



Point2 Technology Validates 1.6T e-Tube Interconnect Technology for Next- Generation AI Infrastructure

Data Center / AI Infrastructure

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Keysight and Point2 Technology Collaborate to
Advance Next-Generation AI Scale-Up Interconnects

01**Company**

Point2 Technology, a San Jose-based provider of interconnect technologies for AI data center scale-up

02**Solutions**

High-Performance BERTs and Modular Mainframe Sampling Oscilloscopes for high-speed digital validation and analysis of 120 GBaud PAM4 signals

03**Challenge**

Validate next-generation, multi-terabit interconnects that address power, bandwidth, reach, and reliability challenges in hyperscaler AI infrastructure

04**Results**

Validated Point2 Technology's e-Tube interconnect technology for 1.6 terabit speeds and supported early research and development for 3.2T interfaces

Point2 Technology develops connectivity technologies for data center AI cluster scale-up. As AI and machine learning (ML) workloads increase bandwidth demand, hyperscalers need interconnect approaches that can support higher density, lower power, and reliable performance across xPU clusters.

Point2 Technology collaborated with Keysight to validate its e-Tube interconnect technology using Keysight high-speed digital test solutions, including High-Performance BERTs and Modular Mainframe Sampling Oscilloscopes. The collaboration supports validation of complex 120 GBaud pulse amplitude modulation 4-level (PAM4) signals required for 1.6 terabit speeds.

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Sean Park**CEO, Point2 Technology**

A strategic partnership with Keysight gives us access to world-class engineering tools and support, allowing us to accelerate our e-Tube product development cycles. The confidence that comes from validating our e-Tube platform using Keysight's rigorous test equipment is invaluable as we engage with leading hyperscaler customers globally.

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The Challenge

AI workloads are changing the performance requirements for data center infrastructure. As hyperscalers scale xPU clusters to support increasingly complex AI and ML models, interconnects can become a limiting factor. Higher bandwidth, lower latency, power efficiency, and reliable signal performance all matter when the network fabric must move data quickly across dense compute environments.

Traditional interconnect approaches face pressure at these speeds. Point2 Technology's e-Tube technology uses radio frequency (RF) data transmission over plastic waveguide and targets longer reach than traditional copper at a comparable cost structure, with lower power, cost, and latency when compared with optics.

For Point2 Technology, the challenge was not only to advance an alternative interconnect architecture, but also to validate it with the measurement confidence required by hyperscaler environments. AI infrastructure customers need evidence that new interconnect technologies can meet strict performance and reliability requirements before they can be considered for deployment at scale.

That validation challenge becomes more demanding as the industry moves toward 1.6 terabit and future 3.2T interfaces. Complex 120 GBaud PAM4 signaling requires high-speed stimulus, accurate receiver characterization, and detailed waveform analysis to help engineering teams understand performance margins and identify issues earlier in development.



Figure 1. AI scale-up architectures are driving critical bandwidth, power, latency, and reliability challenges across hyperscaler data center interconnects

The Solution

Point2 Technology worked with Keysight to validate its e-Tube interconnect technology using Keysight high-speed digital test solutions. The collaboration uses High-Performance BERTs and Modular Mainframe Sampling Oscilloscopes to generate and analyze complex 120 Gbaud PAM4 signals required for 1.6 terabit speeds.

High-Performance BERTs enable characterization of receivers used in next-generation data center networks and server interfaces. These solutions support non-return-to-zero (NRZ), PAM3, PAM4, PAM6, and PAM8 signals and data rates up to 120 Gbaud, supporting 1.6T pathfinding and other leading-edge technologies.

Modular Mainframe Sampling Oscilloscopes add advanced waveform analysis for high-speed digital designs. The modular platform includes electrical remote sampling head options with bandwidth up to 100 GHz, supporting analysis of high-speed signals used in advanced interconnect validation.

Together, these solutions give Point2 Technology a validation and characterization framework for multi-terabit interconnect development. Keysight's measurement capabilities help Point2 Technology evaluate high-speed signal behavior, support early research and development, and build confidence in the performance of its e-Tube platform for hyperscaler AI infrastructure.

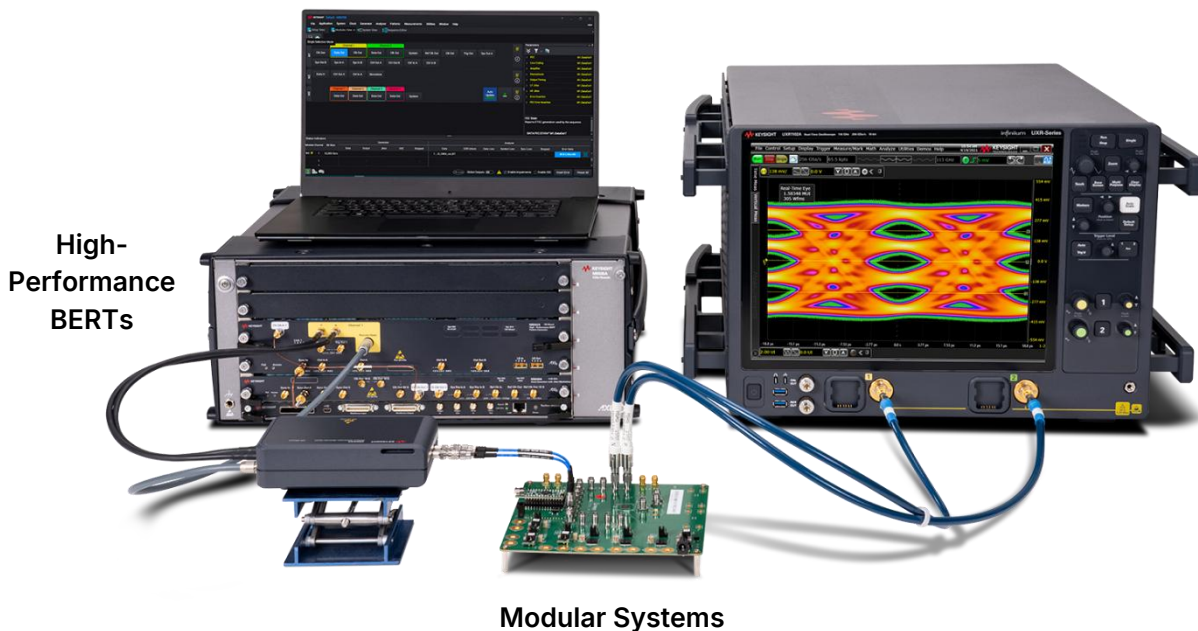


Figure 2. High-speed digital test environments help engineers characterize signal behavior and validate interconnect performance for next-generation AI infrastructure

Results

Point2 Technology is validating its e-Tube interconnect technology with Keysight high-speed digital test solutions to meet the performance and reliability requirements of hyperscaler AI infrastructure. The collaboration supports validation of next-generation, multi-terabit interconnects designed to address scale-up connectivity bottlenecks in AI and ML data centers.

Using High-Performance BERTs and Modular Mainframe Sampling Oscilloscopes, Point2 Technology can generate and analyze complex 120 GBaud PAM4 signals required for 1.6 terabit speeds. This gives the company a validation path for its e-Tube platform as hyperscalers evaluate new interconnect technologies for high-density AI infrastructure.

The collaboration also supports early research and development for 3.2T interfaces. Keysight provides a validation and characterization framework that combines electrical signal generation with analysis using real-time and sampling oscilloscopes, helping Point2 Technology evaluate performance at multi-terabit speeds.

For Point2 Technology, the result is greater confidence in the e-Tube platform as the company engages with leading hyperscaler customers globally. The collaboration gives Point2 Technology access to engineering tools and support that help accelerate e-Tube product development cycles while validating the platform with Keysight test equipment.

Conclusion

AI data centers need interconnects that can keep pace with rapidly expanding bandwidth demand. As xPU clusters scale, interconnect performance has a direct impact on power, latency, density, and overall infrastructure efficiency.

Point2 Technology's collaboration with Keysight demonstrates how advanced high-speed digital test can help validate emerging interconnect technologies for hyperscaler environments. By using High-Performance BERTs and Modular Mainframe Sampling Oscilloscopes, Point2 Technology can characterize complex 120 GBaud PAM4 signaling and support development of its e-Tube platform for 1.6 terabit speeds.

The collaboration helps Point2 Technology address the validation requirements that come with next-generation AI scale-up architectures. With trusted measurement, detailed analysis, and high-speed characterization, engineering teams can move faster from concept to customer engagement while preparing for the next phase of multi-terabit data center connectivity.

Related Information

- [Keysight High-Performance BERTs](#)
- [Keysight Modular Mainframe Sampling Oscilloscopes](#)
- [Point2 Technology company website](#)
- [Keysight and Point2 Technology Collaborate to Advance Next-Generation AI Scale-Up Interconnects](#), January 29, 2026 press release



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