Mini-SAS x4 to Mini-SAS x4, External Cable

Instruction

**CABLE ASSEMBLIES**

External mini-SAS / SATA cable assemblies not only address the storage industry’s present day need for high-speed serial-I/O interfaces (1.5 to 3.0 Gb/s) but they also support evolving higher speed signal speed requirements up to and including 6.0 Gb/s per channel. The cable assemblies use a highly engineered printed circuit board designed to address not only the stringent mechanical interface requirements but also the higher-bandwidth signal integrity thresholds for proper signal transmission as defined by the applicable industry standards. Our cable assemblies meet Serial Attached SCSI (SAS) or Serial ATA (SATA) requirements for mini-multilane external cables. Specifically, Our mini-multilane cables satisfy the applicable requirements of the INCITS T10 SAS 2.0 and 2.1 specification or the SATA-IO Serial ATA specification and conform to the mechanical requirements described in the associated SFF-8086 and SFF-8088 documents. A highly controlled and stable cable assembly manufacturing processes minimize wire management and termination variations that impact the performance of the cable assembly. Robust final test and quality systems assure high quality cable assemblies conforming to the high-speed electrical performance.

**TECHNICAL INFORMATION:**

MATERIALS

* Shells: Diecast zinc – tin plated
* PCB: FR-4 laminate with gold plated contact pads
* Raw cable: 8 individually shielded differential pair cables with fully shielded EMI shield and PVC Jacket
* Pull tab: Nylon resin
* Latch: Stainless steel

ELECTRICAL PERFORMANCE

* Differential impedance: 100Ω +/- 10Ω @ 70ps rise time (20-80%)
* Insertion Loss: < 8dB @ 12.5GHz (2.5Gb/s per channel)

(24 AWG, 6m)

< 10dB @ 2.50GHz (5.0Gb/s per channel)

< 16dB @ 5.00GHz (10.0Gb/s per channel)

* Near end multi-line crosstalk: < 26dB from 10 MHz to 4.5 GHz
* Within pair skew: < 10ps/meter
* Pair-to-pair skew: < 50ps/meter
* Withstanding voltage: 300V DC
* Current rating: 0.5A max. per contact

ENVIRONMENTAL

* Operating temperature range: -20°C to 85°C
* RoHs compliant

MECHANICAL PERFORMANCE

* Durability: 250 cycles
* Mating force: 85 N max.
* Cable axial pull force: 88 N min.
* Latch pull (axial load): 25 N min.

SPECIFICATIONS

• Meet SFF8088 to SFF8088 requirement