

100G Multi-Service Test Module Software Updates

Software version 02.00.00042

Oct 20, 2015

Release Scope:

Formal Release. General availability.

Requires RXT-Platform version 02.00.0046 and ReVeal RXT6000 version 1.0.8

New Transport features and improvements:

1. Adds OTN port number selection and received T/S with port detection. Allows users to identify/confirm the 10G or 1G port number directly from the OTU3 or OTU4 received signal.

New Packet features and improvements:

2. Nothing significant to report

Known issues or limitations:

- a. No new significant issues to report.

Software version 02.00.00039

Oct 2, 2015

Release Scope:

Formal Release. General availability.

Requires RXT-Platform version 02.00.0044 and ReVeal RXT6000 version 1.0.8

New Transport features and improvements:

1. Fixes a Line Through transparency issue in OTU4 and OTU3 Line Through test modes
2. Fixes an issue with OTU4-ODU4-100GE PCS error and alarm detection
3. Adds OTN port number selection and received T/S with port detection. Allows users to identify/confirm the 10G or 1G port number from OTU3 or OTU4 received signal.

New Packet features and improvements:

4. Nothing significant to report

Known issues or limitations:

- a. No new significant issues to report.

Software version 02.00.00036

Jul 10, 2015

Release Scope:

Formal Release. General availability.

Requires RXT-Platform version 02.00.0040 and ReVeal RXT6000 version 1.0.8

General improvements:

1. Updated Japanese language localization

New Transport features and improvements:

2. New STL256.4 SDH/SONET multi-step mapping/multiplexing test mode option with PDH, DSn and Bulk payloads. This new Test Mode complements the existing STL256.4 Bulk mode (in OTU3 menu) by offering more multiplexing levels and flexible channel selection from STM-256/OC-768 down to Nx64k and Nx56k
3. New OTU4 and OTU3 advanced multi-step mapping/multiplexing test mode option with SDH, SONET, PDH, DSn and Bulk payloads. These new Test Modes allow testing of complex mapping and multiplexing test structures from OTU4 or OTU3 line rates down to Nx64 and Nx56k test payloads, with flexible tributary slot selection
4. Added OTU4 and OTU3 advanced multi-step mapping/multiplexing test mode options with ODU4-100GE, ODU3-40GE,

ODU2e-10GE, ODU0-1GE BERT and Throughput

5. Added OTU4 and OTU3 advanced multi-step mapping/multiplexing options with ODUflex bulk BERT
6. Added OTU1e and OTU2e test mode option with Ethernet (BERT, Throughput, RFC2544) and Bulk testing
7. Added ODU0 and ODUflex mapping test mode option to OTU1 and OTU2 (SFP+) interfaces with Ethernet (BERT, Throughput, RFC2544) and Bulk testing

New Packet features and improvements:

8. Added total frame count in Loopback results (1GE/10GE/40GE/100GE)
9. Added loopback control for 1GE/10GE/100GE
10. Added the ability to load test profiles directly from the File Manger menu. Users now have the option to load or load and run any test profile
11. Added test pattern compatibility between the 100GE and 1GE/10GE interfaces. It allows seamless switch/router wrap testing and end-to-end testing. Note: It testing against a U400-100GE module, software version 03.10.06 or newer must also be loaded in the UX400 module.
12. Fixed an issue with OAM Loopback control (100GE)
13. Fixed an issue with OAM CCM TX interval (100GE)
14. Fixed some issues with random frame generation (40GE/100GE)
15. Fixed a 64B traffic generation issue (100GE)

Known issues or limitations:

- a. No new significant issues to report.

Software version 02.00.00030

May 19, 2015

Release Scope:

Formal Release. General availability.

Requires RXT-Platform version 02.00.0034 and ReVeal RXT6000 version 1.0.7

General improvements:

1. Improved and intuitive port-based Test Mode application selection menu

New Transport features and improvements:

2. Nothing significant to report

New Packet features and improvements:

3. Added auto-save function during low-battery shutdown and previous test configuration (profile) recovered when the test set is powered back on
4. Improved GPS-assisted One-Way-Delay testing, with atomic clock based holdover. Compatible with RXT Platform Sleep Mode

Known issues or limitations:

- a. No new significant issues to report.

Software version 02.00.00026

Mar 27, 2015

Release Scope:

Initial Release. General availability.

Requires RXT-Platform version 02.00.0024

New features and improvements:

1. CFP2 includes supports for the following Test Applications:
 - a. 100G OTU4-ODU4-Bulk (PRBS)

- b. 100G Ethernet
- 2. QSFP+ includes supports for the following Test Applications:
 - a. 40G OTU3-ODU3-Bulk (PRBS)
 - b. 40G Ethernet
- 3. SFP+ Includes supports for the following Test Applications:
 - a. OTN/SDH/SONET testing, from OTU2 down to STM-0/OC1, with 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. Internal VC/STS/VT and PDH/DSn sub-multiplexing are also supported.
 - b. 100Base-FX, 1000Base-X (1GE) and 10GBase-X (10GE) Ethernet testing. BERT, Throughput, RFC2544, V-SAM, Loopback, IP
- 4. RJ45 includes supports for the following Test Applications:
 - a. 10/100/1000Base-T Ethernet testing. BERT, Throughput, RFC2544, V-SAM, Loopback, IP

Known issues or limitations:

- a. The RXT-6000 module is not backwards compatible with Sunrise Telecom's original RxT-1000 platform.

References

Test Profiles and Test Results Backup Procedure

The RXT Platform File Management system offers backup [[To USB](#)] and restore [[From USB](#)] functions. They can be found in the [Files](#) tab, on the left side of the screen, under [Saved](#). Use the check boxes to select the desired files to export, then press [To-USB]. When all files have been copied to the USB, press the folder icon on the top-right corner of the screen and press "Remove USB Drive" to make sure any cached data is transferred to the USB drive, especially when copying small file.

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.

Updating the Test Module Software (via USB)

Make sure the RXT-1200 Platform is running the latest firmware version available.

If the RXT Platform's system software is already up-to-date and you have obtained and uncompressed the Test Module firmware update package file ([rxt1200-cfp2.tar.gz](#)), the module update procedure can be performed using a FAT32 USB Memory stick.

- Copy the test module's uncompressed firmware update package file to the root of the memory stick
- Plug it into one of the RXT-1200 platform's USB ports
- Turn the power OFF and insert the test module.
- Turn the RXT Platform ON and wait for the boot up process to finish.
- The RXT 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 **V** or [Utilities](#) button on the top bar, open the [Utilities](#) tab on the left bar, and select [M.Upgrade](#).
- The RXT will search the memory stick for valid update packages and show its information.
- Tap on the [Upgrade](#) button to start the firmware update process. This could take several minutes. The RXT will shut itself off at the end.
- Turn on the RXT, connect to a LAN, go to [>Utilities >VeExpress](#) and press [Check](#) to update its licenses

The RXT-1200 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 RXT will reboot itself at the end.

To verify the software version number installed in the current test module, turn the RXT back on, open the [Utilities](#) section, select [Settings](#), and open [About](#).

The firmware update package files for multiple test modules can be copied to the USB memory stick at once, but each module must be updated separately, by plugging one module at a time and following the procedure listed above.

Synchronizing Test Modules' Licenses with VeExpress

RXT Test Modules offer the ability to connect to a VeExpress server to register, validate their software licenses and check for new software updates.

To retrieve the Test Module Licenses (also known as software options)

- Insert the desired module into the RXT-1200 platform and turn it on
- Connect the RXT to the Internet via its management port, press the [Utilities](#) or **V** buttons on the top-left corner of the screen, and select [>Utilities >VeExpress](#) to access the built-in client. Press [Check](#) to register and get the permanent licenses (some modules may offer rented or leased licenses). It also checks if the test set is running the latest software version.



It is recommended to sync supported RXT test modules with VeExpress on a regular basis, especially when inserting a module for the first time or after performing software upgrades, to refresh its licenses. Connecting to VeExpress is also required if new software features (licenses) have been purchased, leased, rented or shared.

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