IQS625 GUI User Guide

1 Introduction

The following document serves as a user guide for the IQS625 GUI. An overview of the GUI is given followed by a detailed description of each aspect of the GUI.

2 Overview

Figure 1 shows an overview of the IQS625 GUI. Each aspect is numbered and discussed in this document.

Figure 1: Overview of the Generic GUI

A. IC Name	G. Data Logging
B. Configuration Tool Connection Status	H. Write/Read Settings from IC
C. Start/Stop Streaming	I. Register Settings Tree
D. Configuration Tool Settings	J. IC Channel Data
E. Information Log	K. IQS625 Specific Data
F. Import/Export H-file	L. Device Specific Events

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3   Configuration Tool Connection Status

Please check that the Configuration Tool is connected when opening the GUI as shown in Figure 2.

Figure 2: Configuration Tool Connection Status

4   Start/Stop Streaming

	By selecting the **START STREAMING** button, the CT tool will supply power to the connected IC and stream relevant data via I2C to the GUI.
	By selecting the **STOP STREAMING** button, the CT tool will disable power to the connected IC and stop streaming relevant data to the GUI.
	By deselecting the **"Set Power with Start/Stop Streaming"** checkbox, power can be supplied to the connected IC without streaming data.

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5   Configuration Tool Settings

Configuration Tool Settings can be changed by expanding the CT Settings Window as shown in Figure 3 . These settings can only be updated when the device is not streaming data. Therefore, click on **STOP STREAMING** before updating these settings.
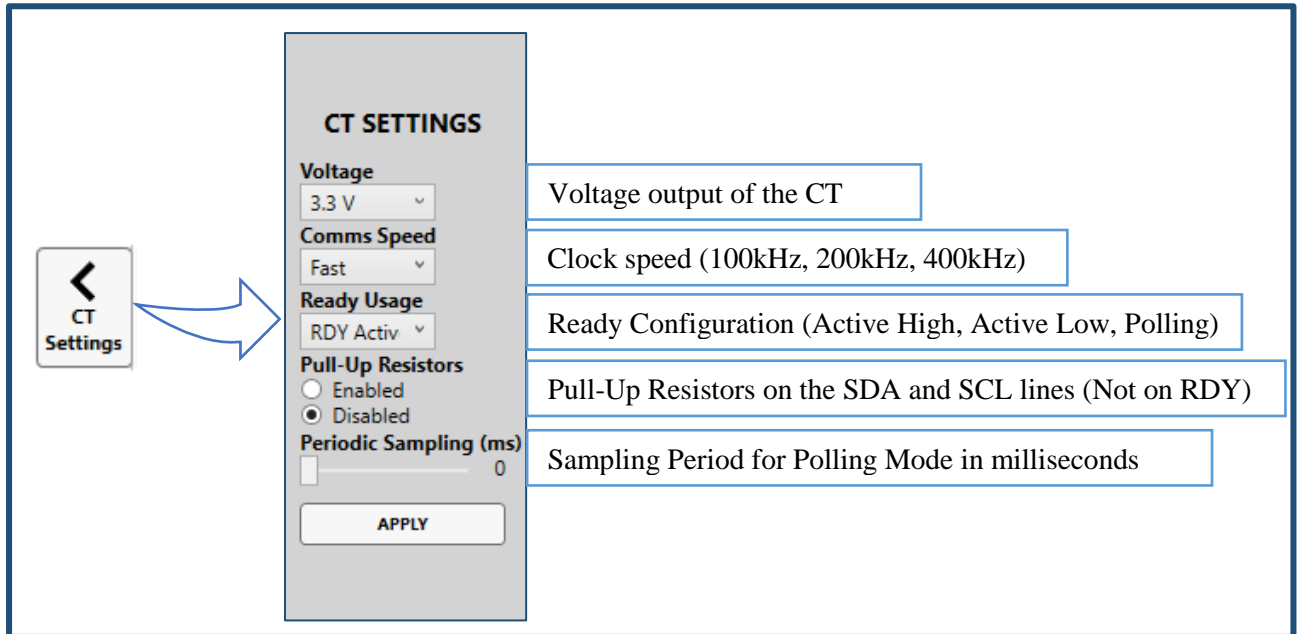

Figure 3: Configuration Tool Settings

6   Information Log

The information log displays relevant information for the IQS625 device as shown in Figure 4. The information log can be used to debug the device.
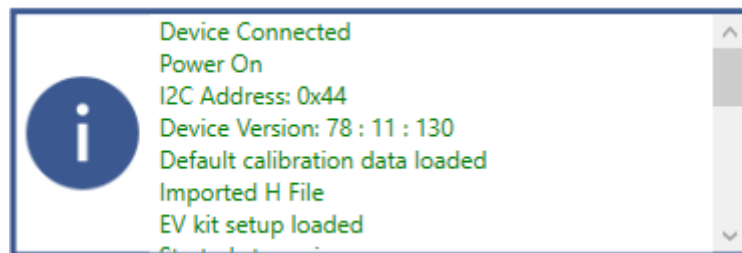

Figure 4: Information Log

7   Import/Export H-file

An h-file which was generated with the GUI can be imported to recover saved settings for a specific project. By exporting an h-file all the settings currently on the device will be saved in an h-file. This h-file can be implemented on an MCU or can be imported in the GUI.

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8   Data Logging

Data can be saved to a .txt file for further evaluation. Selecting the checkboxes in Figure 5 will only log the checked data. Click on START LOGGING to generate a .txt file with relevant data.
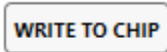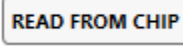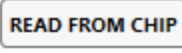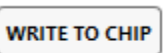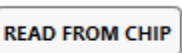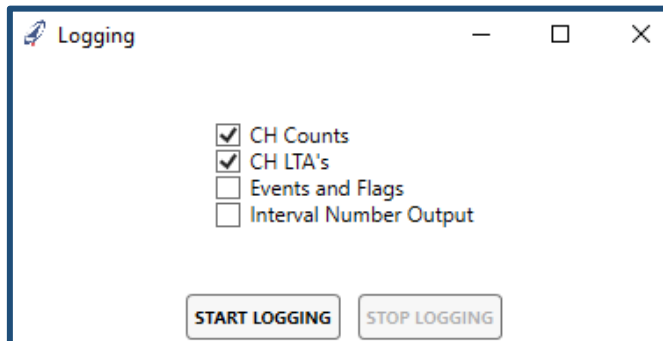

Figure 5: Data Logging

9   Write/Read Settings from IC

WRITE TO CHIP	This button writes settings from the settings tree to the IC registers via I2C.
READ FROM CHIP	This button reads settings from the IC registers to the settings tree via I2C.
WRITE TO CHIP READ FROM CHIP **No Changes To Write**	All the settings have been written to the IC and there are no changes in the settings tree.
WRITE TO CHIP READ FROM CHIP **Changes Made**	Changes have been detected in the settings tree and the **WRITE TO CHIP** button should be clicked to apply settings.

10 Register Settings Tree

Register values can be changed in the Register Settings Tree. Each item in the tree represents a register in the datasheet. For example, Ch0&1 ProxFusion Settings 1 from the GUI and from the IQS625 datasheet is shown in Figure 6. Each of the bits are represented in the GUI and can easily be found in the datasheet of the IQS625.
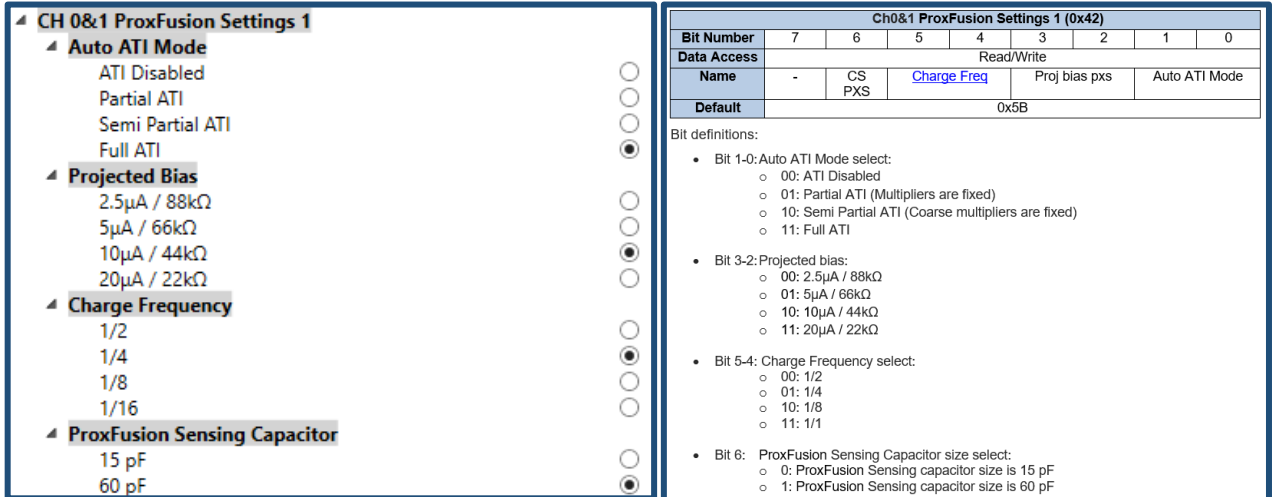
Figure 6: Register Settings Tree

11 IC Channel Data

The Channel Data can be viewed either as a Bar Chart (Figure 7) or Scope view (Figure 8). The button in the lower left corner toggles between Bar Chart and Scope view.
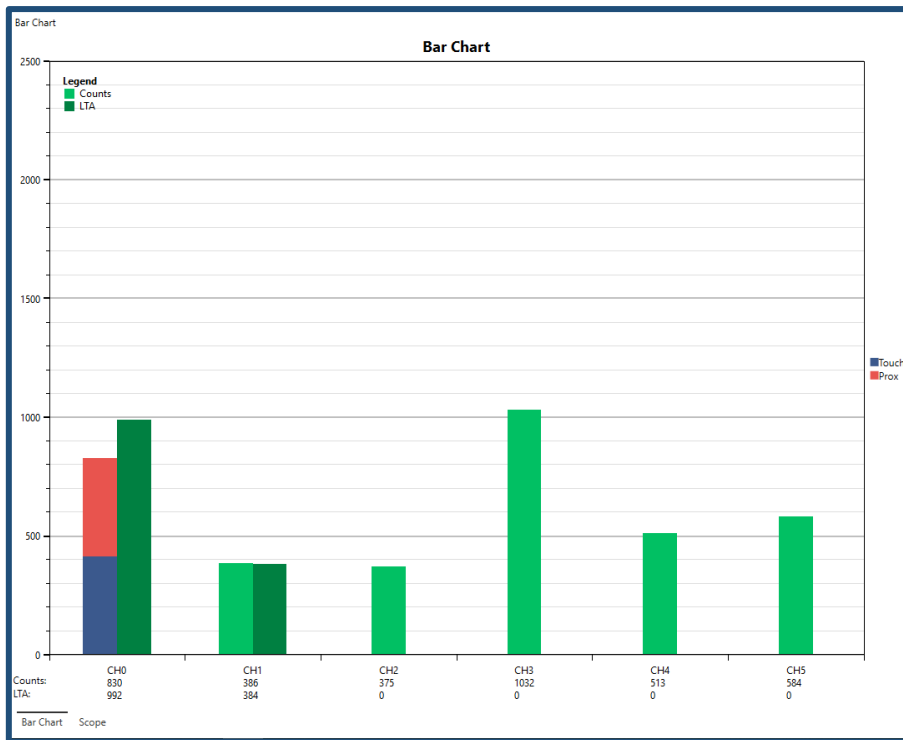

Figure 7: Bar Chart

The Bar Chart displays the counts and LTA values of each channel. A prox is indicated on the graph with red and a touch is indicated with blue. The y-axis can be zoomed by using the scroll-wheel and panned by clicking and holding the right mouse button on the chart.
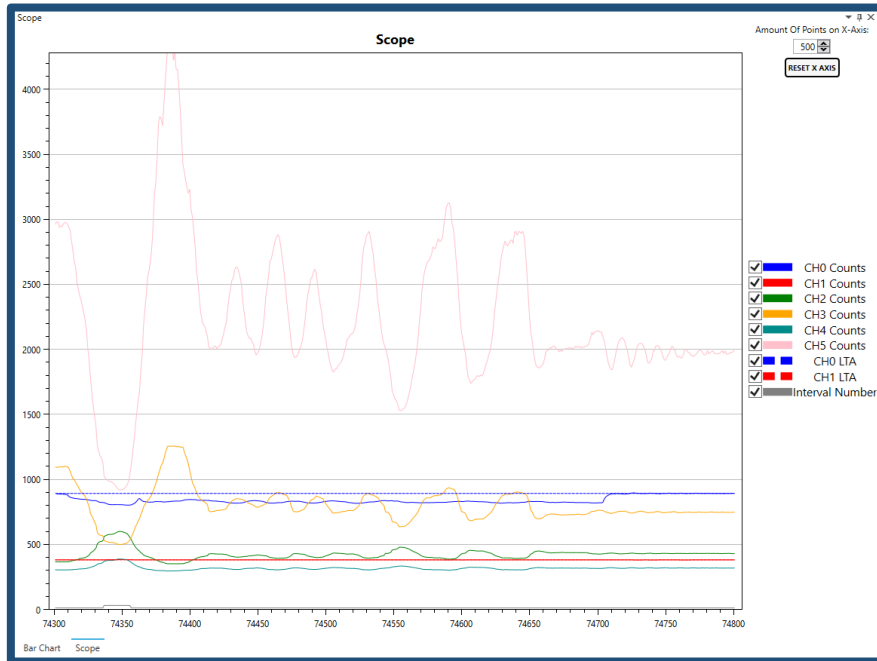
Figure 8: Scope View

The legend on the right side of the Scope view is used to display data on the graph. Relevant data sources can be selected from the checkboxes. The y-axis can be zoomed by using the scroll-wheel and panned by clicking and holding the right mouse button on the chart. The time axis (x-axis) can be increased by increasing the "Amount of Points in X-Axis" in the top right corner of the screen. After zooming the X-axis should be resetted by clicking "RESET X-AXIS".

12 IQS625 Specific Data

The block on the right-hand side of the GUI displays device relevant data as shown in Figure 9. These settings and data are relevant to the IQS625.
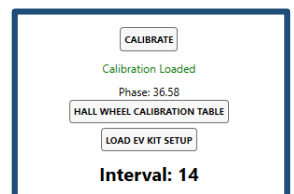
13 Device Specific Events

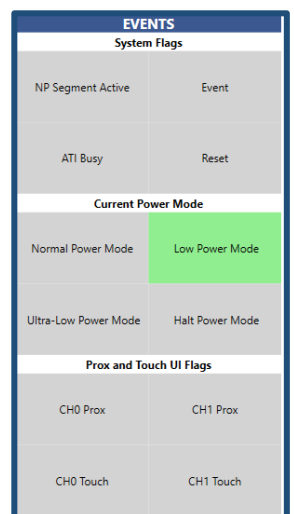Once the event is triggered it will turn green until released. These events correlate with the events explained in the events register of the IQS625 datasheet.

Figure 9: Device Specific Data