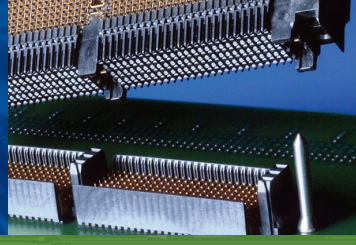
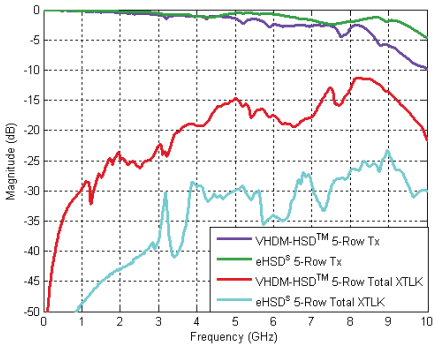
VHDM-HSD™

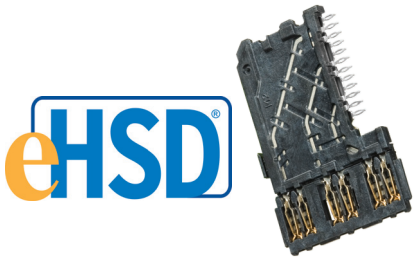
High-bandwidth for Differential Applications



- De facto industry standard for high-speed differential backplane applications
- eHSD® is fully backwards compatible with VHDM-HSD delivering as much as 10 dB lower crosstalk
- eHSD is designed to support up to 10 Gbps backplane designs
- Modular design allows all the features and functionality required in a system to be integrated in a single robust connector
- 25-38 real differential pairs per linear inch
- RoHS compliant

Amphenol's VHDM-HSD™ connector is a shielded, high-density, high-speed press-fit connector system optimized for differential pair architectures. With the addition of the enhanced performance eHSD® connector, data rates up to 10 Gbps are now achievable.





Designed and verified for 10 Gbps data rates, eHSD delivers lower crosstalk beyond 5 GHz

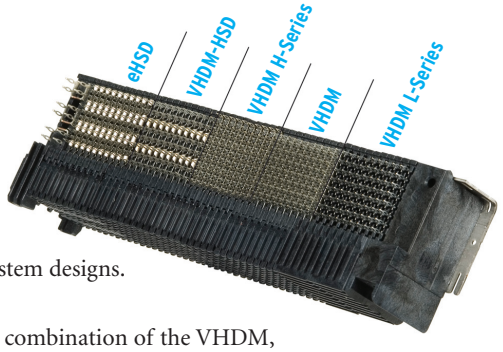
System Upgrades Made Easy

Scale systems to next generation speeds without costly re-designs. The eHSD connector supports higher data rates with a 3-5X reduction in wafer-to-wafer crosstalk. Insertion loss at 10 GHz is < 2 dB. The eHSD 5-Row connector meets the latest IEEE 802.3ap standard for 10 Gbps serial data rate capability.

With an identical mating interface and envelope, the eHSD connector is fully backwards mate compatible with existing VHDM-HSD slots. Designers can use eHSD to extend the life of existing designs, reduce development costs and speed higher performance systems to market.

Optimize Performance

VHDM-HSD is formatted with the same modularity features and full breadth of component solutions as the single-ended version, VHDM®. This modularity and its inherent design flexibility allows designers to incorporate both differential and single-ended requirements in the same connector and optimize system designs.



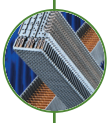
Create customized slot configurations by mixing any combination of the VHDM, VHDM-HSD and eHSD modules on the same rear organizing stiffener.

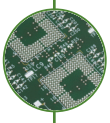
- VHDM-HSD - high-speed differential signals
- eHSD - up to 10 Gbps performance
- VHDM - single-ended, high-density connectors
- VHDM H-Series - single-ended, high-density with greater signal integrity
- VHDM L-Series - single-ended, shieldless for low-speed connections

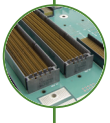
The Amphenol TCS Advantage

"By offering design solutions and advice related to signal integrity between the chip, the design of the PCB, and finally, the connector, Amphenol TCS has the total signal path covered. This type of system solution approach provides an advantage over connector-only manufacturers."

- Fleck Research


Industry Leading Connectors


Printed Circuit Backplanes


Integrated Backplane Systems


Design and Applications Solutions

Amphenol TCS
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Version	Density	Minimum Slot Pitch
• **VHDM-HSD 8-Row**	38 real differential pairs per linear inch (15 real differential pairs per 10mm)	22mm
• **VHDM-HSD 6-Row**	25 real differential pairs per linear inch (10 real differential pairs per 10mm)	18mm
• **VHDM-HSD 5-Row**	25 real differential pairs per linear inch (10 real differential pairs per 10mm)	15mm
• **eHSD 8-Row**	38 real differential pairs per linear inch (15 real differential pairs per 10mm)	22mm
• **eHSD 5-Row**	25 real differential pairs per linear inch (10 real differential pairs per 10mm)	15mm

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