

User Manual

# Murata Power Brick GUI



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### 1. Introduction

Murata's Power Brick User Manual describes the GUI (Graphical User Interface) for the power module with PMBus interface. It is supplied to help customers monitor and configure the power module. The main functions of the software includes: Power Status Monitor (single module Vout, Iout, Vin, temperature, etc.), System Status Monitor (system Vout, Iout, temperature, etc.) and Power Config (configure Vout, Iout limit, protection point, etc.).

#### 1.1. Requirements

- MPS Power Brick GUI install package
- Microsoft .NET Framework 3.5
- Texas Instruments USB Interface PMBus Adapter
- Microsoft Windows XP, Windows 7 32bit edition

#### 1.2. Installation

Unpack the installation files then double-click on *setup.exe* and begin to install. It will check whether you have installed the .NET Framework 3.5; if not you will need to download and install it and run the setup file again. You can get the .NET Framework 3.5 install file from <http://go.microsoft.com/fwlink/?LinkId=76617>.

After the software is installed, connect the power brick module to the PMBus adapter and run the software.

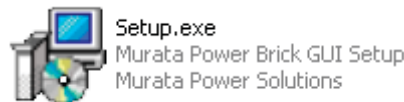


Figure 1. Install File

#### 1.3. About the software

All software rights are reserved by Murata Power Solutions. Visit <http://www.murata-ps.com> for support.



Figure 2. About

**2. Software Functions**

All of the functions of the software list are shown in the Navigation Menu on the left-hand side of the screen below.

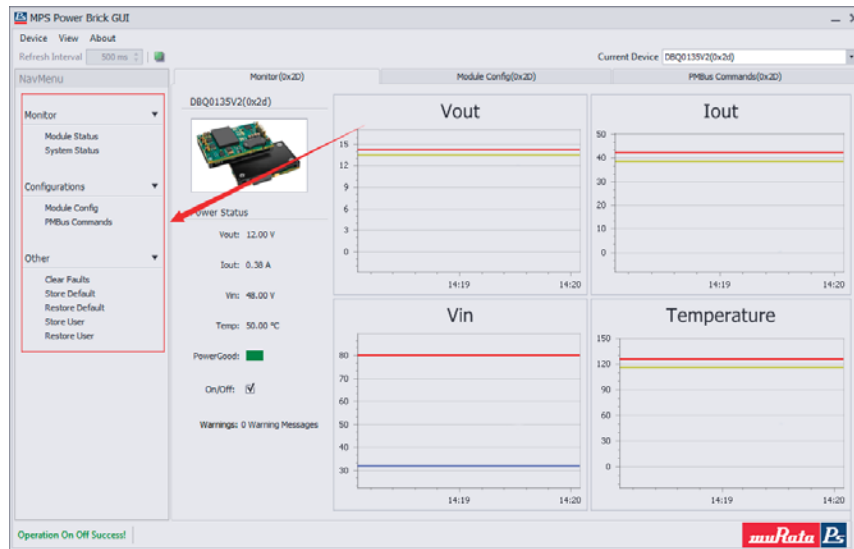


Figure 3. Software Overview

**2.1. Scanning Device**

Click on the Device button located on the top menu bar of the screen, then Scan Device. The software will scan the device connected to the PMBus from address 1 to 127. The user can also do this through the Scan command in the PMBus Command Line.

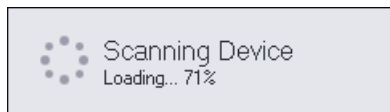


Figure 4. Scanning Device

**2.2. Single Power Module Monitor**

After scanning the device, you can then select the device from the dropdown list by clicking on Module Status in the Monitor section of the Navigation Menu.

As the software checks the state of the power module with the period interval, you will need to set the time interval and the range from 100ms to 10000ms. After you set the interval you can click the Start button on the right-hand side of the screen. The software will start to run.

The module description, product picture, output voltage, output current, etc. will appear on the left-hand side of the screen. The right-hand side of the screen will display the status of the module in chart form; the red and yellow line in the chart is the fault limit and warning limit.

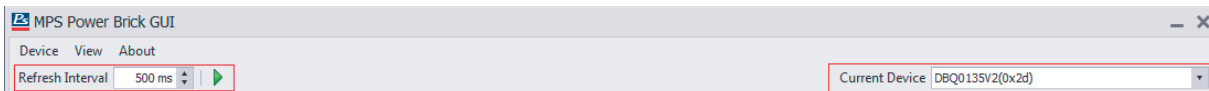


Figure 5. Starting Software



Figure 6. Single Module Monitor

### 2.3. System Power Module Monitor

Click on *System Status* in the Monitor section of the Navigation Menu. The status of the module is shown in the grid at the bottom of the screen. The information is also displayed in the charts with the colored lines.



Figure 7. System Status

### 2.4. Power Module Configuration

Click on *Module Config* in the Configurations section of the Navigation Menu to get to the configuration page. Note that the configuration acts on the selected module in the list box. The configurations include output voltage related settings, module start/stop, module on/off, setting storage and protection limits. You can edit the parameters in the edit box and press the *Enter* key to take effect. You can also read the current settings of the power module by clicking on the refresh button.



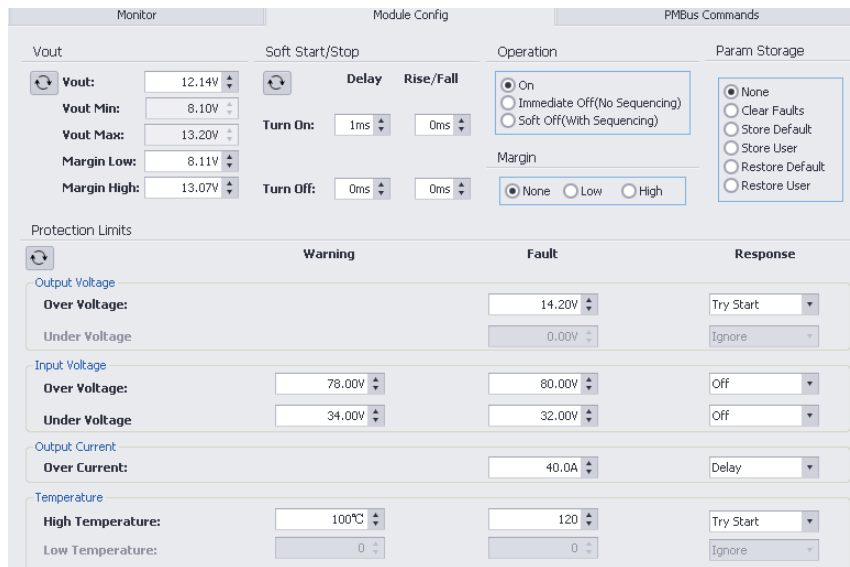


Figure 8. Module Configuration

**2.5. PMBus Commands**

This section contains all of the supported PMBus commands of the power module. The commands are grouped by Calibration, Configuration, Limits, Manufacturer, On/Off, Status, User and Operation. You can edit command values in the edit box and press the Enter key to take effect. It also provides the command data in hex format near the edit box. Click on the refresh button to get the current command data settings.

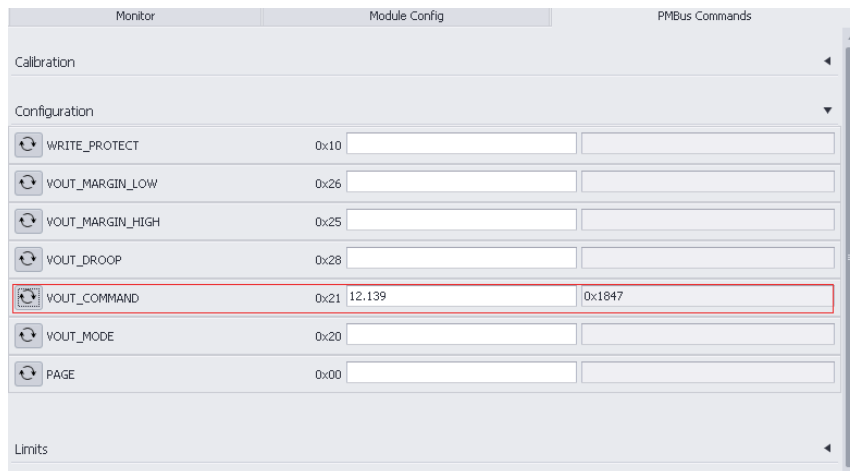


Figure 9. PMBus Commands

**2.6. PMBus Command Line**

The PMBus Command Line is used for user control PMBus compatible device via Send Byte, Read/Write Byte, Read/Write Word, Read/Write Block commands. User input command in the below textbox, and the program will check the input automatically, and then press the **Send** button or press the *Enter* key to execute the command and the result will be displayed on the screen. User can press the *PageUp/PageDown* key to recover the last frequently used commands and other commands like scan device, help functions. Scan command is used for scan online PMBus compatible devices. Protection limits

The protection limits panel allows you to set threshold values for the module to flag warnings and fault conditions, and specify how the module reacts when normal conditions continue.

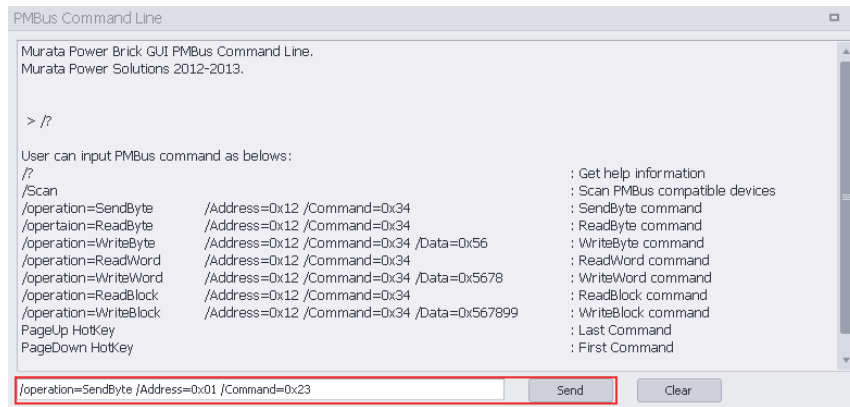


Figure 10. PMBus Command Line

### 2.7. Load/Save Configurations

User can load some frequently used configurations from a config file. On the other hand after the device is configured ok, user can save the configurations about the device to file for next time. The configuration file format as XML and it is easy to read and modify.

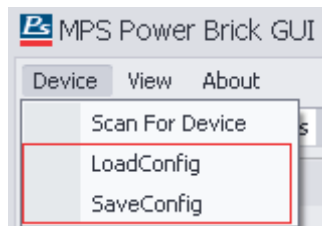


Figure 11. Load/Save Configurations

### 3. References

- [1]. PMBus Specification Part I & II
- [2]. [www.ti.com](http://www.ti.com)

### 4. Update History

1. 2013.2.28: Initial version 1A released
2. 2013.5.10: Version 1C released. Add PMBus Command Line, Load/Save configurations functions.
3. 2014.01.02: Version changed to A to keep the same version with the product.

