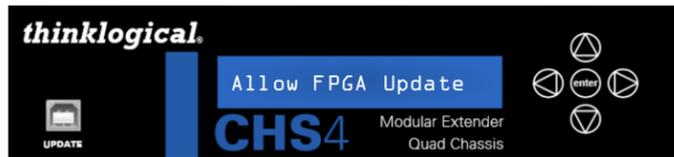


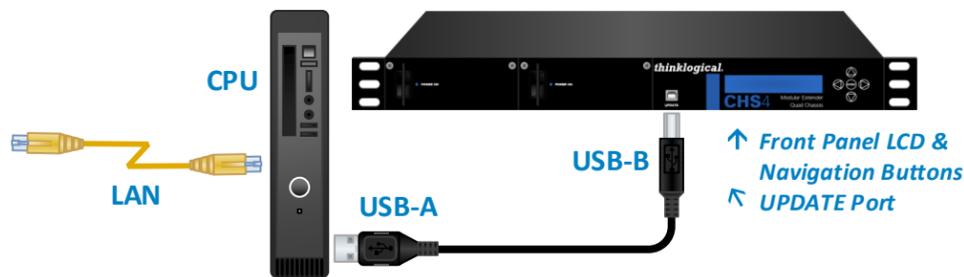
thinklogical® TLX KVM/Dual Video Extender Module FPGA Program Code Update Procedure

The following procedure documents the process for updating the **FPGA Program Code**, using a Windows-based computer, for the following **TLX KVM/Dual Video Extender Modules** in a **CHS-2** or **CHS-4** Chassis:
TLX-TMM/TSM-H000D22, -U000D22, -H000D40, -U000D40
TLX-RMM/RSM-H000D22, -U000D22, -H000D40, -U000D40

- 1 STEP 1: FPGA Update Preparation:** Please contact your **thinklogical** Sales Representative or Customer Service (1-203-647-8700) for access to the FPGA Download Update application and firmware.
- 2 STEP 2:** Install the provided FPGA Download Update application on the system's CPU.
- 3 STEP 3:** Save the FPGA program code update file provided by Thinklogical to a known location on the CPU. The program code update file will have a file extension of ".lbf". This is the file that will be retrieved in Step 10.
- 4 STEP 4:** Use the Navigation buttons ▼ to get to *System. Scroll right ► to **Allow FPGA Update**. Press **enter**. Use the down arrow ▼ to select Yes and press **enter**.



- 5 STEP 5:** Connect a **USB** cable from the front panel of the **CHS-2** or **CHS-4** chassis to the **CPU**. (When connecting Thinklogical equipment to your PC for the first time, it may take a few moments for Windows to correctly install the required drivers.) Open the Windows *Device Manager* to check that all drivers are installed correctly.



6 **STEP 6:** Open the **Device Manager** and the following window will appear. When completed successfully, the **Universal Serial Bus controllers** section will contain **USB Serial Converter A** and **USB Serial Converter B** at the bottom of the list.

7 **STEP 7:** Once the drivers are installed, go to the **Start** menu and choose: **Start → All Programs → FPGA_Download → FPGA_Download**. The window at left will appear. Select **Identify Product**.

STEP 7: Once the drivers are installed, go to the **Start** menu and choose: **Start → All Programs → FPGA_Download → FPGA_Download**. The window at left will appear. Select **Identify Product**.

STEP 8: If you do not see **Q4300RACK_CTRL** (CHS4 Chassis) or **Q2300RACK_CTRL** (CHS2 Chassis) call Thinklogical for assistance. Otherwise, select **Open File**.

8 **STEP 8:** If you do not see **Q4300RACK_CTRL** (CHS4 Chassis) or **Q2300RACK_CTRL** (CHS2 Chassis) call Thinklogical for assistance. Otherwise, select **Open File**.

9 **STEP 9:** You will see a window similar to this, depending on how many slots in the chassis are occupied (2 in this example). As shown, there are three firmware options for each of the TLX KVM modules. **Slot 2 is a TX module and Slot 4 is an RX module**. To upgrade the TX, for example, first select: **Slot 2-TLX_DUAL_KVM_TX_FPGA** (left). *The procedures are the same whether updating a Tx or Rx module. Screen options will reflect either choice. The Tx module update is shown here.*

STEP 9: You will see a window similar to this, depending on how many slots in the chassis are occupied (2 in this example). As shown, there are three firmware options for each of the TLX KVM modules. **Slot 2 is a TX module and Slot 4 is an RX module**. To upgrade the TX, for example, first select: **Slot 2-TLX_DUAL_KVM_TX_FPGA** (left). *The procedures are the same whether updating a Tx or Rx module. Screen options will reflect either choice. The Tx module update is shown here.*

10 **STEP 10:** A dialog box similar to the one above will appear. **Navigate to the folder with the unzipped firmware files from Step 3 (Dual_TLXKVM_TX_FPGA.lbf)**. The dialog box will already be populated with the correct file name. Click **Open**. (This will take approximately 10 minutes.) When complete, the Upgrade window will open.

11 **STEP 11:** Select **Open File**. A window similar to this one will open. Select: **Slot2-TLX_DUAL_KVM_TX_SW_SPI_FLASH**.

STEP 11: Select **Open File**. A window similar to this one will open. Select: **Slot2-TLX_DUAL_KVM_TX_SW_SPI_FLASH**.

STEP 12: A window similar to this one will open. Select: **Dual_TLXKVM_TX_NIOS.lbf** and click **Open**. This will take about 3 minutes. The **Update** window will open again.

12 **STEP 12:** A window similar to this one will open. Select: **Dual_TLXKVM_TX_NIOS.lbf** and click **Open**. This will take about 3 minutes. The **Update** window will open again.

13 **STEP 13:** Select **Open File** and repeat the steps above to update the RX modules.

14 **STEP 14:** Power-cycle the chassis to make the new firmware active. **If you have any problems, please call thinklogical for help: 203-647-8700**