



## VeEX MTX150x Test Set The Verification Instructions

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**VeEX MTX150x Test Set The Verification**



## MTX150x Test Set

The MTX150x Test Set is a product designed for testing and maintaining Ethernet networks. It comes with various software releases that provide new features, improvements, and bug fixes.

The software version 02.01.0008, released on October 11, 2022, is a maintenance release that fixes a bug related to the control of 1000BASE-T, 2.5G/5G/10GBASE-T options. It also improves the bi-directional MTU search for V-PERF to ensure the maximum window is used for testing. However, this version does not support 1G/10G SyncE modes and SyncE Wander measurements.

Users of original MTX150x (TYR S/N prefix) with SyncE licenses may stay with version 01.01.0008 and wait for an upcoming release to avoid temporarily disabling the SyncE features.

The MTX150x Test Set also comes with other software releases such as version 02.01.0004, released on August 31, 2022, which is a major release that provides new and improved System Tools & Utilities menu structure. It also adds support for peer-to-peer IP links via 31 and 127 netmasks and fixes an issue with V-TEST contribution of performance data to Ookla's Global Index analytics when set up in Auto or Manual Ookla Speedtest server selection mode.

The product user manual provides installation instructions for the software updates at the end of each document.

## Product Usage Instructions

To use the MTX150x Test Set, follow the below instructions:

1. Identify your test set by its serial number prefixes starting with MTX150x or MTX150x Enhanced to ensure software compatibility.
2. Download the latest software release from the manufacturer's website.
3. Follow the installation instructions provided at the end of the software release notes document.
4. Connect the MTX150x Test Set to the Ethernet network that you want to test or maintain.

5. Use the System Tools & Utilities menu structure (available in software version 02.01.0004) to access platform settings and tools such as file manager, OTDR viewer, Fiber Scope viewer, OPM viewer, LAN (USB adapter), WiFi, Bluetooth, Web Remote (LAN/WLAN, VPN), EZ-Remote (Internet), VeSion R-Server client, and platform information and settings.
6. Use the L4 Wizard/Lite Mode (available in software version 01.01.0007) to simplify and automate V-TEST/V-PERF (L4 applications) for 1, 2.5, 5 and 10G Copper via the SFP+ port. The L4 Wizard/Lite Mode can be enabled in the Global Settings/UI mode (Normal/L4 Wizard) when the appropriate options are purchased.

## **MTX150x Dual 10GE – System Software Updates**

Installation instructions provided at the end of this document.

This software is compatible with MTX150x and MTX150x Enhanced test sets which can be identified by their serial number prefixes, starting with:

- TYR – MTX150x
- TJM – MTX150x Enhanced

DO NOT DOWNGRADE to earlier software versions, unless explicitly instructed by a Customer Support representative.

### **Software version 02.01.0008**

#### **Release Scope:**

Maintenance Release. General availability.

#### **General features and improvements:**

1. 1000BASE-T, 2.5G/5G/10GBASE-T option control bug was fixed. Ethernet features and improvements
2. Improved bi-directional MTU search for V-PERF to ensure the maximum window is used for testing.

#### **Known issues or limitations:**

- 1G/10G SyncE modes and SyncE Wander measurements not yet available in this version. Users of original MTX150x (TYR S/N prefix) with SyncE licenses may stay with 01.01.0008 and wait for an upcoming release, to avoid temporarily disabling the SyncE features.

### **Software version 02.01.0004**

#### **Release Scope:**

Major Release. General availability. General features and improvements:

1. Added support for New and Improved hardware revision, now including native RJ45 support for modern 2.5GBASE-T, 5GBASE-T and 10GBASE-T test interfaces, commonly found on state-of-the-art multi-Gigabit routers, PON and Extended Spectrum DOCSIS gateways. No SFP adapters required, lowering total cost of ownership. (software license activation required). Look for the Cat 6a/7 label below the RJ45 test port on the connector panel (or the Enhanced label on the back). Cat 6a or 7 cables are required for test rates > 1 Gbps.
2. New and improved System Tools & Utilities menu structure, provides direct access to platform settings and tools, reducing the number of clicks required to access these key features, including:
  1. Results & Files – File Manager
  2. Platform Tools – OTDR viewer, Fiber Scope viewer, OPM viewer, etc.

3. LAN & Connectivity – LAN (USB adapter), WiFi, Bluetooth, Web Remote (LAN/WLAN, VPN), EZ-Remote (Internet), VeSion R-Server client, etc.
  4. System Utilities – Platform information and settings.
  5. Help – Access latest built-in manual.
3. VeSion R-Server client 1.1.9.7
  4. OTDR Viewer 01.01.06
  5. Boot ROM 4.0.5

New Ethernet features and improvements:

6. Added support for peer-to-peer IP links via 31 and 127 netmasks.
7. Fixed an issue with V-TEST contribution of performance data to Ookla's Global Index analytics (SPEEDTEST Intelligence™), when set up in Auto or Manual Ookla Speedtest server selection mode (Netgauge).

#### **Known issues or limitations:**

- 1G/10G SyncE modes and SyncE Wander measurements not available in this version. Users with original MTX150x and SyncE licenses may wait for an upcoming release, to avoid temporarily disabling the SyncE features.

#### **Software version 01.01.0008**

##### **Release Scope:**

Formal Release. General availability. General features and improvements:

1. Fixed the issue when an external USB WiFi Dongle leaves the internal WiFi function enabled for units with the disabled WiFi option after the dongle is removed.
2. Added GEO-Location tag for V-Connect
3. Advanced Saving feature has been aligned with TX series

#### **Known issues or limitations:**

- No new significant issues to report.

#### **Software version 01.01.0007**

##### **Release Scope:**

Formal Release. General availability. General features and improvements:

1. Minor Improvements and bug fixes New Ethernet features and improvements:
2. Added PPPoE support in L4 applications
3. New (Official Release) of L4 Wizard/Lite Mode that is a simplified and automated V-TEST/V-PERF (L4 applications) for 1, 2.5, 5 and 10G Copper via the SFP+ port. The L4 Wizard/Lite Mode can be enabled in the Global Settings/UI mode (Normal/L4 Wizard) when the following options are purchased:
  1. Z33-00-056 – 10GE L4+ Throughput Testing Bundle (required) plus, at least one of the options below:
  2. 499-05-807 2.5GBase-T Testing (requires SFP+ 301-02-012G) – 499-05-808 5GBase-T (requires SFP+ 301-02-012G)
  3. 499-05-681 10GBase-T (requires SFP+ 301-02-012G)
4. Added V-Connect support

### **Known issues or limitations:**

- No new significant issues to report.

### **Software version 01.01.0002**

#### **Release Scope:**

Maintenance Release. General availability.

### **General features and improvements:**

1. Improved IPv6 handling by core OS  
New Ethernet features and improvements:
2. Fixed an issue with MAC that could have affected certain loopback mode scenarios.

### **Known issues or limitations:**

- No new significant issues to report.

### **Software version 01.01.0000**

#### **Release Scope:**

Formal Release. General availability.

### **General features and improvements:**

1. Updated OTDR client version 01.00.4969  
New Ethernet features and improvements:
2. Added Packet Capture feature, with standard PCAP format Known issues or limitations:
  1. No new significant issues to report.

### **Software version 01.00.0008**

#### **Release Scope:**

Formal Release. General availability. General features and improvements:

1. Added direct WiFi and Bluetooth radio controls. Similar to the way airplane mode works in cellphones, users can completely disable these RF interfaces when working in secured or restricted areas. The individual Radios' Enable/Disable buttons can be found in the Bluetooth/WiFi menu: >Bluetooth >Setup/Info and >WiFi Wiz >Connect > Setup screens.

#### **New Ethernet features and improvements:**

2. New in-band R-Server connectivity. When testing Ethernet links that provide routable connection, the test set is now capable of using the same link under test to connect to R-Server, to upload results or download profiles on the spot.
3. New (official release) of advanced SyncE test features, supporting the following license bundles:  
Z33-00-068 1GE/10GE SyncE Bundle
  1. 499-05-559 1GE SyncE ESMC/SSM Message Support (requires SyncE option)
  2. 499-05-576 1GE SyncE Master and Slave Emulation

3. 499-05-593 10GE SyncE Master and Slave Emulation (requires 499-05-554)
  4. 499-05-594 10GE SyncE ESMC/SSM Message Support (requires 499-05-593)  
Z33-00-069 1GE/10GE SyncE Wander Measurement and Analysis Bundle
  5. 499-05-869 SyncE Wander Measurement
  6. 499-05-196 Wander TIE logging and export for MTIE and TDEV Post Analysis (includes PC software)
4. Improved Test Profiles selection menu, to support more than 26 saved profiles.
  5. Added Dual 1GE Fiber + 10/100/1000T mode.
  6. Fixed a MAC Source issue in the Ethernet applications. The incorrect MAC Source was being applied to the test frames.

**Known issues or limitations:**

- No new significant issues to report.

**Software version 01.00.0006**

**Release Scope:**

Formal Release. General availability. New Ethernet features and improvements:

1. Added support of EMIX Frame Size Type
2. Corrected an issue where Frame Loss Limit in RFC2544 did not accept a value of 0.001
3. Fixed an issue where a 10GBase-T SFP+ was inserted, the UI showed 1.25G
4. Includes new R-Server client version 1.1.4.9
5. Improved Ethernet test report format.

**Known issues or limitations:**

- Although the Software Upgrade option is shown in the Web Remote Access menu, when using EZ-Remote cloud service to connect to remote test sets over the internet, the firmware Upload function will be disabled. This is to prevent any software corruption that unreliable Internet connections may cause.

**Software version 01.00.0003**

**Release Scope:**

Initial Release. General availability.

**General features and improvements:**

1. New product introduction: Full-featured Dual-port 10GE Ethernet Installer test set. New Ethernet features and improvements:
2. New RJ45 single and dual-port test modes for 10/100/1000BASE-T. Includes Throughput, BERT, RFC2544, V-SAM (Y.1564), Loopback and IP test features.
3. New SFP+ single and dual-port test modes for 100BASE-FX, 1000BASE-X, 10GBASE-X and 10GBASE-T. Includes Throughput, BERT, RFC2544, V-SAM (Y.1564), Loopback and IP test features. 10GBASE-X and 10GBASE-T are field-upgradeable options. 10GBASE-T requires compatible transceiver.
4. New mixed dual-port modes for 1GE (10/100/1000BASE-T or 1000BASE-X) and 10GE (10GBASE-X)
5. New optional Layer 4+ advanced test suite, including hardware-based line rate tests: V-TEST (http throughput speed test), V-PERF (RFC6349), V-FTP.

6. New OAM and MPLS test suite option.
7. New MAC and VLAN Flooding test suite option.
8. New VoIP Call Expert option.
9. New Fibre Channel test suite option, supporting single and dual 1/2/4GFC testing.
10. New built-in WiFi+Bluetooth option, for management, internet connectivity, remote control, file transfer and wireless interface with external test accessories (OTDR, fiber inspection scope, etc.)
11. New OTDR viewer application for viewing and analyzing SOR traces and operate (control) the optional OPX-BOXe OTDR via USB, Bluetooth or WiFi connection.
12. New Fiber Scope application, for fiber connector inspection. Requires optional compatible scope.
13. New VeSion® R-Server client and advanced results and asset management.
14. New EZ-Remote™ cloud services client to allow remote control across internet connections.

#### **Known issues or limitations:**

- Although the Software Upgrade option is shown in the Web Remote Access menu, when using EZ-Remote cloud service to connect to remote test sets over the internet, the firmware Upload function will be disabled. This is to prevent any software corruption that unreliable Internet connections may cause.

## **References**

### **Test Profiles and Test Results Backup Procedure**

The test set's File Management system offers backup [To USB] and restore [From USB] functions. They can be found in the Utilities >Files >Saved, on the left side of the screen.

To enable the [To USB] and [From USB] functions, insert a FAT32 USB Memory stick into the micro USB-B port (or use a micro USB-B to USB-A OTG adapter for regular USB-A memory sticks). Wait for the USB memory to be recognized (the folder icon will change appearance with a green USB memory icon).

Select the desired test results, test profiles, screen capture and protocol capture files to be saved, using the individual check boxes. For a full backup, check the master box on the header and all files will be marked.

Tap the [To USB] button to initiate the file transfer procedure and wait for the progress bar to finish. Original files will not be deleted from the test set.

When all files have been copied to the memory stick, you may tap the folder icon and select "Remove USB Drive" to make sure all cached data is transferred to the USB drive, especially when transferring small files.

It is highly recommended to select all important test profiles and results, and make a backup copy to a USB drive, before upgrading the unit's software. The software upgrade process may clean up all the data stored in the test set. After the unit has been updated, use the [From USB] function to restore the data back to the test set.

### **Updating the Test Set Software**

To download the latest software version available, go to <https://www.veexinc.com/support/software> and enter the first four characters of the test set's serial number (e.g., TEBC) and use the links to download the software packages and Release Notes to the PC. Unzip the file to obtain the Software Image file (e.g. mtx150x-veex-arm.tar.gz).

The test set must always be connected to AC/DC charger during the whole upgrade process. DO NOT turn it off at any time; the update process would take a few minutes.

To verify the software version number installed, turn the test set back on, open the Utilities section, select Settings, and open About. You may also use the Web Remote Access to get the information.

Using a micro-B USB memory stick or USB-A Memory Stick with an OTG adapter

Make sure the test set can detect the memory stick, before starting this procedure.

- Turn the test set's power OFF.
- Copy the Software Image file to the root of the memory stick.

- Plug it into the test set's micro USB-B port or into the USB-A to micro-B USB OTG adapter.
- Option A: For a clean install (reset all settings and clear internal storage), turn the test set ON, by pressing the SAVE+POWER buttons simultaneously, until a tone (beep) is heard and wait for the boot up process to finish.
- Option B: To preserve some existing settings and data, turn the test set ON, by pressing the POWER+HOME buttons simultaneously, until a tone (beep) is heard and wait for the boot up process to finish.
- The firmware update process starts. This could take several minutes. The test set will reboot itself off at the end.
- Additional ROOTFS and/or CPLD upgrade menu(s) may be presented after the first reboot. Tap on OK to proceed with those upgrades as the last part of the update process.
- Reboot the test set.

## Updating the Test Set Software via WiFi or LAN

Make sure the test set is ON and connected to a wireless LAN, set as an access point (AP) or connected to a LAN (using the USB-RJ45 adapter cable).

The Access point function is useful in places where no local area networks (wired or wireless) are available or accessible and/or USB memory sticks are not allowed. To enable the AP function, go to >Utilities >Tools >WiFi Wiz, select the AP Mode tab, edit the settings if required, and press Enable.

PCs, Mac, tablets, and smartphones can be used to perform this task, as long as they provide access to the file system and allow you to select the install package file.

- Open the Web Browser and enter the IP address of the test set into the browser's address/search field (e.g. 10.0.20.1). The test set's IP address is displayed at the bottom-left corner of the screen,
- Once the test set's Web Remote Access page loads, select Upgrade from the menu on the left side of the screen.
- Tap or click on the Select File button and point it to the Software Image file.
- Tap or click on the Upload button to transfer the Software Image file to the test set.
- Once the file transfer is done, tap or click on Upgrade and let the test set go through the process, uninterrupted. This will take a few minutes.
- Additional ROOTFS and/or CPLD upgrade menu(s) may be presented after the reboot. Tap on OK to proceed with those upgrades as the last part of the update process.
- Reboot the test set.

**Note:** Although the Software Upgrade option is shown in the Web Remote Access menu, when using EZ-Remote cloud service to connect to remote test sets over the internet, the firmware Upload function may be disabled. This is to prevent any software corruption that unreliable Internet connections may cause.

## ReVeal RXTS (PC software)

Offers Remote Access, download screen capture, results, profiles, and wander files, create reports, etc.

Download it from <https://www.veexinc.com/products/mtx150x> page.


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Some features listed in this document require software options that may require paid activation or license and may or may not be available in all products. VeEX Inc., reserves the right to change, without notice, product offerings or specifications.



Documents / Resources

	<p><a href="#">VeEX MTX150x Test Set The Verification</a> [pdf] Instructions MTX150x Test Set The Verification, MTX150x, Test Set The Verification, The Verification, Verific ation</p>
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References

-  [VeEX Inc. | The Verification EXperts](#)
-  [Speedtest Global Index – Internet Speed around the world – Speedtest Global Index](#)
-  [MTX150x | VeEX Inc. | The Verification EXperts](#)
-  [Software Updates | VeEX Inc. | The Verification EXperts](#)