Datasheet

# QuantumLink

## Remote and Local HFC Network Management

QuantumLink empowers MSOs to manage and monitor their HFC networks with ease and efficiency. From enterprise cloud services to local-level control, QuantumLink offers a comprehensive solution for today's and tomorrow's networks.

## OVERVIEW

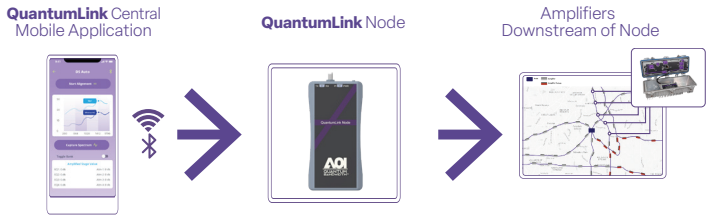
**QuantumLink is a three-pronged approach to HFC network management, ensuring coverage across all operational levels:**

### Remote Management and Monitoring

QuantumLink Central provides service providers with a cloud-native virtualized platform for telemetry-driven broad network oversight, allowing for remote diagnostics, performance optimization, firmware upgrades, and issue resolution.

### QuantumLink™ Central


### QuantumLink™ Node



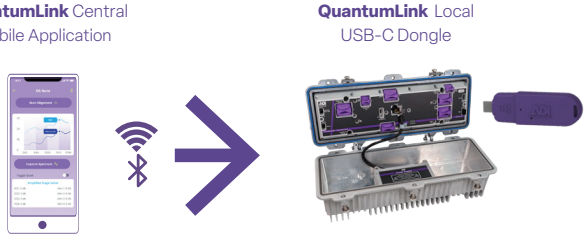

### Node Level Management

QuantumLink Node offers targeted control and monitoring of amplifiers within a service group directly from the HFC node, facilitating detailed local network adjustments and diagnostics.

### Local Level Management

QuantumLink Local is a Bluetooth or Wi-Fi connection for direct, single amplifier configuration and monitoring via a USB-C connected dongle, providing immediate access to amplifier settings and performance data.

### QuantumLink™ Local



# BENEFITS

## Simplified Network Operations:

**Streamline your HFC network management to reduce implementation complexity and operational overhead.**

QuantumLink leverages existing network infrastructure and integrates with MSO tools through its northbound interfaces, making network management easy, fast, and efficient.

## Reliable Security Measures:

**Ensure the highest level of network security and data protection.**

QuantumLink employs advanced security protocols, including AES128-bit encryption and authentication, to safeguard sensitive network data and management commands. Its standards-based LoRaWAN technology provides a secure communication framework, ensuring end-to-end encryption and maintaining the integrity of network operations.

## Enhanced Network Reliability and Performance:

**Achieve optimal network health and minimize downtime.**

Real-time insights and analytics enable proactive adjustments and troubleshooting, significantly improving network reliability and customer satisfaction.

## Deliver Cost and Time Efficiency:

**Reduce operational costs and expedite issue resolution.**

By minimizing the need for physical site visits and enabling faster problem identification and resolution through remote access, QuantumLink significantly cuts down on OpEx and time. And with proactive, insight-driven data, the scheduling of maintenance has never been easier.

## Future-Proof Network Management:

**Adapt to evolving network demands with flexible, scalable solutions.**

QuantumLink's modular design and standards-based LoRaWAN technology ensure that your network management capabilities can grow and evolve with your operational needs and customer demands.

## Efficient, Scalable Firmware Updates:

**Automate and expedite large-scale firmware deployments across your network.**

QuantumLink automates firmware updates across extensive networks, ensuring devices operate with the latest security and performance enhancements while significantly reducing downtime and truck rolls.

# FEATURES

**Remote Monitoring and Management:** Centralized control over your HFC network, enabling remote diagnostics, maintenance, firmware updates, and optimization.

**Ingress Management:** Efficiently identifies and mitigates signal ingress points, utilizing advanced signal analysis for precise network adjustments.

**AI-Based Problem Solving:** Enable machine learning algorithms for predictive analytics and automated network optimization.

**Node-Level Insights:** Manage groups of amplifiers within service groups for targeted performance enhancements and troubleshooting.

**Direct Local Access:** Immediate, dongle-enabled access to amplifier settings for on-site configuration and monitoring.

**Standards-Based Technology:** Built on proven, reliable, open-source technology, ensuring security and interoperability.

**Operational Simplicity:** Designed for easy integration and use, leveraging existing infrastructure and supporting existing devices without major network alterations.

**Scalable Architecture:** Accommodates expanding network requirements, supporting millions of amplifiers and facilitating real-time data analysis for large volumes of information.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