## TX130+ Firmware/Software Updates

### Software version 3.5.5-0                                                    Jul 22, 2015

**Release Scope:**

Minor release. General availability.

**New Transport features and improvements**

1.  Improved G.703 64k Codirectional interface testing functionality

2.  Improved NIU FAC2 loop command

3.  New Sa bits E1 Synchronization Status decoding (Synchronization Quality Level) added to the E1 Frame Words function, according to ITU-T G.704 2.3.4. Users can select any received Sa byte to be decoded and program any TX Sa with specific synchronization status codes. SSM uses the four most significant bits of the Sa sequence [2302]

**Other features and improvements:**

4.  Added a "Save Prompt" setting to the test >Setup >Measurement >Genera settings. When turned ON, the test set will pop a message asking users whether they want to save the results or not and allow to enter a customized file name. By default Save Prompt is set OFF. Users also have the choice of enabling the Auto Save mode with auto-naming.

5.  Improved Advanced Save. Job ID and Location fields are now editable

6.  Improved Manual Save. When auto saving is off and Save Prompt id ON, the test set will ask users if they want to save the results or not. If OK selected, then it asks for a name to be entered.

7.  Fixed a detection issue with the 11nMicro Wi-Fi dongle [2219] – NOT fixed

8.  Automatic PDF file conversion when results are exported to USB memory stick for file sized up to 30KB

9.  Fixed an issue with multiple saving prompts

**Known issues or limitations:**

a.  No new significant issues to report

### Software version 3.5.2-0                                                    May 18, 2015

**Release Scope:**

Minor release. General availability.

**New Transport features and improvements**

1.  Added Round Trip Delay (RTD) measurement to the G.703 Codirectional test mode [2247]

2.  Fixed an issue with running ISDN Data Call BER test after placing a voice call.

3.  Improved ISDN voice encoding and decoding latency

**Other features and improvements:**

4.  Improved French localization

**Known issues or limitations:**

a.  No new significant issues to report

### Software version 3.4.14-0                                                    Mar 16, 2015

**Release Scope:**

Minor release. General availability.

**New Transport features and improvements**

1.  Improved DS3 Auto Monitor configuration detection of DS3 framed with all ones test pattern [2187]

2.  Improved Round Trip Delay resolution to 0.001ms [2223]

3.  More ISDN improvements and fixes

4.    Updated French localization

**Other features and improvements:**

5.    Nothing significant to report.

**Known issues or limitations:**

a.    No new significant issues to report


## Software version 3.4.12-0                                                         Nov 12, 2014

**Release Scope:**

   Minor release. General availability.

**New Transport features and improvements**

1.    Fixed some ISDN stability issues

**Other features and improvements:**

2.    Improved ISDN BERT results saving

3.    Fixed an issue that may have prevented ISDN Calls from working with BNC interface in certain test sets.

**Known issues or limitations:**

a.    No new significant issues to report


## Software version 3.4.10-0                                                         Aug 31, 2014

**Release Scope:**

   Minor release. General availability.

**New Transport features and improvements**

1.    Nothing significant to report

**Other features and improvements:**

2.    Added new VeTransfer (beta) support to allow PDF test results download to an Android phone or tablet, via direct Wi-Fi connection (no additional access point required). Requires the mini Wi-Fi dongle (Micro11n) and the VeTransfer 1.2.1 App for Android 4.x to support file download and PDF generation. EDIMAX Wi-Fi dongle is not supported [1907]

3.    Added PDF generation – A PDF is now automatically created and stored when test reports are transferred to a USB memory stick. Graphs are not included in the PDF report.

4.    Fixed a crash or reboot problem with the WAN IP TEST feature [1620,1747]

5.    Updated French localization (language tables)

**Known issues or limitations:**

a.    No new significant issues to report


## Software version 3.4.6-0                                                          Apr 7, 2014

**Release Scope:**

   Minor release. General availability.

**New Transport features and improvements**

1.    Improved DS1 output Jitter performance [1853]

2.    Fixes a LOS condition in G.703 64k Co-directional interface

3.    Added Round Trip Delay (RTD) measurement to the Datacom test mode [1511]

**Other features and improvements:**

4.  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)

5.  Added support for dual-band Wi-Fi dongle (2.4 & 5 GHz) and improved Wi-Fi compatibility with legacy WEP access points.

6.  Added R-Server support for PDH/DSn functions only, Ethernet functions not supported.

7.  New threshold configuration option has been added for RFC2544. The Pass/Fail threshold for the throughput test can now be configured as a % of Max Throughput rate or as a % of Line rate.

8.  The RFC2544 throughput test now supports a frame loss limit parameter. This parameter defines the frame loss tolerance in the throughput rate binary search algorithm

**Known issues or limitations:**

a.  Nothing significant to report


## Software version 3.4.0-0                                                       Oct 4, 2013

**Release Scope:**

Minor release. General availability.

**New Transport features and improvements**

1.  Added Datacom round trip delay (RTD) measurement to the TX130E+, with single and continuous modes. Presents current, minimum, maximum and average results [1511]

2.  Additional DS1 Pulse Mask improvements for when negative pulse fails the mask

**Other features and improvements:**

3.  Nothing significant to report

**Known issues or limitations:**

a.  Nothing significant to report


## Software version 3.3.5-0                                                       Sep 25, 2013

**Release Scope:**

Minor release. General availability.

**New Transport features and improvements**

1.  Additional Pulse Mask Analysis noise immunity improvements for better performance and reliability [1513]

**Other features and improvements:**

2.  Nothing significant to report

**Known issues or limitations:**

a.  Nothing significant to report


## Software version 3.3.3-1                                                       Jul 12, 2013

**Release Scope:**

Minor release. General availability.

**New Transport features and improvements**

1.  Improved ISDN PRI default values and auto configuration to fit the most common day-to-day tasks and test calls [1353]

2.  Fixed an issue with E1 A-law idle channel data. In VF mode all unused channels are now set to transmit a constant D5 idle level [1129]

**Other features and improvements:**

3.    Nothing significant to report

**Known issues or limitations:**

a.    Nothing significant to report


## Software version 3.3.2-0                                                       Jun 19, 2013

**Release Scope:**

   Minor release. General availability. Recommended for units fitted with Bantam connectors.

**New Transport features and improvements**

1.    New DS1/E1 Equalization function (in DS1 and E1 Setup) improves performance under various Line Build Out (LBO) levels, from -7.5 down to -22.5 dB [1481]

2.    Fixed Datacom issue that prevented normal selection of X.21 DTE mode.

**Other features and improvements:**

3.    Nothing significant to report

**Known issues or limitations:**

a.    Nothing significant to report


## Software version 3.3.0-0                                                       Apr 15, 2013

**Release Scope:**

   General release.

**New Transport features and improvements**

1.    Nothing significant to report

**Other features and improvements:**

2.    Fixed a dynamic routing issue that prevented the test set LAN (management) port to be reachable from a different subnet, affecting remote control operation and ReVeal access [1418]

**Known issues or limitations:**

a.    Nothing significant to report


## Software version 3.2.1-0                                                       Mar 29, 2013

**Release Scope:**

   Minor release. General availability. Recommended for units fitted with Bantam connectors.

**New Transport features and improvements:**

3.    Fixed DS1 Loop US GUI issue that could cause freeze or restart the test set [1403]

**Other features and improvements:**

4.    Nothing significant to report

**Known issues or limitations:**

b.    Nothing significant to report


## Software version 3.2.0-0                                                       Feb 11, 2013

**Release Scope:**

   General availability.

   ReVeal 1.4.7 (or newer) is recommended

**New Transport features and improvements:**

1. New streamlined and application-oriented DSn GUI (US only) reduces "screen hopping" and improves user friendliness. Its intuitive layout and more natural flow minimizes training requirements for first-time and occasional users, unfamiliar with the TX150+ Test Set. Adds auto monitor and enhances DS1 Loop controls [1205]

2. New and more intuitive action icons.

3. New DS1 Multi-BERT™ automated sequential BER test with multiple test patterns [928]

4. Added Pulse Mask results saving. Users can now save pulse mask results [1385]

5. Improved VF compander (A-law/µ-Law) matching [1020]

6. Improved headset audio level for better ISDN test call performance and VF monitoring in noisy environments [1297]

7. Improved DS1 Pulse Mask fitting algorithm for cables up to 660ft long [1022]

8. Improved E1 Pulse Mask feature allows measurements of unframed All 1s (AIS or clock sources) and unframed All 0s with HDB3 [1347]

9. Added SLIP counter to BERT summary screen and improved its reliability [1043,1194]

10. Improved Errors/Alarms detailed report to avoid occasional and temporary display of blank fields [1180]

11. Improved Datacom synchronization and added DTE timing source selection [1378]

**New Packet features and improvements:**

12. Improved VoIP headphone adapter operation. The headphone USB dongle no longer needs to be unplugged to change the codec settings. Users can now select between the different codecs offered before starting the registration process, while leaving the adapter connected to the test set.

**General features and improvements:**

13. New 'USB Backup and Retrieve' functions save user data to a USB Memory stick. Users can now backup all their data before performing a SW update and restore them after the update is done. It is also useful for cloning test profiles from one unit to others. This new function is part of \Files \Transfer \USB.

   *Note: SW updates may introduce new features, functions or fields not supported by previous versions, which could cause incompatibility issues with files generated by older versions.*

14. Improved robustness for screens with ON/OFF fields [1099]

15. ReVeal MTX 1.4.7 offers remote access to a USB memory stick plugged into a remote TX130+ and provides wander file transfer to the local PC.

16. ReVeal MTX 1.4.7 offers Profile upload and download functions, for easier sharing and distribution of test profiles among multiple test sets [1237]

17. Russian language update

**Known issues or limitations:**

a. No new significant issues to report

## Software version 2.8.6-1                                                    Apr 13, 2012

**Release Scope:**

General availability.

**New Transport features and improvements:**

5. New E1 CAS Monitoring feature allows for simultaneous display of the ABCD supervisory bits for all channels, in single and dual (bi-directional) modes [1084]

6. Improved RS232 Sync timing recovery and generation [1021]

**Other features and improvements:**

7. Nothing significant to report

Known issues or limitations:

c.   Nothing significant to report

## Software version 2.8.4-0                                                      Feb 28, 2012

**Release Scope:**

General availability.

**New Transport features and improvements:**

1.   Added real-time logging of TIE data directly to USB memory, for the E1 interface supporting wander test feature option. TIE data can be analyzed with VeEX Wander Analysis PC software to obtain MTIE, TDEV, and compare to standard Pass/Fail masks [1001]

2.   New 64k G.703 Co-directional support added to PDH mode (optional). This balanced interface is available in the 120 ohm RJ45 port and can be converted to 3-pin banana with the F02-00-009G cable [843]

**Other features and improvements:**

3.    Nothing significant to report

**Known issues or limitations:**

d.   Nothing significant to report

## Software version 2.8.3-0                                                      Jan 19, 2012

**Release Scope:**

General availability.

**New Transport features and improvements:**

1.   Improved Jitter Measurement GUI with visual Pass/Fail indication, based on G.823 limits [930]

2.   Corrected channel associated signaling (CAS) generation issue for time slots > 16 in PCM30 and PCM30C framing modes. All ABCD bits can now be programmed to any valid state [982]

**Other features and improvements:**

3.    Nothing significant to report

**Known issues or limitations:**

e.   ISDN Multi-Call function, when used with Number Script table, starts the test calls from TS#2 instead of TS#1, though it uses the phone number assigned to TS#1

## Software version 2.8.0-0                                                      Dec 1, 2011

**Release Scope:**

General availability.

**New Transport features and improvements:**

1.   Enhanced DS1 Loopback feature with the addition of HDSL-2 and HDSL-4 long in-band codes [850]

2.   Added Level (p-p) readings in dB and dBm for all PDH interfaces

3.   Enhanced ISDN PRI functionality, with the addition of Monitor Mode and DS1 Non-facility Associated Signaling (NFAS) with or without backup D-channel

**Other features and improvements:**

4.    Nothing significant to report

**Known issues or limitations:**

f.   ISDN Multi-Call function, when used with Number Script table, starts the test calls from TS#2 instead of TS#1, though it uses the phone number assigned to TS#1

## Software version 2.7.4-0                                    Sep 1, 2011

1. Improved Ethernet port timing to prevent potential IP connection failures.


## Software version 2.7.3-1                                    Aug 17, 2011

1. Fixed CSU/NIU emulation mode failed to respond to loop command problem in version 2.7.3-0.


## Software version 2.7.3-0                                    Aug 03, 2011

1. Fixed DS1 monitor mode: the input signal level can now support more than 30dB with 20dB resistive loss and 10dB cable loss.


## Software version 2.7.2-4                                    Jul 21, 2011

1. Added ISDN PRI dual call – 47B+D, 23B+D
2. Added Level (p-p): dB & dBm in E1 and E3
3. Fixed VF ABCD CAS issues – WINK bug


## Software version 2.6.0-1                                    Jun 11, 2011

1. Added DTMF Tone generation in ISDN PRI
2. Enhanced ISDN PRI Advanced – Multi Call & Supp. Call
3. Added E1 Wander Measurement
4. Added External Clock in Clock Source selection
   a) 2.048MHz, 2.048Mbit/s Unbalanced use AUX RX BNC
   b) 1.5MHz, 2.048MHz, 1.544Mbit/s, 2.048Mbit/s balanced use RJ-45 2nd port or Bantam 2nd port


## Software version 2.4.3-1                                    Mar 11, 2011

1. Fixed DS1 pulse mask failure
2. Fixed ISDN UI freeze issue
3. Fixed Ethernet UI.
4. Added NetWiz

## References                                                                 TX130+

### Upgrading the TX130+ software

Once you have uncompressed the ZIP and obtained the upgrade file (tx130ep-veex-arm.tar), the software upgrade (also known as firmware upgrade) can be performed in two ways:

1. From the PC, connect to the TX130+ using **ReVeal MTX** application and use the **Upgrade** function in the **Home** menu, or

2. Via USB Drive, by copying the uncompressed file to the root and then plugging it to the test set. Turn the power OFF. Press the 📂 and **(?)** buttons simultaneously, while powering the unit ON. The three buttons can be released once the confirmation beep is heard.

The test set 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 a few minutes and the test set will turn itself off at the end.

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