

## TX320SM Module Firmware/Software Updates

The TX300S test set and its factory-installed 320SM option are constantly evolving to keep up with new applications and advanced capabilities. Use VeExpress from the >Utilities >Tools menu to get the latest delta or full software updates, or go to [www.veexinc.com](http://www.veexinc.com) to download the full upgrade packages to keep the test set and modules up to date. Refer to the last section of this document for details.

---

### Software versions: TX320SM 02.00.04

Jun 6, 2015

#### Release Scope:

- Minor Release. General availability.
- Requires TX300S Platform version 02.00.04

#### New Transport features and improvements:

- General improvements to Clock Wander Measurements functions. Internal optimization and minor GUI adjustments
- General fixes and improvements

#### New Packet features and improvements:

- New Fibre channel SDT measurement based on IPG, valid for all speeds (1/2/4/8/10G)
- General fixes and improvements

#### Known issues or limitations:

- No new significant issues to report.

---

### Software versions: Module 320SM 02.00.02

Mar 19, 2015

#### Release Scope:

- Initial Release. General availability.
- Requires TX300 Platform version 02.00.01

#### New Transport features and improvements:

- Includes support for OTU1, OTU2, OTU1e, OTU2e, STM-64/16/4/1/0, OC-192/48/12/3/1, STS-3/1, E1/2/3/4, DS1/3 testing, with independent dual port testing (one PDH test in port 1 only)
- Ethernet over OTN (EoOTN) with OTU2e, OTU1e, ODU0 and ODUflex
- Complete multi-stage mapping and multiplexing of PDH, SDH and/or OTN test signals
- Service disruption measurements
- OTU1 and OTU2 Round Trip Delay (RTD) measurement
- Added the ability to save Pulse Mask results
- Jitter, Wander and Phase measurements with TIE recording and MTIE/TDEV analysis
- Improved DS3 Auto Monitor signal detection for DS3-bulk with All1s pattern

#### New Packet features and improvements:

- Independent dual port for 10/100/1000Base-T, 100Base-FX, 1000Base-X, 10GBase-X Ethernet and 1/2/4/8/10G Fibre Channel testing
- New 10GE Pass Through Monitor feature between two SFP+ ports
- New 1GE Advanced Pass Through Monitor feature between two SFP+ ports
- 10GE and 1GE SyncE with ESMC message support
- 1GE SyncE Wander measurements
- 1588v2 PTP Emulation, measurements, protocol monitoring and wander measurements
- GPS-assisted one-way latency measurement option for 1GE and 10GE
- 1GE/10GE Multi-stream IP testing
- MPLS-TP and MPLS-TP OAM option for 1GE and 10GE

- 18. Service Disruption Time (SDT) measurements for 1GE copper and fiber
- 19. Fibre channel SDT measurement based on IPG, valid from all speeds (1/2/4/8/10G)
- 20. Support for 614.4M to 9.8G CPRI and 768M to 6.1G OBSAI layer 1 testing for DAS (Distributed Antenna Systems)

**Known issues or limitations:**

- b. TX300S platform and factory-installed modules' software and improvements are now tracked separately. Please refer to the individual test module's software downloads and release notes for TX300S Platform, 300SM (XFP/SFP), 320SM (Dual SFP+) and OTDR for more details.

## References

---

### Test Profiles and Test Results Backup Procedure

The TX300S 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 any of the USB ports. 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 won't be deleted from the test set.

When all files have been copied to the USB, you may tap the folder icon (top-right corner) 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 cleans up all the data stored in the unit. After the unit has been updated, use the [**From USB**] function to restore the data back to the test set.

### Synchronizing the Test Set with VeExpress

The TX300S needs to connect to VeExpress to auto-register, validate its licenses (newly assigned or shared) and check for any new Platform (System) or Application (Test Module) software updates available.

Connect the TX300S to the Internet via its LAN management port (located on the right side of the test set), verify that a valid IP address is displayed on the bottom-left corner of the screen, press the utilities' **V** icon on the top-left corner of the screen to access the Utilities section, and select **>Utilities >VeExpress** to access the built-in client. Press the **Check** button to register and update licenses (permanent, rented or leased). It also checks if the test set is running the latest software version.

It is recommended to sync the TX300S with VeExpress on a regular basis, especially after performing software upgrades, to refresh its licenses (e.g. expecting a new license or releasing/sharing licenses with other test sets). Connecting to VeExpress is also required if new software features (licenses) have been purchased, leased, rented or shared/reassigned.

Mangers can also login to [www.v-express.com](http://www.v-express.com), using a PC or tablet, to manage test sets and licenses


### Updating the TX300S Platform (System) software


Depending on the hardware configuration, the TX300S can have up to three software components that need to be updated, basically the Platform (System) software and the built-in test modules' software (TX300SM, TX320SM or OTDR hardware).

There are two main ways to keep the TX300S system up-to-date:

1. Using the built-in VeExpress feature (**>Utilities >VeExpress**). Using an Internet connection, through the Management Port, the test set connects to the VeExpress server and user can press the **Check** button to see if there is a new SW update (Delta Push directly to the test set) or full upgrade (performed via USB memory). The **Software Upgrade** tab should show all the applicable software versions available (if not shown, please go to item 2).

A) **Delta Update**: Using the built-in VeExpress users can perform consecutive (incremental) updates directly from the test set (for example, updating from 2.0.1 to 2.0.2). The advantage is that update packages are smaller and a lot faster to download. The test set must be connected to a LAN (using the Management port) and have access to the Internet.

B) **Full Upgrade**: If the software version in the test set is much older than the current release, then a FAT32 USB Memory stick needs to be inserted in the USB port located on the left side of the test set. Select the applicable software components using the check boxes and press **Download**. The test set will then download the selected install packages directly to the root of the attached memory stick. When finished, turn the test set OFF. Then press the **App**,  and **Power** buttons simultaneously to power the test set ON in software upgrade mode. The three buttons can be released once the confirmation tone (beep) is heard. Wait for the upgrade process to finish.

2. Via USB Memory Stick: Using a (PC) web browser, go to <http://veexinc.com/en-us/Products/TX300s> and click on the open the Software download window and click on the link to get the latest SW upgrade package for the Platform (no need to login). Select the applicable module page and download the Module software. Copy the `tx300s-veex-arm.tar.gz` file to the root of a FAT32 USB memory stick and then plug it to the USB port located on the left side of the TX300S. Turn the power OFF. Press the **App**,  and **Power** buttons simultaneously, to power the test set ON in software upgrade mode. The three buttons can be released once the confirmation tone (beep) is heard. Wait for the upgrade process to finish.

Note: Software packages and other tools can be downloaded from the TX300S product page at [www.veexinc.com](http://www.veexinc.com) >Products and Solutions >TX Series >TX300S >Software

The TX300S must be connected to AC/DC charger at all times during the whole upgrade process. DO NOT turn it off at any time; the upgrade process will take several minutes and the TX300S will reboot itself at the end.

To verify the current software version number installed in the unit, open the **Utilities** section, select **Settings**, and open **About**.

*Note: If installed in your PC, some file compression agents (applications) may show the resulting `tx300s-veex-arm.tar.gz` as a compressed file, but there is no need to expand the file any more. Keep it as is.*

### Updating the Built-in Test Modules' Software (via USB)

Make sure the TX300S Platform is running the latest firmware version available. The TX300S platform always formats the internal SD card during a platform (system) upgrade, so the modules' software need to be reloaded after the system upgrade. Take this opportunity to check if new versions are available for the 300SM Multi-service (XFP/SFP), 320SM Multi-service (SFP+) and/or OTDR.

- Download the applicable test module software from the web site or using the built-in VeExpress client.
- Copy the test modules' uncompressed firmware update package files to the root of the memory stick (both modules can be upgraded simultaneously)
- Plug the memory stick into the USB port located on the left side of the platform
- Turn the TX300S ON and wait for the boot up process to finish.
- The TX300S may display an "incompatible software version" warning message to indicate that the test module requires a firmware update. Tap the OK button to close the message.
- Touch the **Utilities** button on the top bar, open the **Utilities** tab on the left bar, and select **M.Upgrade**.
- The platform will search the memory stick for valid update packages and show their information.
- Use the check boxes to select the desired software updates
- Tap on the **Upgrade** button to start the firmware update process. This could take several minutes. The test set will shut itself off at the end.
- Turn the test set ON, connect to a LAN, go to >**Utilities** >**VeExpress** and press **Check** to update its licenses

The TX300S must be connected to AC/DC charger at all times during the whole upgrade process. DO NOT turn it off at any time; the update process would take a few minutes and the test set may reboot itself at the end.

To verify the software version number installed in the current test module, turn the test set back on, open the **Utilities** section, select **Settings**, and open **About**.

### ReVeal RXTS (PC software)

Offers Remote Access, download screen capture, results, profiles and wander files, create reports, etc. Download it from [www.veexinc.com](http://www.veexinc.com) >Products and Solutions >TX Series >TX300S

### ReVeal Wander Analysis (PC software)

Wander and absolute phase analysis and reporting. MTIE and TDEV analysis and standard pass/fail masks

Download it from [www.veexinc.com](http://www.veexinc.com) >Products and Solutions >TX Series >TX300S



© 2013-2015 VeEX Inc. All rights reserved.

VeEX, VePAL, ReVeal, VeExpress, V-SAM, V-SCAN, Multi-BERT, and the V logos are trademarks or registered trademarks of VeEX Incorporated, or one of its affiliates. All other trademarks or registered trademarks are the property of their respective owners.

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 product offerings or specifications without notice.