

## ExaMAX® IO Connector System

ExaMAX® VS I/O system offers cable assemblies and I/O connector solutions for both internal and external applications. ExaMAX® I/O products are capable of delivering high speed performance of 25 Gb/s per channel with a path to 40 Gb/s and higher. The ExaMAX® I/O system delivers superior linear board signal density and meets the performance requirements of the OIF-CEI-25G-LR industry standard.

The internal I/O system is offered in both cabled backplane and point-to-point internal cables that feature positive latching and integrated guidance to ensure a robust interconnection. The internal system is designed as a direct replacement for a vertical header connector on a backplane and/or midplane using hard metric design guidelines. Flyover applications can be designed to attach to QSFP, SlimSAS, Slim Cool Edge and other connectors for customer-specific applications.

The external cable system features robust metal die castings in various exit configurations coupled with a braided shield and EMI gasket system to assure reliable EMI performance. Jackscrew mechanical mounting provides robust and flexible strain relief solutions.

Amphenol Cable Backplane Systems is able to create custom cabling solutions and configurations to meet specific design requirements. The ExaMAX® I/O system is highly scalable and modular and has the ability to fit in almost any application.

### FEATURES

- Capable of supporting 25Gb/s data rates with a scalable migration path to 40Gb/s
- Revolutionary beam-on-beam contact interface
- Hermaphroditic mating interface protects mating beams
- Efficient 92Ω design
- Internal & external IO systems
- Modular & scalable design
- Engineered wire management & termination
- Utilizes either ribbonized or individual twin-axial cable
- Integration of float, alignment and keying – all in one system
- Extra pins available for applications needing low speed/diagnostic signals



### TARGET MARKETS



### BENEFITS

- Supports present and future data rate bandwidth needs without costly re-design or re-qualification
- Superior signal integrity performance due to minimized stub and impedance control; 40% lower mating force
- Durable, reliable and protected interface eliminates pin stubbing/crushing
- Allows for support of both 85 and 100Ω systems
- Addresses IO needs whether for inside the box or outside the box cabling applications
- Enables designers to accommodate varying signal pair counts using different product configurations
- Impedance maintained and cross talk minimized in the wire termination area
- Accommodates either planar or single differential pair cable construction across different AWG wire sizes
- Address system tolerances, blind mating and proper keying considerations
- Offers designers the option to add low speed signaling when required with no major revisions needed to the IO system

## TECHNICAL INFORMATION

### MATERIAL

- Contacts: High performance Copper Alloy
- Plating(s): Performance-based plating at separable interface (Telcordia GR-1217-CORE) Tin over Nickel on press-fit tails
- Housings: High Performance Thermoplastic, UL94-V0
- Raw Cable: Ag plated copper conductors with foam insulation covered by conductive foil

### MECHANICAL PERFORMANCE

- Mating Force: 0.36 N max. per contact
- Unmating Force: 0.12 N min. per contact
- Press-fit Insertion Force: 15 N max. per contact
- X and Y gatherability of ±1.4 mm
- Cable Strain Relief: 100 N min. when axial load is applied directly to cable
- Panel Retention Frame: 120 N min. when axial load applied to cable latched in frame

### ELECTRICAL PERFORMANCE

- Contact Resistance: 10 m max – change from initial reading
- Current Rating (less than 30°C temperature rise above ambient): signal contact: 0.50 Amps/contact – ground contact: 2 Amps/contact
- Operating Voltage: 50 VAC RMS

### APPROVALS AND CERTIFICATIONS

- EIA 364: Electrical Connector/Socket Test Procedures Including Environmental Classifications
- IEC 60512: Connectors for Electronic Equipment –Tests and Measurement

### ENVIRONMENTAL

- Telcordia GR-1217-CORE Central Office qualification pending

### SPECIFICATION

- Amphenol Product Specification: GS-12-1184
- Amphenol Application Specification: GS-20-0361

### PACKAGING

- Cable Packaging Specification: GS-14-1272

### TARGET MARKETS/APPLICATIONS



Optical Transport  
Router  
Switches  
Wireless Infrastructure



External Storage System  
Server  
Supercomputer

## PART NUMBERS

Product Variation			Cable Housing			
Pairs	Columns	Differential Pairs	Mating Board Connector	Guide Module	Type	Frame or Shroud
2	20	40	10124414-101LF	No Guide	Latched w/shroud	10135766-120LF
4	8	32	10131405-201LF	Dual-guide	Panel Mounted	10131414-101LF
	8	32	10137002-12JLF	Left-guide	Panel Mounted	10127037-101LF
	10	40	10137004-12JLF	Left-guide	Panel Mounted	10131981-101LF
	4	16	10139215-101LF	No Guide	Screw Flange	10138449-001
6	8	48	10131762-12JLF	Left-guide	Panel Mounted	10133122-101LF
	10	60	10131764-12JLF	Left-guide	Panel Mounted	10141681-101LF
	8	48	10129470-102LF	No Guide	Direct Attach	N/A
	12	72	10131766-101LF	No Guide	Die Cast Frame	10137678-001

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#### Disclaimer

Please note that the above information is subject to change without notice.