

# How to use the TPS6286x0 GUI

# Requirements

- Power supply capable of supplying 5.5V with current capability of 3.0A.
- TPS6286x0EVM-109 board
- PC with USB port to run the software interface and to communicate with the EVM.
- USB2ANY Interface Adapter is needed to link the PC and the EVM. Download and install the USB2ANY Explorer Software. <http://www.ti.com/tool/USB2ANY#technicaldocuments>
- TPS6286x0 GUI to assist in evaluating the EVM.
  - Download and install the software on the PC:  
<https://dev.ti.com/gallery/info/TPS6286x/TPS6286x0/ver/1.0.0/>
    - Available platform to download:
      - Windows
      - Linux 64bits
      - Mac
  - Web-based GUI (no installation needed) is also available in:  
<https://dev.ti.com/gallery/view/TPS6286x/TPS6286x0/ver/1.0.0/>

# Hardware setup: USB2Any sanity check

- Connect USB2Any to PC (thru USB)



- Open the USB2Any Explorer
  - The GUI should show that USB2Any is connected to the computer (see fig. 1)
    - USB2Any LED should be ON permanently
  - If you receive a similar error as shown in fig. 2, then follow the instructions in the \*.docx file.
- Close the USB2Any Explorer
  - USB2Any LED will be continuously blinking

- Fig. 1

Activity Log:

Timestamp	Module	R/W	Addr	Len	Data/Message
2020-01-31 11:33:45.935	INFO	---	---	---	Debug logging is Disabled
2020-01-31 11:33:45.940	INFO	---	---	---	Packet logging is Disabled
2020-01-31 11:33:45.941	INFO	---	---	---	Activity logging is Enabled
2020-01-31 11:33:46.433	INFO	---	---	---	Target Power: 3.3v is OFF, 5.0v is OFF, Adj is OFF
2020-01-31 11:33:46.498	INFO	---	---	---	Found 1 USB2ANY controller.
2020-01-31 11:33:46.550	INFO	---	---	---	Opened USB2ANY S/N F47E1B511C00 ID00 successfully!
2020-01-31 11:33:46.556	INFO	---	---	---	Firmware Version: 2.8.2.0
2020-01-31 11:33:46.578	INFO	---	---	---	Enabled EVM Detect interrupt handler

- Fig. 2:



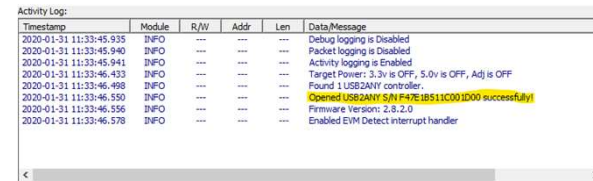
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- Fig. 2:



**\*In case of error on USB2ANY, follow the instruction in the \*.doc file**



Microsoft Word  
Document

# GUI setup

- Download the file and unzip it to your computer.
- Click the file and follow the setup process. GUI will automatically open after installation.
- Alternatively, GUI is also accessible via web link.
  - Download and install the software on the PC:  
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  - Available platform to download:
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# Hardware setup: USB2Any to EVM

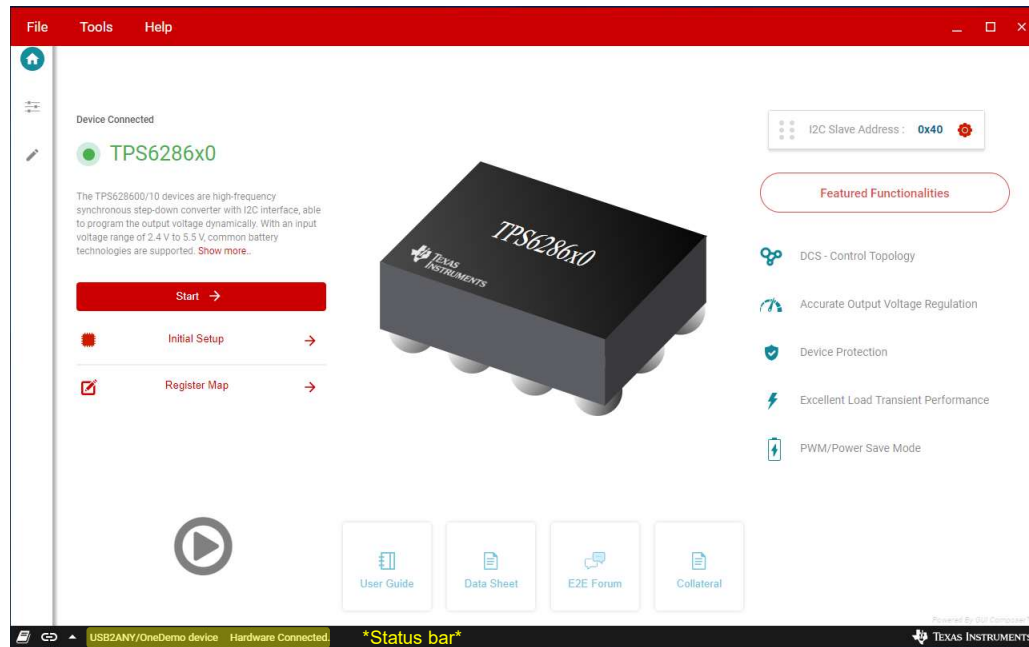
- Link the TPS6286x0EVM-109 board via J3 header to the USB2ANY adapter (via J4) using the supplied 10-pin ribbon cable.



- Placed the shunts on the board across:
  - ON and EN pins (JP1)
  - For  $V_{out} = 1.1V$  → VSEL and HIGH pins (JP2)
  - For  $V_{out} = 0.6V$  → VSEL and LOW pins (JP2)
- Connect the power supply to the VIN of the board via J1 header. The supply voltage setting should be between 1.8V to 5.5V with at least 3A of current.
- Power-up the EVM. Check if the output voltage is regulating properly.
- Open the TPS6286x0 GUI

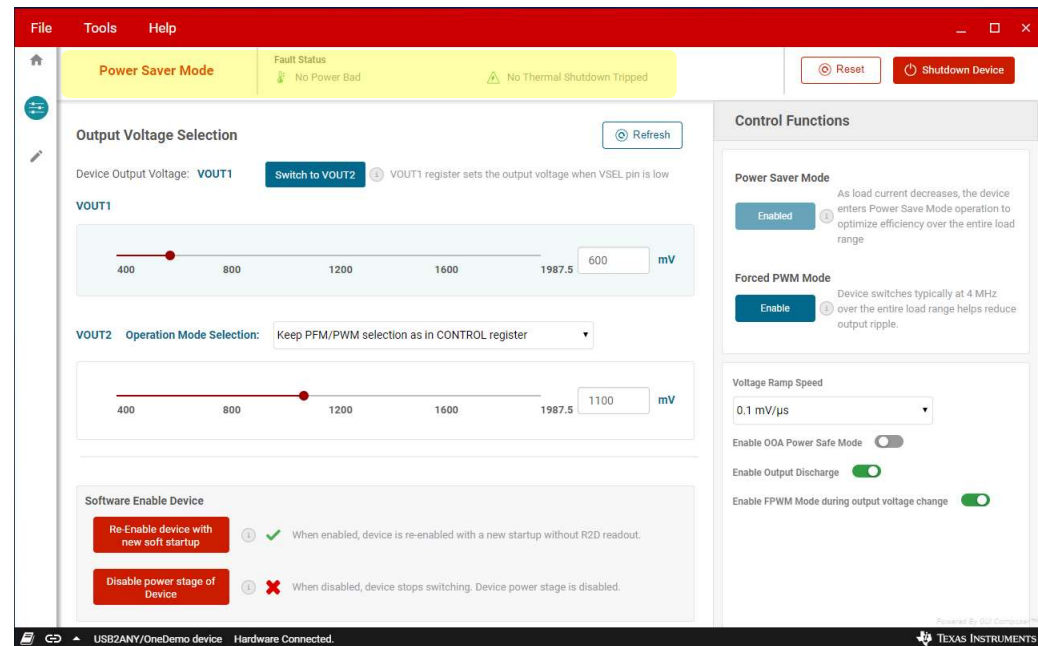
# TPS6286x0 GUI: Home page

- After launching the GUI, it should automatically connect to the TPS6286x0 IC.
- If the communication was established, "Hardware Connected" will appear in the status bar.
- Click the "Start" button to jump to the Setting page. The VOUT Register 1 and 2, Control and Status registers are presented in a user-friendly manner.



# TPS6286x GUI: Setting page

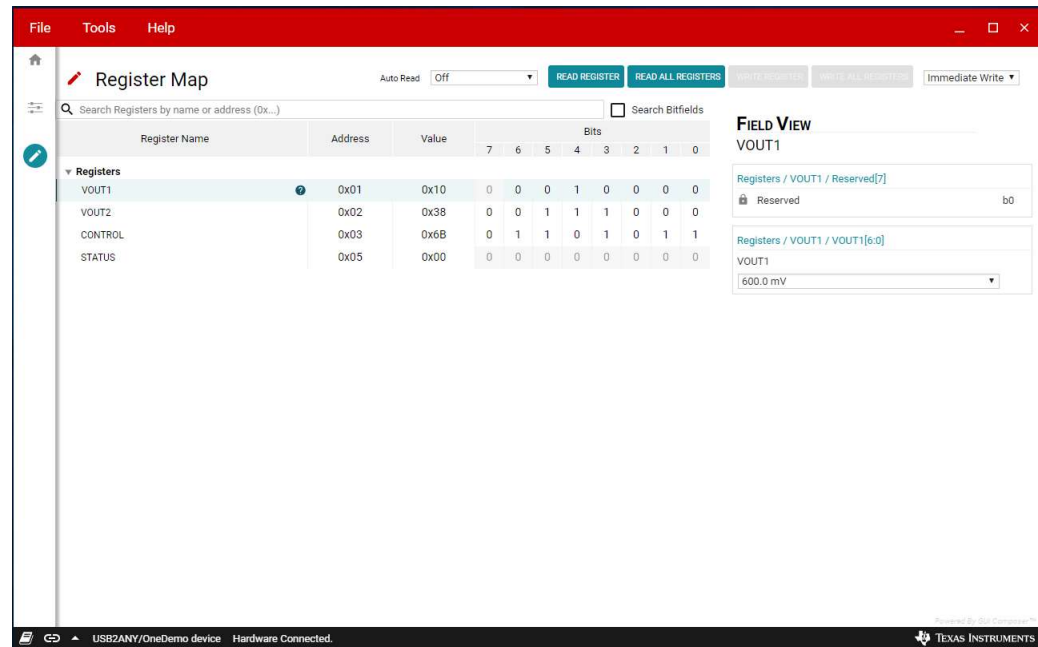
- In the upper left most portion of the page, the device status is shown. In case of a fault condition, the indicator will turn red. After removing the fault condition, click the “Clear” button to refresh the status.
- VOUT1 and VOUT2 level can be adjusted by either entering the value in the box or using the slider button.
- To change the Control Functions, click the corresponding button or the dropdown menu. Refer to the Control Register in the datasheet for details.
- Before clicking the “Reset” or “Shutdown Device” button, always place the jumper (JP2) across either VSEL-HIGH or VSEL-LOW pins.






# TPS6286x GUI: Register page

- To select a different timing option on reading the register/s, click the dropdown menu beside “Auto read”.
- To change a register bit, click the name below the “Register Name” column. Then change the bit using the following two options: 1) change the value in the “Bits” column by clicking the specific bit/s, or 2) modify the options below the “Field View” control box.
- There are two options on how to reflect the change in the register bit, either select “Immediate Write” or “Differed Write” in the dropdown menu. If “Differed Write” is selected, you need to click either “Write Register” or “Write All Registers” to execute the changes.

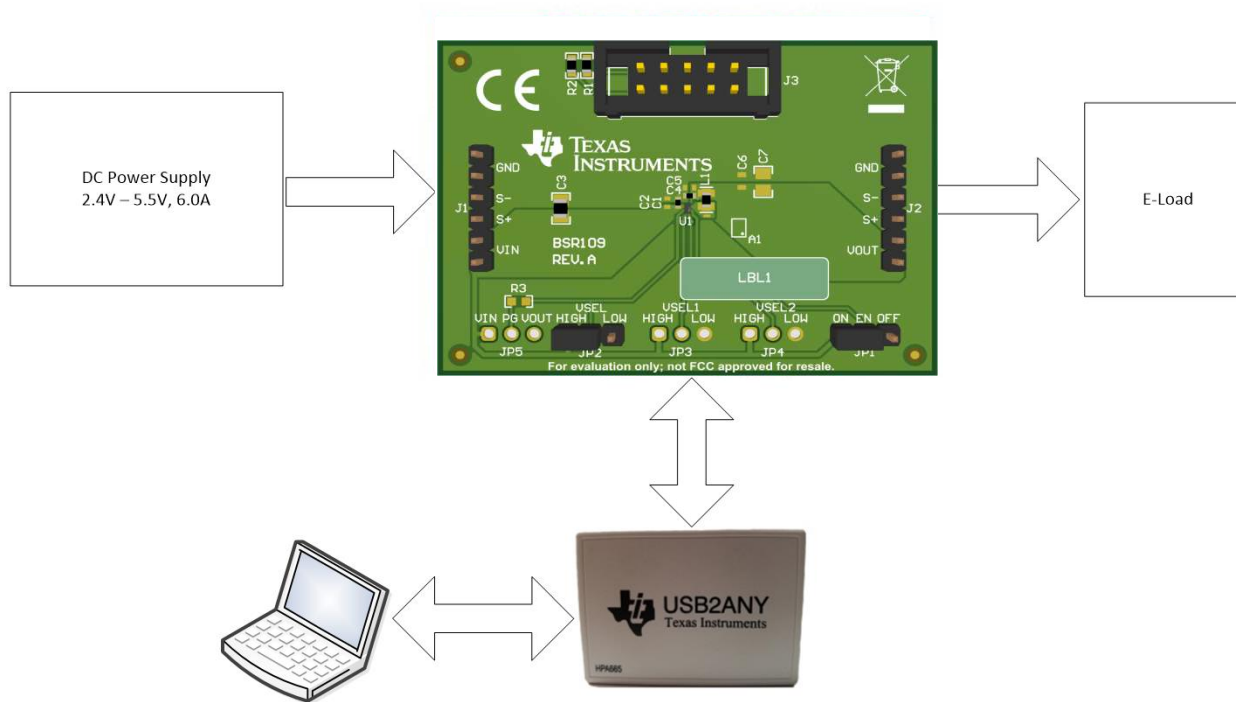


# TPS6286X GUI

Note:

1. In case the IC does not interact from the GUI command, check the status bar if it indicates that the hardware is not connected. Click the button (  ) in the status bar to re-establish the connection.
2. If the issue still persist, close the GUI then open it again while the board is operating.

# Full Hardware Connection Diagram



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