" 0.5 meter max
± 15 mm for "length" more than 0.5 meter

AA1 = Std MiniSAS HD 4i with sidebands (see Table 2 on customer drawing)
CB1 = MiniSAS HD 4 I without sidebands (see Table 3 on customer drawing)

MiniSAS HD to MiniSAS, 8UH Series

8UH4 – XXX13 – 00 – X.XX

Length in meters
Length tolerance
± 10 mm for "length" 0.5 meter max
± 15 mm for "length" more than 0.5 meter

BA1 = Std MiniSAS 4i to Std MiniSAS HD 4i, with sidebands (see Table 2 on customer drawing)
BA2 = Std MiniSAS 4i to Std MiniSAS HD 4i, with sidebands (see Table 2 on customer drawing)
DB1 = MiniSAS 4i to MiniSAS HD 4i, without sidebands (see Table 3 on customer drawing)
DB2 = MiniSAS 4i to MiniSAS HD 4i, without sidebands (see Table 3 on customer drawing)

Important Notice

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