

## 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/100Ω impedance



#### TARGET MARKETS



#### 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

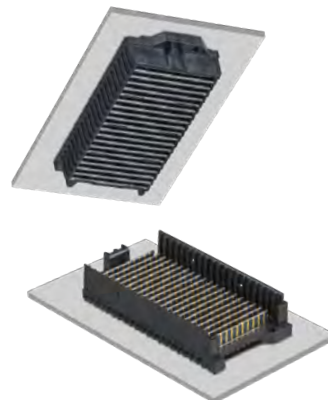


Military  
Military Equipment  
Chemical Detection Systems

## 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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