

Release Notes

BERTScope™ Software

Introduction

Welcome to the BERTScope Software Release Notes. This document tracks the changes for each BERTScope Software Release. Included in these release notes are details on all new features and enhancements, a list of resolved issues, and pointers for upgrading and error reporting.

Error Reporting

If you encounter a problem, please notify us with a problem report. Please include all instrument settings and a detailed account of the steps leading up to the problem. If you can reproduce the problem, please note that as well.

If possible, please attach the BERTScope Software configuration file, screenshots to the report. In the BERTScope Software, use Config -> Save Configuration to save the current configuration (the software will prompt for a filename). Configuration files are stored in D:\Bitalyzer\Configurations and have a .cfg extension. Please also attach the ISMsgs.log file. This file can be found in the C:\ root directory.

Please contact the Tektronix Technical Support Center:
Customers calling within the U.S. call 1-800-833-9200 press 3.
Customers calling from outside the U.S. call 503-627-2400.

All reports should be sent to <http://www.tek.com/webform/technical-support-request> .

Upgrading

Please refer to the following link with detailed steps to do the software upgrade.
http://www.tek.com/Support/Software/BERTScope/Upgrade_ReadMe.pdf.

Software Update Changes to Startup Configuration (version 12.01 and later)

- Upgrading the BERTScope software now clears the startup configuration file setting. The BERTScope will boot into the factory default configuration after a software upgrade. If the user normally starts the BERTScope using a configuration file, then this file must be reselected after a software upgrade.
- Upgrading the BERTScope software renames any pre-existing SHUTDOWN.CFG file to OLD_SHUTDOWN.CFG.

- A FACTORY.CFG file is now installed as part of the BERTScope software upgrade process. It may be selected at any time to return the BERTScope to its factory default configuration.
- The BERTScope should be able to read in configuration files created prior to the software upgrade.
- Any new features will be set to the factory defaults. Load and resave any old configuration files to bring them up to date.

Version 12.01

12.01 Initial version

- **BSX**
Initial version

12.01 Version History

12.01.5275

1. Add Support for Enhanced Debugging on PCIE Gen3/4 Link training.
2. Add 64 Bit Drivers for DPP and CR as part of BERTScope PC release.
3. Add support for PCIE Gen 4 PLL tester using the current CR286A.
4. Fix FEC Option bug. The GUI does not show correctly the FEC option being enabled/disabled correctly.
5. Modify active backplane MIC, software, and firmware to eliminate 31-32 GB/s errors..

12.04.5522

1. USB Gen1 and Gen 2 Support
 - a. USB Gen 1 and Gen 2 OOB Handshaking with BSX' TXEQ module. We do not need Instrument Switch in the setup for LFPS generation.
 - b. Polarity Inversion detection for both USB Gen 1 and Gen 2.
Note: When we detect Inverted data from DUT for Gen 2 the inversion is handled internally and the BERTScope UI will not show it as inverted. The inversion is reported in Rx application UI. This is different from PCIe Gen 3, Gen 4 and USB Gen 1 where both UI shows it as inverted.
 - c.
2. PCIE Gen PLL Improvements.
 - a. PCIe Gen 4 support
 - b. Graphical limits display and limits table
 - c. PCIe PLL remote commands support
 - d. PCIe PLL help
3. TXEQ firmware USB support and update utility
All BSX Athena units have to be updated with the new TXEQ firmware version(136) shown as 0.184 in UI. All units shipped from Nov 2018 will have the new TXEQ firmware installed already by Manufacturing. In field, AE's should work with Customers in updating the FW using the Update utility. It is in C:\Program Files\Program\TXEQ
4. AR 62354 - Fix for RJ issue
Current implementation for RJ where the method was trying to improve the RJ accuracy if multiple stress types were active simultaneously. The actual result was

outputting less RJ than expected in a way that was not consistent across frequency (since it relied on previously measured intrinsic jitter). Our calibration method has not changed, but the method of interpreting the calibration results has been simplified significantly.

5. Pattern Editor-Sequencer
 - a. Performance improvement
 - b. Symbols' tooltips with bits explained
 - c. Support for Passthrough Mode in Sequencer
 - d. Decoder supports USB Gen2, opening Block Log files (SaveBlockLog.csv) and easy browsing errors

6. Issues fixed
 - a. Crashes in Decoder and Sequencer GUI
 - b. Data loss in Editor with invalid data entered

Known Issues

Sending ASCII file from Bit Oriented Editor to Generator or Detector does not work. After discussion with Product line we have removed the option of sending ASCII file directly to Generator/Detector. The original editor does not support that too. We used to convert to .ram file and send it. Documentation will be updated accordingly and this will be part of next Artemis release.