

## MPLAB® REAL ICE™ POWER MONITOR INSTRUCTION SHEET

The MPLAB REAL ICE Power Monitor (AC244008) allows the MPLAB REAL ICE In-Circuit Emulator to monitor current and voltage of the target board or device. The kit contains a Power Monitor board, power supply and this instruction sheet.

### Monitor and Debug Features

- Monitors current with selectable ranges (up to 1A) and programmable voltage (up to 5.0V)
- Powers the target (up to 1A)
- Graphs current, voltage and time vs. code execution (PC)
- Additional features are in development

### Power Monitor Support

- Power Monitor is supported on MPLAB X IDE 1.70 and above.
- Power Monitor supports all Microchip devices.
- Not all debug features are available when using the Power Monitor. View the Debug menu to see which functions are active and which are not available (grayed).

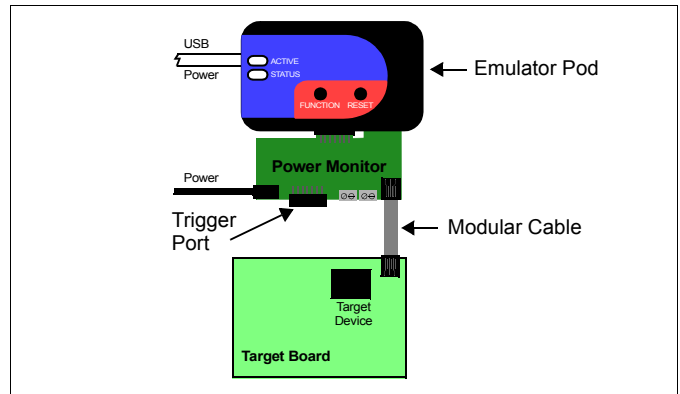
### Hardware Setup

1. Power down the target board and disconnect the USB cable from the emulator.
2. Unplug any driver board from the driver board slot and remove any logic probes in the logic probe connector.
3. Plug the Power Monitor board into the emulator driver board slot and logic probe connector simultaneously.
4. Reconnect the USB cable to the emulator.
5. Plug the three-pronged end of the Power Monitor power adaptor into a power supply. Plug the single-pronged end into the Power Monitor board.
6. Connect to the target board via a modular cable. See the emulator user's guide (under Documentation) for other connections or configurations.

### Software Setup

1. Install the Power Monitor plugin. Select *Tools>Plugins*, click on the **Available Plugins** tab, check "Power Monitor" and click **Install**. For more information on plugins, see MPLAB X IDE documentation.
2. Select *File>Project Properties*. Click on the down arrow on the "Supported Plugin Board" drop-down box and select "Power Monitor Board".
3. Click on the "Real ICE" category. Under the "Trace and Profiling" option category, set up power sampling. Under the "Power" option, check "Power target circuit from REAL ICE", and specify the voltage under "Voltage Level". Click **OK** when complete.
4. Select *Tools>Embedded>Power Monitor* to open the Power Monitor window. View the current and voltage values by time and PC.

FIGURE: POWER MONITOR BOARD CONNECTIONS



### Documentation

For the latest information on this board, see the "Emulator Accessories" chapter of the "MPLAB REAL ICE In-Circuit Emulator User's Guide for MPLAB X IDE" (DS52085) or online help file.