

## Application Note:

### *Updating the XPort EDGE<sup>®</sup> Bootloader*



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## Revision History

Date	Rev.	Comments
April 2019	A	Initial document.

For the latest revision of this product document, please check our online documentation at [www.lantronix.com/support/documentation](http://www.lantronix.com/support/documentation).

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## Overview

This document provides instructions on updating the Lantronix® XPort® EDGE bootloader using the Manufacturing Test Loader. The latest versions of both are recommended. Additional information on the Manufacturing Test Loader can be found in the XPort EDGE SDK User Guide at <https://docs.lantronix.com/products/xport-edge/sdk/>.

## Preparing to Update the XPort EDGE

Before loading the Manufacturing Test Loader or updating the bootloader, perform the following:

- ◆ Set the XPort EDGE module's line settings to 115200 bps, 8 data bits, no parity bit, 1 stop bit, and no flow control.
- ◆ Set your terminal application to the same serial settings.
- ◆ Connect the XPort EDGE module to the PC using a serial cable.
- ◆ Acquire the latest Manufacturing Test Loader .rom file.
- ◆ Acquire the latest bootloader .rom file.

## Loading the Manufacturing Test Loader

Before installing the bootloader, you need to load the Manufacturing Test Loader:

1. On the PC, run the terminal application.
2. With the power to the XPort EDGE module turned off, hold down the **Reset to Defaults** button.
3. Turn on the XPort EDGE module.
4. Release the **Reset to Defaults** button.
5. Send `!SL<carriage return>` quickly. You may need to do this within a second of turning on the module. It can be helpful to paste the command into your terminal application.
6. If the previous step was successful, `G` will be returned. If you do not see this response, return to step 2 and try again.
7. Send the Manufacturing Test Loader .rom file in binary mode. If you do not send the file quickly enough, you may receive errors. If this happens, go back to step 2 and try again.
8. Once the file is transferred successfully, you will see the CLI prompt.

## Installing the Bootloader

Once the Manufacturing Test Loader has been loaded to the XPort EDGE module, you can install the bootloader. Before these steps can be followed, the Manufacturing Test Loader must be loaded on the XPort EDGE module.

1. At the CLI prompt after loading the Manufacturing Test Loader, enter `flash analyze`. The results will allow you to determine the current bootloader version.
2. Enter the CLI command `serial set flow=soft` to set the flow control to software.

3. Enter `y` to confirm.
4. Set the flow control in the terminal application to software.
5. Enter the CLI command `flash download serial`.
6. Send the bootloader `.rom` file in binary mode.
7. After the file is transferred, the bootloader will be installed, and you will see `Install successful`.
8. Enter the CLI command `flash analyze` once more to verify the new bootloader version has been installed.

## Bootloader Error Codes

The following shows potential error codes:

**Table 1: Bootloader Error Codes**

Error Code	Description
E12	No flash image found
E13	Bad flash image found
E14	Bad command parameter
E18	Reception timeout
E21	Image oversize
E22	Bad image checksum
E23	Bad image destination
E24	Internal coding problem
E25	Bad image header
E26	Secure image not signed
E27	Secure image failed verify