EyeMax™ – 4X Cable Assembly – Latch Style

High Speed Serial I/O Link Applications

Description

FCI is pleased to introduce our new 4X EyeMax™ cable assembly product offering to support high-speed copper serial link applications. This copper solution offers a low cost alternative to fiber optics for linking servers, storage and other data network or communication devices. The EyeMax™ link solution is designed to provide a continuous flow of serial data and eliminate data traffic congestion, which can occur among hardware devices that use a parallel bus structure.

FCI's EyeMax™ cable assembly technology provides high-speed data rate transfers of >2.5 Gbps per each link/channel at lengths up to 10-meters. (4X = 10Gbps bi-directional total data rate transfer.) In addition, the EyeMax™ cable technology offers <4% cross-talk performance, greater bandwidth, and exceptional overall electrical performance to support switched fabric link capabilities and scalability within and between system hardware applications.

The mating interface used in EyeMax™ cable and connector products has been selected as the external I/O copper link for the following standards: InfiniBand™, 10G Fiber Channel, Serial ATA 2, and Serial Attached SCSI (SAS).

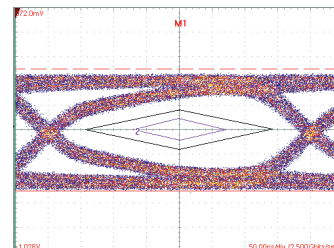http://www.fciconnect.com

Features & Benefits

- Die-Cast shells for enhanced EMI shielding performance
- Blind Mate keying features standardized
- High Speed Data Rate Transfer of >2.5 Gbps per channel-based Link
- Custom paddle-card design for improved Cross-talk performance
- Standardized 24-26 AWG cable offering (special options available with 21-30 AWG cable)
- Impedance controlled Paddle-card with Equalization upgrade capability
- Cable assembly offering available with various high-speed raw cable sources
- Competitively priced product
- 10-meters (Equalized w/24AWG) maximum length to meet Eye Pattern & Electrical Performance

Target Markets

- Data
  - InfiniBand™
  - 10G Fiber Channel
  - Serial ATA 2
  - Serial Attached SCSI
  - PCI Express
  - XAUI applications
- Communications / DataCom
  - 10 Gb Ethernet

Target Applications

- Servers
- Switches
- Storage Devices
- Computing Platforms
- Internet Equipment
- Chipset design
- Routers

EyeMax™ – 4X
Cable Assembly – Latch Style

Technical Features

Materials

- Backshell – Zinc Die Cast
- Strain Relief – Thermoplastic
- Contact Mating area – Cu Alloy w/Au over Ni plating
- Contact Solder area – Cu Alloy with Sn/Pb plating
- Connector Housing – High Temp. Thermoplastic UL94V-0
- Latch & Pull Tab – Thermoplastic & Stainless Steel
- PCB – FR4 Fiberglass
- Cable – Fully shielded, 8 differential pairs

Environmental

- Temperature Range: between -10° to 60°C
- Thermal Shock: 10 cycles -55° to 85°C
- Temperature Life: 456 hours @ 90°C

Part Numbers

10007290-GG X LL F E

- U = Un-Equalized & E = Equalized
- Length in 1/10 Meter
- Length in Meters
- Cable Type: A=Spectra-Strip, B=Madison, etc.
- Cable Gauge (i.e. 24 AWG, 26 AWG, etc.)
- **4X EyeMax™ Latch Style Cable Assembly Series**

http://www.fciconnect.com

Americas Tel.:   800 237 2374
                 717 938 7200
Europe Tel.:   33 1 39 49 21 83
Asia/Pacific Tel.: 65 6549 6666

Electrical Performance

- Differential Impedance= 100 ± 10 Ω @ 100psec
- Insertion Loss = 10.0 dB max @ 1.25Ghz
- Pair to Pair Skew = 50 psec max./meter
- Near End Crosstalk = <4% at 100psec
- EMI Effectiveness = 40 dB min.
- Jitter = 0.25 unit intervals (100 psec)
- Eye Pattern Opening = 300 psec width min. 316 mV height min. @ 2.5Gbps

Mechanical Performance

- Durability = 250 cycles
- Insertion Force = 30N (6.6 lbs.) max
- Withdrawal Force = 15N (3.3 lbs.) max
- Retention Force = 75N (16.9 lbs.) min.
- Min. Bend = 4 inch or less at 90° bend

Specifications

- Industry
    - InfiniBand™ Architecture
    - Small Form Factor (SFF) 8470
- FCI
    - GS-12-216 EyeMax™ Cable Assembly Product Specification

Approvals & Certifications

- UL and CSA approval pending

Other Recommended Products

- 4X EyeMax™ Test Board Kit: P/N 54254-002
- 4X EyeMax™ Receptacle w/Mounting Tabs: P/N 58369-series
- 4X EyeMax™ Receptacle w/o Mounting Tabs: P/N 58368-series

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