EVENT MAPPER AND MULTI-FIBRE MEASUREMENT FUNCTIONS FOR AQ1200 SERIES OTDR

Make the OTDR more user-friendly for fast and simple analysis of optical networks

Demand for bandwidth-intensive services such as video streaming, HDTV and smart-device applications continues to grow rapidly. To address this growth, Service Providers are scrambling to quickly deploy, expand, and upgrade their broadband access networks — often employing new technicians who have little experience in the installation and maintenance of fibre networks.

An optical time domain reflectometer (OTDR) is an essential tool for testing fibres that helps Service Providers ensure that the installation of their fibre

networks is state-of-the-art and is therefore reliable in delivering non-stop services.

Moreover the process of checking increasingly fibre-crowded nodes in today's optical networks is getting more complex, repetitive and time-consuming and human error is therefore more likely.

In the latest firmware, version 2.03, for the AQ1200 series, Yokogawa recently introduced two functions to help users of its devices to overcome the complexities of OTDR measurements. The firmware is available FREE OF CHARGE to users.

Connector	
Splice (S+/S-)	
Splitter	
Start Point	
End Point	
Macro Bending	

Event Mapper

The operation and usability of OTDRs has been simplified over the years, however it is still considered an advanced instrument to operate, and the interpretation of its measurement results can be complex. In order to make life easier for customers, "Event Mapper" function has been added to the AQ1200 OTDR to remove the complexity from OTDR testing and the interpretation of results.

Using an advanced algorithm, Event Mapper analyses any passive elements, impairments, and faults in optical fibre links and displays each of these in a simple, icon-based map view that is understandable by technicians at any skill level.

Benefits of Event Mapper function

- Eliminate OTDR interpretation errors by providing objective results and immediate diagnostics of problems
- Evaluate fibre links faster with instant identification of events and their pass/fail status
- Easy upgrade of the AQ1200 OTDR, directly in the field, to get the benefits of the Event Mapper

Empower every technician to be an instant OTDR expert

An OTDR is an essential test tool but can be complex to use.

An OTDR provides a complete picture of the fibre-under-test with detailed analysis of the link components (cable attenuation, connectors' loss and reflectance, and splice losses) and shows problems in the link.

OTDR measurements prove the quality of the installation and verify if the optical link meets the required specifications.
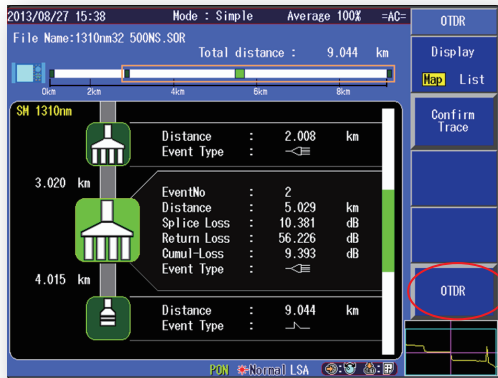
An OTDR also troubleshoots cabling component problems by locating common causes of failures such as breaks, high loss and reflective defects.

These capabilities are critical to avoid, or at least minimise, costly network downtime.

Despite an OTDR's capabilities and performance, the ability to read and interpret the information gathered from its trace can be very challenging.

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REMOVE HUMAN-INTERPRETATION ERRORS

Events showed by an OTDR with Event Mapper   *Events showed by a standard OTDR*

Event Mapper identifies and analyses the events in any OTDR trace, new or old.
Events are represented as simple icons with immediate pass/fail information based on user-defined thresholds. The Mapper explicitly names the type of event found such as a splice, a connector or a splitter.
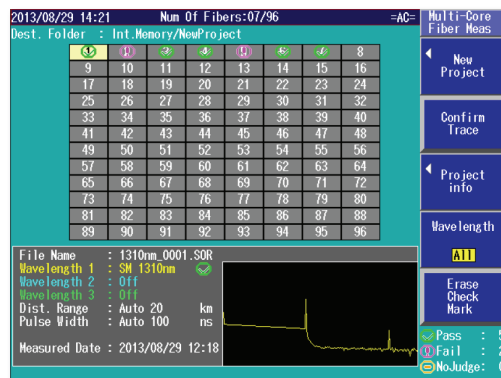
You can always toggle between the Event Mapper and the standard views

MULTI-FIBRE MEASUREMENT FUNCTION

Another function to make your work easier and faster

The new version 2.03 firmware for the AQ1200 also improves the very useful function for mapping the measurements performed on optical breakout cables, which can amount to hundreds of fibres.

The Multi-Fibre Measurement function automatically performs measurements and data-filling according to a pre-established filename table.
The technician can save a lot of time after the measurements by using the OTDR Project File Editor, included in the AQ7932 Emulation Software, to create the relevant file name tables.
With the new firmware release, the Multi-Fibre Measurement function will clearly show the status of each tested fibre with a graphic pass/fail indication directly in the table.

EVENT MAPPER AND MULTI-FIBRE MEASUREMENT FUNCTIONS ENHANCE PRODUCTIVITY

Testing with an OTDR requires three steps:
1. Setup the OTDR (acquisition parameters, alarms, and file naming).
2. Perform the acquisition.
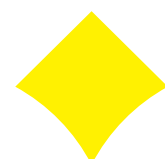3. Analyse and interpret results.

Save on OpEx

The acquisition of the measurement results from hundreds of fibres is a time-consuming task, and its repetitiveness can easily lead to human errors. OTDR trace interpretation and correct analysis is another major aspect affecting the quality of installation and troubleshooting tasks.
Any wrong recording of the measurements will require the job to be re-done and the incorrect interpretation of OTDR traces can lead to installation and troubleshooting issues. In both the cases, the installer will have to use additional man-hours and on-site time, thus increasing OpEx.

Secure the reliability of the recordings

The Multi-Fibre Measurement function helps the technician to perform and store hundreds of measurements in a reliable and easy-to-access format, providing some relief for a repetitive task.

Improve technician skills

The Event Mapper and views of the related OTDR trace are just one button apart. Thanks to the direct correlation between the selected elements in the Event Mapper and events on the OTDR trace, technicians can become more familiar with the interpretation of OTDR traces and will increase their own expertise over time.

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