



DTX CableAnalyzer™ Fiber Test Options



What are the options?

Fiber module sets or a fiber test kit.

Fiber module sets (DTX-xFM) consist of two fiber modules, one for the DTX Main and another for the DTX Smart Remote. Each module incorporates a dual-wavelength source (output), a VFL and a power meter (input). Three fiber module sets are available.

The fiber test kit (DTX-FTK) consists of a power meter (input) for the DTX Main and a SimpliFiber source as the far-end remote source. The fiber test kit includes an 850 nm and 1300 nm LED source for multimode fiber testing. Singlemode laser sources are available as optional accessories.

Target users

Owners of the DTX Series CableAnalyzer™ who test premise fiber cabling in addition to twisted-pair or coaxial copper cabling.

Model differences

The fiber module sets (DTX-xFM) differ by the type of optical light sources incorporated into each module. The fiber test kit

(DTX-FTK) ships with an 850 nm and 1300 nm source. The DTX-xFM and DTX-FTK share the same power meter design.

Fluke Networks offers different test modules with different optical light sources to accommodate testing of different fiber types at different wavelengths as prescribed by the industry standards.

An LED source emits light relatively uniformly over the entire core of a multimode fiber. In contrast, the distribution of light from a VCSEL source is brighter in the center of the fiber core, quickly dims as it moves away from the center and does not illuminate the core near the cladding interface. This difference in how these sources launch light into a fiber results in different loss measurements. The loss measured with an LED is typically greater than the loss measured with a VCSEL. Industry standards, like TIA-568B and ISO 11801, specify use of an LED to certify multimode links since the resulting loss measurement is generally worse case.

Advantages

The DTX fiber modules (DTX-xFM) utilize exclusive Fluke Networks time acceleration technology to speed the user through fiber

certification five times faster than the competition. The DTX-xFM modules offer a high degree of automation and measure link length plus four loss measurements per Autotest (two fiber optic connections at two wavelengths each) – all in about 12 seconds.

The DTX fiber modules incorporate an on-module visual fault locator (VFL) for fiber tracing and troubleshooting. Use the talk feature to communicate between DTX Main and DTX Smart Remote over the fiber link-under-test.

Both the DTX fiber modules and the DTX fiber test kit offer the convenience of having fiber test capability always on-board so fiber testing is just a button push away. Manage and report the saved test using the LinkWare PC software.

Value to customer

The testing speed of the DTX fiber modules (DTX-xFM) translates into labor savings for the customer. The available ROI calculator allows a customer to describe his/her workload and labor rates to determine the time and labor savings DTX could provide. A typical contractor could expect to save more than 90 hours of testing time

Network source type	Network infrastructure	DTX fiber test option
850 nm LED	Multimode fiber	DTX-MFM or DTX-FTK
850 nm VCSEL	Multimode fiber	DTX-GFM
1300 nm LED	Multimode fiber	DTX-MFM or DTX-FTK
1310 nm laser	Singlemode fiber	DTX-SFM or DTX-FTK and Singlemode light source (1310 nm)
1550 nm laser	Singlemode fiber	DTX-SFM or DTX-FTK and Singlemode light source (1310 nm)



Selection matrix

Feature	DTX Fiber Test Options			
	DTX-MFM	DTX-SFM	DTX-GFM	DTX-FTK
Multimode fiber power and loss	X		X [850 nm only]	X
Singlemode fiber power and loss		X		with optional singlemode light source
Source wavelengths (λ)	850 nm and 1300 nm	1310 nm and 1550 nm	850 nm and 1310 nm	850 nm and 1300 nm
Light source type (1st λ/2nd λ)	LED/LED	FP laser/FP laser	VCSEL/FP laser	LED/LED
TIA and ISO compliant certification	X	X		X
1/10 Gigabit Ethernet SX/SL qualification			X	
Time accelerated digital technology Two wavelengths x 2 fibers + length every Autotest	X	X	X	
Auto Pass/Fail analysis, fixed limits	X	X	X	X
Auto Pass/Fail analysis, formula-based limits	X	X	X	
On-module VFL	X	X	X	
Length measurement	X	X	X	
Talk set	X	X	X	
LinkWare reporting	X	X	X	X
Bundled product offering with DTX to realize savings	DTX-1800-M DTX-1200-M	DTX-1800-MS DTX-1200-MS	DTX-1800-V DTX-1200-V	

annually, compared to competitive fiber adapters. This can translate into significant labor savings per year.

For customers with very few fibers to test or very low labor rates, the DTX-FTK may present the better value. While not as efficient as the DTX fiber modules, the lower acquisition price of the DTX-FTK provides customers with a DTX-compatible fiber test solution comparable in price to a handheld optical loss test set.

Typical customer profile

	DTX-MFM	DTX-SFM	DTX-GFM	DTX-FTK
Cable installation contractor - TIA/ISO standards-based certification required - Productivity essential - Reporting required	X	X		
Private network infrastructure manager - Network technology qualified for (1 or 10 Gigabit Ethernet) - Troubleshooting valuable - Easy to use		X	X	
Installer or network manager - TIA/ISO standards-based certification required - Very few links to test - Low labor expenses				X

NETWORK SUPERVISION

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