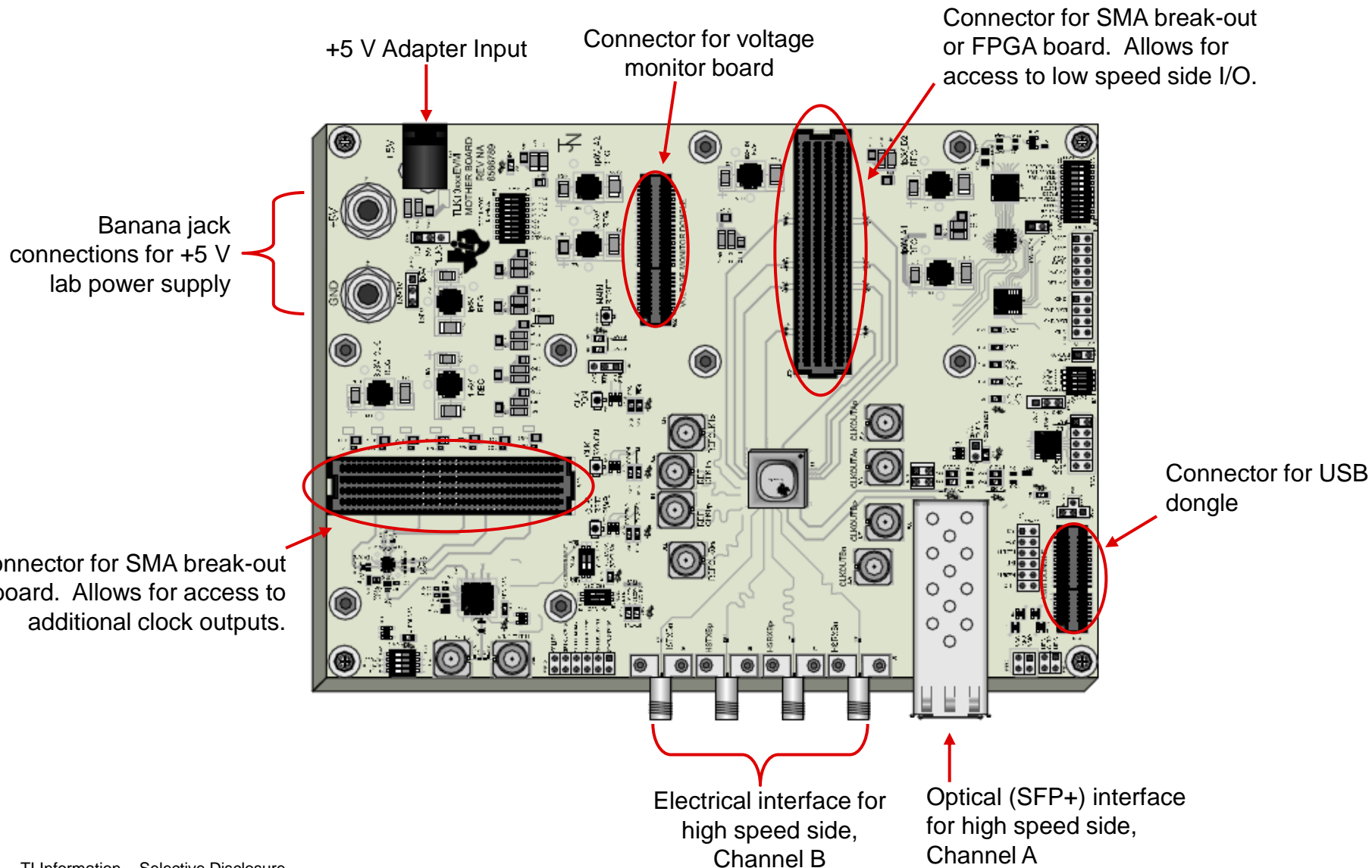


# TLK10081 EVM Quick Start Guide

**Texas Instruments**  
**Communications Interface Products**

# Board Overview

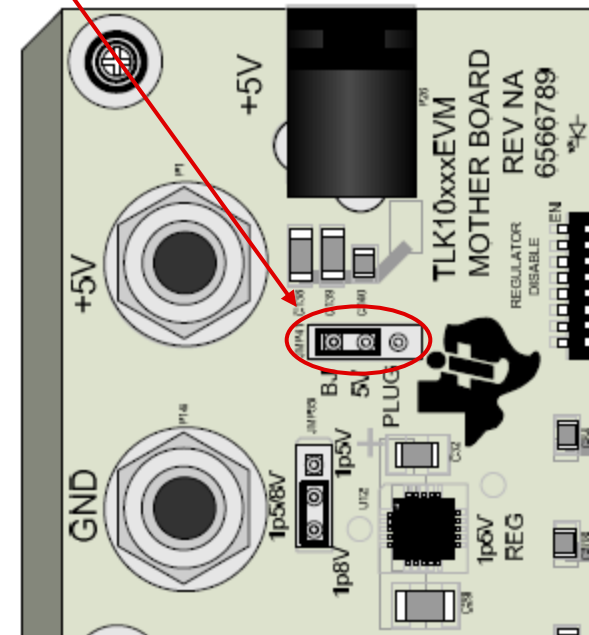


# GUI Installation

- Insert the included CD-ROM into a Windows PC and launch the setup.exe file contained in the folder “\With RTE\Volume.”
- Follow the on-screen instructions to install the necessary software.
- The following programs will be installed:
  - TLK10081 EVM GUI
  - LabVIEW Run-Time Engine
  - Python Scripting Language

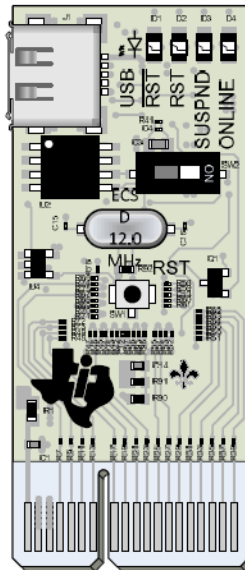
# Powering the Board

- Configure a lab power supply to provide +5 V with a 2.5-A current limit and connect it to the EVM's banana jacks. Enable the power supply.
- If a 5-V DC adapter is available, it can be used instead.
  - If a DC adapter is used, shift the jumper highlighted below so that the center “5V” pin is shorted to “PLUG” rather than to “BJ.”
- The various power rails required by the board are generated from this 5-V source by on-board regulator circuits. The status of the individual rails can be checked by inserting the Voltage Monitor Board. This board contains window detectors for each rail which will light an LED as long as the rail is within its tolerance spec.

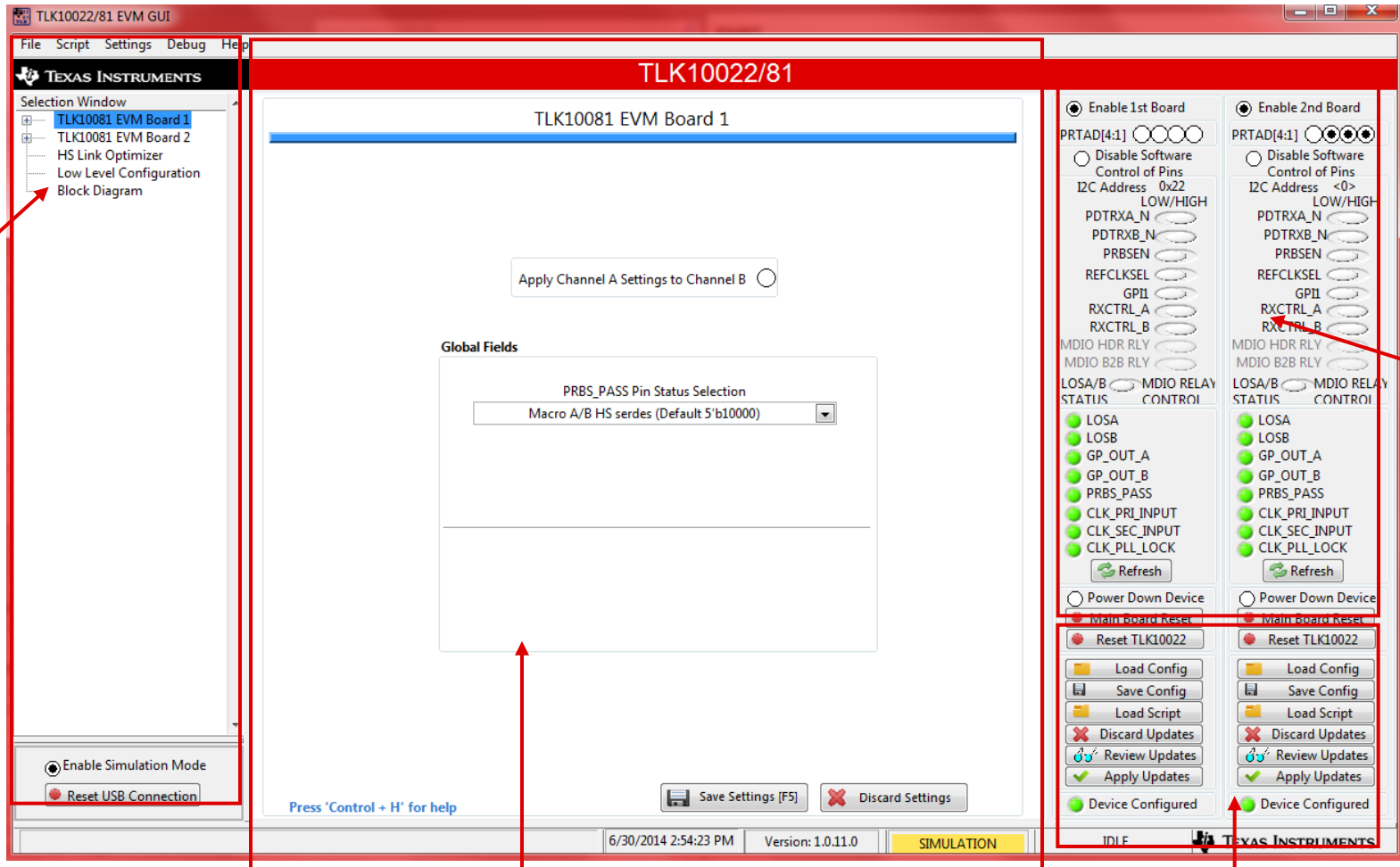


# Connecting via USB

- Connect a USB cable from a PC (with GUI software installed) to the EVM kit's USB dongle and plug the USB dongle into the EVM motherboard (these two steps can be done in any order)
- With the dongle inserted into the motherboard and the motherboard powered, launch the GUI software. The first time the GUI is launched, it may take a few minutes to start up.



# GUI Main Window



Pin Control

TI Information – Selective Disclosure

Display Pane

Load/Save/Apply Controls

# Using the GUI

- To configure the TLK10081 EVM using the GUI, the following procedure can be used:
  - 1. Use the Selection Window to choose a category of controls.
    - Note that this window uses a hierarchical structure, so to set the clock controls for Channel B, you navigate to TLK10081 EVM Board 1 → Channel B → Clock and Rate Cfg.
  - 2. The Display Pane will now show the controls available in the chosen category. Use these controls to configure the device settings as desired.
  - 3. When finished with a particular category, click the “Save Settings” button in the Display Pane.
  - 4. Repeat steps 1 through 3 until all settings have been chosen.
  - 5. Click the “Apply Updates” button in the lower right corner to provision the TLK10081 device.
    - This button causes a script to be launched that issues a sequence of MDIO commands to the TLK10081 device in order to configure it based on the settings selected in the GUI.

# Script Selection

- The GUI uses scripts to translate the settings from the various GUI windows into a sequence of MDIO read/write commands used for provisioning the device.
- The default script selection is designed to accommodate the majority of applications, but specialized scripts optimized for different use cases are provided in the GUI install package as well.
- To change the script selection, click the “Load Script” button in the GUI window and select a file with an appropriate filename from the scripts directory.
- The scripts are stored as text files, so it is also possible to edit or create new scripts using a text editor if desired.



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