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## **Yokogawa Meters & Instruments Releases Three New OTDR Units for AQ7280 Series Modular Optical Time Domain Reflectometer**

Yokogawa Meters & Instruments Corporation announces that it has developed the AQ7283J, AQ7283E, and AQ7282G optical time domain reflectometer (OTDR) units for the AQ7280 series, and will be releasing them to the market on June 22.

Each of these units is designed to be paired with an OTDR mainframe to create an AQ7280 series modular OTDR, which is a widely used tool in the installation and maintenance of fiber-optic cables. Yokogawa has developed these new OTDR units to better meet its customers' needs and provide them a wider range of choices. In so doing, Yokogawa aims to expand its optical communications business.

### **Development Background**

Driven by factors such as the widespread use of smartphones and the increase in video-related Internet traffic, there is a rising global need for fiber-optic networks that can carry large volumes of data at high speeds. The OTDR is used to verify losses, measure lengths, and identify failure locations during cable installation and maintenance. Yokogawa's AQ7280 series OTDRs are used in the installation and maintenance of fiber-optic cables for core, metro, and access networks, including FTTH links between central offices and subscribers, and their reliability and operability are highly valued by our customers.

With both production and maintenance operations there is the need to assess the characteristics of fiber-optic cables, and maintenance personnel also need to perform such checks while the cables are in use. Yokogawa has developed these three new OTDR units to satisfy such needs.

### **Product Features**

#### **1. AQ7283J**

The AQ7283J is capable of characterizing a fiber-optic cable at the 1383 nm wavelength to determine the magnitude of losses caused by the absorption of light by hydroxyl (OH) ions in the optical fiber. This is essential to determine whether the fiber is suitable for the deployment of coarse wavelength division multiplex (CWDM) transmission technology that enables the transfer of huge volumes of data at high speeds by simultaneously transmitting optical signals over different wavelengths. There is also the need on fiber-optic cable production lines to assess the characteristics of low water peak (containing fewer OH ions) optical fiber. And in the field, it is necessary to assess signal losses in already installed conventional fiber-optic cables in order to determine their suitability for the use of CWDM. The highly portable AQ7283J OTDR can easily be used on production lines and in the field to perform such assessments.

## 2. AQ7283E

The AQ7283E has a built-in cut filter that makes it possible to characterize fiber-optic cables while they are in use. And in response to the increasing use of longer wavelength communications signals, the accuracy of the AQ7283E maintenance wavelength has been improved to  $1625\pm 10$  nm. These features ensure that testing does not interfere with communications.

## 3. AQ7282G

The AQ7282G supports measurements in three wavelengths and has been optimized for the checking of FTTH installations. It presents as a lower cost version of our standard model, which can perform measurements at four separate wavelengths and is suitable for the installation and maintenance of FTTH networks.

### New OTDR units

Model	Wavelengths (nm)	Applications
AQ7283J	1310/1383/1550/1625	Assessing the results of specific production line processes to determine suitability of cables for the use of CWDM in FTTH and other types of access networks
AQ7283E	1310/1550, 1625	For the installation and maintenance of metro and access networks, including FTTH (Supports maintenance wavelength and has a built-in filter to isolate this from communications signals)
AQ7282G	1310/1490/1550	For installation of metro systems and access networks, including FTTH

### Major Target Markets

Telecommunications operators, cable installation companies, optical fiber manufacturers

### Main Applications

Evaluating the quality of fiber-optic cable installation and maintenance, characterizing losses and identifying failure locations in fiber-optic cables, evaluating fiber-optic cable production processes

### About Yokogawa

Yokogawa's global network of 92 companies spans 59 countries. Founded in 1915, the US\$3.7 billion company engages in cutting-edge research and innovation. Yokogawa is active in the industrial automation and control (IA), test and measurement, and aviation and other businesses segments. The IA segment plays a vital role in a wide range of industries

including oil, chemicals, natural gas, power, iron and steel, pulp and paper, pharmaceuticals, and food. For more information about Yokogawa, please visit [www.yokogawa.com](http://www.yokogawa.com).