USER GUIDE

Rev 1.0 21-Nov-2019 | Subject to change without notice

ACT86600 GUI

Description

This document shows basic guidelines to use the Qorvo's Graphic User Interface (GUI) software to control the ACT86600 EVK from a Windows-based PC with a Qorvo's USB-to-I^{2}C dongle.

Reference Documents

For more detail information, user may refer to below documents and may be seek advices from Qorvo.

1. ACT86600 Data Sheet.
2. ACT86600 Register Definition.

Setup

1. Install the Qorvo USB-to-I²C dongle's driver by following the guide on "Qorvo's GUI and Dongle Driver Installation.pdf".
2. Plug the Qorvo USB-to-I²C dongle into PC's USB port and I²C terminal to I²C connector on ACT86600 EVK. Power up the EVK with an appropriate voltage, make sure the DUT started up properly.
3. Double click the "**ACT86600 GUI Rev1.0.exe**" to Open the GUI. 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.

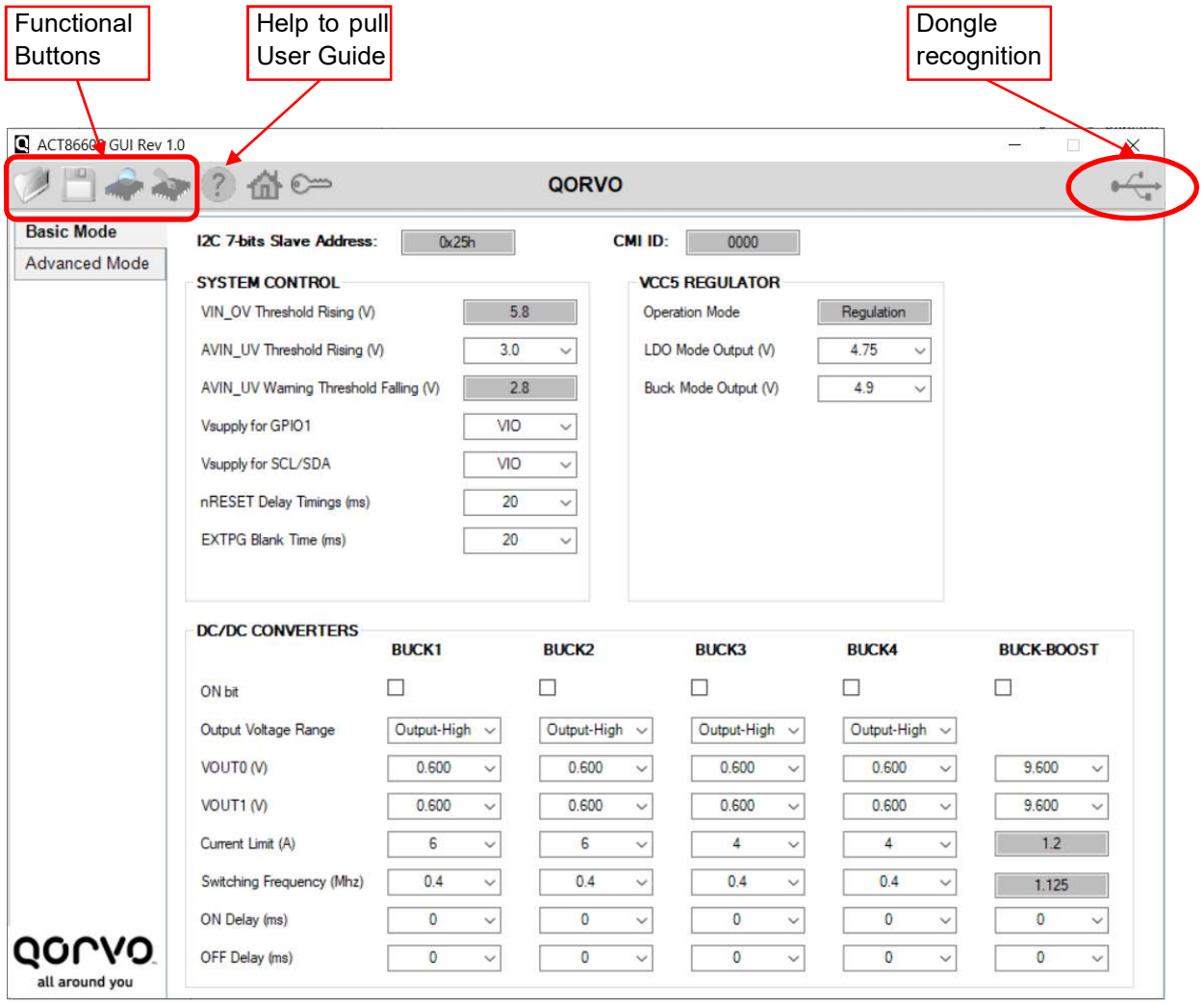

Figure 1: GUI in Basic Mode

Operating Functions

The GUI has 7 functional buttons as icons on the top left corner, with order from left to right: Open, Save, Read, Write, Help, About and Passcode as below **figure 2**.

Figure 2: Functional Buttons

Open Function

Open function allows user to open an ACT86600's register information data (.iact) or (.xml) files. The file should be either provided by Qorvo or saved by the same software previously.

Save Function

Save function allows user to save the ACT86600's register information to a (.iact) or (.xml) file. Qorvo recommends user to save the registers read back to an (.iact) or (.xml) file before implementing any adjustments.

Read Function

Read function allows user to read all the I²C registers of the ACT86600 under test (DUT) and update to the GUI. Qorvo recommend user always to click "Read" after powering up the Programming board.

Write Function

Write function will write all the setting on the GUI to a powered DUT. After change value on the GUI, click "Write" button to transfer all setting to the IC via I²C. The I²C registers in ACT86600 are write-protected with a Passcode command. In the GUI, we provide a button where customer can enable the write-protected option.

Help and About

Click Help button to pull out "User Guide" and click About button to pull out Version information.

Write-Protected Disable

The GUI starts default with write protect disabled, meaning the GUI will write the Passcode command prior to writing any register(s). This called Passcode enabled with the icon displays as below **figure 3**.

Figure 3: Passcode Enable

Write-Protected Enable

Customer can click into the Passcode icon again and write 0x00h into register 0x0Ah to enable the "I²C Write Protect". After that, the icon will switch to "Lock". In this Write-Protected mode, the GUI will write standard single byte I²C, which is not supported by ACT86600.

Figure 4: Passcode Disable

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 check boxes. For check boxes, Left click to check or uncheck check boxes. 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 5** below, user click in to drop-box arrow to select the option as below to choose different VCC5 regulator output voltage.

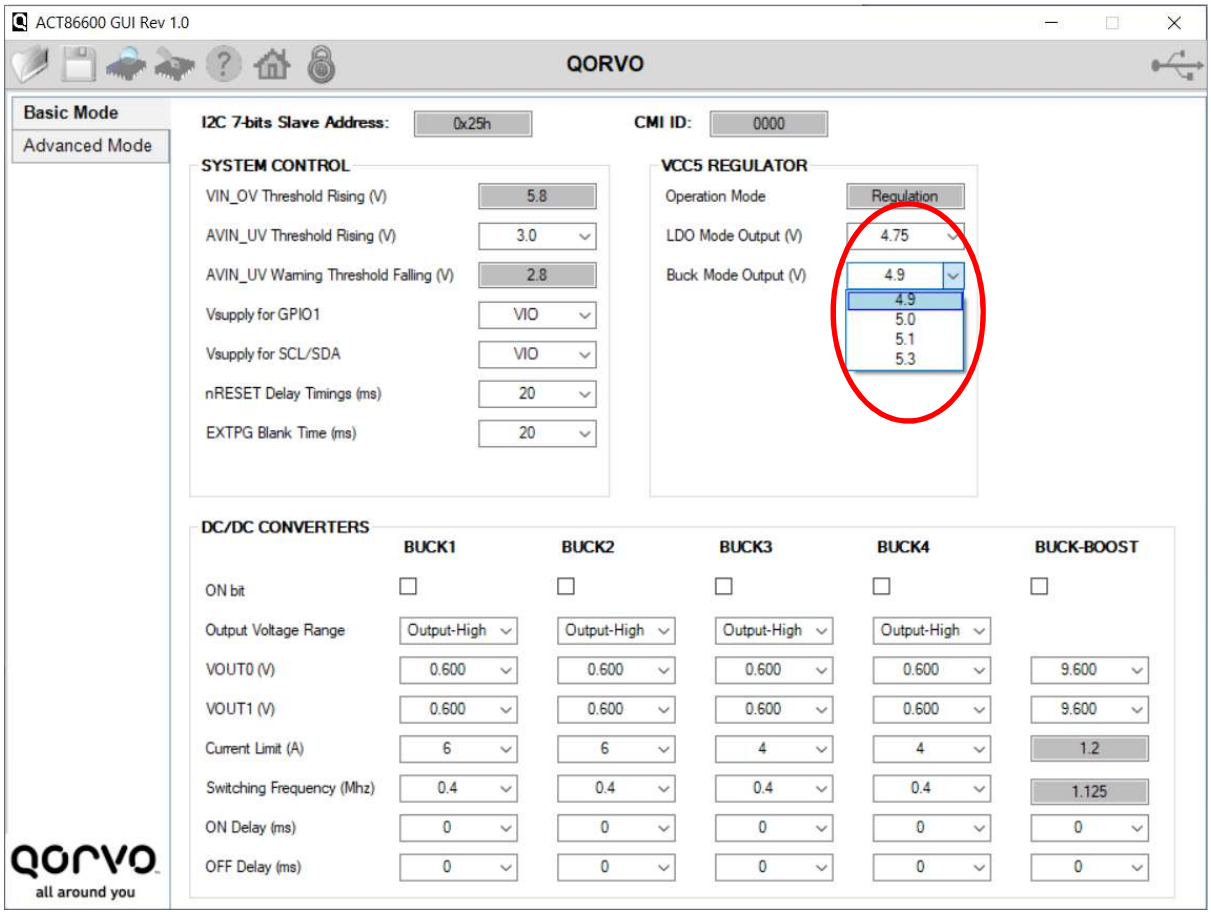

Figure 5: ACT86600 GUI Basic Mode

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 ACT86600 datasheet for functionality of each bit. User is required to have fully understanding of each bit/register function.

Example in **figure 6** below, user selects “Advance Mode”, “Buck1” then left click the ON button to flip the “ON” bit from 1 to 0. Then “right-click” to write or read this 0x47 register.

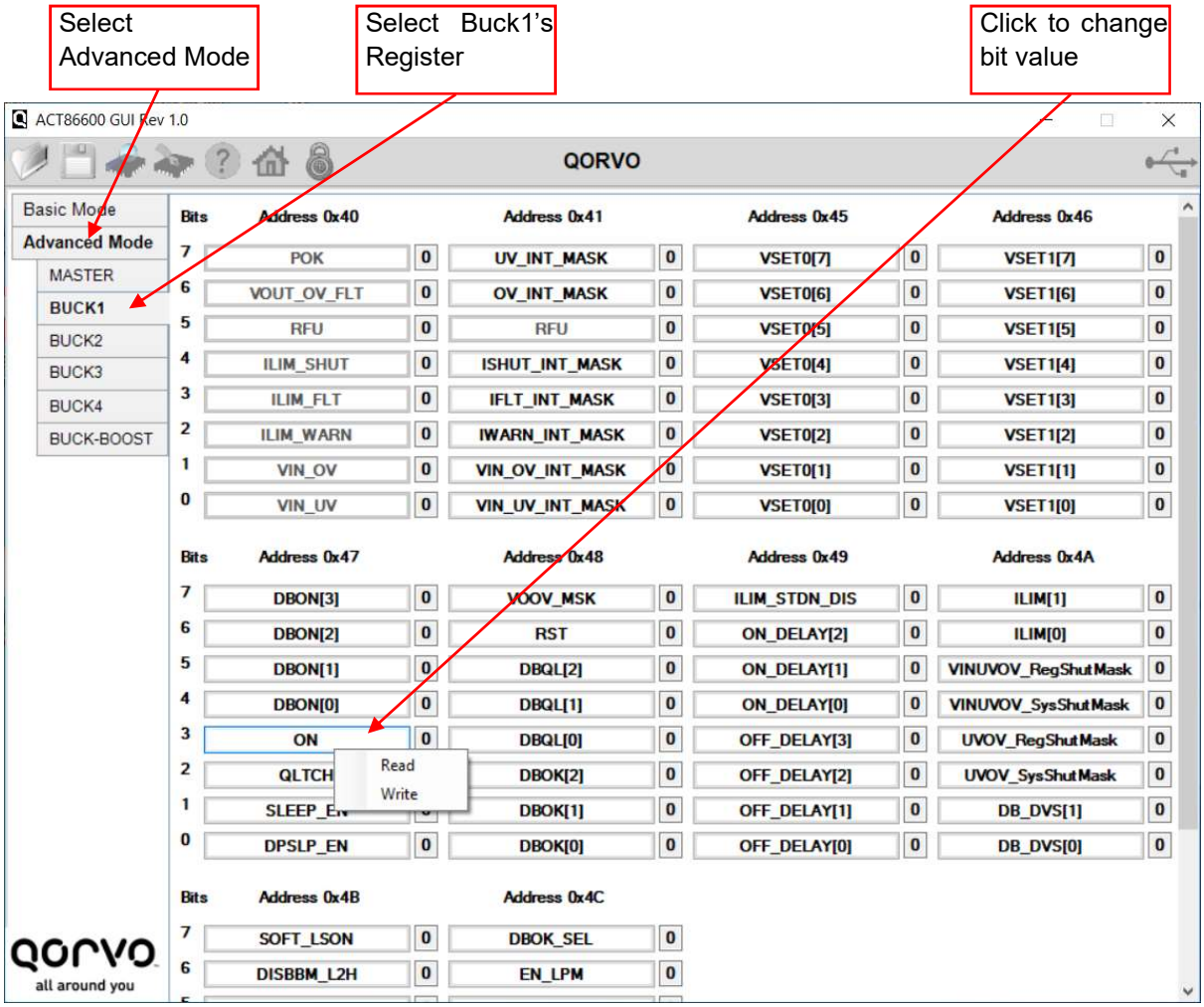

Figure 6: ACT86600 GUI in Advanced Mode Mode

User can change value of multiple bits and click “Write” functional button on top bar to transfer the changes to the IC.

Revision history

REVISION	DATE	DESCRIPTION
1.0	Nov-2019	Initial Released

Contact Information

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