VIAVI
OneExpert CATV
Sweep and Plant Maintenance System ONX-630 / SCU-1800

The OneExpert CATV ONX-630 is a powerful meter for maintaining HFC networks, including DOCSIS 3.1® performance analysis, spectrum analyzer, and forward and reverse sweep measurements.

The most advanced cable field meter, OneExpert CATV, is now equipped with the most up-to-date and innovative maintenance testing features.

Advanced System Sweep

The system meets the needs of current and evolving networks, with the sweep frequency range extended to 1,218 MHz forward, 204 MHz reverse.

A space-conserving 1RU Sweep Control Unit (SCU-1800) with 16 switchable return sweep ports means less combining is required, leading to improved noise performance, and sweep receivers can be consolidated to conserve cost. The sweep control unit is remotely or locally configurable and the interface is accessible via Ethernet/Internet/Intranet and browser. Improved pulse generation performance provides a pure, clean RF sweep signal with narrower pulses enabling insertion between carriers.

The ONX-630 extends the versatile OneExpert platform – fast, powerful, and flexible.

Fast — **Sweep, align, and troubleshoot faster than ever**

- Stealth SweepTM with integrated Tilt/Align quickly validates amps and HFC networks faster than any other test
- Complete a downstream scan including MER/BER in about 60 seconds
- AutoChannel™ instantly identifies the channel lineup and eliminates guesswork

Powerful — **Designed to find difficult problems**

- Combined DOCSIS 3.1 and sweep testing validates the complete HFC network
- Ingress Expert with Hyper Spectrum™ catches difficult return noise problems
- Expert modes with advanced parallel processing find hidden problems and root causes
- 40+ years of trusted CATV testing knowledge integrated into one simple device

Flexible — **Ready for your changing network needs**

- The ONX-630's dual diplexer 42/85 or 65/204 with 1.2GHz supports next generation networks
- A fiber scope and power meter support FTTx and fiber deep networks
- Test gigabit service over DOCSIS, Ethernet, and WiFi
- The ONX-630 is compatible with DSAM-6300 and SDA-55XX providing seamless transition
- Common sweep reporting for ONX-630 and DSAM ensures consistency via StrataSync™

The ONX-630 provides powerful troubleshooting tools to find faults and problems in the HFC network. In addition to traditional sweep, the ONX-630 adds additional troubleshooting in a fully loaded upstream with multi-carrier upstream in-channel frequency response (ICFR). Maintenance techs can analyze upstream transient noise and interference with unique "HyperSpectrum" technology for real-time results.
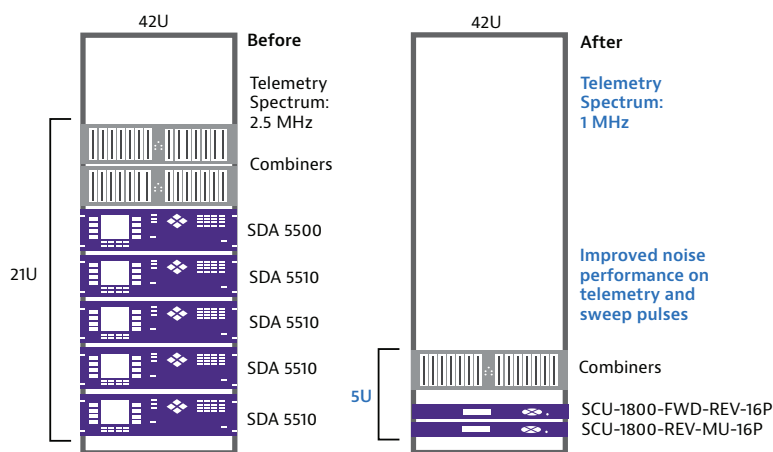
SCU-1800 Sweep Transmitter/Receiver

The headend/hub rack-mounted SCU-1800 Sweep Control Unit provides non-interfering downstream sweep to 1.218 GHz and upstream sweep to 204 MHz on up to 16 ports. The sweep is remotely configurable via Ethernet and browser, and a sweep plan can be built from imported information from the OneExpert. Additionally, there is an auto-fill capability in which the sweep points are automatically injected in unoccupied spectrum areas.

Powerful Maintenance Test Tools

The OneExpert CATV ONX-630 offers "network expert" versions of the now familiar OneCheck, Channel Check, and DOCSIS Check test modes. The "expert" modes include flexible test point definition and compensation, as well as user defined test locations and limit sets. A simple OneCheck provides a snapshot of system performance at the current test point. Channel Expert provides a full complement of tests that update on a continuous basis to make troubleshooting easier. The DOCSIS Expert mode tests only the DOCSIS channels, to provide in-depth physical and service layer performance analysis, including throughput and upstream ICFR.

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SCU-1800 saves rack space and reduces combining network with 16 ports available for reverse sweep

The OneExpert platforms flexible, modular design enables economical and efficient field upgradeability. The extended 2-year calibration cycle decreases cost of ownership. The ability to perform tests in a wide variety of access media (fiber (FTTx, RFoG), Ethernet, IP video, SIP VoIP) lowers the capital investment required to empower techs to troubleshoot and verify performance. The included Sweepless Sweep™ allows sweep testing of remote PHY systems using just the active carriers.

DOCSIS 3.1 and sweep testing, but much more...

Cosider the breadth of test capability offered in optional software and components:

Fiber optic power meter and fiber scope	WiFi Testing	Ethernet	SIP VoIP	IP Video	StrataSync™
USB Optical power meter (OPM) to test fiber cable attenuation; optical fiber scope to test fiber connectors	BSSID, Spectral, and Channel View testing	Test both DOCSIS and Ethernet speeds to 1 Gbps with SpeedCheck™ and Fusion TrueSpeed VNF™	Quickly place VoIP calls and verify QoS via mean opinion score (MOS) values	Test multiple standard and high-definition television streams regardless of compression format	Hosted solutions manages assets, configurations, and test data

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Stealth Sweep™, AutoChannel™, Hyper Spectrum™, Sweepless Sweep™, SpeedCheck™,
Fusion TrueSpeed VNF™ and StrataSync™ are registered trademarks of VIAVI Solutions Inc.