

# InfinX®

## HIGH SPEED PERFORMANCE AND DENSITY IN ONE SOLUTION

The InfinX® high-speed mezzanine connector system is designed to meet the needs of 25+Gb/s applications. Available in 4- and 6-Pair configurations, InfinX is your best choice for high speed board-to-board applications. InfinX supports from 10mm to 42mm stack heights in 85Ω and 100Ω versions, and provides unparalleled reliability with its patented Resonance Dampening Technology.

InfinX is a purpose-built solution optimized for differential pair signaling. Its high density pin field delivers up to 66 pairs per linear inch (26 pairs per linear cm) and is designed for standard SMT processes. While rated for 25 Gbps bandwidth, InfinX is engineered to perform at higher data rates. Data rates can range up to 28 Gbps and is only constrained by the underlying SMT resident substrate. With 4- and 6-Pair options and stack heights from 10mm to 42mm, InfinX offers great flexibility to match your design environment. With our unique “Blade in Ball” attachment technology, InfinX ensures precise BGA attachment and high process yields.



### FEATURES

- Supports performance from 10 to 25+ Gb/s
- Offers the highest differential pair density available
- Available in stack heights from 10mm to 42mm and multiple module sizes
- Utilizes Amphenol’s ICC patented Resonance Dampening technology
- “Blade-in-Ball” BGA attachment
- 85Ω and 100Ω configuration options

### TARGET MARKETS



- Multiple data rate options
- Optimized for superior differential pair signaling performance
- Flexibility: 4- and 6-Pair, 10mm–42mm stack heights, multiple module sizes
- Optimal signal integrity for mezzanine connectors
- Superior BGA technology

### BENEFITS

- Provides Systems Designers/Architects with multiple data rate options and a migration path for future applications
- Unmatched density, optimized for differential performance with low crosstalk and signal loss
- Provides great flexibility to system designers with stringent board-to-board requirements
- Provides the highest level of signal fidelity to mezzanine connectors in the industry
- Minimizes effects of component tolerances of connector assembly and improves SMT board assembly yields
- Flexibility to meet your electrical design requirements and adaptability to meet your future needs

## TECHNICAL INFORMATION

### MATERIAL

- Housing: Liquid crystal polymer
- Contact: Copper Alloy
- Vacuum cap: Stainless steel
- Plating: Performance-based plating at separable interface; meets requirements of product specification.
- Solder spheres: Lead Free

### ELECTRICAL PERFORMANCE

- Current Rating:
  - 1.0 Amp per contact: Signal & Ground contact, narrow
  - 2.0 Amp per contact, Signal & Ground contact, wide
- Contact Resistance: 10mΩ maximum
- Dielectric Withstanding Voltage: 750VAC (RMS)
- Insulation Resistance: 1000MΩ

### MECHANICAL PERFORMANCE

- Durability: 200 mating cycles
- Mating Force: 0.33 N max per signal contact
- Unmating Force: 0.08 N min per signal contact
- Contact Wipe: 2.0mm nominal standard; 1.35mm nominal reduced wipe

### ENVIRONMENTAL

- In accordance with Telcordia GR-1217-COREi02 and EIA-364 series standards

### APPROVALS AND CERTIFICATIONS

- UL and CSA Approved

### SPECIFICATION

- Product Specification: TB-2258 Rev InfinX® Product Specification
- Application Specification: TB-2241 InfinX® DFM & SMT Assembly Guide

### PACKAGING

- Hard Tray

### SIGNAL INTEGRITY PERFORMANCE

- Impedance: 85Ω & 100Ω +/- 5Ω
- Insertion loss: > -0.1 dB @ 15GHz

### TARGET MARKETS/APPLICATIONS



Communication  
Wireless infrastructure



Data



Industrial & Instrumentation

## PRODUCT STACK HEIGHT SELECTOR

Stack Heights Range from 10mm RW to 42mm															
<b>4PR</b>			15	18.5	19.5	23	24.5	26.5	28	30	30.5	35		40	42
<b>6PR</b>	10 RW	12	15	17	20	23	25	27	28	30	32	36	38	40	42

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