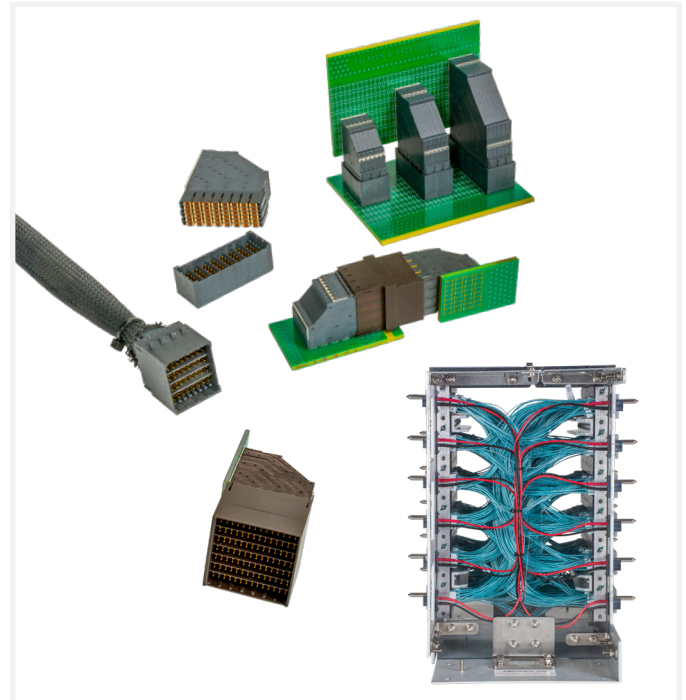


Paladin® Cabled Backplane

EXTENDING THE REACH OF PASSIVE COPPER IN BACKPLANE, MIDPLANE AND OVERPASS CABLE APPLICATIONS

Cable Backplane Systems is part of Amphenol ICC's Highspeed Backplane Product business, dedicated to developing and manufacturing cabled backplane solutions for next generation system architectures. Our customers are leading providers of datacenter switches and routers, enterprise servers and high performance computers. Products include IO style cables, internal OverPass cables, and full mesh harness structures for both backplane and midplane applications.

- Extends the reach of passive copper for next generation real world system designs; complementary with direct orthogonal designs, intermatable with existing board mount connector designs
- Lowers overall system costs by reducing or eliminating the need for expensive active devices like retimers and high performance board materials
- Market leading backplane connector families – Paladin®
- Proven reliability of passive twin ax copper coupled with advanced wire attachment and 100% high speed test coverage provides peace of mind
- Turn key support provides mechanical application design services and signal integrity consultation from wire level through system level



TARGET MARKETS



FEATURES

- Fully passive copper cable assembly
- Same mechanical benefits as backplane connectors
- Low loss twin ax cable
- Linear transmission beyond 40 GHz
- Flexible pin out
- 32 – 28 AWG wire gauges
- 100% high speed test coverage
- Mate compatible with press fit headers, right angle and orthogonal configurations

BENEFITS

- Low cost reliable signal transmission
- High pin counts, blind mate & high density
- Overcomes limitation of PCB materials
- Enables 56G NRZ and 110G PAM4 performance
- Allows for full mesh designs with cable harnesses
- Optimization of transmission and cable routing
- Assurance of functional performance
- Line cards / switch cards can be shared between systems allowing for a scalable platform

TECHNICAL INFORMATION

MATERIAL

- Contacts: High performance Copper Alloy
- Plating(s): Performance-based plating at separable interface (Telcordia GR-1217-CORE)
- Housings: High Performance Thermoplastic, UL94-V0
- Wire: Silver and tin plated copper, polyolefin, aluminized polyester foils

ELECTRICAL PERFORMANCE

- Differential Impedances: 95 Ω
- Supporting all major protocols: IEEE, InfiniBand, OmniPath, UPI, PCIe, SAS

MECHANICAL PERFORMANCE

- Mating wipe: 1.5mm or 2.25mm
- Housing Capture: min 1mm X and Y
- Durability: 250 mating cycles
- Mate and unmate forces equal to press fit connectors

APPROVALS AND CERTIFICATIONS

- Telcordia GR-1217 – CORE Central Office
- UL94 V-0
- Twin AX UL – HB and VW1

PART NUMBERS

DESCRIPTION

- 4X8 Paladin Cable, 30 AWG, 40 GHz
- 4X8 Paladin Cable, 28 AWG, 40 GHz
- 4X8 Paladin Cable, 30 AWG, 25 GHz

PART NUMBER

- HS30720061
- HS30753261
- HS30780081

PACKAGING

- Product specific

ENVIRONMENTAL

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

SPECIFICATIONS

- TB-2324 Paladin® Product Specification

TARGET MARKETS/APPLICATIONS



Switches
Routers
Access
Hubs
Wireless Infrastructure



Servers
Datacenter
External Storage System
Supercomputers