



OTDR, LS, OPM, LTS, and VFL

Key Features

- Optical Time Domain Reflectometer (OTDR) with up to four wavelengths
- Integrated Light Source (LS), Optical Power Meter (OPM), and Visual Fault Locator (VFL), with Loss Test Set (LTS) feature
- Automatic event table generation
- Auto and manual mode configuration
- realACCESS™ provides native remote access from any web-enabled portable device, including smart phones and tablets
- realGATE™ integration for workflow optimization and asset management

When paired with the rugged, battery operated RxT™ productivity test platform the RxT Fiber Optics Test Toolkit (FOT) module is an integral solution for the construction, installation, troubleshooting, and maintenance of Carrier Ethernet and SONET/SDH fiber optic cables. With RxT's modularity, there is now one platform that can verify the network from physical layer to service layers for metro networks and mobile backhaul networks. The RxT FOT module, combined with RxT's productivity tools, improves field productivity, reduces CAPEX/OPEX and helps deliver high quality subscriber services.

The RxT FOT is available in multiple wavelength combinations for testing single-mode and multi-mode fibers. The RxT measures fiber optic cables for events such as connectors, splices, breaks, and insertion loss. Even in such a compact platform, advanced features such as quad wavelength testing, high dynamic range, and short dead zones are offered, as well as auto and manual mode configuration. One button 'Auto Test Mode' simplifies testing for even the most inexperienced user.

Benefits

- Easy to use configuration, with no hidden menus, reduces learning curve
- Leverages RxT's smart productivity test solutions
- Portable design for easy site-to-site transport
- Expand test functions with a growing list of test modules
- Future-proof cost-effective platform

Product's Highlights

- First fully connected fiber test toolkit to allow upload, download, and sharing of traces and profiles to and from the cloud, using realGATE
- View and compare traces on high resolution color display
- Intuitive user interface simplifies testing
- RxT goes beyond testing by focusing on getting the job done and improving productivity

Specifications¹

OTDR

Available Wavelengths² and Dynamic Range³

Models		Performance Specifications		
RXT4021-S	RXT4041-MS	Type	Wavelengths	Dynamic Range
	●	MMF	850 nm ± 20	26 dB
	●	MMF	1300 nm ± 20	26 dB
●	●	SMF	1310 nm ± 20	34 dB
●	●	SMF	1550 nm ± 20	32 dB

Dead Zones⁴

Event < 1 m
Attenuation < 4 m

Pulse Widths

5, 10, 100, 300, 1000, 3000, 10000, 20000 ns

Distance Ranges

1, 4, 16, 64, 256 km

Distance Uncertainty

$L = \pm(0.75 + \text{sampling resolution} + 5e^{-5} * L) \text{ m}$

Linearity

0.03 dB/dB

Attenuation Resolution

0.001 dB

Sampling Resolution

0.125 to 8 m

Depending upon selected distance range

Averaging

32, 4000, 8000, 16000, 32000, 64000

Group Refraction Index

1.0000 to 2.0000

Universal Optical Connectors

FC, SC

Light Source⁵ (LS)

Available Wavelengths²

Same as OTDR

Output Power

0dBm

Universal optical connectors

Shared with OTDR test ports

Operation Mode:

CW, 270KHz, 1KHz, 2KHz

Optical Power Meter (OPM)

Wavelength Range

800 to 1700 nm

Calibrated Wavelengths

850 nm, 1300, 1310, 1490, 1550, 1625 nm

Measuring Range

-77dB to +5dB

Resolution

0.01 dB

Accuracy

0.2 dB (±5%)

Linearity

±0,05%

PDL

< 0.25 dB

Display Units

dBm, µW, mW, dB

Interchangeable optical connectors

FC, SC,

Loss Test Set (LTS) Functionality

Single-ended (loop) and end-to-end measurements

Relative reference calibration with memory hold function for distant test points

Display Units:

dB, dBm, µW, mW

Visual Fault Locator (VFL)

Wavelength

650 nm ± 5 nm

Output Power

< 1mw SMF

Operation Mode

CW

Optical Connector

2.5 mm universal

Fiber Scope (FS-DI-1000)

The optional digital video microscope inspects fiber optics connector end faces, providing clear sharp digital images on the RxT Platform's LCD screen

One hand operation

Fast and easy one-finger manual focus

Built-in capture button

Inspect panel-mounted connectors and patch cords with (male) and in-adapter connectors (female) tips

Field of View

400µm x 300µm approximate

Resolution

0.5µm detectable

Light source

Blue LED

Direct USB Connection to RxT Platform

USB 2.0 connection

USB powered

No batteries or power cables are necessary.

Rapid tip change

Comprehensive line of tips

Dimensions

Slim ergonomic design
35 mm diameter x 175 mm length (without tip)

The Fiber Scope can also be used with 32-bit or 64-bit computers running on XP, Vista, or Windows 7

Notes:

1. All specifications measured at 25°C and are typical values, unless otherwise specified.
2. Available wavelengths vary per configuration and depend on the model number selected.
3. At 20 minute average time at SNR=1, maximum pulse width
4. At shortest pulse width on a UPC connector.
5. Maximum operating temperature 40°C.

Other Features

realACCESS™ Enabled

Remote web access option allow users to drive all RXT FOT's testing capability from a remote location using any computing device (including PCs, tablets and smart phones) with industry-standard web browser

Requires RXT1000SW-REM option.

Multiple User Profiles

Multiple test configuration profiles may be saved directly on the module or on a secured centralized server via realGATE

Test profiles saved and loaded with the press of a button

Profiles can be shared across multiple RxT FOTs for fast and efficient configuration and operation

Results and Reports

Test results are saved on the test module for easy retrieval, portability, sharing, and post-analysis.

Results can also be stored at and accessed from centralized secured servers, via realGATE

Workflow Optimization

When paired with the realGATE™ Workflow Optimization System, a comprehensive web-based system for managing assets and test results while optimizing workflow, the RxT offers an integrated and secure connection to the back office system, maximizing test consistency and supporting increased productivity.

- Upload, download, and view test records
- Upload, download, and distribute test profiles
- Track workflow & productivity
- Data mining & report generation
- Monitor usage
- Manage assets

realGATE helps quickly diagnose area-wide issues, not just local impairments, enabling telecom, cable, and mobile operators and contractors to get the most out of installation, maintenance and service verification, proactively reducing down time. This productivity tool combination provides the ability to download test configurations, which ensures the job is performed consistently and gets done right the first time, eliminating repeat service calls.

With RxT and realGATE, supervisors and regional managers have streamlined activity reporting, and the powerful ability to track performance metrics in real-time, optimizing the workflow.

Product Description

Mechanical

Module Size

208 W x 152 L x 30 H mm
8.2 W x 6.0 L x 1.2 H inches

Module Weight

0.84 kg (1.85 Lb)

Environmental

Operating Temperature:

0° to 50°C (32° to 122°F)

Storage Temperature:

-20° to 70°C (-4° to 158°F)

Humidity:

5% to 90% non-condensing

Ordering Information

RXT4021-S RxT FOT - Dual Wavelength Fiber Optics Test Set RxT Platform and RxT FOT Test Module with two-wavelength OTDR (1310nm SM and 1550nm SM; universal connector), Laser Source, Optical Power Meter, and Visual Fault Locator. Includes: RxT Platform (RXT1000A-GW), RxT FOT Module (RXT402X-S), stylus (SA142), hand and shoulder straps, Li-ion battery pack (SA991), AC/DC charger (SA1580), soft carrying case (SA605), calibration statement, and one year basic warranty.

RXT4041-MS RxT FOT - Quad Wavelength Fiber Optics Test Set RxT Platform and RxT FOT Test Module with four-wavelength OTDR (850nm MM, 1300nm MM, 1310nm SM and 1550nm SM; universal connector), Laser Source, Optical Power Meter, and Visual Fault Locator. Includes: RxT Platform (RXT1000A-GW), RxT FOT Module (RXT404X-MS), stylus (SA142), hand and shoulder straps, Li-ion battery pack (SA991), AC/DC charger (SA1580), soft carrying case (SA605), calibration statement, and one year basic warranty.

Connectors available in FC and SC



SUNRISE TELECOM®

Productivity Rising™

For more information or a directory of sales offices: Phone: +1-800-701-5208 or +1-408-363-8000
info@sunrisetelecom.com | www.sunrisetelecom.com