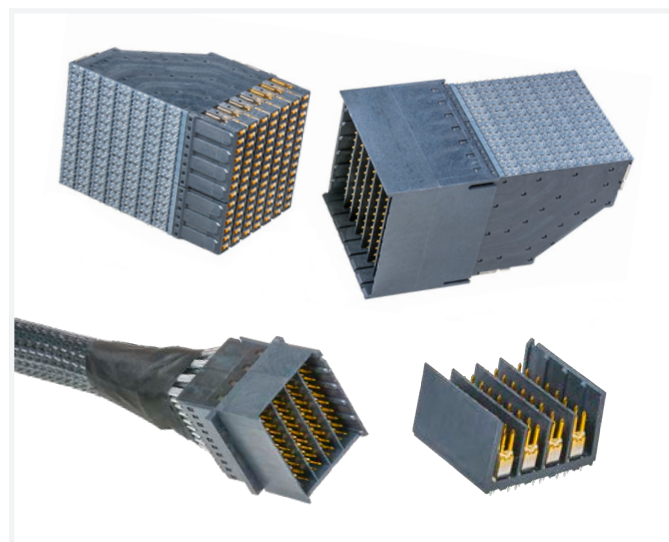


Paladin® 112G Backplane Interconnect System

REVOLUTIONARY SI PERFORMANCE

The Paladin interconnect system enables next generation signal integrity performance for bandwidth up to 112GB/s. Paladin's balanced differential pair design provides a flexible and scalable platform through use of a simplified connector construction. It also offers the broadest product platform in the industry, supporting traditional backplanes, cable backplanes, over 100 potential direct orthogonal configurations, and much more.

- Industry leading transmission-to-crosstalk performance
- Connector bandwidth beyond 40GHz
- Impedance control over a 2mm connector de-mate
- Discretely shielded and balanced differential pairs
- Common mating interface for all orientations



TARGET MARKETS



FEATURES

- 95Ω nominal impedance
- Best in class signal-to-noise performance
- Linear transmission beyond 40GHz
- High isolation and symmetrical footprint
- Mechanically and electrically matched signal lengths within each pair
- Consistent SI performance over the connector's wipe range
- Common mating interface and optimized "square" pitch
- Footprint routes both horizontally and vertically with traditional PCB manufacturing technologies

BENEFITS

- +/- 5Ω variation
- Over 40dB of IL to XT separation at 25GHz
- No stub resonances
- Superior crosstalk and common mode conversion performance
- Skew-less design without the routing challenges of a broadside coupled architecture
- Less than 5Ω of impedance change while the connector is de-mated, up to 2mm
- Broad product family that supports all system architectures with up to 49 different direct orthogonal configurations
- Dual track routing reduces board layers and system cost

TECHNICAL INFORMATION

MATERIAL

- Contact Finish Area: Gold
- Contact Base Metal: High Performance Copper Alloy
- Housings: High Performance Engineering Thermoplastic

ELECTRICAL PERFORMANCE

- Signal Contact Current Rating: 0.5A
- Contact Resistance Change: 10milliohms Maximum
- Dielectric Withstanding Voltage: 250 VAC Peak

MECHANICAL PERFORMANCE

- 2.25mm and 1.5mm Signal Wipes Available
- Housing Capture: 1mm X and Y
- Guide Capture: 2mm X and Y
- Durability: 250 Mating Cycles

APPROVALS AND CERTIFICATIONS

- UL94 V-0

PACKAGING

- PVC Trays (ESD)

ENVIRONMENTAL

- Operating Temperature Range: -40°C to 85°C

SPECIFICATIONS

- TB-2320 Paladin Direct Orthogonal General Guidelines
- TB-2322 Paladin Routing Guidelines
- TB-2324 Paladin General Product Specification
- TB-2326 Paladin Daughtercard Press-Fit Installation Process
- TB-2327 Paladin Daughtercard and Direct Ortho Module Removal and Replacement Process
- TB-2331 Paladin Connector Design Guidelines
- TB-2332 Paladin Backplane Press-Fit Installation Process
- TB-2333 Paladin Backplane Module Removal and Replacement Process

TARGET MARKETS/APPLICATIONS



Hubs
Switches
Routers
Optical Transport
Wireless Infrastructure



Servers
Storage
Supercomputers

