

NB3W800LMNGEVB

NB3W800LMNGEVB GUI Evaluation Board User's Manual



ON Semiconductor®

www.onsemi.com

EVAL BOARD USER'S MANUAL

Devices Supported:

NB3W800L (QFN48)

Introduction

The NB3W800L is a low-power 8-output differential buffer that meets all the performance requirements of the DB800ZL specification. The NB3W800L is capable of distributing the reference clocks for Intel® QuickPath Interconnect (Intel QPI), PCIe Gen1/Gen2/Gen3, SAS, SATA, and Intel Scalable Memory Interconnect (Intel SMI) applications. A fixed, internal feedback path maintains low drift for critical QPI applications.

ON Semiconductor has developed a GUI that can be used with the device Eval Board NB3W800LMNGEVB to control NB3W800L device register parameters. Its operation is covered in this manual.

Software Installation

- Unzip the distribution archive “DB800_GUI_revC.zip”
 - ◆ All files are contained in the parent folder DB800_GUI_revC which you can un-zip anywhere on your PC

- Look in the parent folder
 - ◆ You will see a file “NB3W800L_Programming_GUI.exe”
- Make a short cut to that file and place it on your desktop, start menu etc.
- That's it
 - ◆ There is no manipulation of the registry or path variables
 - ◆ To un-install just delete the files

Software Use and Initialization

- Connect the Eval Board NB3W800LMNGEVB to a USB port of a PC
- Allow Windows® to install the necessary drivers for the Evaluation board USB interface hardware .. it will go out to the web to find them
- Start the program using the short cut you made earlier

NB3W800LMNGEVB

SMBus Activities

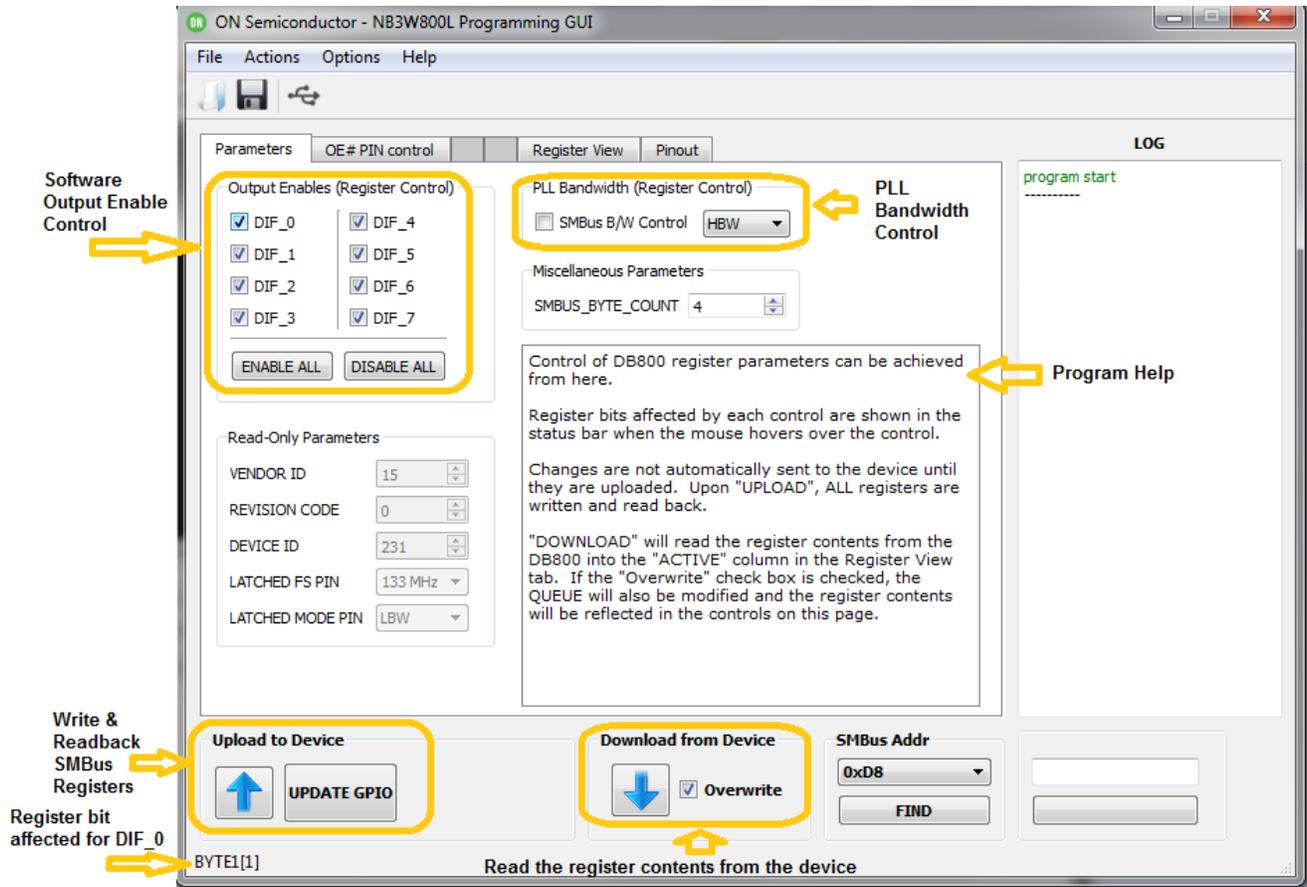


Figure 1.

NB3W800LMNGEVB

The screenshot shows the 'ON Semiconductor - NB3W800L Programming GUI' with the 'OE# PIN control' tab selected. The interface includes a menu bar (File, Actions, Options, Help), a toolbar, and several main sections: a table for OE# pin settings, a help text area, a log window, and a control panel at the bottom.

Annotations:

- OE# pin logic level control:** A yellow arrow points to the 'Logic Level' column in the table.
- When the Direction control is "SENSE", logic level set by the jumper on the EVB will be displayed upon pressing "UPDATE GPIO":** A yellow arrow points to the 'Direction' column in the table.
- When the Direction control is "DRIVE", OE# pin logic levels can be controlled from GUI:** A yellow arrow points to the 'Logic Level' column in the table.
- Program Help:** A yellow arrow points to the help text area.
- SMBus address where the device is found:** A yellow arrow points to the 'SMBus Addr' dropdown menu.

Table Data:

DUT Pin	Direction	Logic Level	R/T Status
OE0#	SENSE	0	ENABLED
OE1#	SENSE	0	ENABLED
OE2#	SENSE	0	ENABLED
OE3#	SENSE	0	ENABLED
OE4#	SENSE	0	ENABLED
OE5#	SENSE	0	ENABLED
OE6#	SENSE	0	ENABLED
OE7#	SENSE	0	ENABLED

Control Panel:

- Upload to Device:** Includes an 'UPDATE GPIO' button.
- Download from Device:** Includes an 'Overwrite' checkbox.
- SMBus Addr:** A dropdown menu set to '0xD8' and a 'FIND' button.

Figure 2.

NB3W800LMNGEVB

Menu Options

- File Menu

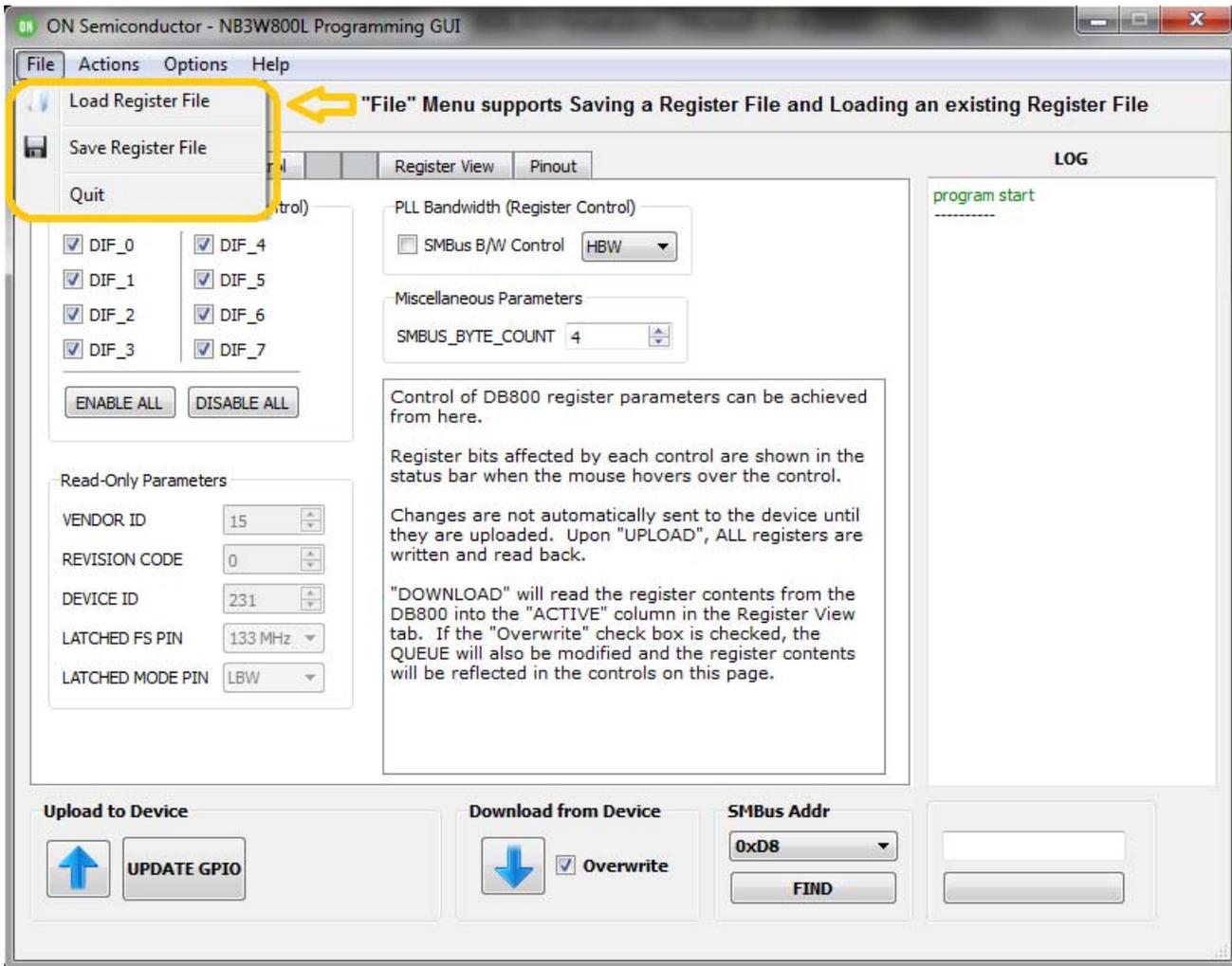


Figure 3. File Menu

NB3W800LMNGEVB

- Actions Menu

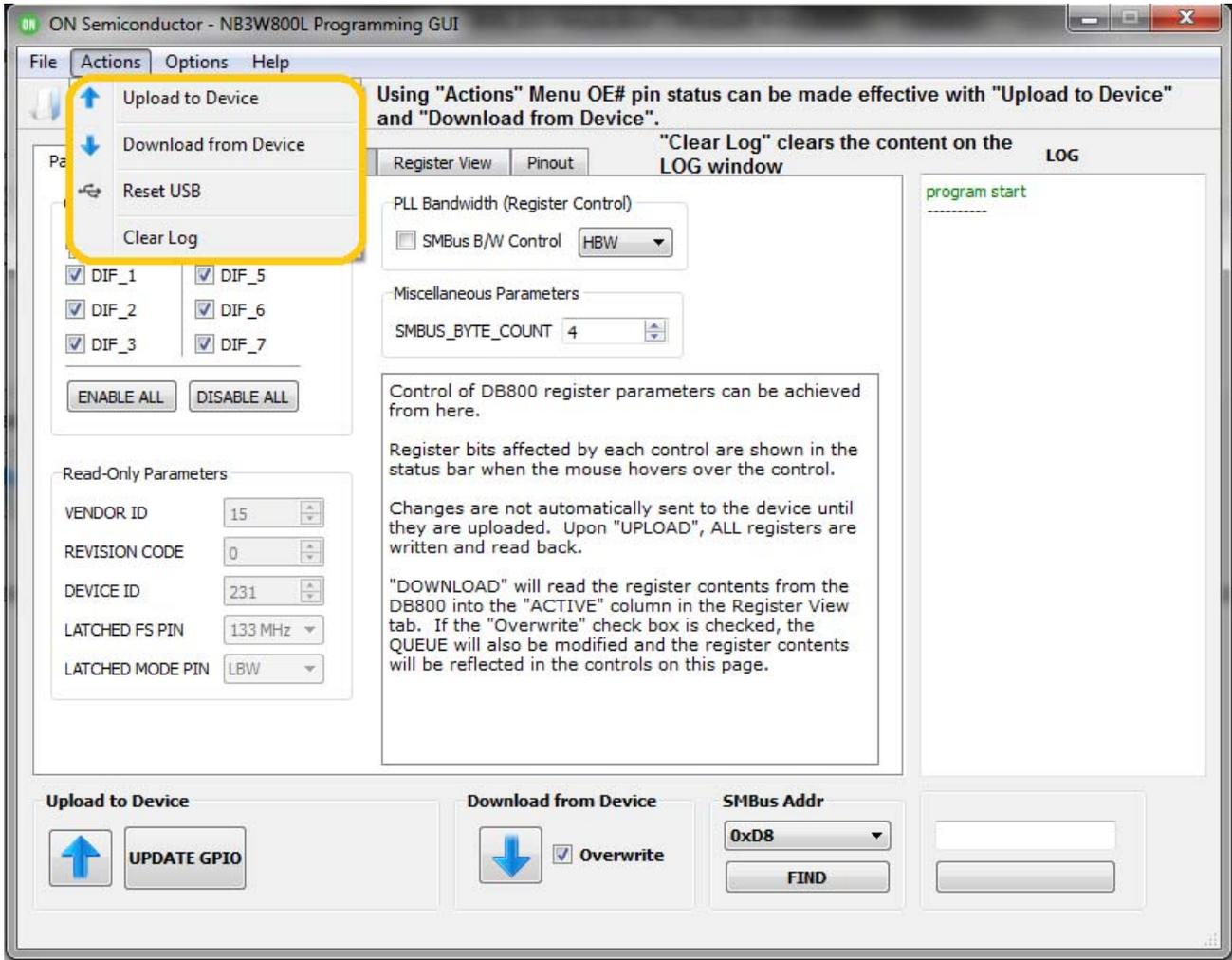


Figure 4.Actions Menu

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