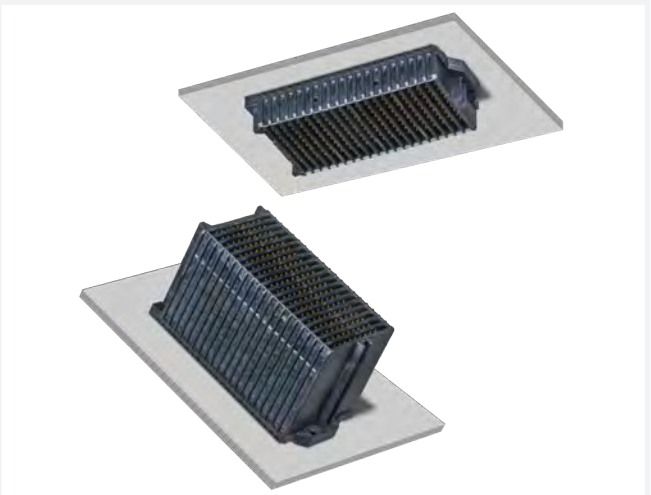
NeXLev®

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.



TARGET MARKETS

- 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	BENEFITS
▪ Supports Performance up 12.5 Gb/s	▪ Meets the requirements of existing solutions and allows migration for new applications
▪ Provides fast time-to-market configurations	▪ Market-tested 10, 20 and 30 wafer solutions – Proven solutions installed worldwide
▪ 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)	▪ Offers single ended and differential configuration options to match your design/system requirements – Increase performance with custom grounding patterns – Designed for multiple connector applications
▪ Robust, market-proven lead design and BGA attachment technology	▪ Rugged wafer construction provides highly reliable SMT and high process yield
▪ Open pin field/100Ω impedance	▪ 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)

Receptacle Heights (mm)	2.5	4.5	6.5	9.5
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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