

Description

This document shows basic guidelines to use the Qorvo's Graphic User Interface software (GUI) to control the ACT88321 EVK or socketed board from a Windows-based PC with a Qorvo's USB-to-I²C dongle.

GUI Setup

Install the Qorvo's USB-to-I²C dongle driver by following the guide on "Qorvo GUI and Dongle

Driver Installation.pdf" file. Plug the Qorvo's USB-to-I²C dongle into PC's USB port and I²C terminal to I²C connector on ACT88321 EVK or Socketed board. Power up the EVK or Socketed board with an appropriate voltage, make sure the DUT started up properly.

In the GUI folder, open the "ACT88321 GUI Rev 0.1.exe" to invoke the software. Below screen would show up, make sure the USB-to-I²C dongle is recognized by PC with status as below RED circle in **Figure 1** below.

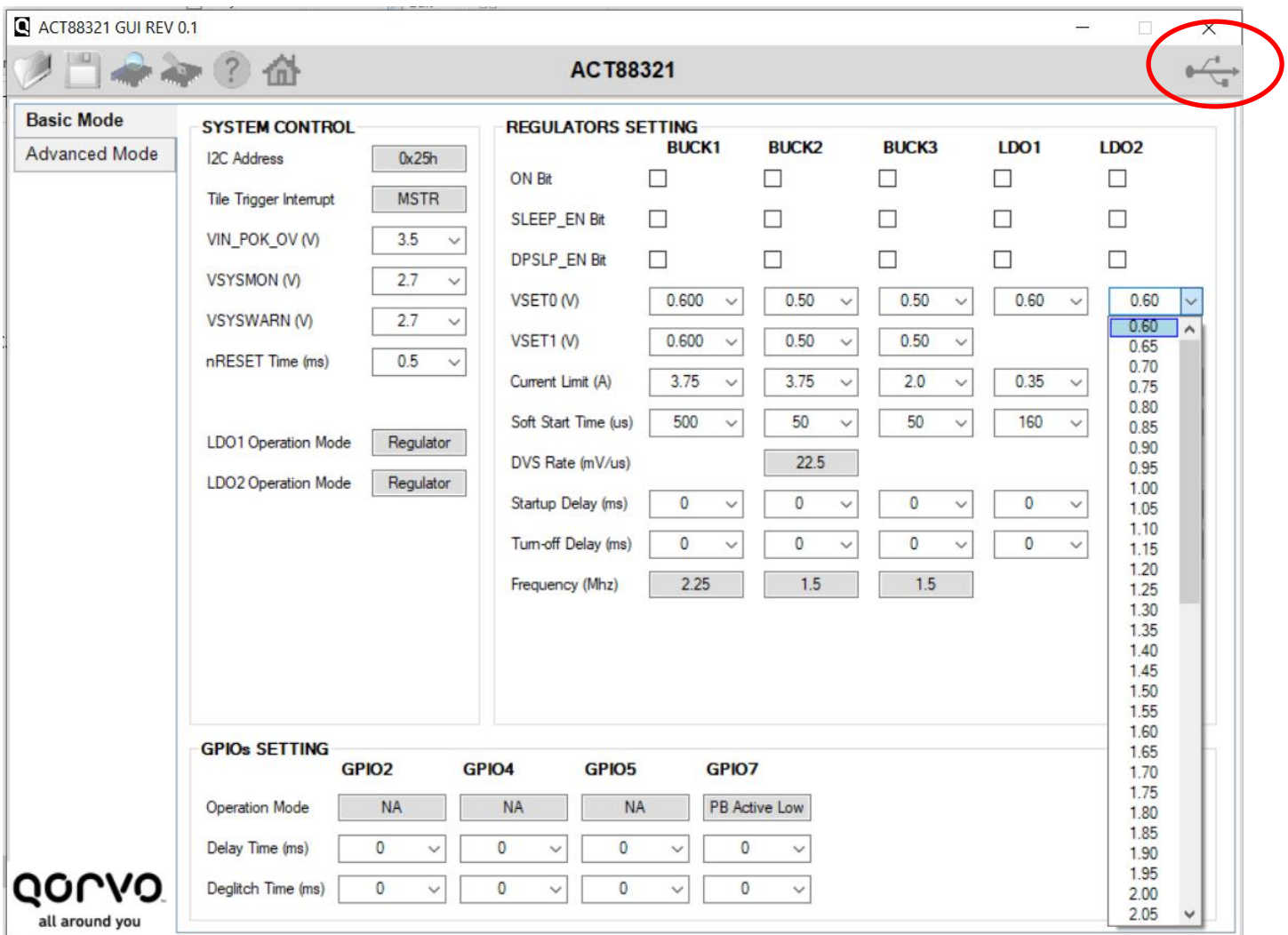


Figure 1: ACT88321 GUI

Operating Functions

The GUI has 4 functional buttons display as icons on top left corner, with order from left to right: Load, Save, Read, Write and EVK_Program as below **Figure 2**.



Figure 2: Functional Buttons

Open Function

Open function allows user to open an ACT88321's register information data.iact or .xml files. The file should be provided by Qorvo.

Save Function

Save function allows user can save the ACT88321 register information to an iact or .xml file. Qorvo recommends user to save the registers read back to an .iact file.

Read Function

Read function allows user to read all the I²C registers of the ACT88321 under test (DUT) and update to the GUI. **Qorvo recommend user always click "Read" after powering up the EVK or socket board.**

Write Function

Write function will write all the setting on the GUI to a powered DUT. After changing value on the GUI, click "Write" button to transfer all setting to the IC via I²C.

Read/Write Single Register

In Advanced mode, beside the "Write" button to write all I²C registers, ACT88321 GUI also supports write or read a single register. **Figure 4** in page 4 demonstrates how to read or write to only one register, in this particular case is register 0x42. User point the mouse to the bit and right-click, a small "Read/Write" pop-up window will appear. User select "Read" to read only this register or select "Write" to write the value of this register to the IC.

Basic Mode

The GUI will startup in Basic Mode screen. In Basic Mode, user can easily change the register setting using options in drop-boxes or check/uncheck checkboxes. For checkboxes, Left click to check or uncheck checkboxes. For drop-boxes, Left-click to the small arrow next to the

value then a selection popup will show up to display all possible option to choose from. User may need to scroll up/down to find the target value and left click to select it.

Example in **Figure 3** below, user click in to drop-box arrow to select the option as below to choose different LDO2 output voltage.

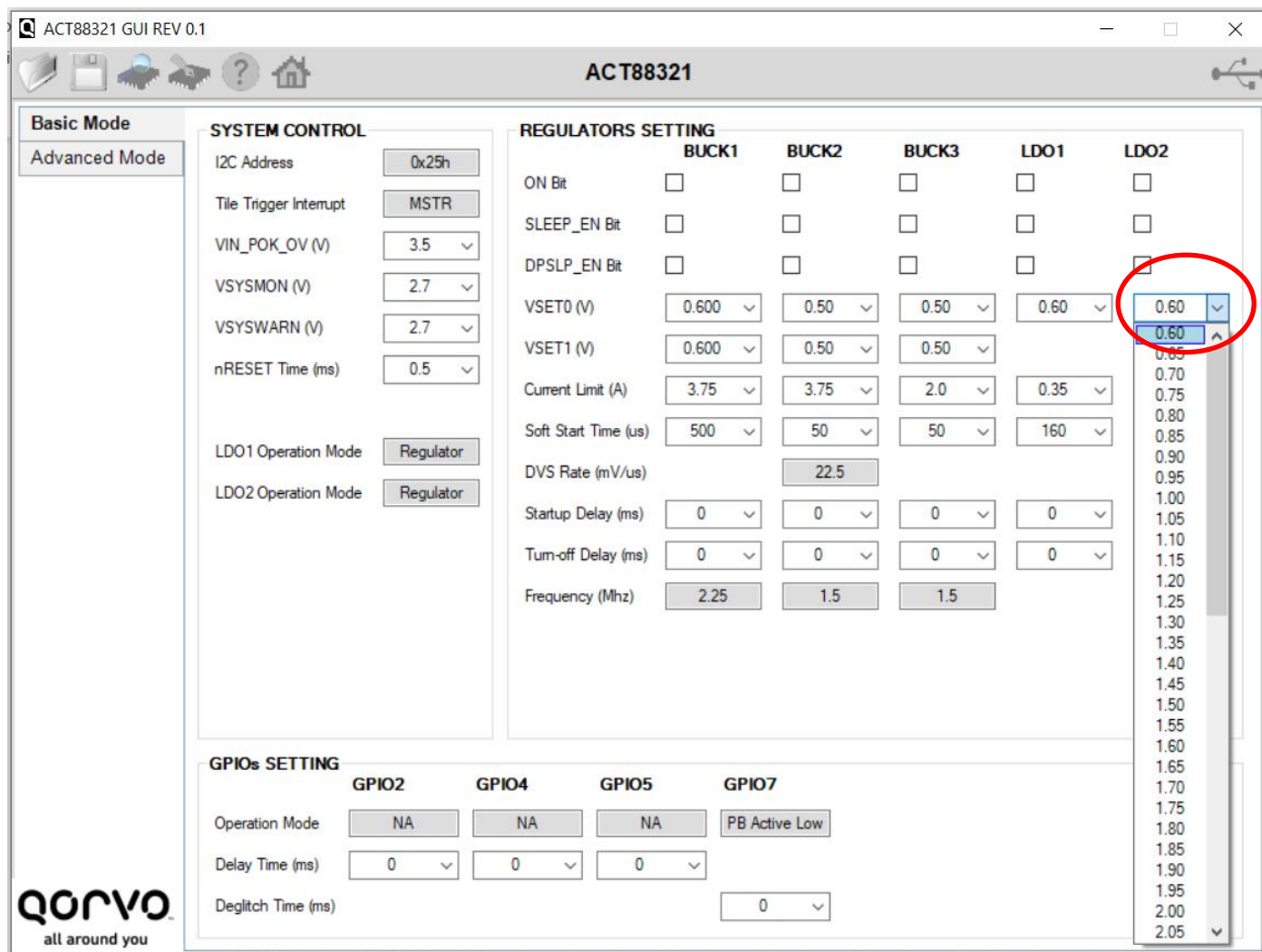


Figure 3: ACT88321 GUI Basic Mode

Advanced Mode

User can access to all I²C register in bit level by selecting the “Advanced Mode” tab. In Advanced Mode screen, registers are divided into tile-based groups. To change the registers, user select the corresponding tile then left click on the “bit name”

button to flip the bit value between “0” and “1”. Refer to the ACT88321 datasheet for functionality of each bit. User is required to have fully understanding of each bit/register function.

Example in **Figure 4** below, user selects “Advance Mode”, “Buck1”, before right-clicking to write or read 0x42 register.

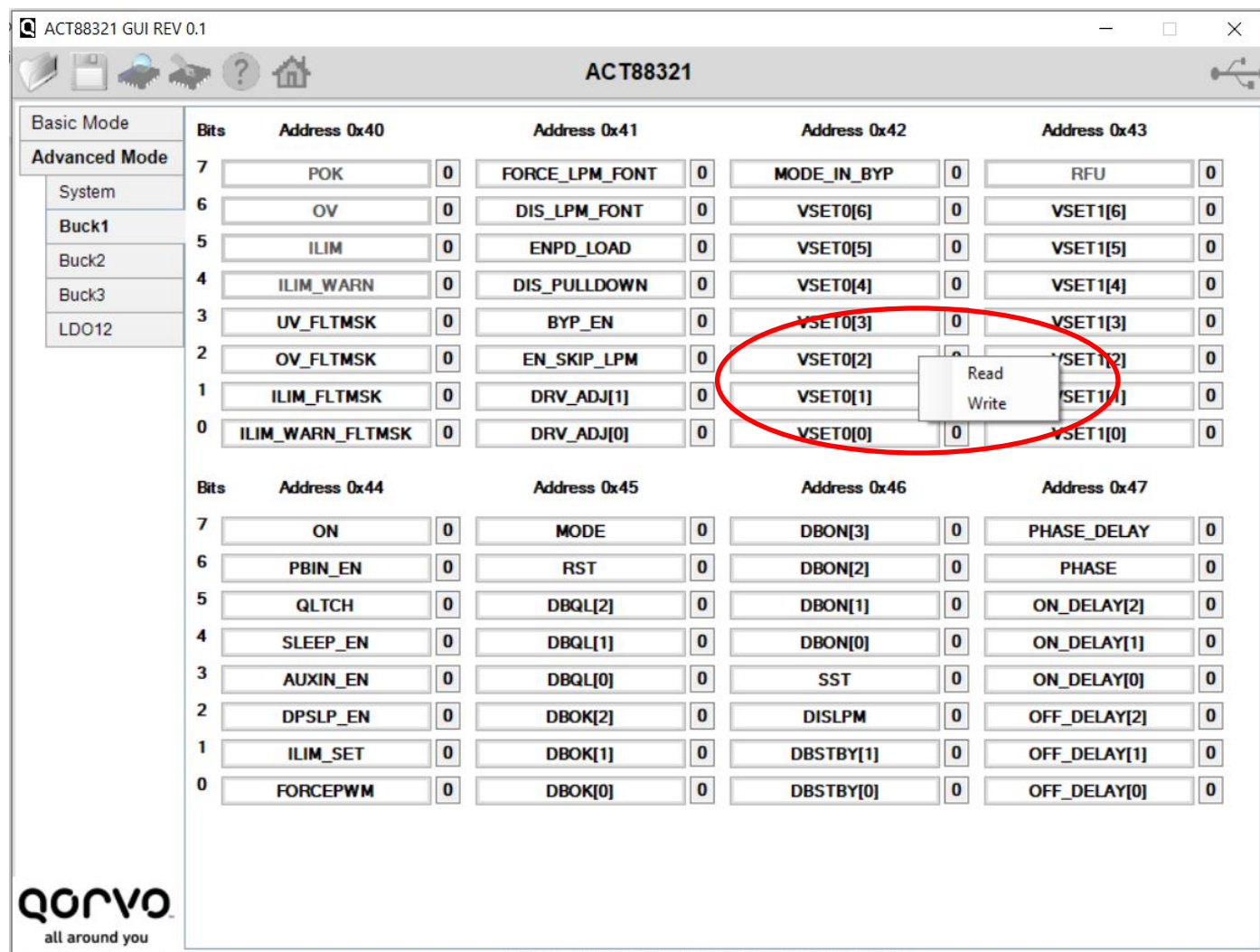


Figure 4: ACT88321 GUI in Advanced Mode

REVISION HISTORY

REVISION	DATE	DESCRIPTION
0.1	23-Nov-2020	Initiation

Contact Information

For the latest specifications, additional product information, worldwide sales and distribution locations:

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