Amphenol
MILITARY HIGH SPEED

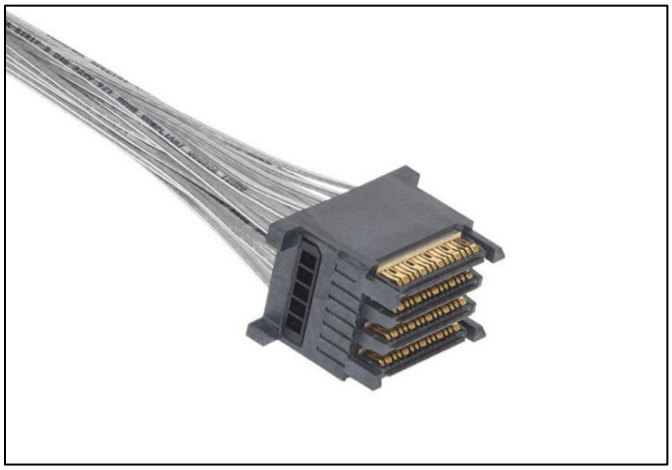
Centaur ExaMAX for Military

I/O cable assembly and connector solutions

Centaur ExaMAX® VS I/O system offers cable assemblies and I/O connector solutions for both internal and external applications. Centaur ExaMAX® I/O products can deliver high speed performance of 25 Gb/s per channel with a path to 40 Gb/s and higher. The Centaur ExaMAX® I/O system delivers superior linear board signal density and meets the performance requirements of the OIF-CEI25G-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.



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FEATURES	BENEFITS
• Capable of supporting 25Gb/s data rates with a scalable migration path to 40Gb/s	• Supports present and future data rate bandwidth needs without costly re-design or re-qualification
• Revolutionary beam-on-beam contact interface	• Superior signal integrity performance due to minimized stub and impedance control; 40% lower mating force
• Hermaphroditic mating interface protects mating beams	• Durable, reliable and protected interface eliminates pin stubbing/crushing
• Efficient 92 Ω design	• Allows for support of both 85 and 100 Ω systems
• Internal & external IO systems	• Addresses IO needs whether for inside the box or outside the box cabling applications
• Modular & scalable design	• Enables designers to accommodate varying signal pair counts using different product configurations
• Engineered wire management & termination	• Impedance maintained and cross talk minimized in the wire termination area
• Utilizes either ribbonized or individual twin-axial cable	• Accommodates either planar or single differential pair cable construction across different AWG wire sizes
• Integration of float, alignment and keying - all in one system	• Address system tolerances, blind mating and proper keying considerations
• Extra pins available for applications needing low speed/diagnostic signals	• Offers designers the option to add low speed signaling when required with no major revisions needed to the IO system

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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

APPROVALS AND CERTIFICATIONS

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

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

ENVIRONMENTAL

- Telcordia GR-1217-CORE Central Office qualification pending

SPECIFICATION

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

PACKAGING

- Cable Packaging Specification: GS-14-1272

HOW TO ORDER

PART NUMBERS

Product Variation				Cable Housing		
Pairs	Columns	Differential Pairs	Mating Board Connector	Guide Module	Type	Frame or Shroud
2	20	40	CF-E24414-101LF	No guide	Latched w/shroud	CF-E35766-120LF
4	8	32	CF-E31405-201LF	Dual-guide	Panel mounted	CF-E31414-101LF
	8	32	CF-E37002-12JLF	Left guide	Panel mounted	CF-E27037-101LF
	10	40	CF-E37004-12JLF	Left guide	Panel mounted	CF-E31981-101LF
	4	16	CF-E39215-101LF	No guide	Screw flange	CF-E38449-001
6	8	48	CF-E31762-12JLF	Left guide	Panel mounted	CF-E33122-101LF
	10	60	CF-E31764-12JLF	Left guide	Panel mounted	CF-E41681-101LF
	8	48	CF-E29470-102LF	No guide	Direct attach	N/A
	12	72	CF-E31766-101LF	No guide	Die cast frame	CF-E37678-001

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