

OptiConcepts FiberWarrior Pro™ Multifiber Test Set with Integrated CPU



Key Features & Benefits

- Fastest MPO/MTP™ Insertion Loss Tester on the Market
- Switched Port Array for Polarity Testing
- Integrated Dual Wavelength Source, Meter Array, Switch, and Optics
- Units available for 50µm, 62.5µm, and Single-mode Testing
- Easy-to-Use Setup and Test Process
- Ability to Test Multi-Fiber Assemblies in Addition to MPO/MTP
- Capability to Test Simplex and Duplex Jumpers
- Built in Visual Fault Locator (VFL)

Markets & Applications

- Telecommunications
- LAN/WAN
- CATV
- Enterprise Networks
- FTTx/PON Testing Compliance
- OEM/Lab/Manufacturing Environments
- Data Centers
- Medical
- Cable Assembly Houses
- Artificial Intelligence (AI)

Overview

The OptiConcepts FiberWarrior Pro™ Multifiber Test Set with Integrated CPU offers a state-of-the-art system for testing, troubleshooting, and documenting multifiber assemblies. The system provides fast and accurate insertion loss and polarity of multiple fiber array connectors such as MPO and MTP connectors. Backreflection option is available. Multifiber cable assemblies with LC, SC, ST, FC, MT-RJ, and other connector types can also be tested with ease. Test results can also be quickly saved and printed using the intuitive FiberWarrior Pro software interface or easily transferred and shared through a USB port, an Ethernet connection, or wirelessly via Wi-Fi.



OptiConcepts FiberWarrior Pro™ Multifiber Test Set with Integrated CPU

Specifications

Physical	
Weight	10.9 lbs (4.9kg)
Dimensions (Height x Width x Depth)	5.2 x 10.2 x 13.8 in (133 x 260 x 350 mm)
Computing	
Processor	Quad Core Arm V8
Operating System	64 bit Linux
Storage	64Gb (larger options available by request)
RAM	4Gb
Ports and Outputs	1 USB, Ethernet, HDMI, WiFi
Environmental	
Operational Temperature	0° to 50°C
Storage Temperature	-20° to 60°C
Humidity	≤95% RH, Non Condensing
Electrical	
Power Requirements	AC, 100-250VAC, 50-60Hz
Display	7" Color TFT LCD
User Input Device	Resistive Touchscreen
Optical	
Wavelengths	MM - 850/1300nm, SM - 1310/1550nm (+/-20nm)
Measurement Time	<5 seconds (fast insertion loss and backreflection) <3 seconds per channel (polarity)
Insertion Loss Resolution	0.01dB
Fiber Type	62.5µm, 50µm, SM
Channels	1 to 24 (dependent on configuration)
Insertion Loss Accuracy	±0.10dB
Min Back Reflection Return Loss Range	-30 to -70db
Return Loss Accuracy	±1dB
Channel Repeatability	±0.05dB
Front Panel Port Type	MPO/MTP
Visual Fault Locator (Class 2 Laser)	
Wavelength	650nm (+/-25nm)
Output Power Level	<1mW

All specifications are typical and subject to change without prior notification.

OptiConcepts FiberWarrior Pro™ Multifiber Test Set with Integrated CPU



Fiber #	Insertion Loss (A)		Insertion Loss (B)		Backreflection (A)		Backreflection (B)		Polarity
	1550 (A)	1550 (B)	1310 (A)	1550 (B)	1310 (A)	1550 (A)	1310 (B)	1550 (B)	
1	0.34	0.55	0.42	0.4	<-70	<-70	-68	<-70	
2	0.14	0.59	0.13	0.58	<-70	<-70	<-70	<-70	
3	0.32	0.44	0.55	0.33	<-70	-70	<-70	-58	
4	0.25	0.08	0.55	0.28	<-70	<-70	<-70	-57	
5	0.23	0.46	0.41	0.35	<-70	<-70	<-70	<-70	
6	0.03	0.45	0.53	0.73	<-70	<-70	-69	-65	
7	0.11	0.34	0.1	0.47	<-70	-65	<-70	-57	
8	0.45	0.01	0.75	0.24	<-70	<-70	-68	<-70	
9	0.67	0.3	0.64	0.67	<-70	-59	<-70	<-70	
10	0.35	0.35	0.39	0.05	-56	<-70	<-70	<-70	
11	0.62	0.67	0.58	0.41	<-70	-64	<-70	<-70	
12	0.43	0.71	0.18	0.73	<-70	-57	<-70	<-70	

Detailed Information

The OptiConcepts FiberWarrior Pro Multifiber Test Set with Integrated CPU works as a stand alone system and easily connects to a monitor via built-in HDMI. The test set allows for efficient testing of multifiber connectors such as 12, 16, and 24 fiber MPO and MTP connectors. Using a proprietary integrated dual wavelength source and meter array, up to 48 individual tests can simultaneously be displayed and provide the user with a complete set of results within seconds. In addition to insertion loss, the FiberWarrior Pro Multifiber Test Set provides a convenient method of checking the fiber orientation (known as fiber polarity). The system is pre-programmed with industry standard polarity methods A, B, and C and can be programmed to your custom polarity needs. These features ensure array connectors meet industry EIA/TIA mapping standards and reports which fibers are improperly installed. Optional backreflection allows return loss testing.

A built-in visual fault locator assists in trouble shooting faulty connector fibers. In the FiberWarrior Pro Multifiber software, customer information can be added and stored within a given saved test result. This capability allows for complete product and performance traceability using serialized or custom numbering methods. For added convenience, high-fiber counts such as 144F and 288F assemblies can be stored under a single file. Printed test results have never been easier using an optional printer that provides a comprehensive list of test results with the click of a button or using the Export to Excel feature that imports results directly into a Microsoft Excel spreadsheet. Lastly, Pass/Fail criteria can be easily tracked through the use of preset values and colors to denote passing and failing results. Connection to the internet or an internal network is accessible through the integrated Ethernet port or wirelessly via Wi-Fi. Increase productivity and reduce downtime with this all-in-one testing solution.

OptiConcepts
FiberWarrior Pro™ Multifiber Test Set with Integrated CPU



Ordering Information

Part Numbers	Description
12 Fiber Test Set	
TSW-22SA-MT	1x12 Single-mode with Integrated CPU, Power Meter with 1310/1550nm Light Source, Optical Switch, MPO Connector Ports, Fast Polarity Test, Fast Insertion Loss, Visual Fault Locator
TSW-225A-MT	1x12 50µm Multimode with Integrated CPU, Power Meter with 850/1300nm Light Source, Optical Switch, MPO Connector Ports, Fast Polarity Test, Fast Insertion Loss, Visual Fault Locator
TSW-226A-MT	1x12 62.5µm Multimode with Integrated CPU, Power Meter with 850/1300nm Light Source, Optical Switch, MPO Connector Ports, Fast Polarity Test, Fast Insertion Loss, Visual Fault Locator
TSW-22SB-MT	1x12 Single-mode with Integrated CPU, Optical Source and Receiver, MPO Connector Ports, Polarity, Insertion Loss with Backreflection, Visual Fault Locator
TSW-22MB-MT	1x12 Multimode with Integrated CPU, Optical Source and Receiver, MPO Connector Ports, Polarity, Insertion Loss with Backreflection, Visual Fault Locator
Part Number	Description
16 Fiber Test Set	
TSW-16SA-MT	1x16 Single-mode with Integrated CPU, Power Meter with 1310/1550nm Light Source, Optical Switch, MPO Connector Ports, Fast Polarity Test, Fast Insertion Loss, Visual Fault Locator
TSW-165A-MT	1x16 50µm with Integrated CPU, Power Meter with 850/1300nm Light Source, Optical Switch, MPO Connector Ports, Fast Polarity Test, Fast Insertion Loss, Visual Fault Locator
TSW-166A-MT	1x16 62.5µm with Integrated CPU, Power Meter with 850/1300nm Light Source, Optical Switch, MPO Connector Ports, Fast Polarity Test, Fast Insertion Loss, Visual Fault Locator
Part Number	Description
24 Fiber Test Set	
TSW-24SA-MT	1x24 Single-mode with Integrated CPU, Power Meter with 1310/1550nm Light Source, Optical Switch, MPO Connector Ports, Fast Polarity Test, Fast Insertion Loss, Visual Fault Locator
TSW-245A-MT	1x24 50µm with Integrated CPU, Power Meter with 850/1300nm Light Source, Optical Switch, MPO Connector Ports, Fast Polarity Test, Fast Insertion Loss, Visual Fault Locator
TSW-246A-MT	1x24 62.5µm with Integrated CPU, Power Meter with 850/1300nm Light Source, Optical Switch, MPO Connector Ports, Fast Polarity Test, Fast Insertion Loss, Visual Fault Locator
TSW-24SB-MT	1x24 Single-mode with Integrated CPU, Optical Source and Receiver, MPO Connector Ports, Polarity, Insertion Loss with Backreflection, Visual Fault Locator
TSW-24MB-MT	1x24 Multimode with Integrated CPU, Optical Source and Receiver, MPO Connector Ports, Polarity, Insertion Loss with Backreflection, Visual Fault Locator

FiberWarrior Pro™ Multifiber Test Set with Integrated CPU



Ordering Information

Part Number	Description
Accessories	
TSW-TCASE	Deluxe Hard Shell Transit Case with Custom Foam
TSL-MFMTS12-1F	1FT Port Saver Cable 12F MTP Non-Pinned to MTP Pinned Single-mode
TSL-MFMT512-1F	1FT Port Saver Cable 12F MTP Non-Pinned to MTP Pinned 50µm MM
TSL-MFMT612-1F	1FT Port Saver Cable 12F MTP Non-Pinned to MTP Pinned 62.5µm MM

Quality Statement

OptiConcepts is committed to providing high quality, easy to use test equipment by integrating customer needs into world-class engineered products and systems.



OptiConcepts, Inc. • Hickory, NC 28601 USA • Tel: 828.320.0138 • Fax: 828.874.6474 • www.opticoncepts.com • email: info@opticoncepts.com

© 2025 OptiConcepts, Inc • FiberWarrior Pro and OptiLin are trademarks of OptiConcepts • Other trademarks are property of their respective owners

LIT-167H