AOI Advances Its Software Suite with New AI Intelligence Modules for Smarter Networks

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SUGAR LAND, Texas, Sept. 10, 2025 (GLOBE NEWSWIRE) -- Applied Optoelectronics Inc. (NASDAQ: AAOI), a leading provider of advanced optical and HFC networking products that power the internet, today announced the addition of four new software modules to its QuantumLink™ HFC Remote Management solution, offering customers actionable intelligence to optimize network performance, reduce operational costs, and improve the broadband experience.

The new suite of software modules are add-ons to AOI's existing QuantumLink Central providing telemetry, adding unified visibility, predictive diagnostics, and automated controls to its remote amplifier management platform. Field technicians can access the simple-to-use web app to connect to AOI's QuantumLink Transponder inside the amplifier, which uses the LoRaWAN standard protocol to communicate directly with the central system to control the amplifiers, along with transmitting valuable data.

Key benefits of the new software capabilities include:

- **AI Module: From Prediction to Resolution**
  - Machine learning predicts failures before they impact service through automatic anomaly detection, predictive health scoring, and lead-time forecasting for proactive planning.
  - Prioritizes high-risk devices, accelerates root cause analysis with correlated telemetry, alarm, and historical data to pinpoint fault sources—significantly reducing Mean Time to Repair (MTTR).
  - Integrates with IT/OT systems for automated ticketing and cross-team accountability —reducing repair times and optimizing maintenance efficiency.
- **Analytics Module: Real-Time Visibility That Drives Smarter Decisions**
  - NOC operators, field technicians, and engineers will gain real-time and historical insights into RF performance, alarms, and device health—enabling faster troubleshooting, fewer truck rolls, and improved SLA compliance.
  - Executives and analysts can leverage dashboards for capacity planning and strategic oversight of the network.
- **Alarms Module: Smarter Alarms for Lower OPEX and Higher QoS**
  - Automated alarming helps the system catch issues immediately, offering the opportunity to troubleshoot and resolve problems before impact to customers.
  - Closed-loop controls and auditable change management features extend equipment lifespan, and allow for routinely scheduled maintenance, helping to reduce OPEX while improving QoS.
- **Network Map Module: Track, Manage and Streamline with Ease**
  - Integrated workflows for tracking amplifiers by model, managing spares, and syncing with enterprise systems will help to ensure accurate asset lifecycle management, with device topology mapping, efficient RMA handling, and optimized inventory usage.

"We are committed to helping our customers build smarter networks by enabling autonomous technology, using AI decisioning with human expertise to streamline operations, minimize outages, and ensure long-term network reliability," said Todd McCrum, Senior Vice President and General Manager for AOI's Broadband Access Business Unit. "With this new suite of software, we are helping customers to reduce operational costs, offering valuable insights into the health of their amplifiers and adjacent products throughout the operational stack to detect incidents before they impact the quality-of-service people rely on."

Availability
Most software features will be available beginning Q4 2025.

Additional Resources:

- QuantumLink
- AOI Quantum Bandwidth

About AOI
Applied Optoelectronics, Inc. (AOI) is a leading developer and manufacturer of advanced optical and HFC networking products that are the building blocks for AI datacenters, CATV and broadband fiber access networks around the world. AOI supplies this critical infrastructure to tier-one customers across cloud computing, CATV broadband, telecom, and FTTH markets. The company has R&D facilities in Atlanta, GA, and engineering and manufacturing facilities at its corporate headquarters in Sugar Land, TX, as well as in Taipei, Taiwan and Ningbo, China. For additional information, visit www.ao-inc.com.

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