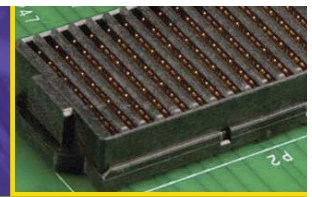
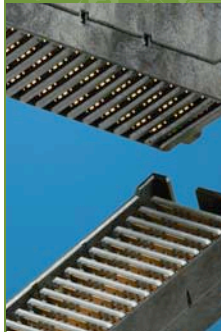




High Speed Mezzanine Connector



- Supports 25+ Gbps data rates
- Stacking heights 10mm-42mm
- 4 and 6 pair configurations
- 17 to 26 pairs per linear centimeter
- 85 and 100 Ohm versions
- Resonance dampening technology
- Optimized for differential performance
- RoHS compliant



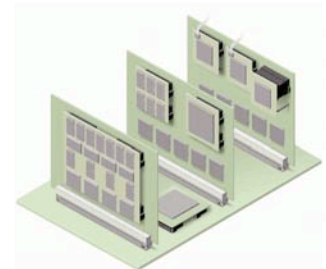
Amphenol's InfinX™ mezzanine connector system is your best choice for today's high speed 10+ Gbps systems as well as tomorrow's 25+ Gbps platforms. It's adaptation of Amphenol's patented "3D Resonance Dampening Technology" developed for our XCede® product family provides the highest level of signal fidelity to mezzanine connectors in the industry.

- **Performance** – 25+ Gbps: best in class electrical performance
- **Flexibility** – Generous mating tolerance allows for multiple connectors per board
- **Robustness** – Wafer construction "no free standing pins" eliminates pin stubbing
- **Solder Joint Reliability** – BGA attachment with "Blade in Ball" assures reliable solder joint with high SMT processing yields
- **High Density** – 17 to 26 differential pairs per linear centimeter
- **Ease of Use** – Designed for standard SMT processes

Future Bandwidth Demands

InfinX™ provides system designers the latitude to support the current migration of system performance from 10 Gbps to 25 Gbps without the necessity of reevaluating your mezzanine connector selection. This can extend the product life cycle of existing platforms by providing an upgrade path for increasing bandwidth demands.

InfinX™ has been optimized for superior differential performance. The wafer construction combined with the use of Amphenol's patented "3D resonance dampening technology" insures excellent signal isolation. This allows the connector to achieve low loss performance < 1 dB @10 GHz and very low cross talk < 40 dB up to 20 GHz for the largest single aggressor. This applies to both near and far-end crosstalk across the full range of heights.



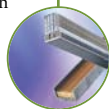
InfinX™ covers a wide array of mezzanine product applications

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



InfinX™ 25+Gbps at Full Density

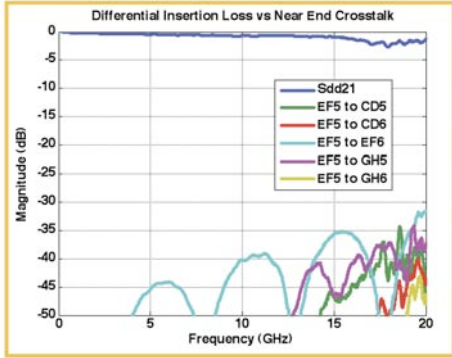
All differential pairs are usable at 25+ Gbps providing 100 % effective density. By comparison, "open pin field" connectors can require up to 50% of their signal pins to be dedicated for additional grounding and still may not be capable of supporting 25Gbps data rates.

Current Stack Heights

Stack Heights range from 10 to 42MM	
4 Pair	15, 18,5, 19,5, 23, 30,5, 35
6 Pair	10, 12, 15, 17, 20, 23, 27, 28, 30, 32, 38, 42



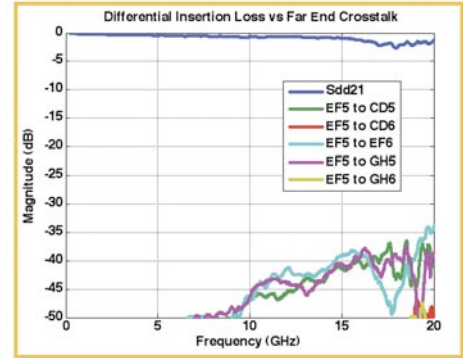
Differential Near End Crosstalk



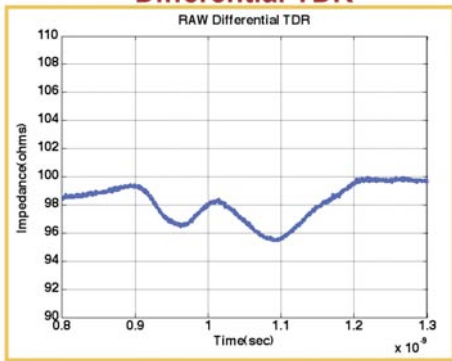
Crosstalk Victim and Aggressor Chart			
Wafer 5		Wafer 6	
GND	GND	GND	GND
C5	D5	C6	D6
GND	GND	GND	GND
GND	E5 F5	GND	E6 F6
GND	GND	GND	GND
G5	H5	G6	H6
GND	GND	GND	GND
GND	GND	GND	GND

* RED block is the victim pair
* ORANGE blocks are aggressor pairs

Differential Far End Crosstalk



Differential TDR



Measured differential crosstalk includes effects of two footprint patterns and one 17mm 6 Pair 100 ohm InfinX™ inter-connection system. Printed circuit boards used in test fixture were 8 layer boards built using N4000-13-EP material.

“Blade in Ball” Attachment Technology

InfinX™ incorporates a “Blade in Ball” process to attach the ball during our connector assembly. The results are RoHS compliant connectors that achieve excellent true position and co-planarity of the ball field. These are critical factors to ensure customers achieve high SMT process yields and minimize the opportunity for solder defects. The effectiveness of this ball attachment method is evidenced by the results of accelerated thermal cycling performed in compliance to IPC-9701. InfinX™ had no solder joint failures thru the 6,000 cycle test.

InfinX™ utilizes the self-centering nature of the ball grid array to ensure precise alignment of the connector to the land pattern on the board. This combines with the generous float tolerance of the mating interface to allow designers to use multiple connectors per board.

The connector is constructed with rugged insert molded signal wafers. There are no free-standing pins to damage during mating or in-circuit testing.



Amphenol TCS

A Division of Amphenol Corporation

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