AIRMAX VS® 85Ω CONNECTOR SYSTEM

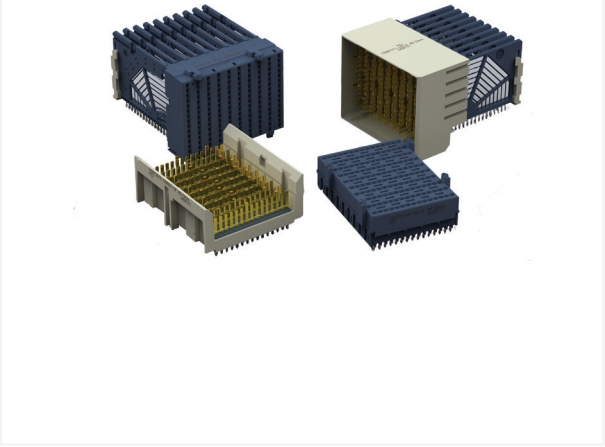
Enables Intel® Quick Path Interconnect (Intel® QPI) Links

OVERVIEW

AirMax VS® 85Ω connectors are optimized to minimize impedance discontinuities and unacceptable signal loss when inserted in 85Ω channels. The connectors' mating interfaces also satisfy demands for backwards compatibility to legacy 100Ω product interfaces ensuring a smooth transition to next-generation designs.

These products have been tested and fully comply with the differential insertion loss, impedance, and crosstalk requirements defined in the Intel® QPI connector specifications. With the Intel® QPI architecture offering transfer rates of 6.4Gb/s to >8Gb/s per lane between processors or processors and I/O controllers, memory bandwidth utilization is significantly lower, enabling multiple bi-directional 10 GbE ports in a server.

Standard connector configurations include vertical and right-angle header and receptacle signal modules to enable backplane and coplanar connections.



FEATURES & BENEFITS

- Tested and fully compliant with Intel® QPI connector specifications
- Support increased QPI link speeds of 6.4Gb/s and >8Gb/s
- Right-angle and vertical receptacles and headers support backplane and coplanar connections
- Backwards-compatibility to 100Ω mating interfaces provides a smooth transition to new designs
- Available with 2mm or 3mm column spacing
- Complementary power connectors and guide modules complete range
- Compatible with Hard Metric design practice
- Halogen-free products aid efforts to minimize the use of environmentally sensitive materials in the electronics industry

TARGET MARKETS/APPLICATIONS

- Data
  - Servers
  - External storage systems
  - Intel® QPI links

TECHNICAL INFORMATION

MATERIALS

- Contacts: Copper alloy
- Plating: Performance-based plating at separable interface (Telcordia GR-1217 CORE Central Office)
- Housings: High-temperature thermoplastic, UL94V-0

ELECTRICAL PERFORMANCE

- Average differential impedance: 85Ω+/- 5Ωs @ 50ps (10-90%) risetime
- Insertion loss: <1.5 dB through 8Gbps
- Differential impedance: 100 ±11Ω @ 50ps (20-80%) rise time
- Worst-case multi-active near-end crosstalk: <-30 dB through 8Gbps
- Worst-case multi-active far-end cross talk: <-30 dB through 8Gbps

ENVIRONMENTAL

- Per Telcordia Central Office requirements

MECHANICAL PERFORMANCE

- Mating force: 0.45 N max. per contact
- Unmating force: 0.15 N min. per contact
- Press-fit insertion force: 40 N max. per compliant tail except for vertical receptacle which is 25 N max. per tail

SPECIFICATIONS

- Product specification: GS-12-239
- Application specification: GS-12-035
- Intel® QPI connector specifications

APPROVALS AND CERTIFICATIONS

- Telcordia GR-1217-CORE Central Office
- UL/CSA recognized

PACKAGING

- Tubes
- Trays (vertical receptacle only)

ASSOCIATED PRODUCTS

- AirMax VS 100Ω connector system
- ZipLine® high-density connector system
- Hard-metric high-power connectors
- HCI® high-power connectors
- Guide modules

PART NUMBERS

Application	Column Pitch	Configuration	Header Type	Right-angle Header	Vertical Receptacle
Backplane	2mm	5 pairs/column x 10 columns (50 differential pairs)	4-wall	10097311-101LF	10099767-101LF
Backplane	3mm	5 pairs/column x 10 columns (50 differential pairs)	4-wall	10087771-101LF	10099768-101LF
Backplane	2mm	3 pairs/column x 6 columns (18 differential pairs)	4-wall	10097256-101LF	10096461-101LF

For more information,
please contact: Communications@fci.com
or visit us at www.fci.com

PART NUMBERS

Application	Column Pitch	Configuration	Header Type	Right-angle Header	Vertical Receptacle
Backplane	2mm	5 pairs/column x 10 columns (50 differential pairs)	2-wall	10095500-105001LF	10095504-101LF
Backplane	3mm	5 pairs/column x 10 columns (50 differential pairs)	2-wall	10073377-1050011LF	10095505-101LF

Application	Column Pitch	Configuration	Header Type	Right-angle Header	Vertical Receptacle
Coplanar	2mm	5 pairs/column x 10 columns (50 differential pairs)	4-wall	10097311-101LF*	10095504-101LF
Coplanar	3mm	5 pairs/column x 10 columns (50 differential pairs)	4-wall	10087771-101LF*	10095505-101LF

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For more information,
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