

AIRMAX VS® POWER CONNECTORS

Part of the AirMax VS® Connector Family

DESCRIPTION

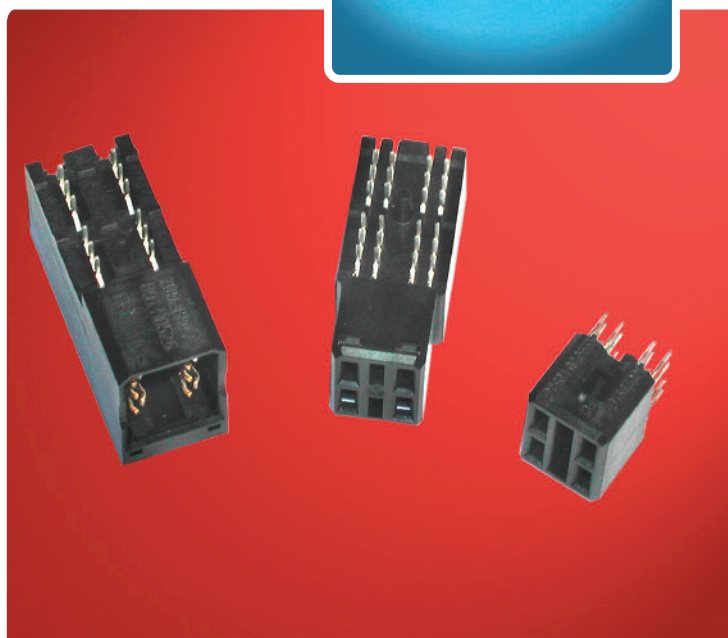
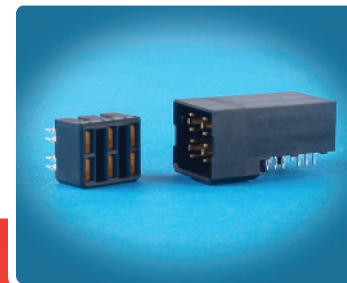
These compact high-power connectors complement the AirMax VS high-speed signal connector offering. Contacts are flat except for minimal forming at the plug contact's mating interfaces, which enables the use of high conductivity base metal. The unique insulator design includes openings to help air flow around the contacts to improve heat dissipation. These design features contribute to the connectors' higher current-carrying capacity.

Each contact in a 1x2 connector module is designed to carry a maximum of 40 Amps, or a total of 80 Amps per module. Individual contacts in the 2x2 or 2x3 modules are designed to carry a maximum of 20 Amps. Reference the current rating chart for additional information.

The right-angle headers and vertical receptacles enable power connections at a backplane-to-daughtercard interface. Each header offers 2, 4, or 6 individual power contacts positioned in 1x2, 2x2, or 2x3 arrays. The backplane receptacles are offered in only 2x2 and 2x3 configurations; the 2x2 receptacle mates to either the 1x2 or 2x2 header configuration. The protected backplane receptacles are UL 60950 Compliant (Finger Probe).

Standard-profile 1x2 and 2x2 right-angle modules stand 14.7mm above the top surface of the PCB. The lower-profile 2x2 and 2x3 modules are designed to match the 11.5mm above-board height of AirMax VS 3-pair signal connectors. The lower vertical profile enables the power modules to be employed on the same 16.7mm slot pitch as the 3-pair signal connectors, or as a means to increase air flow in a chassis having wider slot spacing.

A 2x2 right-angle receptacle extends use to co-planar applications when used with a 1x2 or 2x2 right-angle header.



FEATURES & BENEFITS

- Current rating to 80 amps for 1x2 or 2x2 modules
- Hard Metric (HM) Equipment Practice
- Layout compatible with AirMax VS and Millipacs® connector series
- 1x2, 2x2 or 2x3 contact configurations for backplane applications
- Standard-profile 1x2 and 2x2 right-angle modules extend 14.7mm above the PCB
- Lower-profile 2x2 and 2x3 modules stand only 11.5mm above board
- Options for first-mate/last-break sequencing, 2 mating lengths available
- Protected Backplane connector UL 60950 Compliant (Finger Probe)
- Options for 1x2 or 2x2 Co-planar applications
- Press-fit termination
- Compatible with lead-free processing temperatures

TARGET MARKETS / APPLICATIONS

- Data
 - Servers
 - Storage Devices
 - Computing Platforms
- Communications
 - Switches
 - Routers
 - Internet Equipment
- Medical
- Instrumentation



MATERIALS

- Contact Base Metal: Copper Alloy
- Contact Finish
 - Gold over nickel on separable interface
 - Tin-lead over nickel on press-fit tails
- Housing: High temperature thermoplastic (UL 94V-0)

MECHANICAL PERFORMANCE

- Durability: 100 mating cycles
- Mating force: 31.2N maximum per 1x2 or 2x2 module
- Unmating force: 9.0N minimum per 1x2 or 2x2 module
- Press-fit insertion force: 67N maximum per individual contact tail

ELECTRICAL PERFORMANCE

- Voltage rating: 150V DC
- Contact Resistance: 1.0 mΩ maximum
- Current Rating: Maximum amps per contact for different header and receptacle test configurations with dual (double sided) external copper pads of noted weight

SPECIFICATIONS

- Product Specification: GS-12-220
- Application Specification: GS-20-023
- Safety: UL 60950 & IEC 60950-1 Prevention of Operator Access to Energized Parts

ENVIRONMENTAL

- Per Central Office requirements, Telcordia GR-1217-CORE

APPROVALS AND CERTIFICATIONS

- Per Central Office requirements, Telcordia GR-1217-CORE

PACKAGING

- Tubes

Receptacle Type	Number of Connectors Fully Powered	Copper Pad Weight	Maximum Current Per Contact	
			1 x 2	2 x 2
Vertical Receptacle (2x2)	1	5oz	40A	20A
	Up to 5 adjacent	5oz	32A	14A
	1	2oz	32A	15A
	Up to 5 adjacent	2oz	27A	12A
R/A Receptacle (2x2)	1	2oz	37A	18A
	Up to 5 adjacent	2oz	29A	14A

PART NUMBERS

	Number of Contacts	Contact Array	Height Above PCB	Part Numbers	
				Vertical Receptacle	Right-Angle Header
Backplane Application	2	1x2	14.7mm	10028916-xxxxP00LF**	10028918-001LF
	4	2x2	14.7mm	10028916-xxxxP00LF**	10028917-001LF
	4	2x2*	11.5mm	10028916-xxxxP00LF**	10073379-001LF
	6	2x3*	11.5mm	10061290-xxxxxxPLF**	10061289-001LF
				Right-Angle Receptacle	Right-Angle Header
Co-planar Application	2	1x2	14.7mm	10052620-P00LF	10028918-001LF
	4	2x2	14.7mm	10052620-P00LF	10028917-001LF
	4	2x2*	11.5mm	10052620-P00LF	10073379-001LF

Notes: * indicates the connector set matches the above-board height of an AirMax VS 3-pair signal connector.
 ** xxxx and xxxxxx are placeholders for contact mating length combinations. Reference the product drawings for available options.