

Dynamic range of optical communication tester for petroleum and petrochemical industry 35dB



Overview

The Fibershot Pro-D35 OTDR is a high-performance Optical Time Domain Reflectometer designed for precise fiber optic testing.

Key Takeaways

OTDR testers with a 35dB dynamic range, such as the JILONG KL-6300, SKYSHL SS315T-2B1, and Fibershot Pro D-35, are ideal for precise fiber optic testing in industrial environments.

Key Features

Dynamic Range: A 35dB dynamic range allows these testers to measure long-distance fiber links accurately, detect weak reflections, and identify faults in complex industrial networks.

Integrated Testing Modules: Modern OTDR testers combine multiple functions in one handheld device:

- **OTDR (Optical Time-Domain Reflectometer):** Measures fiber length, loss, and events along the fiber.
- **OPM (Optical Power Meter):** Measures absolute optical power and relative loss.
- **VFL (Visual Fault Locator):** Detects breaks, bends, or misalignments in fiber cables.



- OLS (Optical Light Source): Provides stable light for loss testing . Wavelength Support: Commonly 1310nm and 1550nm, suitable for single-mode fibers used in industrial networks . Event and Attenuation Dead Zones: Advanced models like SKYSHL SS315T-2B1 offer extremely short event dead zones (~1.2m) and attenuation dead zones (~4.5m), enabling detection of closely spaced faults . Connectivity and Software: Many devices support Android apps or PC software for real-time data analysis, report generation, and remote operation, which is useful for field engineers in petrochemical plants . Connector Compatibility: Supports SC, FC, ST, LC with UPC and APC types, ensuring flexibility for various industrial fiber installations . Battery and Portability: High-capacity lithium-ion batteries (e.g., 7400mAh in Fibershot Pro D-35) allow extended field operation without frequent recharging .

Applications in Petroleum and Petrochemical Industry

- Long-Distance Fiber Monitoring: 35dB dynamic range ensures accurate testing of extensive fiber networks in refineries and pipelines.
- Fault Detection: Quickly identifies breaks, bends, or high-loss points in harsh industrial environments.
- Maintenance and Troubleshooting: Integrated modules reduce the need for multiple instruments, improving efficiency and safety in field operations.
- Compliance and Reporting: Automatic test results and PDF report generation help maintain documentation for industrial standards.

Recommended Models

- JILONG KL-6300: Handheld OTDR with iOLA intelligent testing, remote control, and integrated OPM, VFL, and SLS functions .
- SKYSHL SS315T-2B1: 1310/1550nm OTDR with 35/33dB dynamic range, short dead zones, APP connectivity, and multi-connector support .
- Fibershot Pro D-35: Professional OTDR with 35/33dB dynamic range, integrated OPM, VFL, OLS, and long battery life for industrial applications . These devices provide high-precision, reliable, and portable solutions for fiber optic testing in the petroleum and petrochemical industry, ensuring network integrity and operational safety.

Article Content

Fibershot Pro-D35 OTDR – 1310nm:35dB / 1550nm:33dB SingleMode

The Fibershot Pro-D35 OTDR is a high-performance Optical Time Domain Reflectometer designed for precise fiber optic testing.

OTDR Testing Solutions | EXFO

Dynamic range: The maximum optical loss an OTDR can analyze from the backscattering level at the OTDR port down to a specific

YOKOGAWA AQ1210A OTDR Handheld Optical Fiber Tester

Like the larger AQ7275, it also offers an industry leading 0.8m event dead zone as well as the convenient capability to

High precision OTDR +VFL, dynamic range 37 / 35dB, designed for

High precision OTDR +VFL, dynamic range 37 / 35dB, designed for testing long-distance optical fiber networks, 7-inch display,

Yokogawa AQ1210A OTDR 1310/1550nm 37/35dB Optical Time

The Yokogawa AQ1210 series OTDR tester is designed to empower field technicians to make fast and precise measurements with

Pro-D35 OTDR Test Wavelength 1310nm:35dB/1550nm:33dB Single

With the popularization of optical network construction in cities and countryside, the measurement of an optical network becomes

Syrian optical communication test instrument dynamic range 35dB

High precision OTDR +VFL, dynamic range 37 / 35dB, designed for testing long-distance optical fiber networks, 7-inch display,

WHITE PAPER: Understanding Optical Time Domain

OTDR Fundamentals There are a variety of optical test sets that can be used to ensure quality of service (QoS) on fiber optic

Optical Communication Tester Dynamic Range 35dB Sample

Optical Loss & Testing Overview | Kingfisher International Application note: Practical overview of optical loss testing

Monitoring application of distributed optical fiber measurement ...

Abstract. With the continuous development of optical fiber measurement technology, it has been more and more used in

A Review of Distributed Fiber-Optic Sensing in the Oil and Gas Industry

The reported hybrid sensing system was tested in an operational oil well. This work also discusses the challenges that might hinder

AppNote142 Selecting the right OTDR

This specification determines the total optical loss that the OTDR can analyze; i.e., the overall length of fiber link that can be

Optical Communication Tester Dynamic Range 35dB Order

OTDR Optical Fiber Tester 1310/1550/1625nm 37/35/35dB with 5.8 It can be widely used in engineering construction, emergency

Optical Communication Bit Error Rate Meter Dynamic Range

To help engineering and technical teams quickly equate a dynamic range value with a fiber distance value, M2 Optics has created a

Fiber Optic Sensors in the Oil and Gas Industry ...

Fiber optic sensors have found applications in multiple industries, and their use has been gradually growing since the 1980s. Since

Optical Time-Domain Reflectometer (OTDR) | Glossary | EXFO

An important OTDR parameter is the dynamic range. This parameter reveals the maximum optical loss an OTDR can analyze from

AQ7280 OTDR Optical Time Domain Reflectometer

volution in optical communication technology. Nine models are available as the OTDR unit, including a model achieving industry

How Fiber Optics Are Used in the Oil & Gas Industry

Specialty optical fibers are an essential component in the oil and gas industry, providing a reliable and cost

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

