

RM

NETWORK TESTING

DSL CABLE QUALIFIER

CableSHARK RM



Central Office Based DSL Qualification

Consultronics Products Group

EXFO

EXPERTISE REACHING OUT

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Telecommunications Test and Measurement

A Complete VF/DSL Single End Test Solution

The CableSHARK RM™ is the next-generation CO based VF/DSL cable qualification device for measuring and evaluating the local loop for DSL deployment. The appeal of the CableSHARK RM™ is highlighted by its ease-of-use and precision Single End Line testing (SELT) capabilities.

These SELT capabilities include ADSL data rate prediction (patent pending), SHDSL data rate prediction, VF band qualification, and an impressive Time Domain Reflectometer (TDR).

The CableSHARK RM™ can qualify circuit characteristics up to 6 MHz. In addition, CO and CPE modem emulation, including CPE based IP testing verify network connectivity beyond the local loop. In addition, it's CE approved, and built to last. The CableSHARK RM™ is the complete solution for DSL deployment!



The CableSHARK Rackmount

A True Picture of Circuit Quality

The CableSHARK RM™ is a rack mountable unit for use by DSL Service Providers (PTT) in parallel with their existing DSLAM, Metallic Test Access Unit (standard or intelligent MTAU) or Next-Generation Digital Loop Carrier (NGDLC). Alternatively, some Service Providers may be interested in installing a CableSHARK RM™ into their DSLAM or NGDLC for a truly integral, low cost SELT solution. Since the CableSHARK RM™ can be installed in various locations, the essence of this product is in its flexibility. Installing the CableSHARK RM™, in conjunction with a MTAU, between the MDF and the POTS Splitter, gives the Service Provider a true unbiased look at the copper pair without the POTS splitter's capacitive influence. Similarly, the influence of the voice switch or older DSLAM test bus may not be adequate to pass high frequencies or it can introduce capacitance to the metallic test.

Qualify the Local Loop to Carry DSL Services

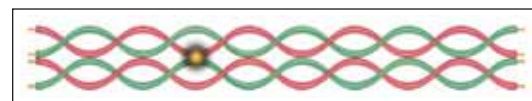
The CableSHARK RM™ can easily qualify the local loop to carry such DSL applications as ISDN, HDSL, HDSL2, G.Lite, SHDSL, ADSL, ADSL2 and ADSL2+. Ensuring the delivery of high-speed digital information to the customer is essential in today's fast paced world. This places a demand on the Service Provider to provide a physical layer that is free of line faults and relatively free of potentially restrictive wireline impairments. These impairments include bridge taps (multiple appearances), load coils, bad splices, ingress noise, impulse noise, and crosstalk from adjacent pairs in the cable bundle. Impairments such as these can severely affect the performance of all DSL technologies on the local loop, limiting both data rates and overall reach from the Central Office to the customer base. The CableSHARK RM™ ultimately provides the necessary information for Service Providers to update loop plant records and satisfy their customer's need for speed.

Find and Repair Loop Faults Quickly

With the rack mountable CableSHARK RM™, Service Providers can easily locate and isolate problem areas in order to take corrective and preventative measures. Frequency Response/Attenuation testing, Time Domain Reflectometry (TDR), Longitudinal Balance, and Wideband Spectrum Noise testing to 6 MHz are just a few of the exciting physical layer measurement tools available for qualifying the outside plant for DSL. In addition, the CableSHARK RM™ supports DSL modem (CPE and CO) testing to verify DSLAM connect rates and ATM/IP testing (using CPE modem) to verify network connectivity from the CO to the ISP and beyond. The vast array of measurement tools help speed up loop repair times and allow the delivery of services to otherwise out of luck subscribers.

Let's Communicate!

The CableSHARK RM™ uses the industry standard TL1 command language for control and response. The TL1 language is more formal than ASCII but just as easy. The control interfaces used by the CableSHARK RM™ are serial (RS232) and TCP/IP (Ethernet). Service Providers requiring direct access or dial-up access to the CableSHARK RM™ will benefit from the unit's high-speed serial port while those pushing the technology envelope will want the power and flexibility of controlling the CableSHARK RM™ over a LAN or WAN.



The CableSHARK RM™ can identify faults that are synonymous with Crosstalk

Determine a Loop's Ability to Support DSL!

One of the major limiting factors for DSL implementation is the inability of the local loop to carry high frequencies. The CableSHARK RM™ can easily determine the quality of the cable to ensure it is capable of carrying DSL by performing measurements up to 6 MHz.

Don't Forget VF!

ADSL and voice operate on the same circuit in the majority of cases. Using the CableSHARK RM™, Service Providers can ensure that the voice circuit is electrically sound by performing VF tests such as Resistance, Capacitance, and Isolation Resistance tests on the line. The CableSHARK RM™ also measures noise and impulse noise using psophometric and 3 kHz flat filters.

Built-in Metallic Loop Testing

The CableSHARK RM's built-in Digital Multimeter (DMM) performs metallic measurements such as AC/DC voltage, resistance, loop resistance, loop current and capacitance. Tests can be performed from Tip to Ring, Tip to Ground and Ring to Ground (A-B, A-Earth, B-Earth).

OEM DSL Testing Solutions

The CableSHARK RM™ is the perfect answer to Original Equipment Manufacturers' (OEM) applications; it can be tailored to fit your individual OEM requirements. Our exceptional pre-sales and post-sales support will ensure that you are delivered the best DSL testing solution in order to meet even the most demanding needs.

Technical Support & Service

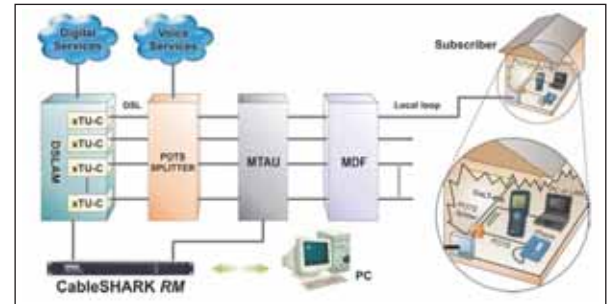
All products are backed by free-of-charge technical support. Call and talk to our support personnel at +1-905-738-3741 between 7:30 am and 5:30 pm, Monday through Friday EST.

Each test set is rigorously tested and calibrated to internationally traceable standards before they are shipped. All our products carry a 1-year parts and labor warranty. Extended warranty coverage packages are also available.

Warranty & Repair Service

Specifications in the telecommunications industry are constantly changing. While other suppliers charge for software upgrades, we offer free lifetime downloading of the latest version of software for the CableSHARK RM™ from our Web site.*

*Note: Software upgrades that enhance the existing set of features and measurements are free of charge. we reserve the right to charge for additional measurement functions, or for enhancements that require additional hardware.



The CableSHARK RM™ is Shown Testing in Conjunction with the CoLT-450 Operating in Through Mode

KEY FEATURES

- Perform all tests from one end only - this eliminates the costly process of dispatching two technicians/truck rolls to verify a loop's ability to support various broadband services
- Time Domain Reflectometry (TDR)
- Frequency Response (Attenuation) prediction to 6 MHz
- Power Spectral Density (PSD) Noise to 6 MHz
- Patented ADSL Data Rate Prediction Test
- SHDSL Data Rate Prediction test
- ADSL2 & ADSL2+ Data Rate Prediction
- CPE Modem Detection with DSL Data Rate Prediction
- AC/DC Voltage/Current, Resistance, and Capacitance Measurements
- Perform DMM tests on A-B, A-Earth, and B-Earth
- Load Coil Detection
- Longitudinal Balance testing
- ADSL and SHDSL CPE and CO modem emulation with Ping
- TL1 command control for integrated applications
- Visi-SHARK (Windows™) control for standalone applications (optional)

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EXFO is certified ISO 9001 and attests to the quality of these products. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. All of EXFO's manufactured products are compliant with the European Union's WEEE directive. For more information, please visit www.EXFO.com/recycle. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices.

Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.

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In case of discrepancy, the Web version takes precedence over any printed literature.