NeXLev®

THE MARKET-PROVEN SOLUTION FOR MEZZANINE APPLICATIONS

Amphenol's NeXLev® is an established and proven high-density parallel board connector solution to meet current bandwidth demands in many mezzanine applications in a small footprint. The connectors contain 10, 20 or 30 wafers, with each wafer containing 10 real signal contacts. This yields a usable density of 100, 200 or 300 contacts per connector with up to 145 signals per linear inch (57 signals per linear cm) for single ended configurations. Differential configurations provide up to 73 pairs per linear inch (29 signals per linear cm). The connector also features data rates up to 12.5 Gb/s. Performance can be optimized with additional grounding pins.

NeXLev not only improves the design of new systems, it can also be used to upgrade existing designs. Use it to plug in new feature-rich mezzanine cards to an existing system or add more processors or memory in the form of module cards.

- Delivers high speed and density
- Up to 12.5 Gb/s performance
- Stack heights from 10–33mm
- Low mating force/large mating window
- Precise alignment features using self-centering BGA interface



FEATURES

- Supports Performance up 12.5 Gb/s
- Provides fast time-to-market configurations
- Delivers flexibility and density for many applications
 - Single Ended Up to 145 signals/linear inch (57 signals/linear cm)
 - Differential Up to 73 pairs/linear inch (29 signals/linear cm)
- Robust, market-proven lead design and BGA attachment technology
- Open pin field/100 Ω impedance

BENEFITS

- Meets the requirements of existing solutions and allows migration for new applications
- Market-tested 10, 20 and 30 wafer solutions
 - Proven solutions installed worldwide
- Offers single ended and differential configuration options to match your design/system requirements
 - Increase performance with custom grounding patterns
 - Designed for multiple connector applications
- Rugged wafer construction provides highly reliable SMT and high process yield
- Contact to SMT pad resistance: 1 mΩ maximum

TECHNICAL INFORMATION

MATERIAL

Contact Base Metal: Copper Alloy

• Contact Area Finish: Gold over Nickel

• Housing: Liquid Crystal Polymer

ELECTRICAL PERFORMANCE

 Current Rating: 1.0 Amp continuous duty de-rated

 Contact Resistance: 10, 11, 12, 13, 15, 18, 20mΩ depending on stack height

Dielectric withstanding voltage: 600V RMS

■ Insulation Resistance: 600MΩ

MECHANICAL PERFORMANCE

Durability: 100 cycles

Mating Force: 0.45 N max per signal contact
Unmating Force: 0.15 N min per signal contact

Contact Wipe: 1.1mm nominal

ENVIRONMENTAL

 In accordance with Telcordia GR-1217-CORE and EIA-364-B standards

APPROVALS AND CERTIFICATIONS

UL and CSA Approved

SPECIFICATION

■ Product Specification: TB-2144

Application Specification: TB-2082

PACKAGING

Hard Tray

SIGNAL INTEGRITY PERFORMANCE

Impedance: Open Pin Field/100Ω
 Insertion loss: > -0.5 dB @ 4GHz

• Performance: 12.5GHz

TARGET MARKETS/APPLICATIONS



Communications Switches/Routers Access Telecom/Datacom



Data

Router and Server Low data rate Networking Equipment Storage Servers Actuators Control Boards



Industrial & Instrumentation
Test Equipment
Industrial Controls & Instruments
Emulation Equipment



Medical

Diagnostic Electronics Monitoring Analyzers



Military

Military Equipment Chemical Detection Systems

PRODUCT STACK HEIGHT SELECTOR

Plug Heights (mm)

		_			
		2.5	4.5	6.5	9.5
Receptacle Heights (mm)	7.5	10	12	14	17
	10.5	13	15	17	20
	15.5	18	20	22	25
	20.5	23	25	27	30
	23.5	26	28	30	33

Standard Sizes: 100, 200, 300 positions



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