TX300SM Firmware/Software Updates

The TX300S test platform and its factory-installed 300SM module constantly evolve 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 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: TX300SM 02.00.05   Sep 28, 2015

Release Scope:

Formal Release. General availability.

Requires TX300S Platform version 02.00.09

New Transport features and improvements:

1. New G.703 64K Codirectional Test Application option
2. Added Asynchronous, Bit Synchronous and Byte Synchronous E1 Mappings to SDH Test Setup [2292]
3. Added run-time MTIE/TDEV analysis to 1PPS Phase Measurements
4. Improved DS3 Auto Monitor signal detection for DS3-bulk with All1s pattern [2186]
5. Improved Pulse Shape Analysis function to allow handling high and low pulse density signals (e.g. AIS, All 1s and All 0s)
6. Improved PDH/DSn test profile management to avoid any GUI crashes when user creates more than 144 test profiles of the same kind [2322]
7. Fixed a bug in Japanese GUI that made SDH Payload Broadcast/Unequipped selection disappears [2291]
8. Fixed an issue with test profile management that could have lock-up the GUI when more than 128 test profiles (for the same interface) were stored

New Packet features and improvements:

9. Added support for Ethernet Test Application auto-launch after a low battery shut down
10. Added capability to Enable/Disable MPLS-TP CW setting
11. IEEE 1588v2 Slave mode PDV measurements are now using the external reference clock (external clock or internal Atomic/GPS)
12. Added runt frame injection on 10GE/1GE
13. Added advanced traffic monitor (terminate mode) on 1GE
14. Added support for additional protocols in L2CP transparency testing (GMRP, GVRP, STP_ULFAST and VLAN-BRDGSTP)
15. Added support for ITU-T Y.1731 OAM CCM frames at 3.3ms, 10ms and 100 ms rate
16. Added capability to measure IPTV channel Zapping time
17. VLAN scan enhancements for 1GE/10GE
18. Addressed an issue with the protocol decode of IEEE 1558v2 Clock Class field
19. Fixed RFC2544 declare fail in short fiber loop back condition

Known issues or limitations:

a. No new significant issues to report.

Software versions: TX300SM 02.00.01   Jun 6, 2015

Release Scope:

Major Release. General availability.

Requires TX300S Platform version 02.00.04

New Transport features and improvements:

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

New Packet features and improvements:

3. New Fibre channel SDT measurement based on IPG, valid for all speeds (1/2/4/8/10G)

4. General fixes and improvements

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.

Software versions: Platform 02.00.00 / Modules 300SM 02.00.00   Feb 20, 2015

Release Scope:

Major Release. General availability.   NEW SOFTWARE UPGRADE PROCEDURE, PLEASE READ CAREFULLY!

New Transport features and improvements:

1. New advanced sub-rate multiplexing and mappings of SDH/SONET payloads into OTN, including multiple ODUk levels, with ODTU2.1/ODTU12-ODTU01, AMP, BMP and GMP support. VC/STS/VT and PDH/DSn sub-multiplexing are also supported

    a. OTU1: ODU1-Bulk, ODU1-STM16, ODU1-ODU0-STM4/1.

    a. OTU2: ODU2-Bulk, ODU2-STM64, ODU2-ODU1-STM16, ODU2-ODU0-STM4/1, ODU2-ODU1-ODU0-STM4/1.

2. Added G.8201 OTN performance metrics.

3. Improved Round Trip Delay (RTD) accuracy for SDH and SONET.

New Packet features and improvements:

4. New Advanced Multi-stream Loopback feature (requires software option).

5. New IPG-based Service Disruption Time (SDT) measurement for 1GE and 10GE.

6. Fixed a Flow Control issue caused by the handling of pause frames.

7. Improved CPRI Layer 1 Round Trip Delay (RTD) accuracy.

8. Improved IPTV application performance. Up to 8 programs can be simultaneously streamed and the viewer performance has been improved.

9. Added AIS/RDI transmission and detection to Y.1731 Service Level OAM.

10. Added optical levels (TX/RX) to the Ethernet test reports.

11. Added 802.11ac support to WiFi Wiz and WiFi InSSIDer applications. Requires optional Z99-99-027G adapter.

12. Added IP DHCP options for Host name, Host Identifier, Client FQDN and vendor class IP to the DHCP connection setup.

13. Added IGMP support to the IPTV application. The unit now generates join messages for IPTV multicast streams.

14. Added ESMC SSM message generation to the SyncE Slave client.

15. Fixed 802.1ah OAM Passive mode so that it does not initiate PDU transmission.

16. SDT triggers and thresholds are now maintained after power cycles.

17. The VLAN tag is now applied on SyncE ESMC SSM without requiring IP connection.

New Fiber Optics features and improvements:

18. Platform version has an embedded copy of the OTDR software, to be used as OTDR Viewer (SOR files) and fully control the optional external OPX-BOX via USB or Bluetooth. Units with the OTDR hardware can update their OTDR software separately, as newer releases become available in our web site.

19. New V-Scout option. This intelligent fiber optics link mapper creates an icon-based representation of the link under test.

20. Future OTDR releases will be covered separately in their dedicated TX300S OTDR Module Release Notes document.

Platform Improvements:

21. New and improved intuitive Test Mode selection menu. Conveniently groups all Test Applications by technologies and allows for richer lists of new and future test applications.

22. New individual modular software upgrades for an even more flexible TX300S platform, allowing the support for a growing list of factory-installed test module options (blades):

    a. TX300S Platform – Provides system-wide, OS and common function updates (tx300s-veex.tar.gz).

    b. 300SM Blade – This is the software update for the original XFP/SFP based Multi-Service Test Module application (tx300s-tx300sm.tar.gz).

    c. 320SM Blade – This is the software update for a NEW Dual SFP+ based Multi-Service Test Module application (tx300s-tx320sm.tar.gz).

    d. OTDR Blade – This is the software update for the recently launched built-in OTDR Module application (tx300s-OTDR.tar.gz). The OPX BOX GUI and OTDR Viewer features are still included with the platform updates.

    This allows any test module updates to be released separately, in smaller and easier to download upgrade packages. The TX300S Platform still uses the traditional upgrade procedure to update the System, while the test blades use a new Module Update (M.Upgrade) function to update their Test Applications. The procedures at the end of this document have been updated to reflect the changes.

    The following hardware combinations are currently supported: TX300S Platform with two 300SM, single 300SM, 300SM + OTDR, single 320SM or 320SM + OTDR blades.

23. New boot ROM upgraded to version 3.1 and CPLD 20, to support individual module (blade) updates.

24. Enhanced >Utilities >Files >USB file browser. Allows users to open wander measurements and PCAP protocol capture files for further post-analysis. HTML and TXT file viewers are also supported. TX300S launches the required application.

25. Added results auto-upload to built-in R-Server Client. If enabled, all test results are automatically uploaded to a centralized R300 server.

26. Added support for new Edimax 802.11ac USB Wi-Fi dongle (Z99-99-027G)

27. Added Russian language support.

28. Fixed a File Manager compatibility issue with encrypted test profiles created with ReVeal RXTS

29. System performance improvements.

Known issues or limitations:

a. No new significant issues to report.

Software version 01.03.00   Dec 19, 2014

Release Scope:

Formal Release. General availability.

Uses ReVeal RXTS companion PC software (download from www.veexinc.com)

New Transport features and improvements:

1. Added a "non-test channels" behavior selection to SDH/SONET testing. Now users can select between Unequipped or Broadcast. The new Broadcast clones the multiplexing structure and sends the same test payloads in all background channels [2011]

2. Added Continuous Round Trip Delay selection, with current, min, max and average results [2129]

3. Fixes an intermittent issue with LOF and LOS when E1 Wander measurements are performed to balanced interfaces [2014]

4. Fixes an intermittent issue with LOS or LOF in the Jitter Measurement functions

New Packet features and improvements:

5. Fixed the single burst mode in Throughput test, which was not functional, sent continuous traffic [1997]

6. Fixed the user-defined test patter issue with ramp, burst or single burst traffic flow modes [1998]

7. Fixed an ARP failure issue in ViPAG/V-Route in end-to-end mode.

8. Fixed a 10GE Random frame size generation bug when the rate was configured in Mbps.

9. Changed the from TX rate to RX rate value comparison against the configured threshold in RFC2544.

New Fiber Optics features and improvements:

10. Adds support for new built-in OTDR modules (hardware option, factory installed)

11. Adds support for external OPX BOX micro OTDR, via USB or Bluetooth. Includes OTDR GUI.

12. New advanced Automatic Focus Detection function (optional) for digital fiber inspection scopes. Eliminates the guesswork commonly associated with traditional fiber optics end-face connector verification, producing faster and more reliable results and IEC- 61300-3-35 analysis.

General improvements:

13. New power failure improvements. If the test set runs out of battery while running tests, it will properly document the condition by adding a "low battery" event and saving the results before shutting down [1934]

14. New Timed partial results saving. Users can now program a periodic test results saving window to save partial results while a test is running [1992]

15. VeExpress Check can now download full upgrade packages directly to a USB Memory stick and used for the upgrade procedure, without the need of a PC.

16. Improved test results and profiles compatibility with ReVeal (supports new ReVeal RXTS)

17. Improved security compatibility with latest JavaScript™ browser plug-in updates, when using web browsers for remote access and remote control (mirroring)

18. Boot-up time reduced to 40 seconds

Known issues or limitations:

a. No new significant issues to report

Software version 01.02.06   Sep 18, 2014

Release Scope:

Formal Release. General availability.

This version is only available as a full USB upgrade (no delta update). Please follow the procedure #2 described in the References section, at the end of this document.

New Transport features and improvements:

1. New two-step (PRBS→ODU1→ODU2→OTU2) and three-step (PRBS→ODU0→ODU1→ODU2→OTU2) OTN Map/Mux test structures have been added to the ODU0/ODUflex test application

New Packet features and improvements:

2. Added New SyncE Master/Slave support on 10GE interface and Wander Measurements

3. New Random Frame Size Generation for 10GE

4. New Common Peer-to-Peer UI for asymmetric and bi-directional testing (RFC544 currently supported).

5. Added Packet Capture capability when measurements are running (e.g. Throughput, BERT, RFC2544…)

6. Added PHY mode in 1G Ethernet testing

7. Added G.729 codec support to VoIP testing. For voice quality testing it is recommended to use the headset (P/N: Z99-99-020G) instead of the build in microphone and speakers

8. Added Net Wiz in 1G Ethernet testing

9. Added support for tunable 10GE XFP (Transmode OPLINK CWDM)

10. Improved IPTV multi-stream filtering capabilities

11. V-PERF TCP testing per RFC6349 now supports VLAN tagged networks.

12. V-Test enhancements: HTTP Throughput graph and optional Ping test.

13. V-SAM Y.1564 test now supports CIR and EIR rates below 1Mbps and supports setting for 0% Frame loss tolerance threshold

General improvements:

14. Added direct Remote Access functionality via web browser (enter test set's IP address in the browser)

15. Added R-Server support to upload test results and upload/download test profiles to a centralized location. Using a PC client, users can access results and generate reports (requires R-Server version 1.8.9 or later).

16. Added Advanced Saving option. Adds additional data to the test results (e.g. Tech ID, Job ID, Prefix, Location, etc.) to Ethernet, Fibre Channel and CPRI test applications.

17. Added wander and phase file format compatibility with VeEX Wander Analysis PC software version 2.0.7

18. Beta: Clock Wander and 1PPS Phase Measurement option with native VeEX TIE and CSV file formats. CSV offers and open format for users to plot/analyze with spreadsheets or create import tools for other advanced analysis applications [1818]

19. Beta: Built-in MTIE/TDEV Wander Analysis option reduces the need to carry a PC. It is compatible with the new Clock Wander Measurements feature and allows the TX300S to analyze up to two day worth of TIE results, even while the test is still running. It can also generate MTIE/TDEV reports in CVS and PDF [1818]

20. Wi-Fi DHCP connectivity issues with Edimax 802.11a/b/g/n dual band USB adapter have been addressed

21. E1 LED is no longer becoming green when CPRI Slave mode is enabled.

Known issues or limitations:

a. ~~The single burst mode in Throughput test is yet not functional, traffic would be sent continuously [1997]~~

b. ~~Ramp, burst or single burst traffic flow modes don't support user defined test pattern so they are not transmitted. All 0s test pattern is transmitted. [1998]~~

Software version 01.02.03   Jul 16, 2014

Release Scope:

Formal Release. General availability. Highly Recommended

This version is only available as a full USB upgrade (no delta update). Please follow the procedure #2 described in the References section, at the end of this document.

New Transport features and improvements:

1. New ODU0 and ODUflex testing

2. Added DS1 and DS3 Dual Monitor function. When Dual Mode is turned on (in Advanced) the typical TX port turn into a second receiver (RX2). Also adds external RX1/RX2 reference selection for frequency and slip measurements (default reference clock is RX2).

3. Fixed an intermittent issue with "DS3/45M" payload Rate selection sometimes missing in the DS3 Tests setup (only multiplexed DS1 payloads were shown)

New Packet features and improvements:

4. New CPRI Layer 1 Framed and CPRI Layer 2 Protocol testing options, up to 6.144 Gbps. Require software options.

5. Layer 4+ applications in 1GE testing: Line rate HTTP (V-Test), line rate FTP (V-FTP), and line rate TCP (V-PERF). All three features require software options.

6. 1GE and 10GE PBB in Ethernet testing. Requires software options.

7. IPG based multiple stream service disruption test (SDT) measurement for 1GE and 10GE.

8. Added Multiple IP session support in Throughput/Multiple stream.

9. Fixed 10/100/1000Base-T auto-negotiation instability issues reported on some TX300S

10. Resolved V-SAM limitations for testing multiple services [1870,1871]

11. Fixed a Default/User Defined MAC bug in the IP menu. The user defined MAC configured in the Home/IP menu was not always used in the IP session

General improvements:

12. Added support for Huawei E180 WCDMA HSDPA cellular data card. Works with 900/2100MHz HSPA/UMTS and 850/900/1800/1900MHz EDGE/GPRS/GSM (Requires Z77-00-015G USB cellular modem and 499-05-157 USB Data Card Support option. SIM not included)

13. Added support for VeEX Wander Analysis PC software, correcting the unknown signal label in the PDF reports. Requires VeEX Wander Analysis PC software version 2.0.6 or later.

14. Improved Atomic Clock settings and disciplining. Self-documented Atomic Clock disciplining parameters to fit any application and available test time [1869]

15. Improved high precision clock selections. Now each Test App can select between 'GPS 1PPS', 'Atomic 1PPS' and 'Atomic 10MHz' independently. Atomic 1PPS and 10MHz options can be free running (GPS=OFF) or GPS-disciplined (GPS=ON).

16. Improved power down control and low battery detection to avoid unintended automatic shutdown.

17. The Management port now retains the fixed IP address setting after reboot, even with disconnected Ethernet cable

18. Updated CPLD to resolve intermittent issues that may have occurred to certain units, like screen blinking for 0.5s, CPRI shut down or GPS becoming offline during long-term tests.

Known issues or limitations:

a. No new significant issues to report.

Software version 01.01.03   Apr 30, 2014

Release Scope:

Formal Release. General availability.

New Transport features and improvements:

1. Added Round trip delay to OTUXe testing

2. Added USA GUI for OTN/SDH/SONET/DSn/PDH testing. USA or International GUI styles can be selected in \Utilities \Global \General Settings \User Interface

New Packet features and improvements:

3. Added ViPAG/V-Route feature with Layer 2/3 Switch/Router and end-to-end testing capabilities

4. Added WI-FI InSSIDer Channel Monitor

5. Added XLoop control mode for compatibility - Sends remote Loop Up/Down with layer 2/3 and Layer 2 with VLAN tag to third-party test sets.TX130M+ also responds to Layer 2/3 loop requests from those remote test sets

6. Added Wi-Fi Spectrum Analyzer function (requires software option)

7. Improved RFC2544, added separate jitter testing [1821]

8. Improved SyncE recovered clock format [1841]

General improvements:

9. Added satellite tracking table and reset function on TX300S GPS [1809]

Known issues or limitations:

a. ~~In the V-SAM test, parameters for MAC addresses, VLAN tags and IP addresses are being set per user configuration, when multiple services are configured. It is not recommended to use this release for testing multiple services with V-SAM. [1870] [1871].~~

Software version 01.01.01   Mar 27, 2014

Release Scope:

Initial Release. General availability.

New Transport features and improvements:

1. 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

2. Added OTU1 and OTU2 Round Trip Delay (RTD) measurement

3. Added the ability to save Pulse Mask results

4. Added the ability to save Jitter and Wander measurements

New Packet features and improvements:

5. Includes support for 10/100/1000Base-T, 100Base-FX, 1000Base-X, 10GBase-X Ethernet and 1/2/4/8/10G Fibre Channel testing

6. Includes support for 614.4M to 9.8G CPRI and 768M to 6.1G OBSAI layer 1 testing for DAS (Distributed Antenna Systems)

7. New 10GE and 1GE SyncE with ESMC message support

8. New 1GE SyncE Wander measurements

9. New 1GE/10GE Multi-stream IP testing

10. New Service Disruption Time (SDT) measurements for 1GE copper and fiber.

11. New Tunable XFP (DWDM) support for 10GE

12. New GPS-based one-way latency measurement option for 1GE and 10GE

13. New MPLS-TP and MPLS-TP OAM option for 1GE and 10GE

14. New 1588v2 PTP Emulation, measurements and protocol monitoring

15. Added the ability to save 1588v2 ESMC results

16. Added 1GE Offset measurement

17. Added RFC2544 Asymmetric testing

18. Added XLoop control mode for compatibility - Sends remote Loop Up/Down with layer 2/3 and Layer 2 with VLAN tag to third-party test sets.TX130M+ also responds to Layer 2/3 loop requests from those remote test sets.

General improvements:

19. New Dual Testing capability allow users to run up to two simultaneous and independent tests

20. New built-in GPS and Atomic Clock reference options

21. New automatic IP connection when the Management Port is set to DHCP or STATIC modes

22. New built-in VeExpress client for software updates (delta push) and license management (permanent, leased, shared)

23. New welcome screen to guide new users and help transition existing TX300 users into the multi-test GUI

24. Added support for dual-band Wi-Fi dongle (2.4 & 5 GHz)

25. Added a second USB port for more flexibility

Known issues or limitations:

a. ~~SyncE and 1588v2 clock recovery, translation and wander measurements, as well as GPS clock, are currently available in beta version. They will be made official in subsequent releases.~~

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, 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, 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 >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/SFP+) and/or OTDR modules.

- 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 >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 >Products and Solutions >TX Series >TX300S