



TE CONNECTIVITY (TE) AdrenaLINE Slingshot 224G BACKPLANE SOLUTION GUIDE

Where Speed Meets Reliability

The AdrenaLINE Slingshot High Density (HD) backplane portfolio delivers high-performance 224G cabled backplane and board mount solutions, designed specifically for the evolving demands of AI-driven architectures. Engineered for next-generation data centers, it combines superior signal integrity with scalable system design to help accelerate your transition to 224G infrastructure.

Why Choose AdrenaLINE Slingshot HD Backplane Solutions?

Signal Integrity You Can Trust at 224G Speeds

- Maintains superior signal integrity
- Linear bandwidth up to 67 GHz provides generous margin for 224G Ethernet, PCIe Gen 6/7, NV Link 6, InfiniBand, UA Link, CXL and other emerging protocols

Built for AI/ML Scale and Beyond

- Modular scalability from 4x4 to 12x16 configurations (up to 288 differential pairs in 10U) supports diverse workloads, allowing for high degree of customization to fit TE customer’s unique architectures
- High-density design allows more differential pairs per rack unit without compromising mechanical robustness or thermal performance

Manufacturing Excellence Meets Simplicity

- Automation-ready design supports high-volume production with consistent quality and proven scalability
- Hermaphroditic design reduces manufacturing costs; global diverse manufacturing locations help minimize supply chain risk

Applications

- AI/ML Compute
- Cloud & Data Center
- High Performance Computing
- Telecoms
- Network Switches
- Storage Systems

Product Benefits & Features

Features	Benefits
Signal Integrity & Performance	
<ul style="list-style-type: none">• 224G PAM-4 compliant• PCIe Gen 6/7 signaling standards	<p>Future-proof AI/ML performance</p> <p>Enables next-gen compute architectures</p>
<ul style="list-style-type: none">• Best-in-class bulk cable• <5Ω impedance variation over full wipe range• 26-32 AWG cable support	<p>Superior performance for long cable runs</p> <p>Critical for modern AI rack architectures</p>
<ul style="list-style-type: none">• 100% VNA testing of every differential pair• Complete component traceability• 100% BERT at cartridge level	<p>Consistent real-world reliability</p> <p>Maintains performance under varied conditions</p>
<ul style="list-style-type: none">• Supports routing of ≥2 differential pairs per layer	<p>Efficient PCB trace routing</p>
<ul style="list-style-type: none">• 360° shielding and press-fit EON contacts for low noise, high isolation signal environments	<p>Industry-leading EMI performance</p>

Mechanical	
<ul style="list-style-type: none"> • ±1.2mm gageability (X,Y directions) • Hermaphroditic mating interface 	Prevents costly assembly failures
<ul style="list-style-type: none"> • 200+ mating cycles rated • Spring-loaded hardware design 	Reduces field service and rework
<ul style="list-style-type: none"> • Modular 4×4 to 12×16 configurations 	High-density, scalable architecture
<ul style="list-style-type: none"> • Operating range of -40°C to +105°C • Supports up to 0.5 A per pair 	Thermally resilient operation
<ul style="list-style-type: none"> • Configurations for: <ul style="list-style-type: none"> • board-to-board • board-to-cable • cable-to-cable 	Flexible system integration

Protocols Supported:

- Ethernet - IEEE 802.3dj
- PCI Express® (PCIe®) 7.0 specification
- NVLink6
- UALink 200G 1.0 Specification
- Ultra Ethernet™ 100G Specification v1.0
- OIF CEI-224G- MR and LR

Product Portfolio & Configurations



Board Mount Connector



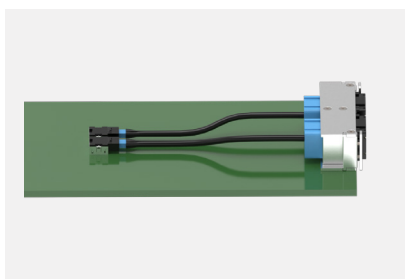
Cabled Backplane Cartridge



Active Cabled Backplane



Cable Assembly



Near Chip (Over the Board) to Backplane

Additional Resources

AdrenaLINE Slingshot Backplane Website

Discover product details, applications, and technical insights

[Visit the Website](#)

AdrenaLINE Slingshot Backplane Connector User Guide

Access connector specifications, installation instructions, and PCB requirements for 224G high-density backplane solutions

[Download the User Guide](#)

AdrenaLINE Slingshot Backplane Product Specification: 108-161114

Access performance, tests, and quality requirements for 224G AdrenaLINE Slingshot Connector Assemblies

[Download the Document](#)

AdrenaLINE Slingshot Backplane Video

Watch how AdrenaLINE Slingshot enables high-speed connectivity

[Watch the Video](#)

Contact Us

Connect with our experts for support

[Contact Us](#)

te.com

TE, TE Connectivity, TE connectivity (logo), AdrenaLINE Slingshot and EVERY CONNECTION COUNTS are trademarks owned or licensed by the TE Connectivity plc family of companies. Other product names, logos, and company names mentioned herein may be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

In no event will TE be liable for any direct, indirect, incidental, special or consequential damages arising from or related to the recipient's use of the information. It is the sole responsibility of the recipient of this information to verify the results of this information using their engineering and product environment. Recipient assumes any and all risks associated with the use of the information.

© 2025 TE Connectivity. All Rights Reserved.

09-25