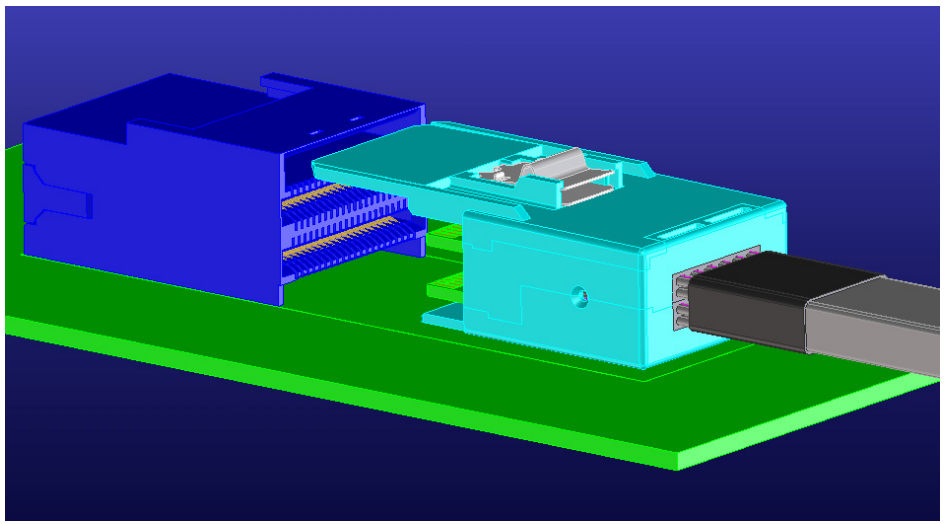
Molex Connector Proposals for SAS 2.x

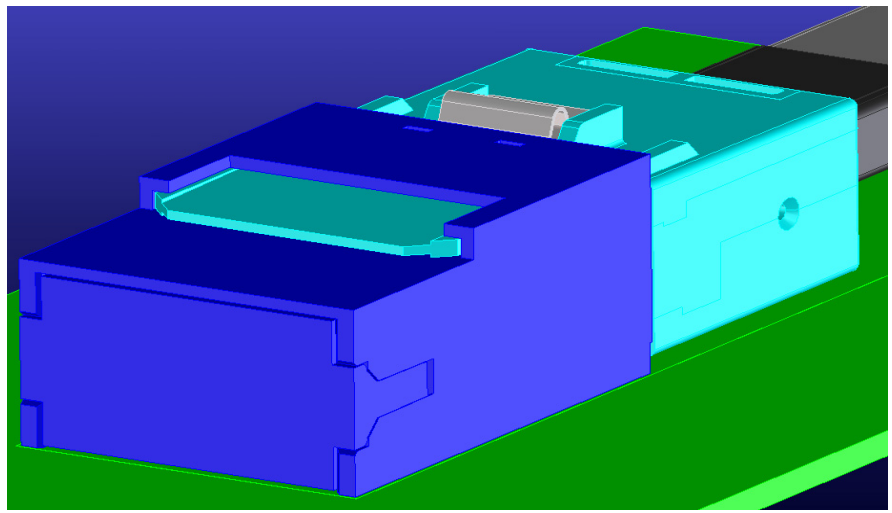
January 14, 2008 STA Meeting

Internal iPass+

New internal cable-to-board interconnect

- 0.8mm (.031”) unshielded system
- Performance based on proven technology (6Gb/s now / 12Gb/s later)
- 84 Circuit
  - Provides 24 differential pairs in a very compact size
  - Provides 12 additional circuits for power and control signals





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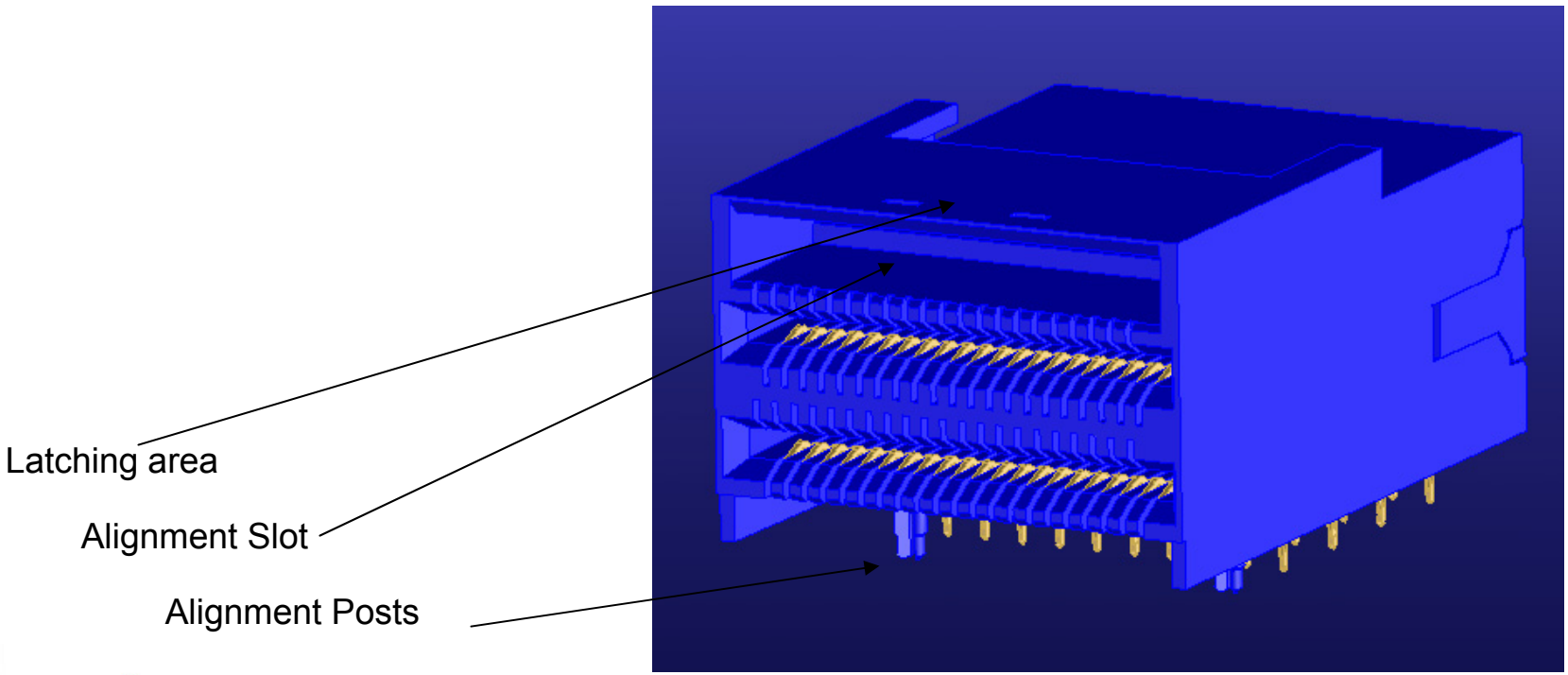
Host Board Receptacle

- High temp thermoplastic housing withstands lead free processing
- Compliant pin technology enables flat rock assembly to host board
- Two posts provide alignment for placement on the board
- Slot provides guidance & self-alignment of plug cable to receptacle
- Accepts dual paddle card cable
- Positive latching feature integral to housing (no hood or shell required)



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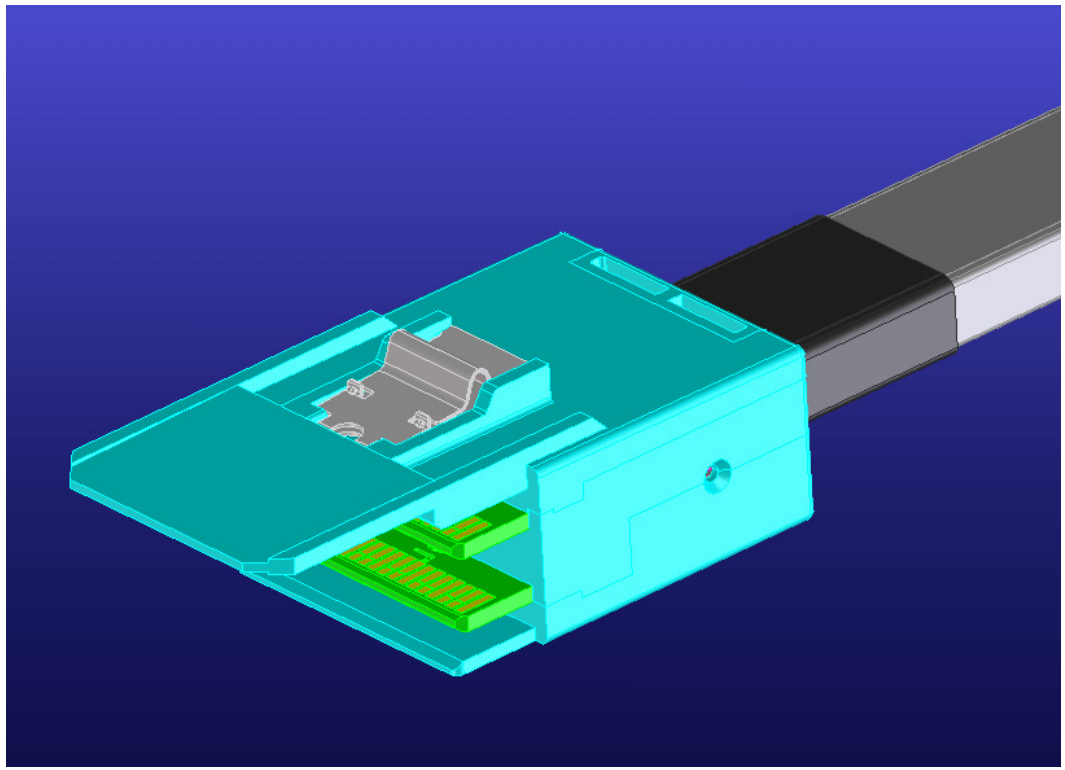
Plug & Cable Assembly

- Identical latching feature used in SFF-8087 for SAS & SATA
- Over-molded design provides cost effective cable assembly solution
- Molded-in guidance feature aligns cable plug to mating host receptacle
- Dual paddle card design employed to increase density



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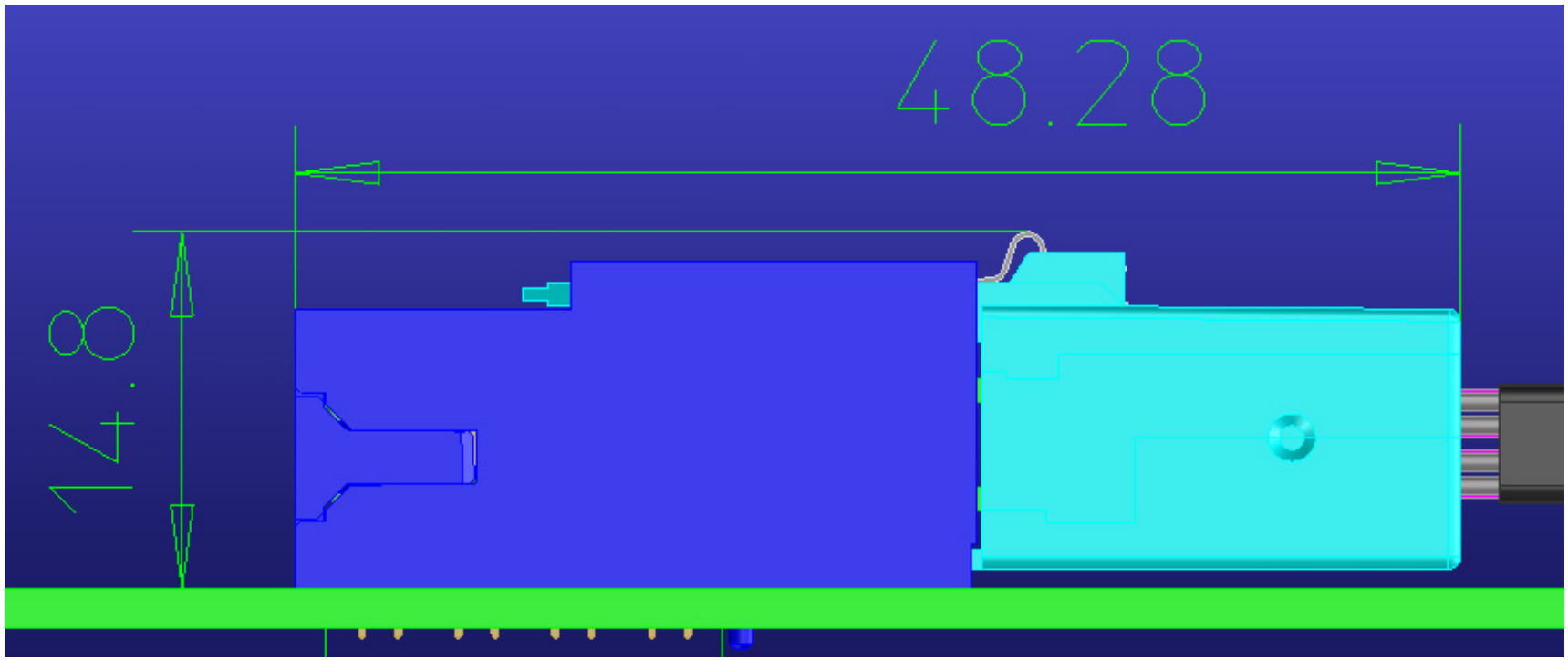
Internal iPass+

- Fits within the maximum component height for a PCIe card

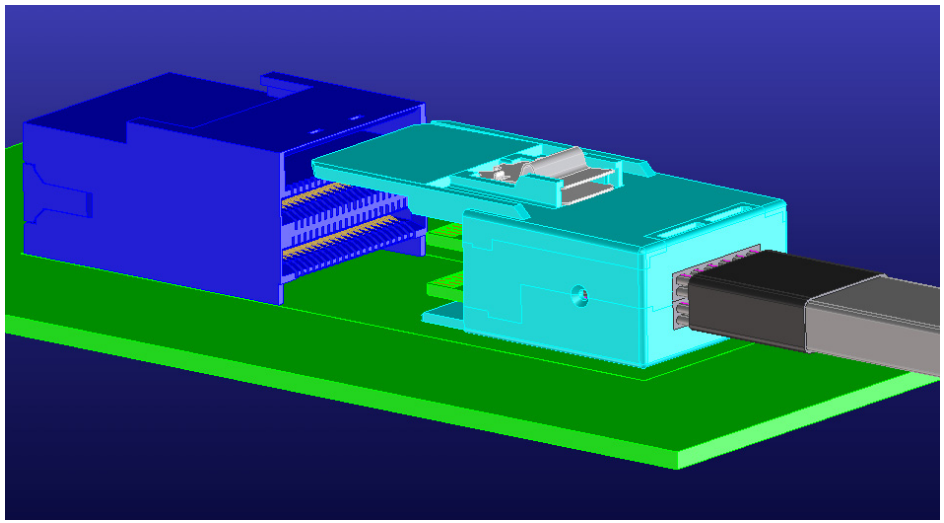


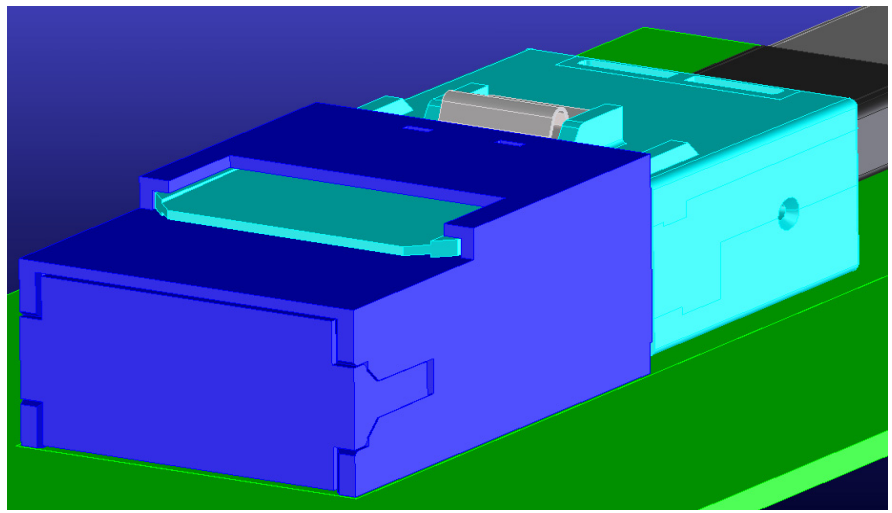
Internal iPass+

- The trend in the industry is to Low Profile PCIe cards

  - This proposal triples the density for internal SAS/SATA 4x ports
    - (2) SFF-8087 SAS 4i fit on a LP card – (2) 4x ports
    - (2) SFF-xxxx Proposed SAS 12i fit on a LP card – (6) 4x ports
      - 12x to 12x; 12x to (3) 4x; 12x to (12) HDDs; (also 8x to …)

  - Provides the same latch and look & feel as the current plugs

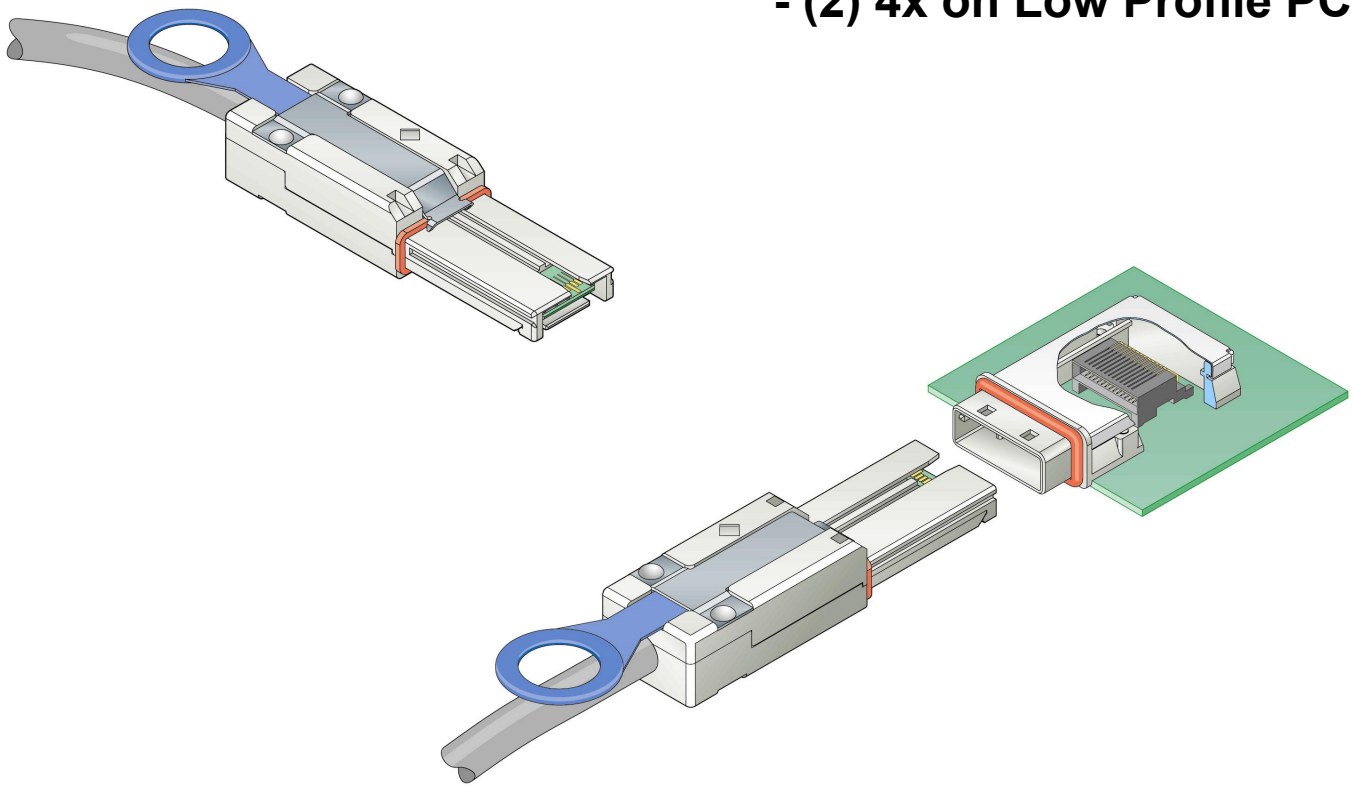




The Current SAS External I/O

SFF-8088 External mini-SAS 4x

- (4) 4x on Full High PCIe Card
- (2) 4x on Low Profile PCIe Card



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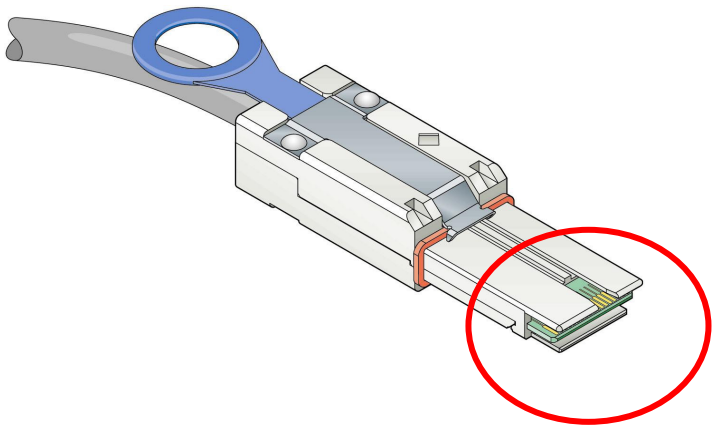
The Proposed SAS External I/O

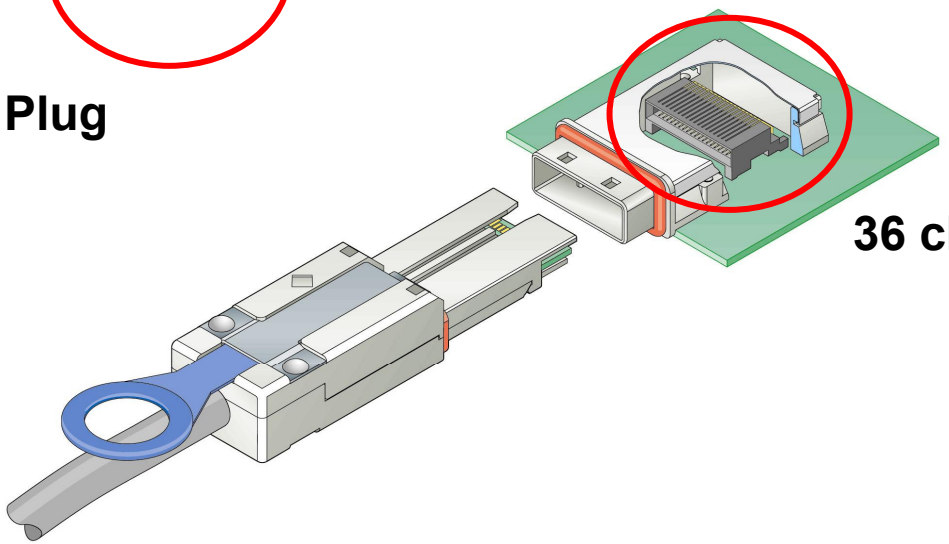
SFF-xxxx External mini-SAS 4x*sb*

- (4) 4x on Full High PCIe Card
- (2) 4x on Low Profile PCIe Card

No Change in Port Density



Modified Plug



36 ckt Connector

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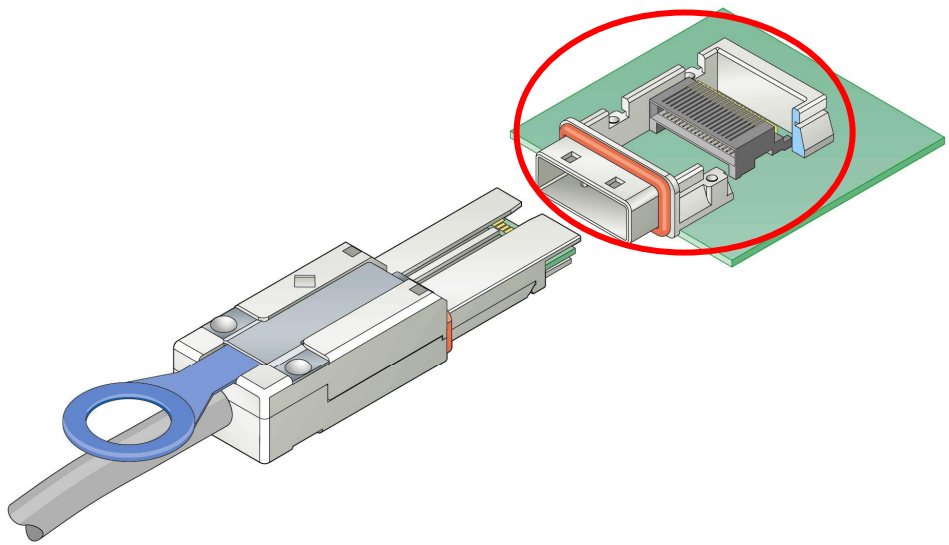
Proposal Highlights – Host Board Connector

- Host connector was 26 ckt; proposed is 36 ckt
  - Same size as the current internal mini-SAS 4i connector
  - Same family – connector already qualified

- Guide revised to remove internal side rails
  - Same physical exterior/density

- EMI solution unchanged

- Bezel opening unchanged



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Proposal Highlights – Cable Plug Connector

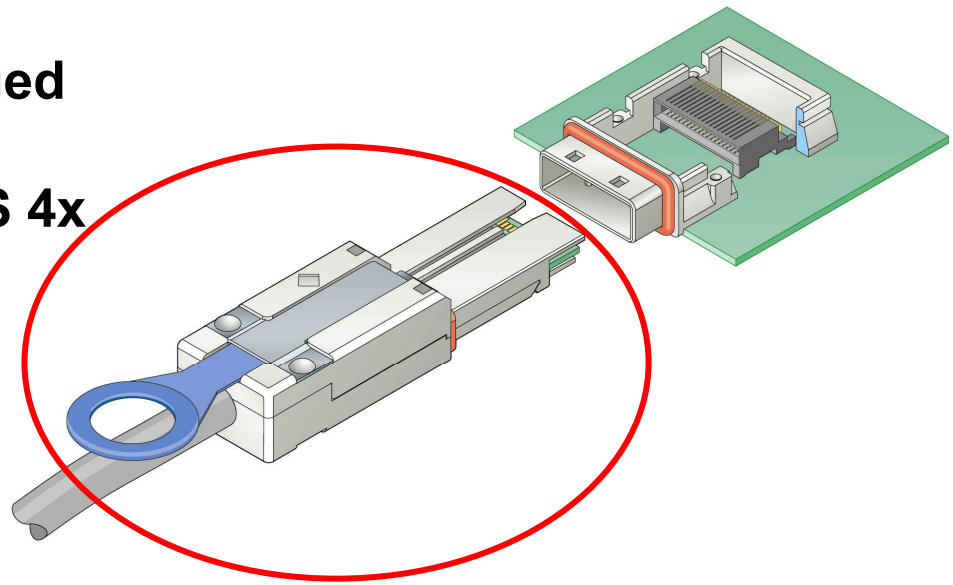
- Paddle card was 26 ckt; proposed is 36 ckt
  - Same size as the current internal mini-SAS 4i connector
  - Same family – connector already qualified

- Guide revised to remove external side rails
  - Same physical exterior/density

- EMI solution unchanged

- Latch and Pull Tab unchanged

Same look & feel as mini-SAS 4x



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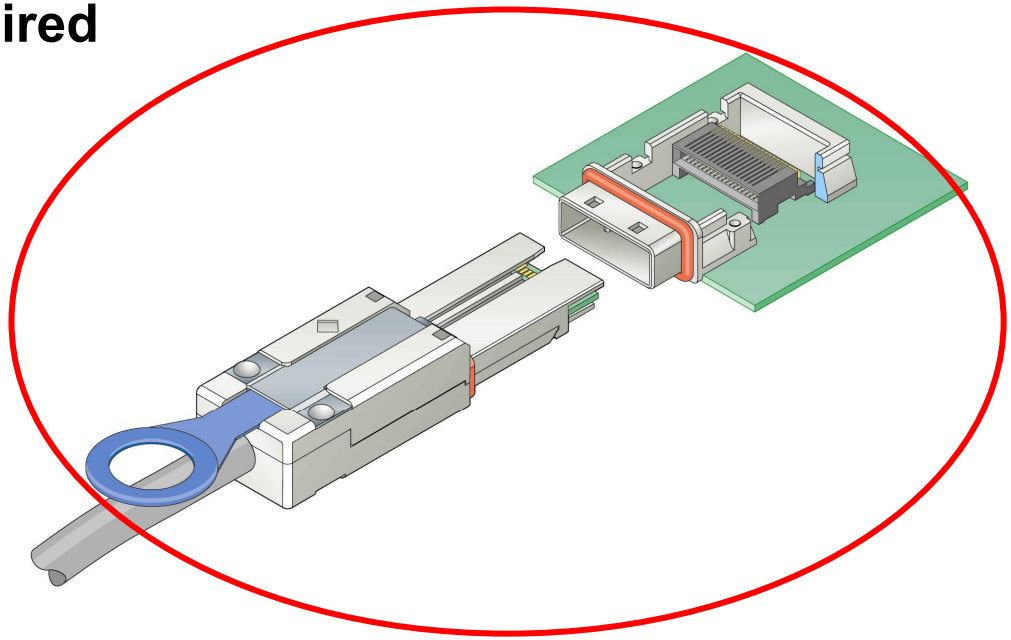
Proposal Highlights

- Intermateability

  - Not intermateable either direction
    - SFF-8088 plug will not mate with new Proposal Host connector
    - New Proposal plug will not mate to SFF-8088 Host connector
    - Not different from SFF-8088 & SFF-8470

  - New Key(s)/Keyways required



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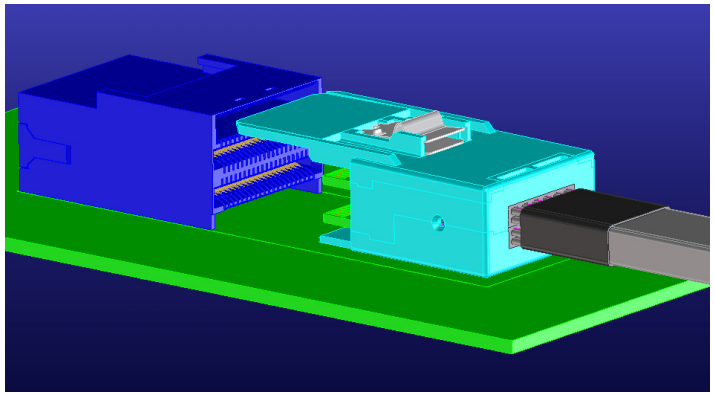
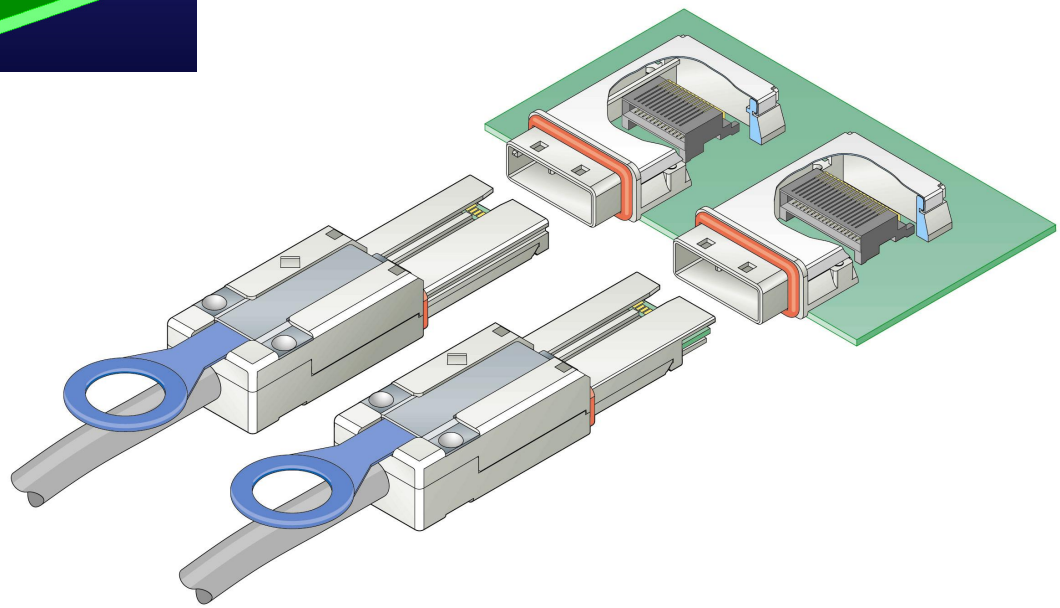
Thank You for your consideration





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