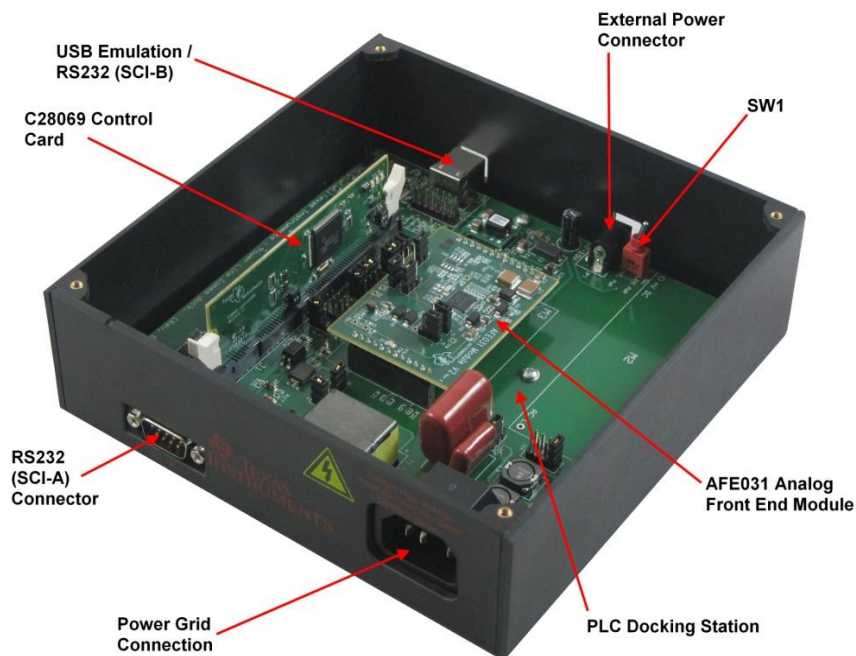


PLC (G3) Development Kit Quick Start Guide

TMDSPCKIT-V3 Components

Hardware:	Software:
<ul style="list-style-type: none">• 2 F28PLC83 control cards• 2 docking stations• 2 AFE boards• 2 AC/DC 15V Power Supplies	<ul style="list-style-type: none">• Texas Instruments G3 development Package• CCS Installation CD.

PLC Kit Overview



Host System Requirements

A single PC can be used to operate both modems included in this kit which meets the following minimum requirements:

- Microsoft® Windows® XP (SP2) or Windows 2000 (SP4)
- Microsoft .Net Framework 3.5 SP1
- USB 2.0 interface
- Screen resolution 1024x768 (or better)
- 100MB of free space on the HDD for the applications and more for LOG files.

Getting Started

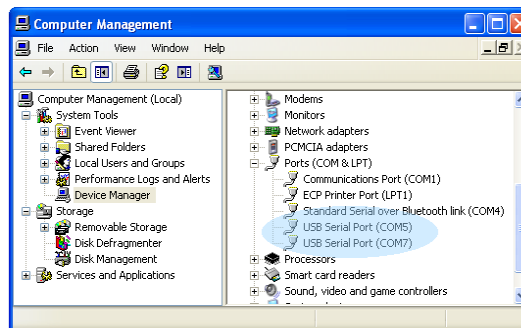
The TMDSPCKIT-V3 is configured with the PRIME PLC firmware. In order to use the G3 operational modes, the F28069 control card will need to be reprogrammed with the appropriate SW. Details on how to reprogram the control card can be found in the TMDSPCKIT-V3 User Guide.

Follow the steps below to connect the board before starting operation:

1. Insert included USB flash drive, browse to and install TI PLC Development Kit software by clicking on the Texas Instruments Development Package installer.
2. After the installation completes, there will be a query to install "ZeroConfiguration_Setup", please continue this installation.
3. Power up the modems by plugging in the included external power supplies to each modem's external power connector. Be sure switch SW1 is placed in the EXT. PWR. position. If the on board power supply (M2) is included, SW1 will need to be placed in the LINE PWR. Position. The external power supply is not needed in this case.

Connect the USB cable of the modem to the PC. Repeat this step for the second modem after the first modem has been installed.

Please verify the modems have been installed correctly by using the Device Manager (Start-> Control Panel -> System -> Hardware -> Device Manager -> Ports).

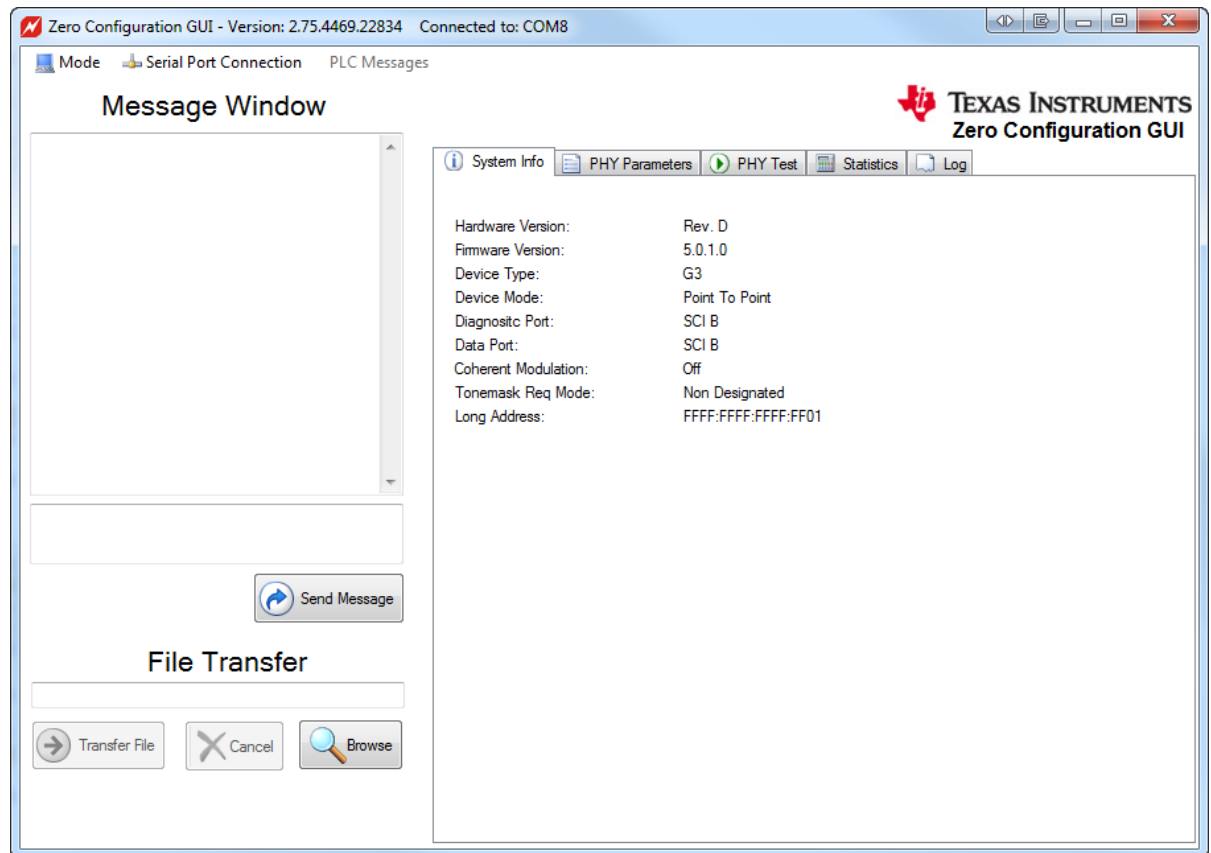


Note: You may be asked to install USB-Serial drivers. If this occurs, please proceed to install the drivers by following the windows system messages. The drivers can be found in \XDS100 Drivers directory of the newly installed files of the development package found in C:\Texas Instruments\G3DevelopmentPackageVxxx. **It will be necessary to reboot your PC after the drivers are installed, even if you are not asked by windows to do so.**

4. **Connect** each PLC device to the power line. Please be sure that the devices are connected directly on the same power line phase.

WARNING: HIGH VOLTAGE!! Use caution when connecting to the power grid. If there is concern about connecting to the power grid, a power strip can be used to connect the two modems together. In this case, the power strip does NOT need to be plugged into the power grid.

5. **Launch** the “PLC Zero Configuration” tool by clicking the ICON installed to your desktop. If you are using one PC to operate the kit it will be necessary to launch two instances of the PLC Zero Configuration, one for each modem.
6. When the Zero Configuration GUI opens it will use the first available COM port to attach to a PLC. The selected COM port will be displayed in the title bar. This may not be the same COM port the modem is connected to. Please verify the correct COM port is used from **Step 4**. You may change the selected COMM port by using the “Serial Port Connection” drop down menu. In case of error during port connection, check the user guide for details.



Note: The specific USB-serial port used by the PC may be different from the one shown above; however, the other settings will remain the same.

Send an Instant Message

The Zero Configuration GUI can be used to send an Instant Message across the power lines to another modem. To perform this operation,

1. Enter the desired text into the lower Message Window to the left of the GUI.
2. Press the Send Message button.
3. The message will then be received by the other GUI will be displayed in the message as show below.

Send a File

The PLC Zero Configuration GUI can be used to send a file greater than 200 bytes from one device to another. To perform this operation,

1. Select a file to transfer by clicking on the "Browse" button on the bottom left of the GUI.
2. To start the transfer, click on the "Transfer File" button.
3. When the file transfer is complete, the file can be found in C:\Temp directory of the receiving Zero Configuration GUI. The statistics of the file transfer can be viewed in the "Statistics" tab of either modem. If the same computer is used for both modems the transmit directory should NOT use the C:\Temp directory.

Perform a PHY Test

The PLC Zero Configuration GUI can also be used to setup a PHY test between two modems. To perform this operation,

1. Select a Receive modem by browsing to the "PHY Test" tab and clicking on the "Start G3 PHY Receive Test" button.
2. The other modem will now be the Transmit modem. To setup the Transmit modem, open the GUI to the other modem, click on the "PHY Test" tab and click the "Start G3 PHY Transmit Test" button.
3. The modems are now performing a PHY Layer test. Performance information can be viewed on the receive modem with the "PHY Test" tab, or also in the "Statistics" tab.

Additional information and configurations can be found in the user guide and on our product web page located at www.ti.com/plc.

NOTE: Please check the web page for updated PLC packages.

For questions and support, you may contact us at plc_support@list.ti.com.