FiberWarrior OTDR Specifications

Wavelengths:	MM: 850nm, 1300nm;
	SM: 1310nm, 1550nm (±20nm)
Dynamic Range:	MM: 22/22dB, typical, SNR=1
	SM: 33/32dB, typical, SNR=1
Pulsewidth Range:	10ns to 20µs
Loss Resolution:	0.01dB
Linearity:	±0.05dB/dB
Maximum Reach:	>103km (1310nm), 200km (1550nm)
Event Deadzone:	<3m
Attenuation Deadzone:	<12m
Sample Points:	16,000 standard (up to 64,000, depending on configuration)

Introduction

The OptiConcepts FiberWarrior series of OTDRs provides contractors, technicians, engineers, quality personnel, and other fiber specialists with a comprehensive, yet easy to use tool to measure critical fiber parameters. Through the use of quality components, a ruggedized design, and an expandable platform, the FiberWarrior will provide years of accurate optical fiber measurements and analysis.

The FiberWarrior Optical Time Domain Reflectometer (OTDR) is one of the most versatile pieces of equipment for testing optical fibers within network cables. The OTDR measures distance and loss of optical fiber and components. It can measure these characteristics with access to only one end of the fiber, which makes the OTDR a very unique tool since fibers can be many miles long. The OTDR works like a radar where short pulses of light are transmitted down the fiber under test and measures the small fraction of light that is reflected back into the unit. This reflected light can be used to show the user fiber attenuation and point discontinuities. The graph displayed on the screen of an OTDR is called a trace. The traces show signal strength as a function of the distance along the fiber. The slope along the trace indicates fiber loss. Discontinuities in the trace indicate the location of events, such as connectors, splices, damage, etc. The drop in power of the discontinuity indicates its loss. The following OTDR trace shows some typical characteristics of an optical fiber and is referred to as a signature trace. Note the overall appearance of the trace, the vertical height, and the horizontal slope. Each characteristic has a specific meaning.