ProTune™ Off-Line Tuning Application

Rev 1.2

November 6, 2020

Contents

I.   Introduction

The ProTune^{TM} Off-Line Tuning Application provides a simple point and click interface manually tune tunable DWDM transceivers.

This guide provides an overview of operating the ProTune^{TM} Off-Line Tuning Application .

Revision History

Version	Description	Dates
1.0	Initial User Manual	July 2019
1.1	Updates to product name	August 28, 2019
1.2	Feature Update	November 06, 2020

1. Release Notes

1.0 – Initial release of tuning software.

1.1 – Updates to product name and to installation.

1.2 – New GUI features – Laser on/off, Read Rx, and DOM thresholds.

II. Required Hardware

The ProTune^{TM} Off-Line Tuning Application requires the ProTune^{TM} Tuning Appliance.

1. *ProTune^{TM} Tuning Appliance*

<table>
<tr><td align="center">PL-PROTUNE-KIT</td><td align="center">PL-PROTUNE-KIT-PELI</td></tr>
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- Soft-side carry case
- ProTune^{TM} Tuning and Coding Appliance
- USB 2.0 to Micro USB Cable

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- Rugged hard-side carry case
- ProTune^{TM} Tuning and Coding Appliance
- USB 2.0 to Micro USB Cable

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III. System Requirements

1. Hardware

  a. The ProTune^{TM} appliance requires a PC with a USB 2.0 (minimum) port. The USB 2.0 port must be set to "High Power Device," type allowing 2.5W power output. (Default on most PCs) An external power supply is not required.

2. Software

  a. The ProTune^{TM} Off-Line Tuning Application requires Microsoft Windows 7 or later. Mac support is only available via a virtualized instance of Windows on Parallels or VMWare. Linux or other operating systems are not supported by ProTune^{TM}. Google Chrome, Mozilla Firefox, or Internet Explorer are required for software installation.

3. Drivers

Microsoft Windows 8 & 10 - Drivers will be automatically installed by Windows Update when you connect the appliance. (Internet connection required.)
For the manual installation of drivers, please download the drivers by following this link: http://www.ftdichip.com/Drivers/CDM/CDM21226_Setup.zip

IV. System Setup and Installation

Download the .zip file that includes both the application and .dll file from www.prolabs.com.

Save the folder "ProTune Off-Line Tuning Application" locally to your laptop or PC.

No additional installation steps are required.

Connect the ProTune^{TM} appliance to your PC and then launch the ProTune^{TM} Off-Line Tuning Application software by double clicking on the executable in the folder. Without a transceiver inserted into the appliance, the ProTune^{TM} Off-Line Tuning Application software interface will not be populated. (Figure 1)
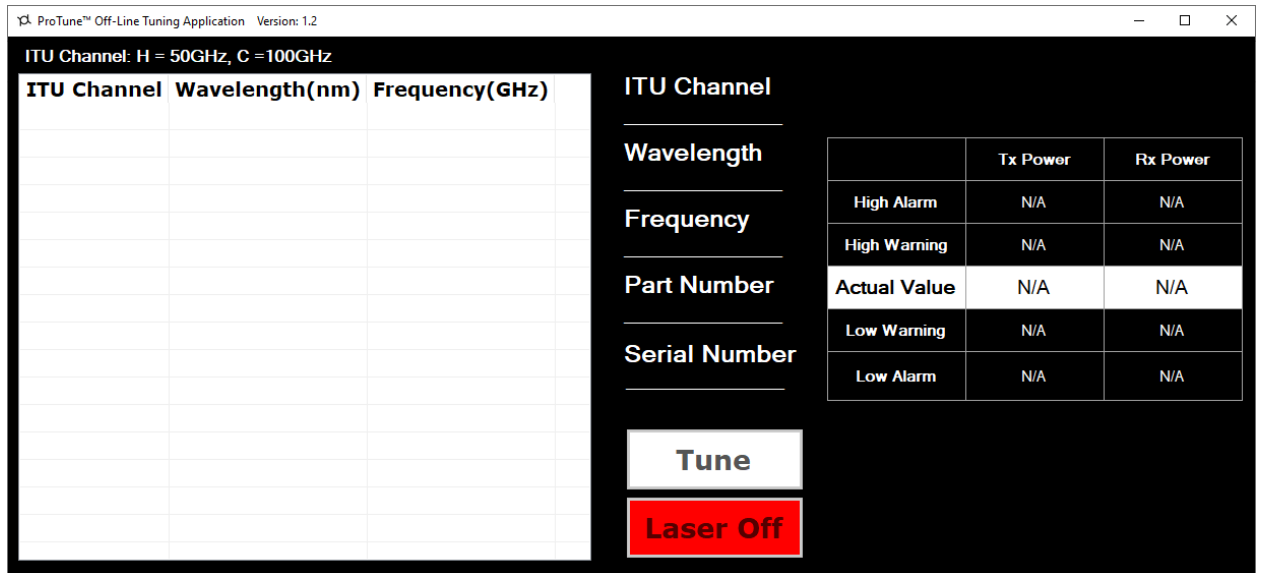

Figure 1 – Application Interface

V. ProTune^{TM} Appliance Interfaces

1) The ProTune^{TM} appliance accepts SFP, SFP+, XFP, QSFP+ and QSFP28 transceivers. Yhree clearly marked slots on the front of the appliance each have a small LED that will illuminate when a transceiver is seated properly. (Figure 2) Only SFP+ and XFP tunable transceivers support tunable DWDM functionality.

Figure 2 – ProTune^{TM} appliance

2) Upon inserting a tunable transceiver into the appliance, the application interface will display the DWDM wavelength options offered by the transceiver.

Figure 3 – ProTune^{TM} Off-Line Tuning Application interface

3) ProTune^{TM} Off-Line Tuning Application will indicate both the 50GHz and 100GHz wavelength options available for the inserted transceiver.

VI. Tuning Operations

1. Tuning a Transceiver

1) Once the ProTune^{TM} Off-Line Tuning Application has been successfully launched, insert the desired SFP+ or XFP transceiver into the appropriate port labeled on the ProTune^{TM} appliance.
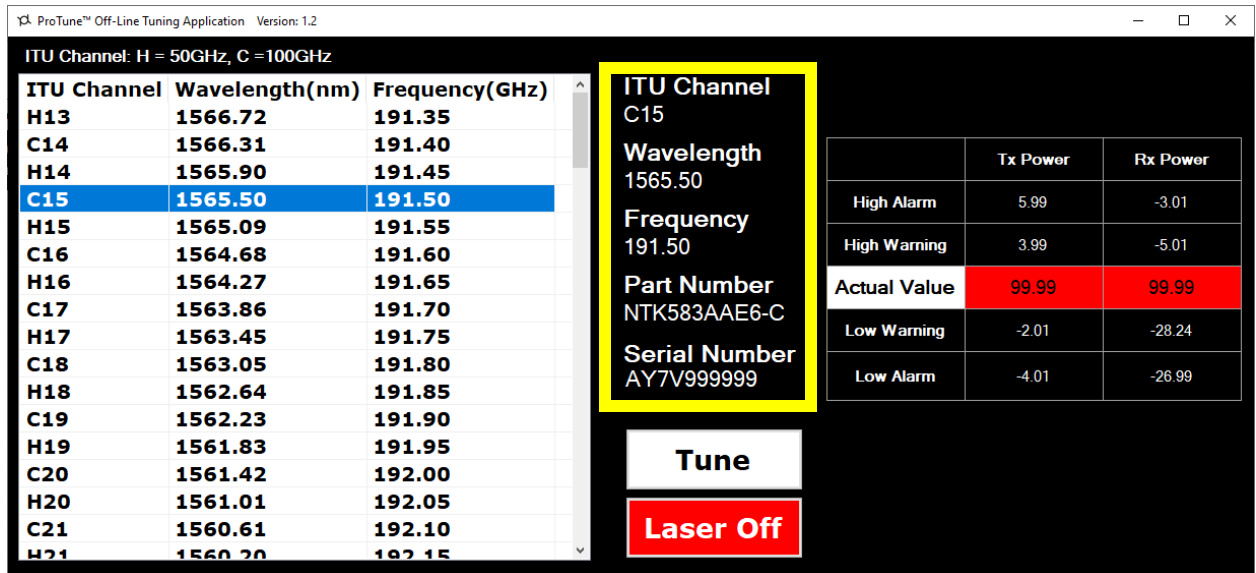
2) Scroll to the desired wavelength

Figure 3 – Example selection of wavelength options

3) Choose the wavelength and click on the "Tune" button. The Transceiver is now tuned to the desired wavelength.

VI. Additional Operations

1. Transceiver Launch

The ProTune™ Off-Line Tuning Application supports the launch and reading of transceiver optical levels. This functionality can be used for testing optical fiber links for validating engineered link budgets, loop backs, and other field operations.

1) Upon inserting a transceiver into the appropriate slot on the ProTune™ appliance, mouse click on the "Laser Off" icon. The icon will turn green when the laser has been activated.

2) The application will read actual laser power off the Digital Optical Monitoring (DOM) supplied by the transceiver.

3) Should the transceiver receive port be connected to a transmit port, the application will read the Rx power DOM measurement.
   *Please note to follow safe fiber optic handling procedures, per local practice.
   ** If proper optical power budget safety considerations are not followed, damage to the transceiver could occur.

4) The application will also display the alarm thresholds read directly from the transceiver.

5) Actual values highlighted by Green will indicate laser power levels are within the transceiver alarm thresholds.

6) Actual values highlighted by Orange will indicate laser power levels are outside of warning thresholds.

7) Actual values highlighted by Red will indicate laser power are outside of transceiver alarm thresholds.

VII. ProTune Off-Line Tuning Application Support

E-mail: support@prolabs.com
Phone: + 1 877 957 9144
Web: https://www.prolabs.com/support/tech-support