# **DI-1000MPO Digital Fiber Inspection Scope**

The DI-1000MPO Digital Fiber Inspection Microscope can be operated in either wired or wireless mode and can be used with mobile devices and VeEX test sets to inspect multi-fiber and single-mode connector endfaces of fiberoptic cables for installation and maintenance.

## **Overview and Controls**



VeEX supported platforms include: <u>Fiberizer® Mobile Scope Windows Desktop PC</u>, <u>Fiberizer® Mobile for Android™</u>, <u>Fiberizer® Mobile</u> <u>for iOS</u>, and some VeEX platform test sets. Depending on the platform used, extra accessories may be required for connection.

See Optional Accessories by Platform for a list of equipment options for each platform.

## Setup: USB Connection

For Android mobile devices and V150 platforms, use an OTG adapter cable (*not provided*) to connect the scope to the host device USB port. Either a micro-B USB (m) to USB-Type A (f) OTG cable or a USB-C (m) to USB-Type A(f) OTG cable is required. All other VeEX Linux platforms (except iOS) do not require an OTG cable; insert the USB-Type A (male) connector into the standard USB-Type A port.



For all platforms, the WiFi must be turned off when using a USB connection. For VeEX Linux-based test devices, the **Scope mode** must be set to **Local**.

## Setup: WiFi Bridge Connection

The USB WiFi Bridge and Power Bank for Fiberscope allows you to connect your FiberScope wirelessly. It is a required <u>option</u> for Fiberizer Mobile iOS and optional for Fiberizer Mobile Android, Fiberizer Mobile Scope, and any VEEX test sets with WiFi on the host device.





*Figure 3*: VeEX WiFi Bridge and Power Bank for Fiberscope

Figure 4: DI-1000MPO connected to WiFi Bridge

Connect the DI-1000MPO to the VeEX WiFi Bridge, then move the 3-way switch to **R** to enable WiFi operation. Using the host device WiFi setup, search for "veex\_fiberscope\_####" and press **Connect**.

#### VeEX V150/RXT1200/MTTplus/TX300S Platforms

1. Select the **Fiber Scope** option on the V150 test device, then select the **WiFi Fiberscope** checkbox. The test set will perform the WiFi connection steps (scan, select SSID, connect) automatically.

Utilities				$\bigcirc$		
Ping	Trace Route		ARPWiz		Scan	
Scan	Connect	Network		AP Mode	•	
	Disc. AP					
WIFI Scan Completed						Release IP
ESSID	BSSID	Protocol	Rates	Channel		
VeEX Office	74:83:c2:77:eb:5a	b,g,n,ac	346 Mb/s	1	A 📶	
VeEX Office	74:83:c2:77:d2:ca	b,g,n,ac	346 Mb/s	1	A 📶	
VeEX Mobile	c4:04:15:1b:df:c2	b,g,n	216 Mb/s	6	A 📶	
veex_fiberscope_5F98	9c:41:7c:9e:5f:98	b,g,n	72 Mb/s	11	- al	
VeEX IPv6 Test	20:3d:66:56:9f:70	a,n	300 Mb/s	36	A 📶	
	Page 8 /	10 🕟				
P 192.168.34.241 R Remote	CLI TPQA00	TD410168A00	2000-04	-08 22:41:11		No 💿 🚱 🤞

*Figure 5:* V150 Platform WiFi setup (>Tools>WiFi Wiz)

#### Fiberizer<sup>®</sup> Mobile Scope, Android<sup>™</sup> and iOS Plus/Lite

- 2. On the **Setup** screen, select **Remote** from the **Scope mode** drop-down box, and then press **OK** on the confirmation screen.
- 3. Complete Page 1 and Page 2 settings, then select the Capture tab and press Resume or Capture Fiber.

				8 🕢 🕞
Setup	Cap	ture	Results	
Scope mode		Remote		
Auto Save		Disabled		
Ask Before Save				
Job ID		sc_apcIEC1		
Cable ID		c001		
Fiber ID		f001		
Test ID		tst001		
Increment		Fiber ID		
	Page	1/2 🕑		
(P) 192.168.1.198 (R) Remote/C	LI TPQ/	00TD410168A00	2000-04-08 22:44:00	<u>n</u> 🗟 🛞 🔗



In the mobile device's WiFi settings, select the Fiberscope WiFi SSID "veex\_fiberscope\_####" and connect to it. Launch the Fiber Scope application. (Applicable to mobile devices, CX310.) For step-by-step instructions, see the software manual on the <u>DI-1000MPO</u> product page on www.veexinc.com.



Make sure **Auto-join** is toggled to reconnect to the unit automatically. This will help towards ensuring a stable connection.

[Fiberizer Mobile Scope and Android]: Select  $\blacksquare \rightarrow$  Fiber scope. Then, select the Wi-Fi scope radio button and tap Connect. [Fiberizer Mobile iOS Lite]: Select Measurements  $\rightarrow$  FiberScope  $\rightarrow$  Connect and tap Run.

[Fiberizer Mobile iOS Plus]: Select Microscope, then select Connect and tap Run.

### **Scoping Procedure**

- After powering on and setting up the fiberscope and attaching the correct tip, connect the fiber under test (FUT) to the DI-1000MPO. Launch the Fiberizer application (PC, mobile) or Fiberscope software on the VeEX test set and connect to the WiFi network (see previous section).
- Define the following setup parameters: Autosave parameters, file structure naming (Job ID, Cable ID, Fiber ID, Test ID), IEC analysis type, tip type, live scoping functions (Auto-freeze, Rect/Dots highlighting, Shake, or MPO mode w/MPO kit). For MPO group analysis, set Auto Freeze to OFF. For the tip type, use the MPO UPC (some APC) and MPO APC setting along with the PC, MM connector type.
- Use the Focus Wheel to adjust the focus. The fiber endface (silhouette or shadow outline) should be aligned as near to the center as possible (APC connectors will sometimes appear at best slightly left or right aligned).

Proper Illumination of the fiber endface is also important in revealing defects/scratches that may be hidden from the analysis if dimly lit (e.g., APC-female connectors). When the optimal focus level is reached, the auto-focus will freeze and capture the image for analysis.

- To add the current image to the test results, tap Play [FMS Android], Run [FMiOS] or press Resume or Capture Fiber [VeEX test set] to activate the video capture feed. Alternatively, press the Capture button on the bottom of the scope.
- 5. To save the file with multiple images, tap or press **Save**. Below the image, the next number is highlighted.
- To view recently saved test results, tap History [FMS Android/Fiberizer Mobile] or highlight the result file on the Results tab and press Load [VeEX test set]. Tap each individual screenshot to view the individual MPO fibers.

## **Fiberizer Apps**

Any applications for iOS and Android smart devices are available in the Apps section of VeEX's website <u>https://www.veexinc.com/apps</u>. When installing VeEX Apps for the first time, users are required to authorize VeEX as a trusted enterprise developer.

# Optional DI-1000MPO Accessories by Platform

Platform	Software	Equipment	Equipment Images	
Windows PC Desktop	Fiberizer Scope for Windows PC Desktop <u>https://www.veexinc.com/products/fiberizer-scope</u>	<b>None</b> . Connect directly to USB Type A port on the computer.	N/A	
Apple iOS (mobile)	Fiberizer iOS Lite & Plus https://www.veexinc.com/apps *Requires IOS 13.0 or higher	Requires: Wireless connection: USB WiFi Bridge and Power Bank for Fiberscope <b>Z99-99-028G</b>		
Android OS (mobile)	Fiberizer Mobile Scope (latest version) https://www.veexinc.com/products/fiberizer- <u>scope</u> *Android 16 to Android 12 <i>Fiberizer Mobile Android (FMA)</i> {legacy support} https://www.veexinc.com/apps *Android 6 to Android 12	Requires: OTG Cable for USB micro-B F02-00-090G OR OTG Cable for USB Type C F02-00-102G OR Wireless connection: USB WiFi Bridge for Fiberscope Z99-99-028G		
VeEX test set (V150 platform e.g., FX150+, FX180(X), CX310, MTX150)	Fiber Scope (Linux) platform software (provided on test set)	Requires: OTG Cable, Micro-B USB (m) to USB-A (f), 15 cm ( <u>standard item</u> ) F02-00-090G		
VeEX test set (RXT1200, TX300S, MTTplus)	Fiber Scope (Linux) platform software (provided on test set)	Connect directly to USB Type A port on the test set. OR Wireless connection: USB WiFi Bridge for Fiberscope <b>Z99-99-028G</b>	N/A	
All	All	Tips/Connectors	See the <u>DI-1000/DI-1000MPO/DI-3000</u> <u>Adapter Tips Guide</u> on <u>www.veexinc.com</u> .	

# About VeEX

VeEX Inc., a customer-oriented communications Test and Measurement company, develops innovative test and monitoring solutions for next generation telecommunication networks and services. With a blend of advanced technologies and vast technical expertise, VeEX products address all stages of network deployment, maintenance, field service turn-up, and integrate service verification features across Copper, Fiber Optics, CATV/DOCSIS, Mobile 4G/5G backhaul and fronthaul, next generation Transport Network, Fibre Channel, Carrier & Metro Ethernet technologies, WLAN and Synchronization.

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