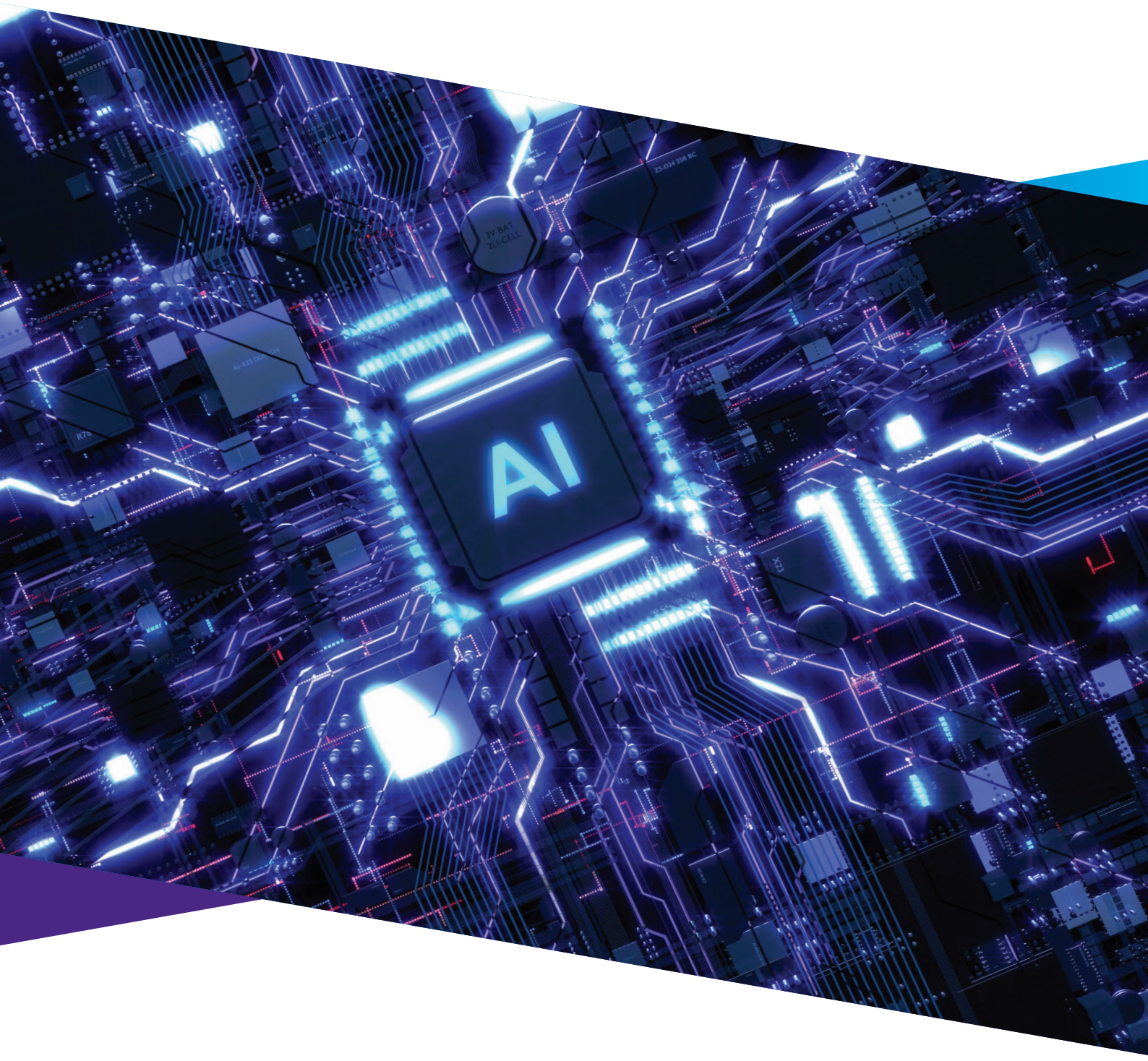


PHY Validation, AI Fabric, Network, and Security Test Solutions

Advanced Layer 0-7 Stack from VIAVI



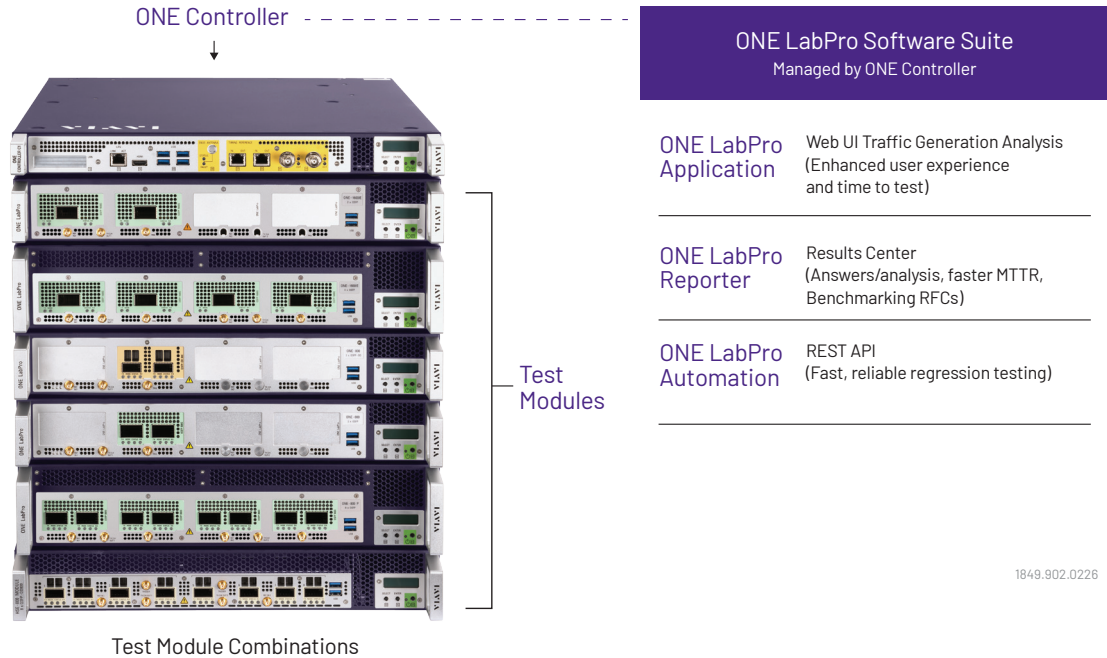
AI data centers, hyperscale cloud fabrics, enterprise infrastructure, and service provider networks share a common challenge: physical media, forwarding behavior, and application-layer protocols must work together without compromise, at any scale, under any load.

The rise of AI workloads, from distributed model training to low-latency inference, is redefining what network validation must prove. Bandwidth demands are surging, traffic patterns are increasingly complex, and deployments are already moving toward 3.2T interconnect speeds. Test strategies must be ready now.

VIAVI deployment provides correlated visibility from the physical optical layer to the application workload, enabling teams to isolate issues precisely, correlate problems across OSI layers, and validate the complete AI network stack before production deployment.

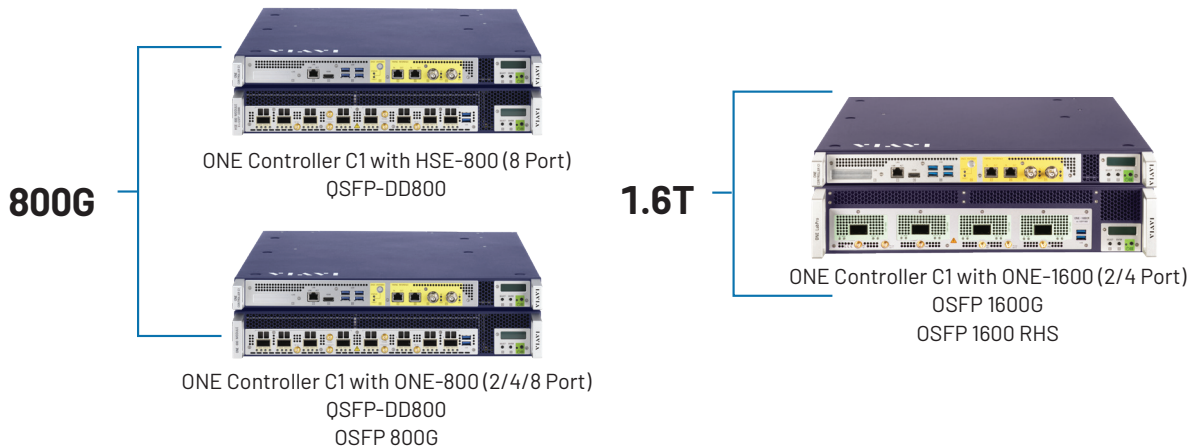
Each product plays a distinct and critical role. Together, they deliver end-to-end confidence from Layer 0 through Layer 7, from the optical signal carrying AI training traffic across a spine fabric, to the application-layer flows stress-testing inference endpoints at scale. Whether qualifying 1G to 1.6T deployments today or preparing for emerging 3.2T architectures tomorrow, VIAVI gives you a single, unified answer across every layer that matters.

FOUNDATIONAL L0-L2 NETWORK VALIDATION



VIavi ONE LabPro is a dedicated, hardware-based network validation platform focused on Layer 0 through Layer 2 assurance. It is purpose-built to validate the physical and link-layer foundations of modern Ethernet networks before higher-layer performance, routing, and protocol testing is introduced.

ONE LabPro enables teams to establish deterministic confidence in cabling, optics, interfaces, chip/ASIC silicon components, and basic switching behavior, ensuring that the network infrastructure is fundamentally sound prior to scale testing or production rollout.



FOUNDATIONAL L0-L2 NETWORK VALIDATION

Key Capabilities


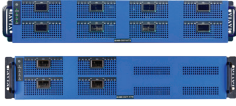









- **Independent Module Management**
 - The ONE Controller connects and independently controls up to 16 modules in a star architecture, offering full breakout capabilities with multi-user logical port support and single user per logical port granularity
- **Advanced Power and Cooling Properties**
 - Full optical and electrical support along with advanced power and cooling management technologies for coming 1.6T Coherent, 1600ZR and 1600LR/ER modules
- **Deep Physical Layer Validation**
 - Comprehensive testing of optical and electrical infrastructure, including continuity, signal integrity, and media quality, to eliminate physical-layer uncertainty
- **Optics and Interface Verification**
 - Validation of transceivers, connections, and ports to ensure correct operation, compatibility, and performance at deployed speeds
- **Layer 1 Link Assurance**
 - Verification of Ethernet link bring-up, error rates, and stability across short- and long-reach connections
- **Layer 2 Ethernet Validation**
 - Baseline Ethernet performance testing, forwarding behavior, VLAN configuration validation, link aggregation (LAG) verification, and RFC 2544, 2889, 3918 and 5180 benchmarking test

Value to Customers

By validating the network foundation first, ONE LabPro enables organizations to:

- Perform robust physical layer testing
- Detect and resolve cabling, optics, and port issues early in the deployment lifecycle
- Accelerate initial turn-up, acceptance testing, and migration activities
- Reduce troubleshooting time and avoid costly downstream performance investigations
- Provide a clean, trusted L0-L2 baseline for advanced L2-L3 performance and protocol testing with TestCenter

ADVANCED L2-L3 PERFORMANCE AND PROTOCOL VALIDATION

<p>Appliances</p> <div data-bbox="220 704 448 768">  <p>D2 - 1.6T Validation</p> <p>Industry's highest port density QSFP 1.6T test platform for AI Fabric, Protocol, L2/3, Routing/Switching, and data center applications</p> </div> <div data-bbox="212 906 448 1012">  <p>B3 - 800G Validation</p> <p>Industry's first and highest density 800G QSFP-DD and QSFP test appliances for large capacity network and AI Fabric testing, with 4 and 8-port variants</p> </div> <div data-bbox="197 1144 459 1229">  <p>pX3 - 400G Validation</p> <p>Protocol Scale</p> </div>	<div data-bbox="533 683 767 736">  <p>A1 - 400G Validation</p> <p>Industry's highest density 400G QSFP-DD platform supporting AI Fabric testing with 16 400G ports per 2U high appliance, offering 2x density advantage</p> </div> <div data-bbox="533 832 767 906">  <p>A2 - 400G Validation</p> <p>High-density 400G QSFP-DD platform, best value to performance for software, system, scale testing, offered in a 2U appliance with 8 and 16-port variants</p> </div> <div data-bbox="528 981 772 1055">  <p>A3 - 400G Validation</p> <p>Unmatched scale and performance with 400G QSFP-DD with 4 400G ports per 2U appliance delivering high-capacity, traffic generation for core and edge network validation</p> </div> <div data-bbox="520 1144 783 1229">  <p>dX3 - 400G Validation</p> <p>Data Density</p> </div>	<p>Test Modules</p> <div data-bbox="874 704 1145 768">  <p>dX3 - Data Density</p> <p>High port density test modules designed to verify the highest scale cloud data center fabrics</p> </div> <div data-bbox="887 853 1134 927">  <p>fX3 - Flexible Functionality</p> <p>Broad feature set test modules with powerful emulation capabilities for testing enterprise, service provider and data center networks</p> </div> <div data-bbox="1206 683 1453 768">  <p>pX3 - Protocol Scale</p> <p>High port density test modules with higher control and data plane scale for performance, stress & industry standard benchmark tests</p> </div> <div data-bbox="1198 853 1461 927">  <p>mX3 - Multiprotocol Performance</p> <p>Highest performing test modules to realistically emulate entire cities for core network & converged multi-play devices and services</p> </div>
<p>Chassis</p> <div data-bbox="336 1257 459 1385">  <p>SPT-N12U Mainframe Chassis</p> <p>Next-generation platform, scales to the highest port counts and test traffic rates in the industry, any module in any slot—no chassis slot restrictions.</p> </div>		<div data-bbox="903 1278 1166 1374">  <p>SPT-N4U Compact Chassis</p> <p>Smallest chassis form-factor with innovative time- and money-saving capabilities</p> </div>
<p>Compact Appliances</p> <div data-bbox="911 1076 1098 1172">  <p>M1 Appliance</p> <p>Layer 2-3 traffic testing, powerful network emulation & application layer protocols</p> </div> <div data-bbox="1230 1066 1430 1172">  <p>C2 Appliance</p> <p>Layer 2-7 testing, in a compact, portable 2U form factor</p> </div>		

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VIAMI TestCenter is a scalable performance and protocol validation platform focused on Layer 2 and Layer 3 testing with hardware platforms from 1G to 1.6T, virtual and cloud versions. It enables comprehensive validation of Ethernet fabrics, AI Workloads, IP forwarding, routing/switching behavior, and more, under realistic and high-scale traffic conditions.

TestCenter builds on the physical and link-layer assurance provided by ONE LabPro, extending validation into network performance, protocols, and resiliency across the network fabric.

ADVANCED L2-L3 PERFORMANCE AND PROTOCOL VALIDATION

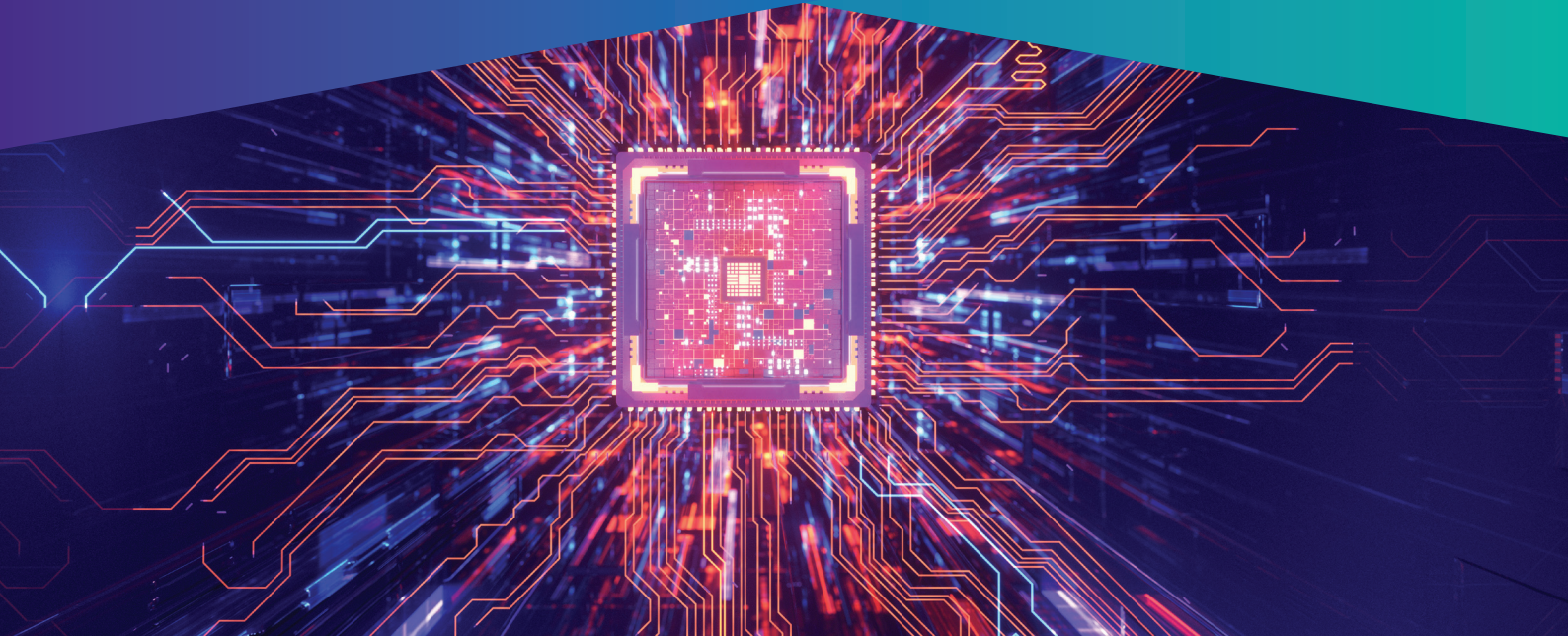
Key Capabilities

- **Layer 2 Performance Validation**
 - High-scale Ethernet throughput, latency, jitter, loss, congestion behavior, VLAN designs, QoS policies, and fabric stability testing
- **Layer 3 Protocol and Routing Validation**
 - IP forwarding accuracy, routing convergence, failover behavior, and control-plane stability under load
- **AI and Data Center Ethernet**
 - Emulation of RoCEv2 and CCL AI workload patterns to assess congestion, fairness, latency, and loss sensitivity in modern AI fabrics and Ultra Ethernet Transport and Link Layer support to assess next generation of AI datacenter networking.
- **High-Speed Scale**
 - Support for interfaces from sub-1G through 1.6T, enabling validation of next-generation architectures before deployment
- **Automation and Analytics**
 - Web-based UI, Automation APIs, and detailed reporting and analytics that simplify test creation, accelerate troubleshooting, and enable repeatable validation workflows
- **Flexible Deployment**
 - Available in modular chassis, appliances, virtual, and cloud-based platforms, enabling consistent L2-L3 validation across labs, data centers, remote sites, and hybrid environments for vast assessment coverage

Value to Customers

TestCenter enables organizations to:

- Validate L2-L3 performance and routing behavior at scale before production rollout
- Detect congestion, latency spikes, microbursts, and control-plane instability early in the design cycle
- Confidently deploy new Ethernet speeds, IP fabrics, and AI-driven architectures, easily daisy chain test appliance and chassis with built-in synchronization to massive multi-terabit test environments
- Ensure predictable forwarding behavior and SLA compliance across complex network topologies



APPLICATION PERFORMANCE, AI INFERENCE, AND NETWORK SECURITY

As networks evolve to support hybrid cloud, SASE, and AI Inference services, networking and security teams need test tools that reflect the complexity of real-world deployments. VIAVI's Application Performance and Network Security portfolio combines CyberFlood's high-performance application emulation and security efficacy testing, and TeraVM's scalable secure access and VPN validation to deliver the industry's most complete pre-deployment security testing.



CyberFlood CF1000 400G/100G Multi-speed Appliance

APPLICATION PERFORMANCE AND NETWORK SECURITY

Key Capabilities

- **AI and Encrypted Traffic Insight**

- Advanced AI inference testing, Validate policy accuracy, detection, and QoE for GenAI/LLM traffic and TLS 1.3 encrypted workloads

- **Realistic Security and App Validation**

- Test firewalls, SASE, ZTNA, and cloud defenses using high scale, encrypted L4–L7 traffic, real attack scenarios, and standards-based NetSecOPEN methodologies

- **Threat and Resilience Testing**

- Emulate malware, CVEs, DDoS, and MITRE ATT&CK techniques to uncover misconfigurations and validate policy enforcement under load

- **Post Quantum Readiness**

- With a library of PQC cipher types and encryption testing capabilities to measure PQC performance impact and ensure interoperability during the transition from RSA/ECC to hybrid and quantum safe cryptography, including aggressive key rotations in QKD networks

- **Cloud and Virtual Environments**

- CyberFlood and TeraVM provide software-based application and security testing for virtual, public cloud, and cloud-native environments

Value to Customers

The combined CyberFlood and TeraVM portfolio gives security and network teams proven, real-world confidence that performance and security efficacy meet production demands:

- Stay ahead of AI traffic – Generate realistic AI inference workloads to test front end AI architectures for performance, capacity, and accuracy. Tune detection policies and enforcement guardrails for GenAI and LLM workloads for improved visibility
- Eliminate post-deployment surprises – stress-test firewalls, SASE, and ZTNA against live application traffic and real attack scenarios so vulnerabilities are caught in the lab, not discovered in production
- Build provable threat resilience – continuously emulate malware, CVEs, DDoS, and MITRE ATT&CK techniques to document defense-in-depth and accelerate compliance audits
- Drive confident post-quantum migration – quantify PQC performance trade-offs, validate interoperability across hybrid cryptographic environments, and establish a defensible transition timeline
- Validate comprehensive L4–L7 performance and capacity – benchmark application throughput, connection rates, concurrent sessions, and transaction scale across realistic mixed-traffic workloads, including cryptographic scale testing to measure TLS/SSL offload capacity, cipher suite performance, and encryption throughput under full load, ensuring devices can sustain security at line rate

STRONGER TOGETHER, A SOLUTION PORTFOLIO VALIDATION WORKFLOW

While each product delivers powerful capabilities on its own, ONE LabPro, TestCenter, CyberFlood, and TeraVM are designed as part of VIAVI's single assessment and validation strategy.

End-to-End Confidence

- 1** ONE LabPro to verify cabling, optics, and Ethernet behavior
- 2** TestCenter to validate performance, protocols, and applications at scale
- 3** CyberFlood and TeraVM to validate security, cryptography and L4-7 performance
- 4** Eliminate blind spots by covering the full network stack, from physical media to the user experience



A COMPLETE VIAVI PRODUCT OFFERING

VIAVI ONE LabPro, VIAVI TestCenter, and VIAVI CyberFlood together form a comprehensive network validation portfolio, enabling:

- Faster deployment and upgrades
- Reduced operational risk
- Clear accountability across teams
- Confidence that every layer of the network is production-ready

ADVANCED LAYER 0-7

PHY Validation, AI Fabric, Network, and Security Test Solutions

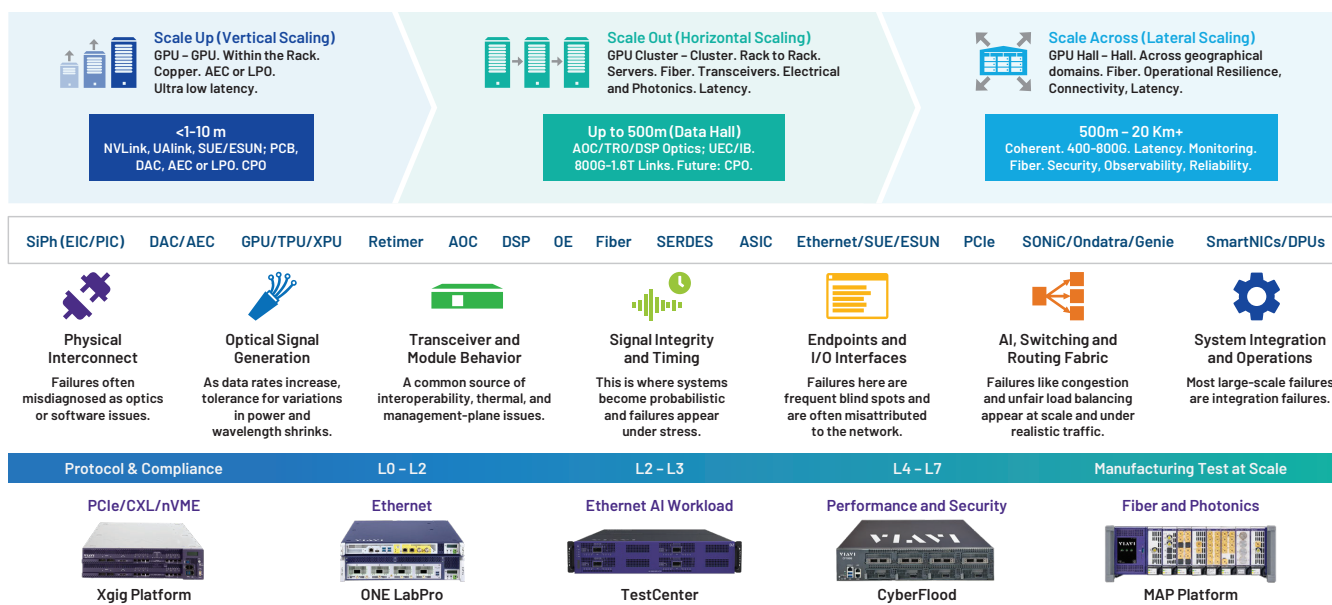


Scale Up, Scale Out, Scale Across – Lab, Live and Manufacturing Test Solutions for Complex AI Ecosystems

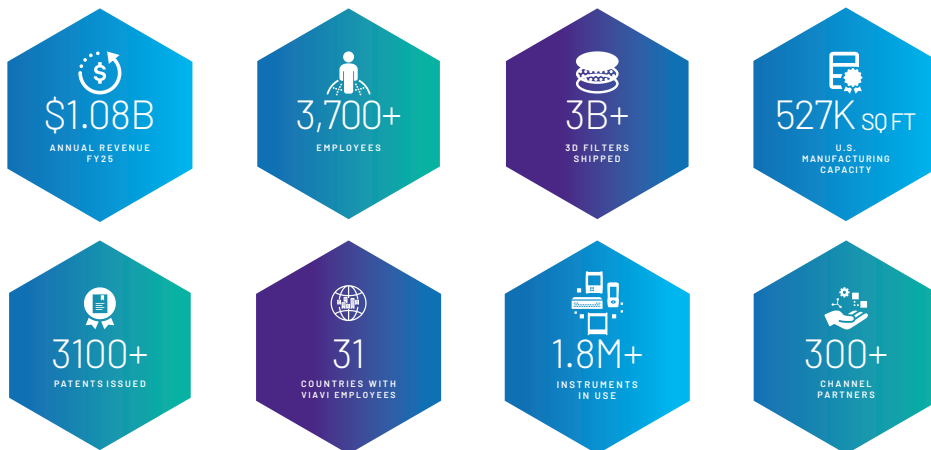
AI data centers must scale in multiple dimensions at once, scaling up within the rack to maximize accelerator performance and minimize latency, scaling out across racks and clusters to sustain throughput under real AI traffic, and scaling across data centers and geographies to enable distributed, resilient AI operations.

VIAVI provides comprehensive test and validation solutions across this entire ecosystem, enabling confidence in performance, interoperability, and reliability, for R&D labs to live production testing to manufacturing at scale.

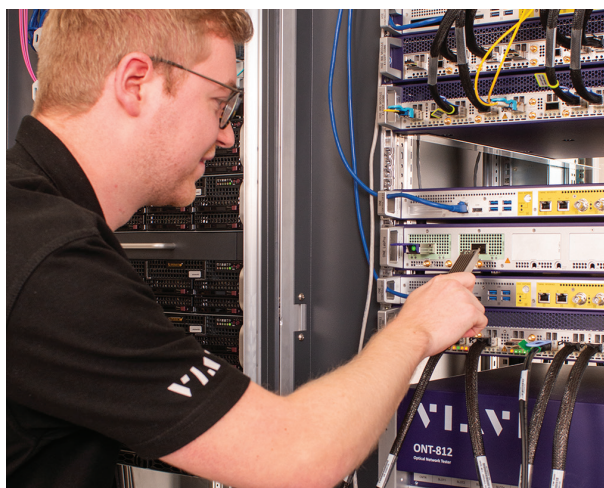
A Framework for Validating Modern Data Center Scale



TRUSTED BY ENGINEERS FOR MORE THAN 100 YEARS



1215-2-902.0326



Personal customer support and deep technical expertise you have come to expect from VIAVI.

For more information, visit viavisolutions.com, or contact your VIAVI account representative



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To reach the VIAVI office nearest you, visit viavisolutions.com/contact

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