

AIRMAX VS2™ CONNECTOR SYSTEM

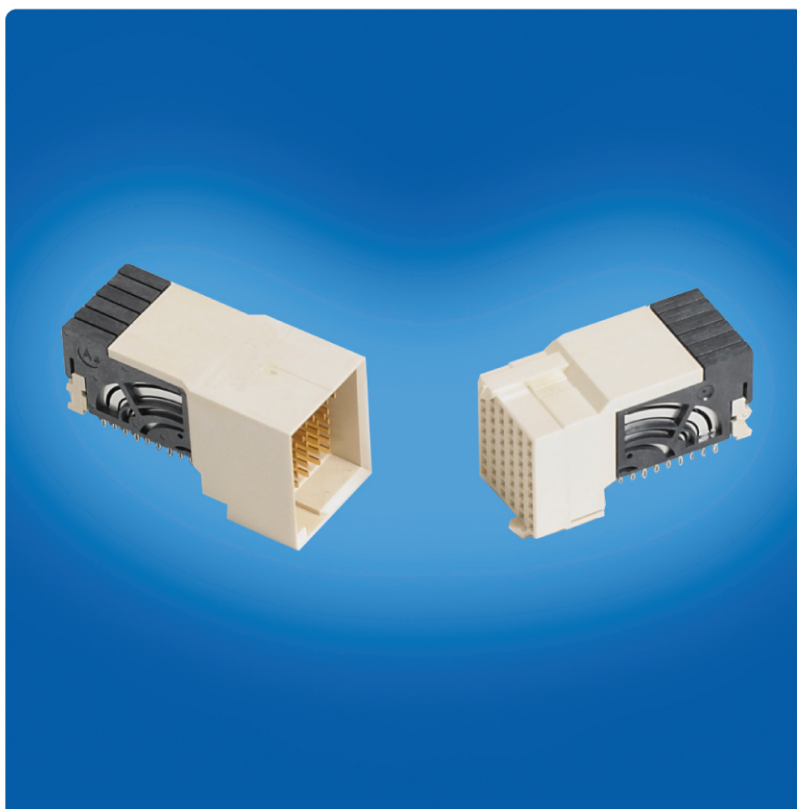
DESCRIPTION

AirMax VS2™ connectors provide a migration path for AirMax VS® for speeds up to 12.5Gb/s fully compliant with IEEE 802.3ap with the flexibility of an open pin field design. The connectors leverage AirMax VS® and AirMax VSe® design features and technology to achieve improved signal integrity and mechanical attributes compared to AirMax VS® connectors. Optimization of materials and manufacturing processes further contribute to improved price/performance.

The connector utilizes FCI technology for a shield-less design with no metallic plates and closely edge-coupled differential pairs design improvements to yield low loss and crosstalk.

AirMax VS2™ connectors are mating-compatible to both AirMax VS® and AirMax VSe® connectors and require no changes to connector PCB footprints. The mating-compatible interfaces and capability to preserve critical pin assignments can provide opportunities for cost savings as new or upgraded equipment is deployed. For example, a backplane or chassis can be designed to allow the installation and continued use of legacy daughter cards, line cards or blades that are already in the field as well as new or future higher-speed module cards.

Right-angle and vertical receptacles and headers support backplane, midplane, coplanar or orthogonal midplane applications.



FEATURES & BENEFITS

- Provides AirMax® system migration path for up to 12.5Gb/s per differential pair
- FCI technologies for a shield-less design with no metallic plates and closely edge-coupled differential pairs combined with innovative design improvements yield low loss and crosstalk
- Mating-compatible to both AirMax VS® and AirMax VSe® connectors with no changes to connector PCB footprints
- Maintains the pin assignment flexibility of the AirMax® open pin field design
- Connectors with 3, 4 or 5 signal pairs/column will enable backplane or coplanar applications
- Available power and guide modules complement signal connector offering
- Compatible with Hard Metric equipment design practice

TARGET MARKETS / APPLICATIONS

- Communications
 - Switches
 - Routers
 - Access (xDSL, CMTS)
 - Optical Transport / Transmission
 - Wireless Base Stations
 - Wireless Infrastructure
- Data
 - Servers
 - Storage Systems
- Industrial
- Medical
- Test & Measurement



TECHNICAL SPECIFICATIONS (PRELIMINARY)

MATERIALS

- Contacts: High performance copper alloy
- Contact finish:
 - Performance based plating at separable interface (Telcordia GR-1217-CORE Central Office)
 - Tin over nickel on press-fit tails on standard lead-free products. Tin-lead option available upon request.
- Housings: High temperature thermoplastic, UL-94-V0

ELECTRICAL PERFORMANCE

- Contact resistance:
 - $\leq 60 \text{ m}\Omega$ initial in backplane application
 - $\leq 120 \text{ m}\Omega$ initial in coplanar application
- Current rating (with $\leq 30^\circ\text{C}$ temperature rise above ambient):
 - 0.5 A/contact with all contacts powered
- Insertion loss performance: see below
- Crosstalk performance: see below

ENVIRONMENTAL

- Telcordia GR-1217-CORE Central Office qualification pending

MECHANICAL PERFORMANCE

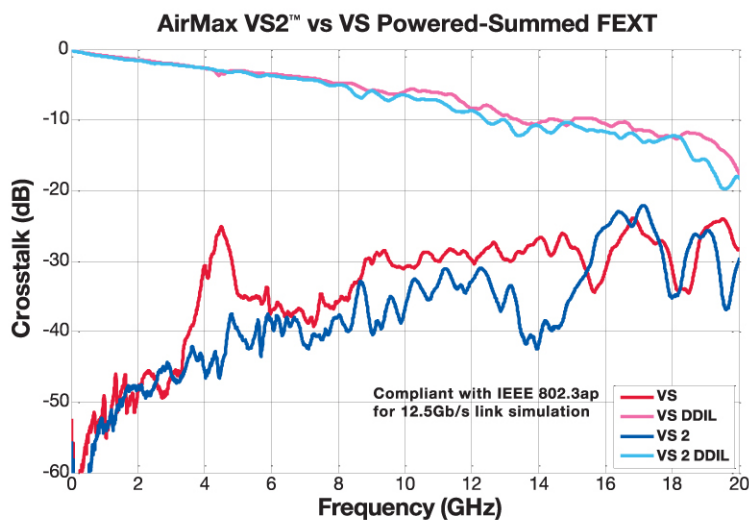
- Durability: 200 cycles
- Mating force: 0.50 N maximum/contact
- Unmating force: 0.15 N minimum/contact
- Compliant pin insertion force: right-angle headers or right-angle receptacles: 15 N maximum per pin

PRODUCT SPECIFICATIONS

- Product specification: GS-12-0956
- Application specification: GS-20-0305

APPROVALS & CERTIFICATIONS

- UL and CSA approvals pending



PART NUMBERS

Description	Part Numbers
Right-Angle Receptacle: 3 Pairs/column x 6 columns (18 differential pairs) on 2 mm pitch	10122643
Right-Angle Receptacle: 4 Pairs/column x 10 columns (40 differential pairs) on 2 mm pitch	10122655
Right-Angle Receptacle: 5 Pairs/column x 10 columns (50 differential pairs) on 2 mm pitch	10122665
Vertical Header: 3 Pairs/column x 6 columns (18 differential pairs) on 2 mm pitch	10122769
Vertical Header: 4 Pairs/column x 10 columns (40 differential pairs) on 2 mm pitch	10122770
Vertical Header : 5 Pairs/column x 10 columns (50 differential pairs) on 2 mm pitch	10122771
Right-Angle Header: 3 Pairs/column x 6 columns (18 differential pairs) on 2 mm pitch	Available upon request
Right-Angle Header: 4 Pairs/column x 10 columns (40 differential pairs) on 2 mm pitch	Available upon request
Right-Angle Header: 5 Pairs/column x 10 columns (50 differential pairs) on 2 mm pitch	Available upon request
Vertical Receptacle: 3 Pairs/column x 6 columns (18 differential pairs) on 2 mm pitch	Available upon request
Vertical Receptacle: 4 Pairs/column x 10 columns (40 differential pairs) on 2 mm pitch	Available upon request
Vertical Receptacle : 5 Pairs/column x 10 columns (50 differential pairs) on 2 mm pitch	Available upon request