

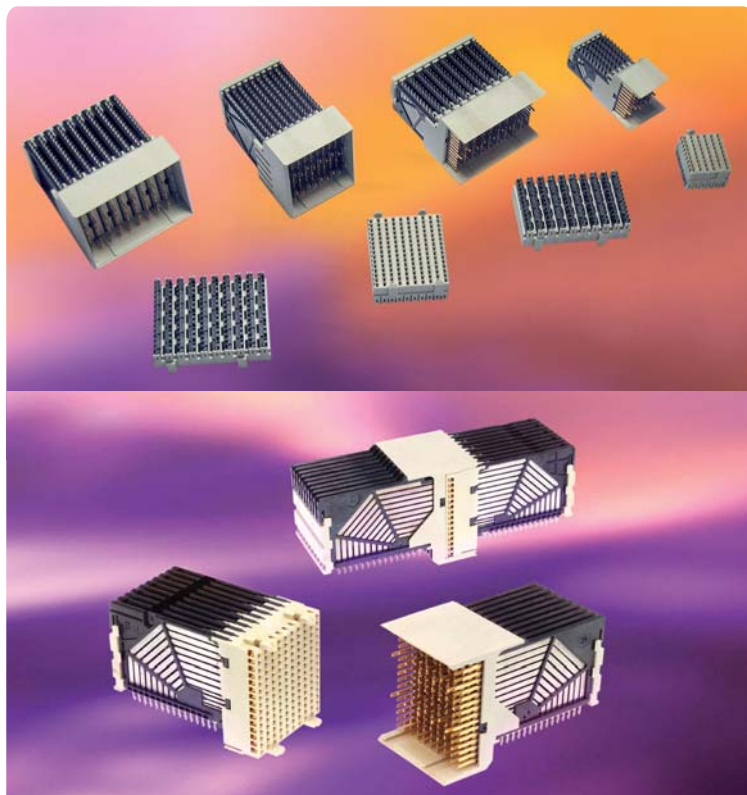
## AIRMAX VS CONNECTOR SYSTEM for DATA

Backplane connector of choice to meet design Requirements to speeds greater than 12.5Gb/s.

### DESCRIPTION

The AirMax VS<sup>®</sup> connector is a revolutionary new connector system. The connector is scalable, inverse 2-piece backplane connector based upon an IMLA (Insert Molded Leadframe Assembly) design that can be used for either Differential Pair signals, Single Ended signals or power – all within the same IMLA. The column differential pairs demonstrate low insertion loss and low cross-talk to greater than 12.5Gb/s. Available in 3,4,5 pair configurations.

The “VS” in the AirMax VS<sup>®</sup> connector stands for “virtual shield” as this unique connector design requires no interleaving shields. The elimination of these shields results in lower cost and lower weight. The end result for customers is that they can design their present systems for 2.5Gb/s to 6.25Gb/s and have the system grow to over 12Gb/s without having to perform a costly redesign to their basic platform.



### FEATURES & BENEFITS

- HM Equipment Practice
- Vertical Receptacle on backplane
- R/A Header on Daughter Card
- R/A header on R/A receptacle- Coplanar
- Compliant press-fit 0.6 drill PTH
- No Shields
  - Impedance control
  - Low cost
  - Reduced weight
  - Versatility – IMLA spacing can be varied without impact to impedance
  - Flexible PCB Routing
- High Density – 150 Position Connector
  - 63 pairs per inch, 25mm on 100” slot centers
  - 57 pairs per inch with side walls
- Column based Differential Pairs
- Pin Assignments for Differential Pairs, Single Ended or Power may mixed within IMLA
- Multiple Centerline Spacing Possible
  - 2mm and 3mm available
- Full Product Family Support
  - Power, Guide, Co-Planar, BGA Header for Backplane in development
- SBB 1.0 & 2.0 compliant.

### TARGET MARKETS & APPLICATIONS

- Data Com
  - Servers
  - Storage Devices
  - Computing Platforms
- Chipset Design
- Supercomputers
- Storage Bridge Bay



**MATERIALS**

- Contacts: Copper Alloy
- Plating: Performance based plating
- Housing: High temperature thermoplastic, UL 94V-0 compliant

**ELECTRICAL PERFORMANCE**

- Differential Impedance\*: 100+/- 5 ohms
- Insertion Loss: <0.5dB through 6.25Gbps  
<2.0dB through 20.0Gbps
- Worst-case Multi-active Near-end Crosstalk\*: <2.5%
- Worst-case Multi-active Far-end Crosstalk\*: <3.0%
- \*Risetime = 55ps (20-80%)

**RELATED PRODUCTS**

- Orthogonal
- BGA
- Zipline

**ENVIRONMENTAL**

- Per Telcordia Central Office requirements

**MECHANICAL PERFORMANCE**

- Mating force: 0.45N max per contact
- Unmating force: 0.15N min per contact
- Press-fit insertion force: 40N max per compliant pin

**SPECIFICATIONS**

- Product Specification: GS-12-239
- Application Specification: GS-12-035

**APPROVALS AND CERTIFICATIONS**

- Qualified per Telcordia GR-1217-Core. Central Office Requirement
- Recognised UL/CSA

**PACKAGING**

- Trays & Tubes

**AirMax VS® Connector System:  
Available configuration**

Connector configuration	Pitch = 2 mm									Pitch = 3 mm					
	Rows (pairs X 3)									Rows (pairs X 3)					
	9			12			15			12			15		
	Columns (IMLA)			Columns (IMLA)			Columns (IMLA)			Columns (IMLA)			Columns (IMLA)		
	6	8	10	6	8	10	6	8	10	6	8	10	6	8	10
4 walls R/A Header	10039851	10045267	10034249	10052825	10052838	10028436		10041460	10025613			10035515		10064489	10037324
2 walls	10040862	10045266	10034264	10052824	10052837	10029391		10041746	10016527			10035514		10064488	10037323
V. Receptacle	10043546	10045271	10034251	10052829	10052842	10028264		10040993	10016537			10035465		10064493	10035146
R/A Receptacle	10053656		10056335		10060905	10035754		10045548	10034475		10076645	10045722			10057041
V. Header (backplane or mezzanine_12.5 mm)	10056101		10056103			10056100		10055140	10056098		10056429	10056430			10056427
Mezzanine Header									10056246 (26 mm)						10059957 (26 mm)