

mini-OTDR

FiberRanger3

Description

The Wilcom FiberRanger3 is a lightweight, hand-held **mini-OTDR** in a rugged enclosure. The fast easy-to-use Optical Time Domain Reflectometer with the core functions required to measure optical fiber from one end during installation, repair and verification. This unit is ideal for field and maintenance of new or existing fiber networks.

The unit is available in two versions. One version considered long range with distance ranges from 4Km / 13Kft to 64Km / 215Kft, and the other version considered a short haul or high resolution version which makes it ideal for LAN applications with distance ranges from 1Km / 3.3Kft to 16Km / 53Kft.



Each version is capable of measuring splice loss, link attenuation and distance. The singlemode or multimode output port uses a high power, 1310 nm or 1550 nm pulsed laser source. The ¼ VGA monochrome display provides a powerful yet simple set of fiber parameters and control indications to view an entire fiber link or zoom in and analyze a splicing point or a defect in the fiber. The display shows fiber loss versus distance in its large central graph as well as individual and dual cursor measurements, and important instrument parameters such as Index of Refraction, pulse width, scanning speed, and a battery gauge.

The unit also is equipped with Print/Store/Recall/RS-232 export features which are useful for analyzing previously stored data either on the graphic display or viewed on a printer or PC.

Features and Benefits

✓ Rugged Plastic Enclosure

With the lid closed and locked, and the purge port tightened, this enclosure is air and water-tight.

✓ Internal Data Storage and Data Output

The ability to store 255 traces and export them to a printer or PC for future analysis are additional useful features of the FiberRanger3.

✓ One Button SCAN Operation

This is complimented by cursor keys and "soft-keys", allowing the user to observe the entire link loss or zoom in on defects.

✓ Economical

The rugged FiberRanger3 is a fraction of the size, weight, and cost of most mini-OTDRs.

✓ OTDR Trace Viewing

The OTDR trace viewing capability enables a highly versatile troubleshooting tool in a cost-effective package.

✓ Hand-Held

The FiberRanger3 is a light weight , hand-held, rugged mini-OTDR, with an easy to read ¼ VGA monochrome display.

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Specification

Long Range Version

Optical Connection	ST or FC/UPC Singlemode or Multimode
CDRH Laser Classification	Class I
Wavelength	850 nm, 1300 nm +/-20nm 1310, 1550 nm +/- 20nm
Sprectral Width	<10nm RMS
Distance Range	4Km/13Kft(SP), 32Km/10Kft(LP), 64Km/215Kft (XM)
Dynamic Range	21 dB Typical (LP)
Pulsewidths	4m/13ft (SP), 100m/330ft (LP)
Distance Accuracy	+/- (1mtr. + .01% x distance)
Dead Zone	10m/33ft typical (SP)
Group IOR Range	1.024 - 2.048
Vertical Expansion	0.5, 1, 2, 4 dB/div
Horizontal Expansion	16Km/32Kft, 8Km/16Kft, 4Km/8Kft, 2Km/4Kft per division (XM) 8Km/16Kft, 4Km/8Kft, 2Km/4Kft, 1Km/2Kft per division (LP) 1Km/2Kft, 512m/1Kft, 250m/51ft, 128m/ 256ft per division (SP)
Data Acquisition Method	N-Point Averager
Distance Interval	2m(SP), 32m(LP), 64m(XM)
Laser Rep Rate (approx)	5kHz(SP), 1kHz(LP), 500Hz(XM)
Averaging Time	0.5 seconds to 2 minutes
Data Storage	255 traces
Computer/Printer Interface	RS-232
Power	8 NiMH AA cells, or 120VAC charger
Battery Life	12 hrs. typical
Size	8.25 x 6.5 x 3.5 inches (20.96 x 16.51 x 8.89cm)
Weight w/ batteries	2.75 lbs (1.25 Kg)
Operating Temperature	0°C to +50°C
Storage Temperature	-40°C to +60°C



Warranty

The Wilcom FiberRanger3 is warranted for a period of one year to be free of defects in material and workmanship.

**ISO-9001:2000
Registered**

High Resolution Version

Optical Connection	ST or FC/UPC Singlemode or Multimode
CDRH Laser Classification	Class I
Wavelength	850, 1300 nm +/-20nm 1310, 1550 nm +/- 20nm
Sprectral Width	<10nm RMS
Distance Range	1Km/3.3Kft (SP), 4Km/13Kft (LP), 16Km/53Kft (XM)
Dynamic Range	21 dB Typical (LP)
Pulsewidths	4m/13ft (SP), 50m/164ft (LP)
Distance Accuracy	+/- (1mtr. + .01% x distance)
Dead Zone	6m/20ft typical (SP)
Group IOR Range	1.024 - 2.048
Vertical Expansion	0.5, 1, 2, 4 dB/div
Horizontal Expansion	4Km/8Kft, 2Km/4Kft, 1Km/2Kft, 500m/1Kft per division (XP) 1Km/2Kft, 500m/1Kft, 256m/512ft, 128m/256ft per division (LP) 256m/512ft, 128m/256ft, 64m/128ft, 32m/64ft per division (SP)
Data Acquisition Method	N-Point Averager
Distance Interval	1m(SP), 4m(LP), 16m(XM)
Laser Rep Rate (approx)	10kHz(SP), 5kHz(LP), 1.5kHz(XM)
Averaging Time	0.25 seconds to 1 minutes
Data Storage	255 traces
Computer/Printer Interface	RS-232
Power	8 NiMH AA cells, or 120VAC charger
Battery Life	12 hrs. typical
Size	8.25 x 6.5 x 3.5 inches (20.96 x 16.51 x 8.89cm)
Weight w/ batteries	2.75 lbs (1.25 Kg)
Operating Temperature	0°C to +50°C
Storage Temperature	-40°C to +60°C



Ordering Information

<u>Model</u>	<u>Description</u>	<u>Part No.</u>
FR3-S	1310nm - Singlemode	30500040
FR3-M	1300nm - Multimode	30500035
FR3-SD	1310/1550nm - Singlemode	30500045
FR3-S1	1550nm - Singlemode	30500050
FR3-M1	850nm - Multimode	30500055
FR3-MD	850/1300nm - Multimode	30500060
FR3-SHR	1310nm - Singlemode High Resolution	30500065
FR3-MHR	1300nm - Multimode High Resolution	30500070
FR3-SDHR	1310/1550nm - Singlemode High Resolution	30500075
FR3-S1HR	1550nm - Singlemode High Resolution	30500080
FR3-M1HR	850nm - Multimode High Resolution	30500085
FR3-MDHR	850/13100nm - Multimode High Resolution	30500090

Note: adding -03 after the part number indicates an FC/UPC connector
adding -04 after the part number indicates an ST/UPC connector

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Specifications and prices are subject to change without notice. 05/04 813-141-004



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