QuantumLink

Remote and Local HFC Network Management

QuantumLink Central is a software-defined, cloud-native platform that enables MSOs to take full control of their hybrid fiber-coaxial networks. From firmware orchestration and ingress tracking to AI-driven optimization, it gives you unmatched visibility, reliability, and scale…all without leaving the NOC.

OVERVIEW

QuantumLink gives cable operators end-to-end control of HFC networks from cloud-based intelligence to field-level amplifier access. Central automates insight and action. Local puts diagnostics in the technician's hand.

QuantumLink Central
Cloud-Native Remote Management

QuantumLink Central brings full-scope visibility and control to your network operations. With support for millions of amplifiers, it enables remote firmware updates, automated alerts, telemetry analytics, and performance optimization. All from a unified platform designed to minimize downtime and OpEx.

QuantumLink™ Central

Network Operations Center

QuantumLink Central
Web Application

Monitor and Manage Amplifier Network

QuantumLink Local
Field-Level Amplifier Control

QuantumLink Local gives technicians direct access to amplifier settings via a secure Bluetooth or Wi-Fi interface. Whether performing diagnostics, firmware upgrades, or configuration changes, Local equips field teams with instant, app-based visibility.

QuantumLink™ Local

QuantumLink Local
Mobile Application

QuantumLink Local
Wireless Interface

BENEFITS

Built to Scale
Handle growth without adding complexity.

QuantumLink manages thousands to millions of amplifiers without adding complexity. Its LoRaWAN-based architecture ensures consistent performance, real-time visibility, and reliable data across any size HFC network.

Simplified Technician Workflows
Equip your team with instant visibility.

QuantumLink simplifies complex network tasks by centralizing control and standardizing device interactions. Operators and technicians can diagnose issues, push updates, and access device data without switching tools or retracing steps.

Reduced Downtime
Keep the plant online.

QuantumLink helps identify issues before they become outages through real-time telemetry and smart alerting. Faster diagnostics and remote access allow teams to respond quickly and restore service with minimal disruption.

Lower Operating Costs
Save time, trucks, and trouble.

QuantumLink reduces truck rolls by enabling remote configuration, diagnostics, and firmware updates. Technicians spend less time in the field, and operators save on labor, fuel, and service disruptions.

Secure and Standards-Driven
Deploy with confidence.

QuantumLink uses AES128 encryption and role-based access to keep network data secure. Built on open standards like LoRaWAN and SCTE 279, it integrates easily with existing systems and avoids vendor lock-in.

Smarter Operations
Make better decisions, faster.

QuantumLink delivers real-time telemetry and historical insights to support better, faster decision-making. Operators gain the visibility they need to prioritize issues, plan maintenance, and optimize network performance.

FEATURES

Telemetry-Driven Oversight: Continuous monitoring of amplifier performance, ingress behavior, voltage trends, and ALSC events powers proactive network decisions.

Remote Firmware and Configuration Control: Push verified firmware images and apply configuration changes at scale. Securely and without site visits.

Wireless On-Site Access: Technicians gain immediate amplifier access via a secure wireless interface, enabling real-time diagnostics and adjustments in the field.

AI-Ready Data Architecture: Structured telemetry supports intelligent alarm filtering, failure prediction, and future automation via integrated AI modules.

Secure, Standards-Based Platform: Built on open LoRaWAN protocols with AES128 encryption and support for SNMP, RESTConf, Kafka, and gRPC for seamless integration.

Designed for Scale and Simplicity: Whether managing ten thousand or ten million amplifiers, QuantumLink delivers high-volume performance without operational friction.

TECHNICAL SPECIFICATIONS

Transponder
Dimensions: 3.1 in. x 2.0 in. x .7 in. *(W x L x D)*
Weight: 4 oz.
Screws: Cross recess combination 8-32
Connectors: SMB x 2
6-pin power/control connector

Local Dongle
Dimensions: 1.0 in. x 3.1 in. x .4 in. *(W x L x D)*
Weight: 1 oz.
Connector: USB Type C

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