



IQS7222_EV02C USER GUIDE

IQ Switch® - ProxFusion® Series

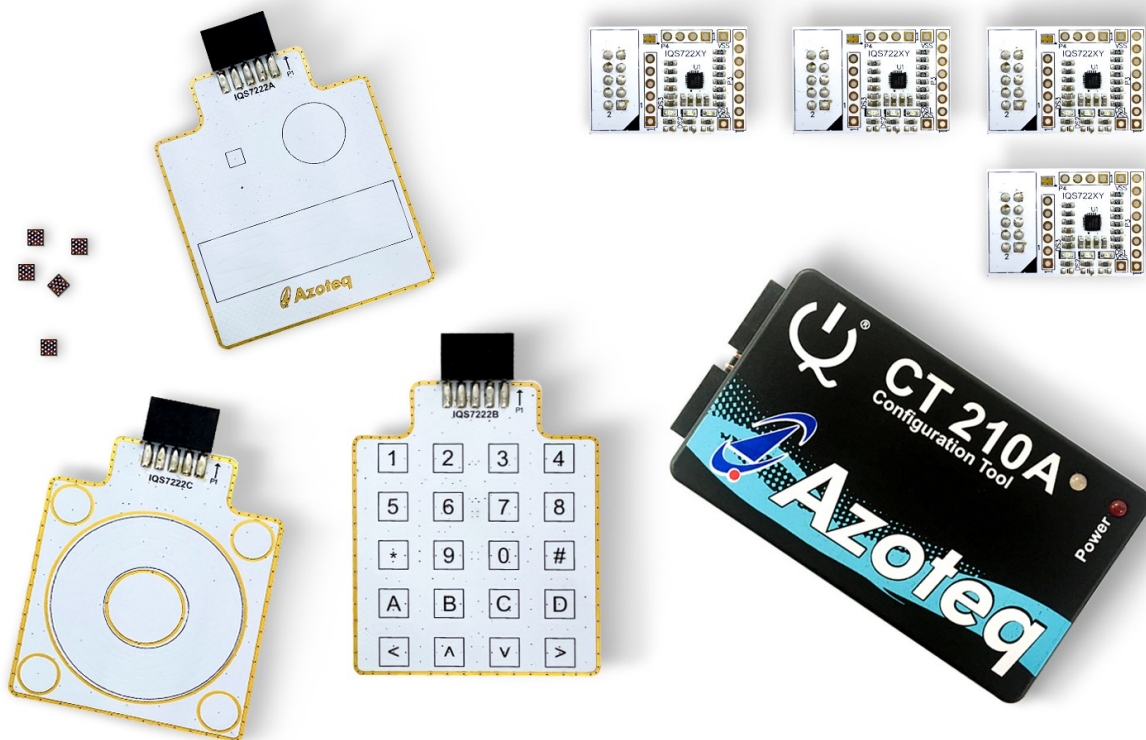




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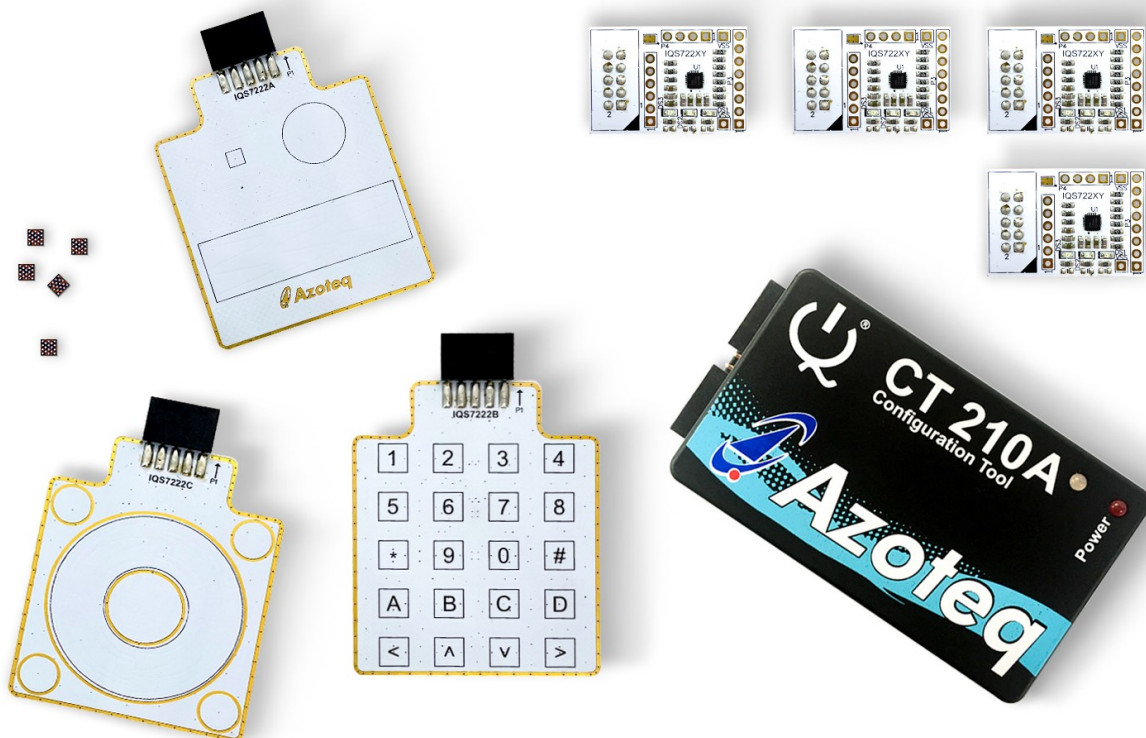


1 Introduction

This user guide describes the operation of the IQS7222_EV02C Evaluation Kit. The EV-Kit consists of eight parts:

- IQS7222A Inductive Coil & Slider x 1
- IQS7222B Twenty Button x 1
- IQS7222C Buttoned Wheel x 1
- CT210A x 1
- IQS7222A Stamp x 1
- IQS7222B Stamp x 1
- IQS7222C Stamp x 1
- IQS7222D Stamp x 1
- IQS722XY IC x 5

To visualise raw data from the EV-Kit, the module board can be interfaced to any personal computer with USB support, along with the CT210A and the relevant IQS7222A/B/C software Graphical User Interface (GUI) available to download from the Azoteq website. The purpose of the IQS7222_EV02C EV-Kit is to help application and development engineers in evaluating these IC's capabilities. A picture of the evaluation kit is shown below.





2 Stamps

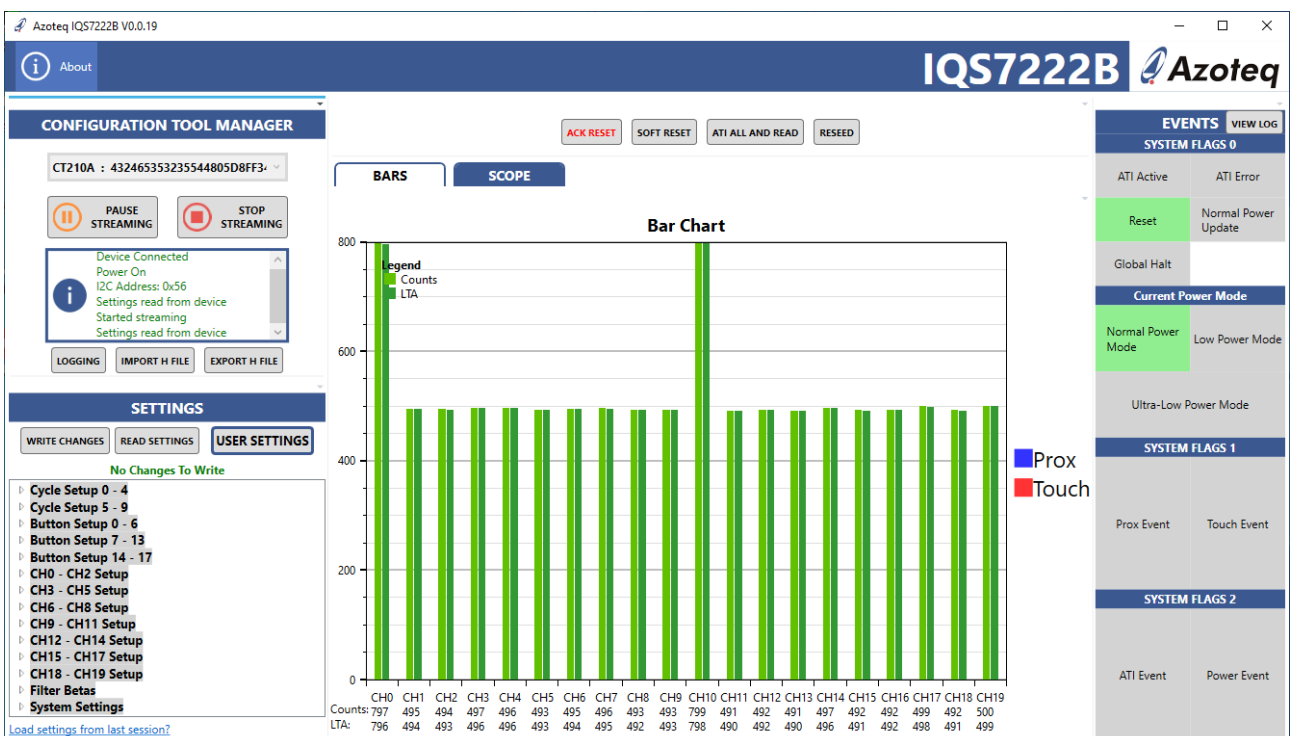
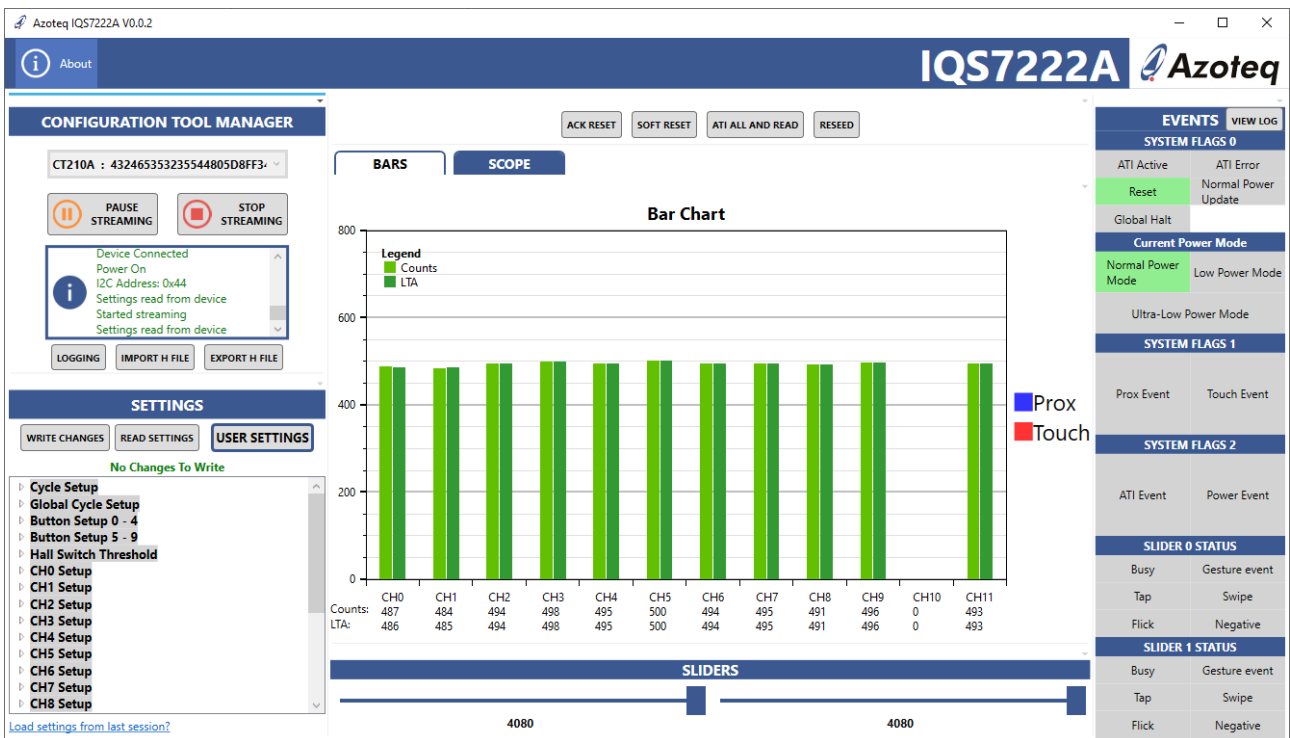
To interface the IQS7222A/B/C/D Stamp to a PC we advise using the CT210A. This EV Kit can be setup with the following steps:

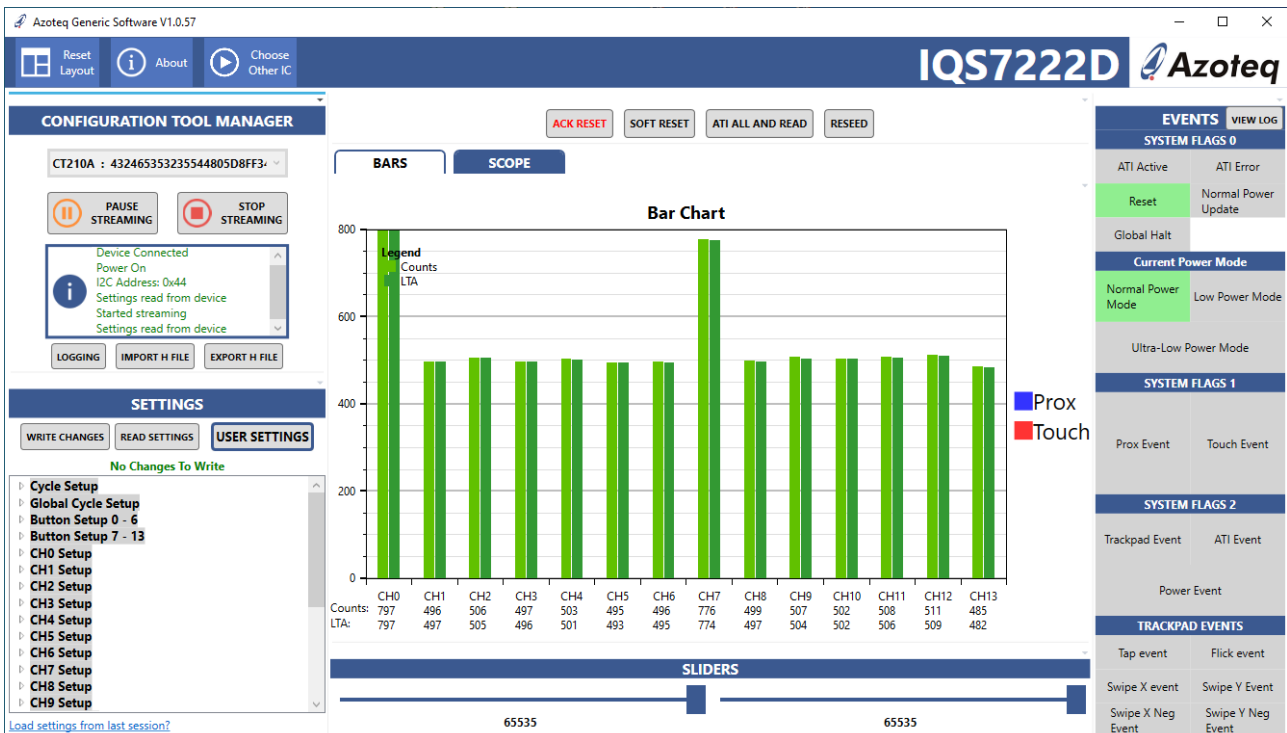
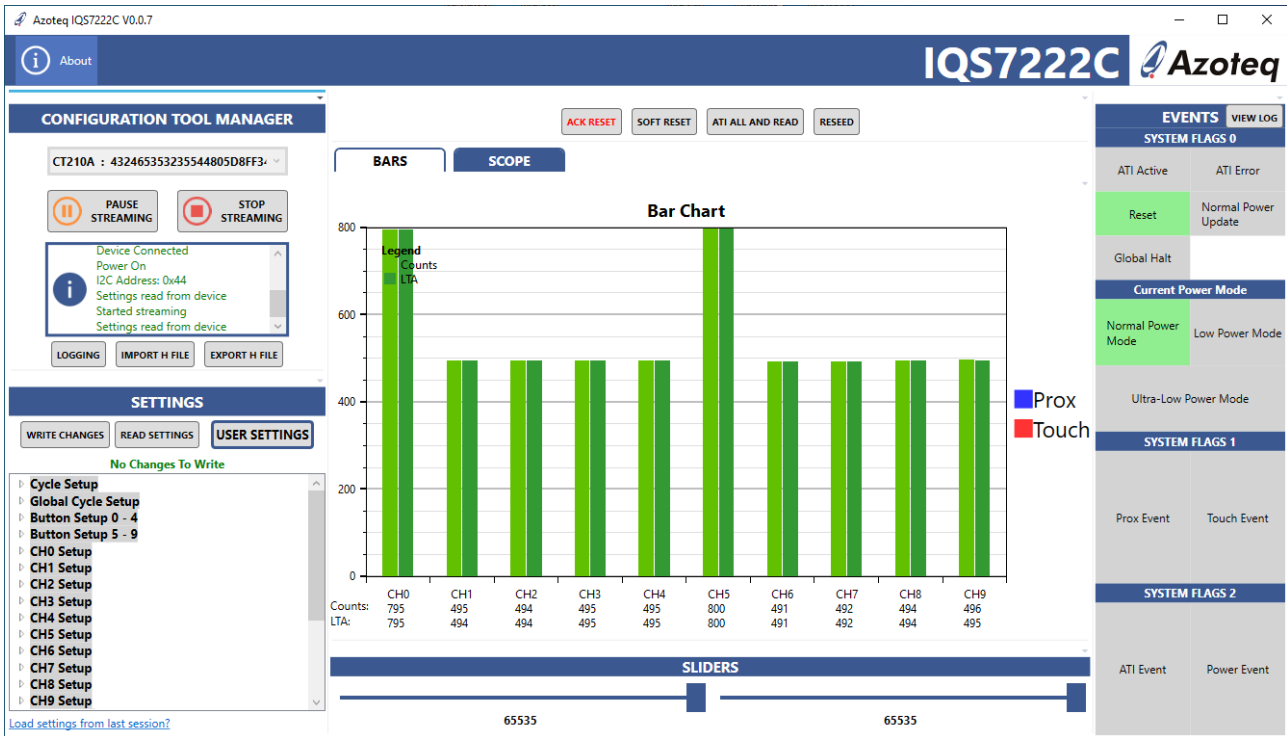
- Download & Install GUI from Azoteq website
- Plug the stamp board into the CT210A as shown below





- Connect the CT210A to the PC with a USB cable (use USB data cable only)
- Run the IQS7222A/B/C/D GUI (latest version available from the www.azoteq.com website)
- Click “Start Streaming” button
- GUI should look as follow.





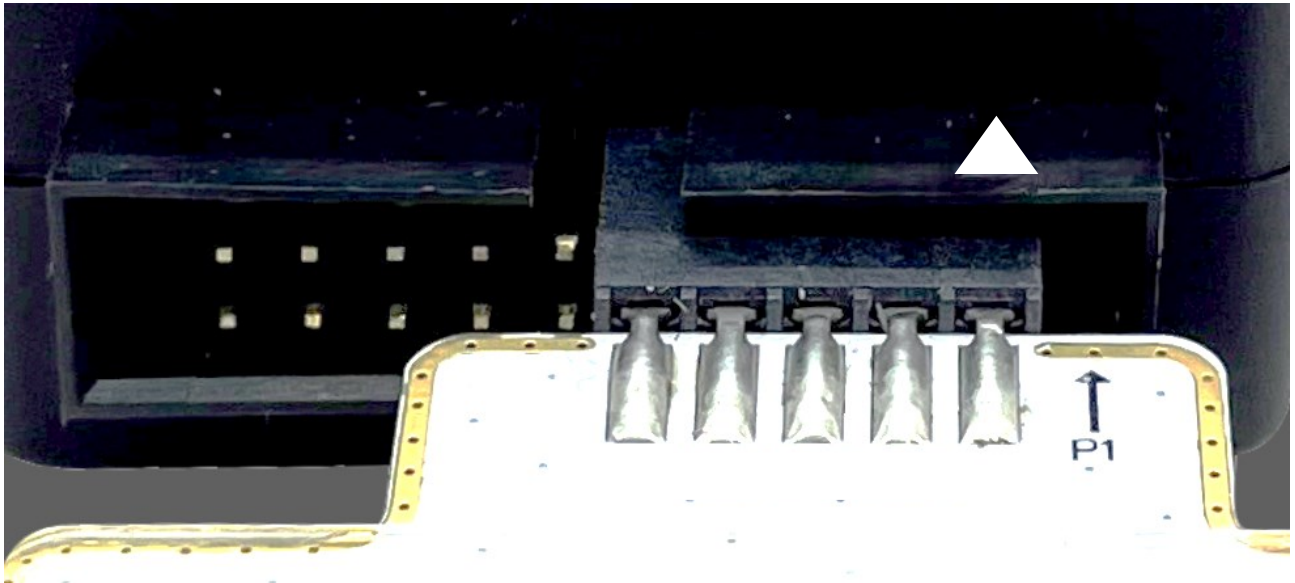


3 Module Careful Consideration

Please note following picture when IQS7222A/B/C modules are plugged into the CT210A.

Take care in ensuring pin alignment is correct as shown in picture below.

The pin on the right must line up directly below the black triangle (shown below as white triangle to clearly indicate) on the CT210A.

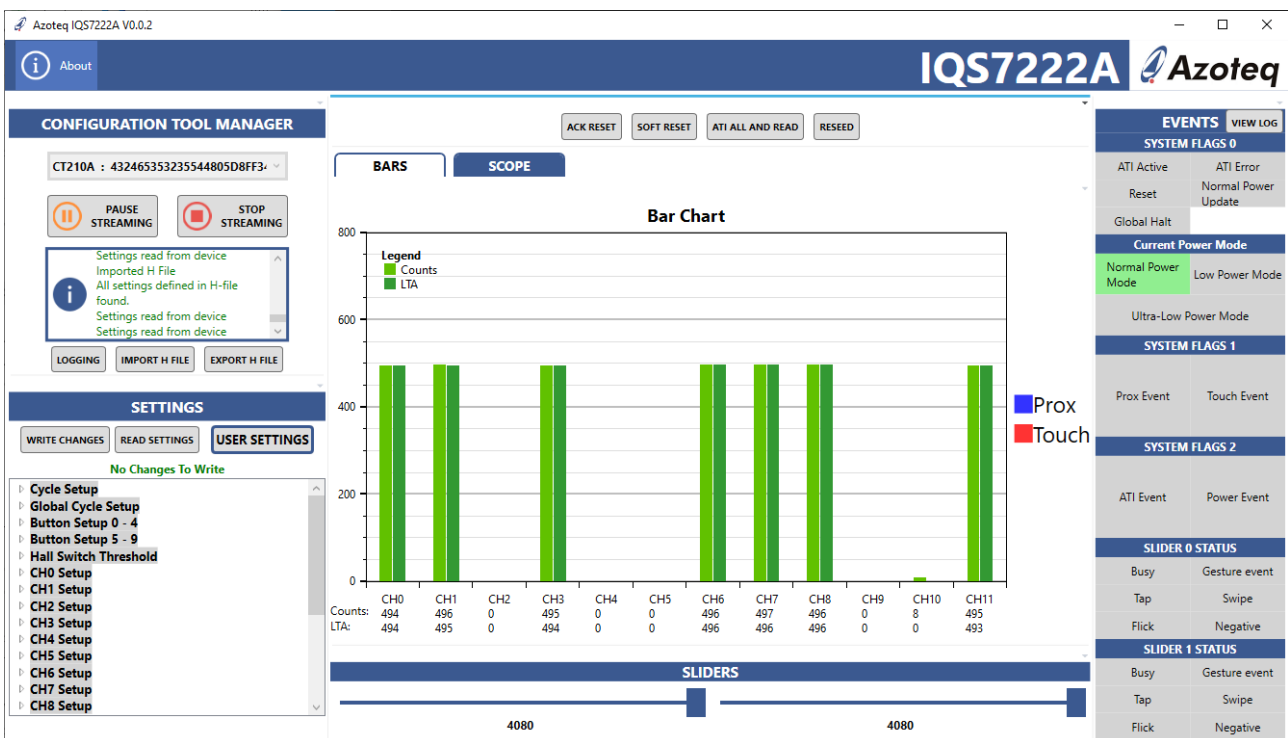




4 Setting up for the IQS7222A Inductive Coil & Slider

To interface the IQS7222A module to a PC we advise using the CT210A. This EV Kit can be setup with the following steps:

- Download GUI and Header files from Azoteq website
 - azoteq_iqs7222a_setup.zip
 - iqs7222a_header_files.zip
- Install GUI on PC
- Unzip iqs7222a_header_files.zip file to obtain header files
- Plug the Module into the CT210A (Please ensure pin 1 from module line-up with black triangle as shown earlier)
- Connect the CT210A to the PC with a USB cable (use USB data cable only)
- Run the IQS7222A GUI (latest version available from the www.azoteq.com website)
- Click “Start Streaming” button
- Click “IMPORT H FILE”
- Browse to “IQS7222A_Inductive_Coil_and_Slider.h” file and click Open
- Click “ACK RESET”
- Click “ATI ALL AND READ”
- GUI should look as follow.



Small Rectangular Coil is represented by CH0

Big Circular Coil is represented by CH7

4 Channel Slider on Module is represented by CH1, CH3, CH6 and CH8

Magnet placement is represented by CH10 and CH11

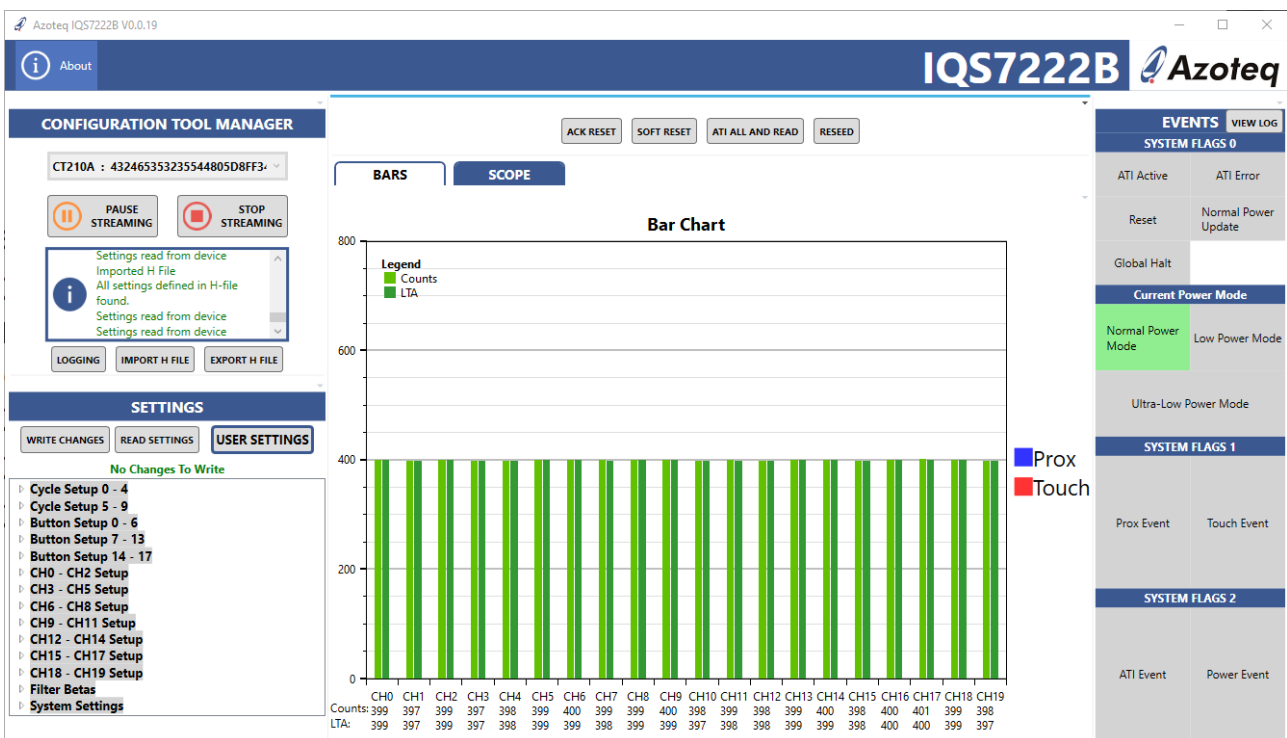
Use the included Perspex with conductive tape on to place on Coil.



5 Setting up for the IQS7222B Twenty Button

To interface the IQS7222B Stamp to a PC we advise using the CT210A. This EV Kit can be setup with the following steps:

- Download GUI and Header files from Azoteq website
 - azoteq_iqs7222b_setup.zip
 - iqs7222b_header_files.zip
- Install GUI on PC
- Unzip iqs7222b_header_files.zip file to obtain header files
- Plug the Module into the CT210A (Please ensure pin 1 from module line-up with black triangle as shown earlier)
- Connect the CT210A to the PC with a USB cable (use USB data cable only)
- Run the IQS7222B GUI (latest version available from the www.azoteq.com website)
- Click “Start Streaming” button
- Click “IMPORT H FILE”
- Browse to “IQS7222B_20_Button.h” file and click Open
- Click “ACK RESET”
- Click “ATI ALL AND READ”
- GUI should look as follow.



The buttons on the module match up to the CH number in the GUI via the following table:

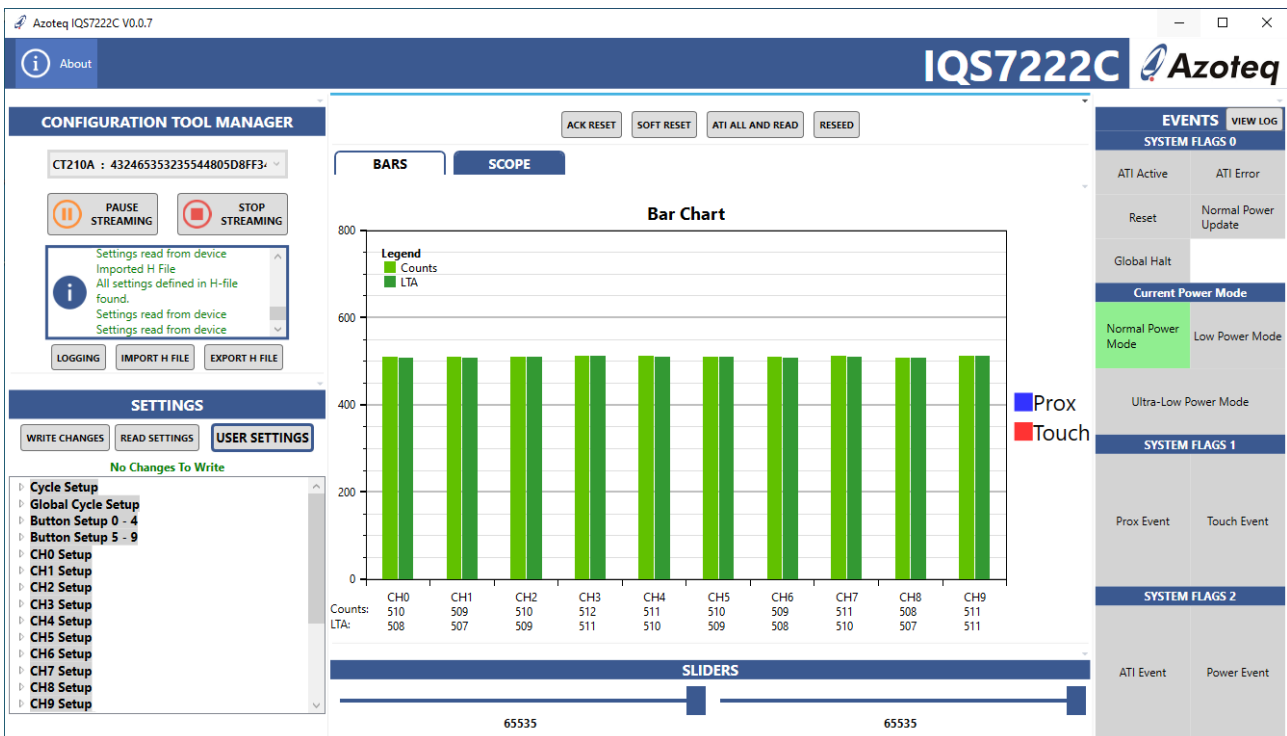
Module	1	2	3	4	5	6	7	8	*	9	0	#	A	B	C	D	<	^	v	>
GUI	17	12	7	2	19	14	9	4	16	11	6	1	18	13	8	3	15	10	5	0



6 Setting up for the IQS7222C Buttoned Wheel

To interface the IQS7222C Stamp to a PC we advise using the CT210A. This EV Kit can be setup with the following steps:

- Download GUI and Header files from Azoteq website
 - azoteq_iqs7222c_setup.zip
 - iqs7222c_header_files.zip
- Install GUI on PC
- Unzip iqs7222c_header_files.zip file to obtain header files
- Plug the Module into the CT210A (Please ensure pin 1 from module line-up with black triangle as shown earlier)
- Connect the CT210A to the PC with a USB cable (use USB data cable only)
- Run the IQS7222C GUI (latest version available from the www.azoteq.com website)
- Click “Start Streaming” button
- Click “IMPORT H FILE”
- Browse to “IQS7222C_Buttoned_Wheel.h” file and click Open
- Click “ACK RESET”
- Click “ATI ALL AND READ”
- GUI should look as follow.



The buttons on the module match up to the CH number in the GUI via the following table

Module	Button Top Left	Button Top Right	Button Bottom Left	Button Bottom Right	Wheel/Slider
GUI	CH7	CH8	CH6	CH9	CH0,1,2,3,4



7 Reference Designs

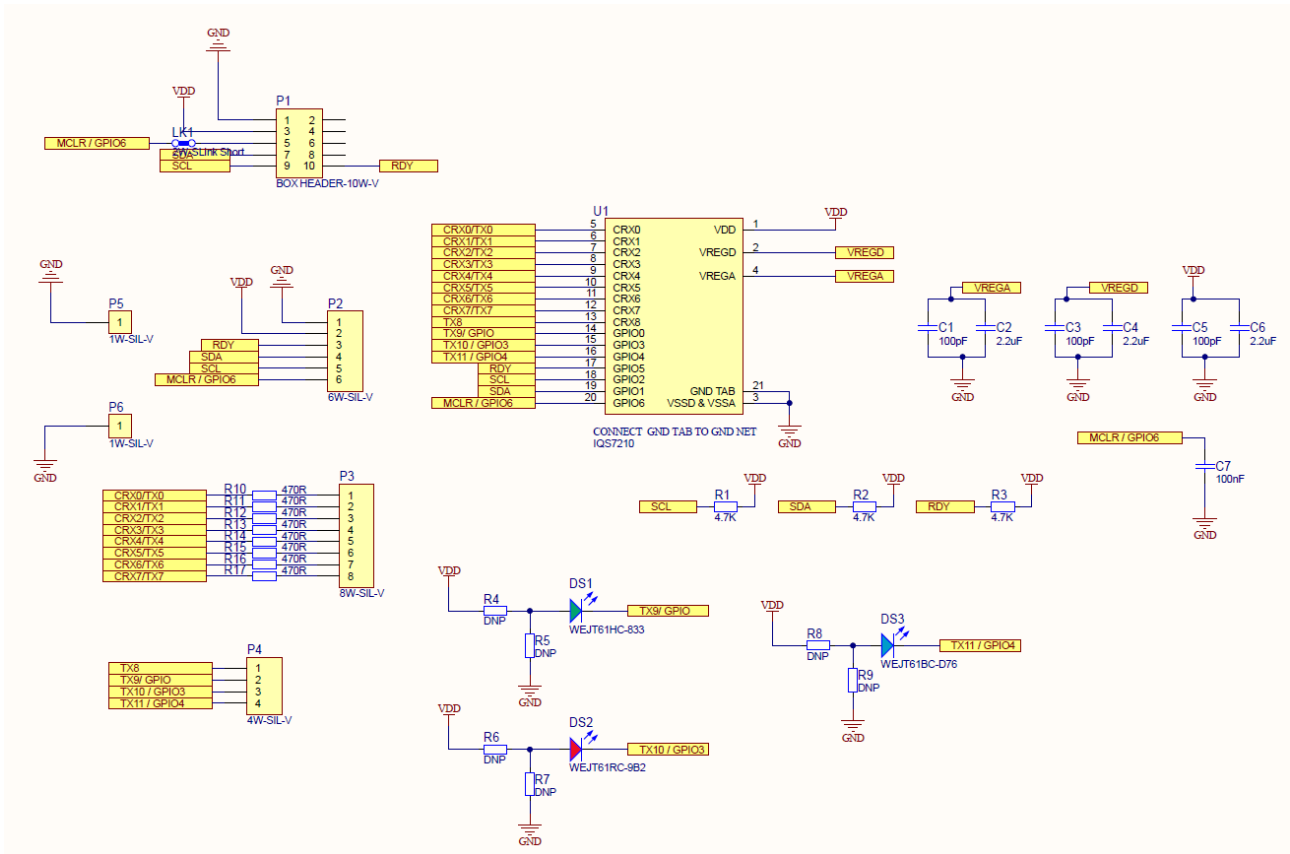


Figure 7-1 IQS7222A/B/C/D QFN20 Stamp Layout

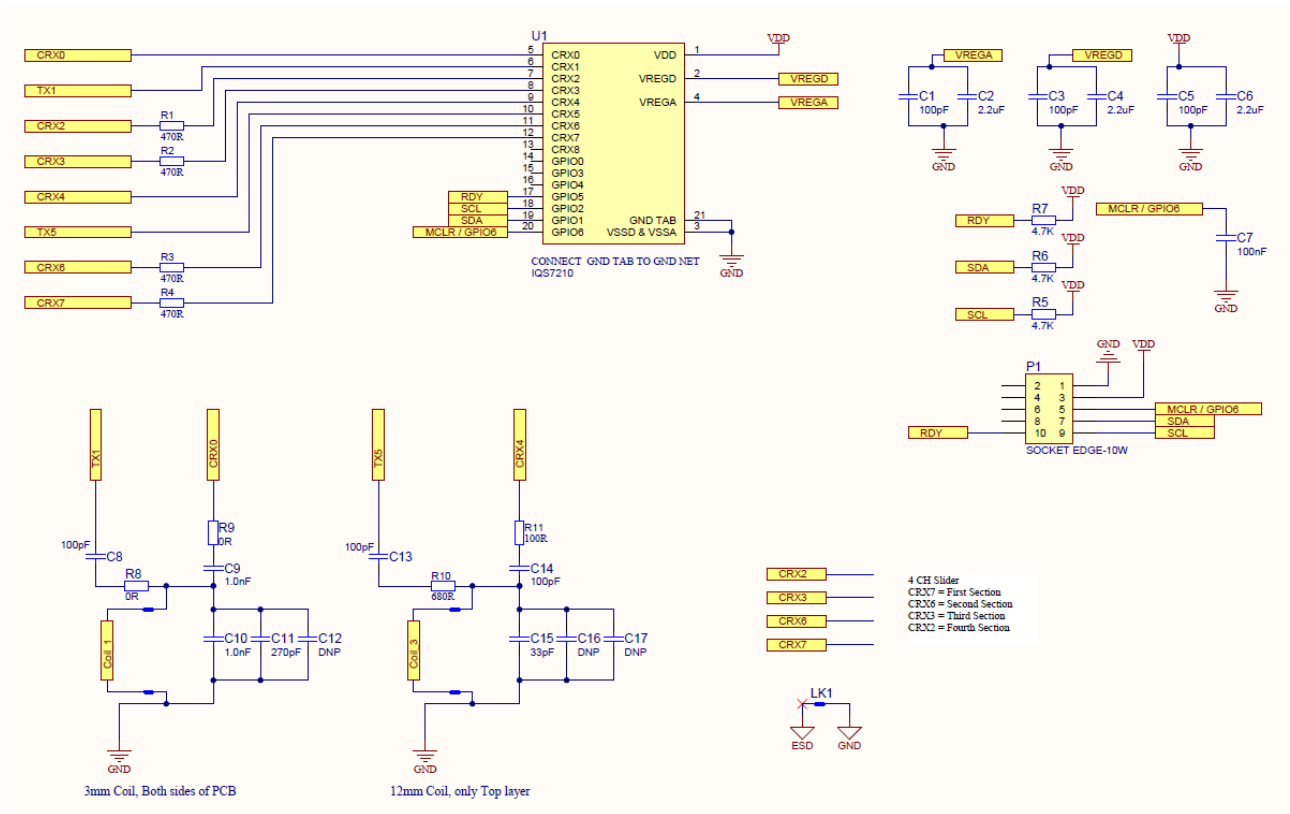


Figure 2 Inductive Coil & Slider

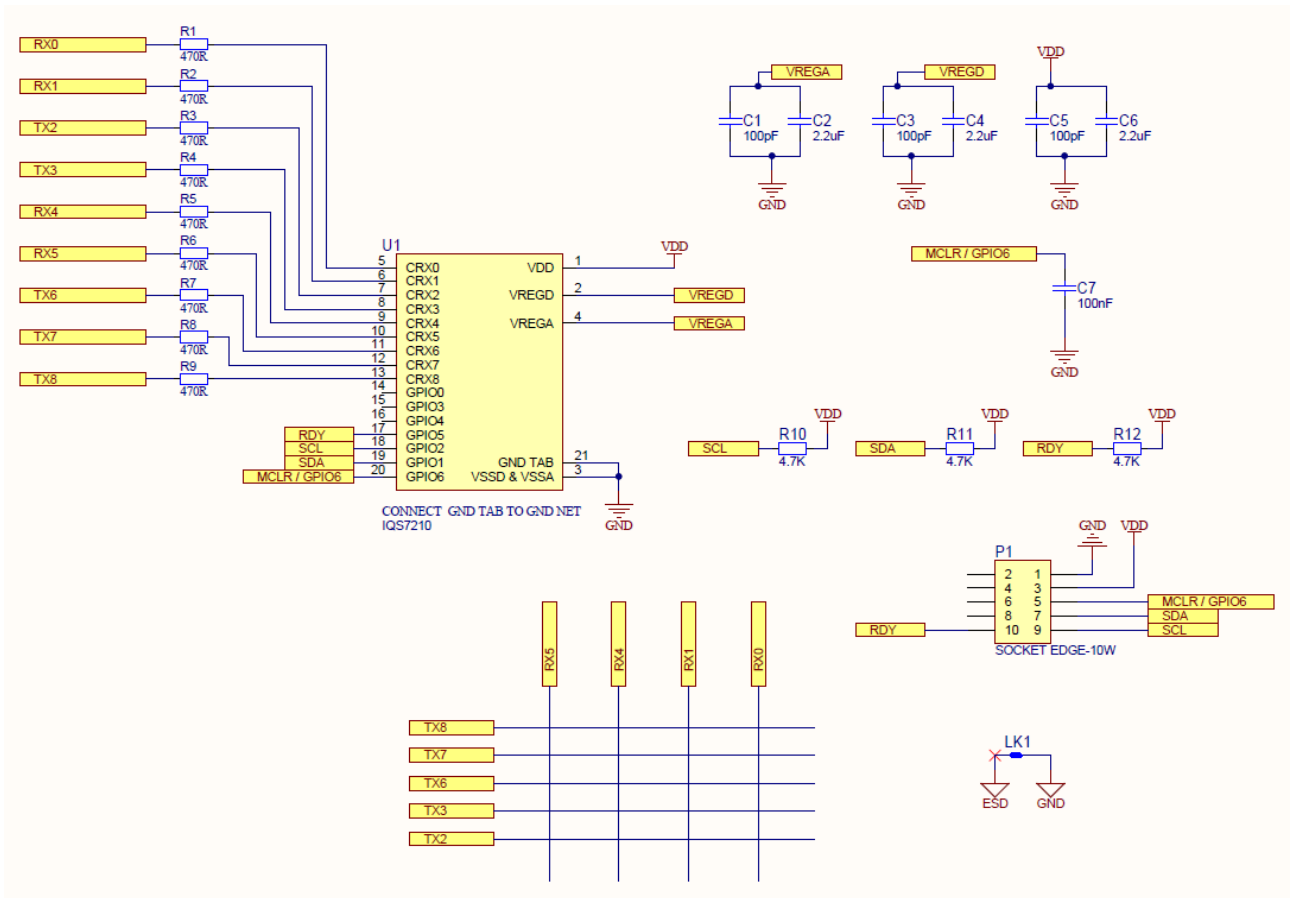


Figure 3 Twenty Button

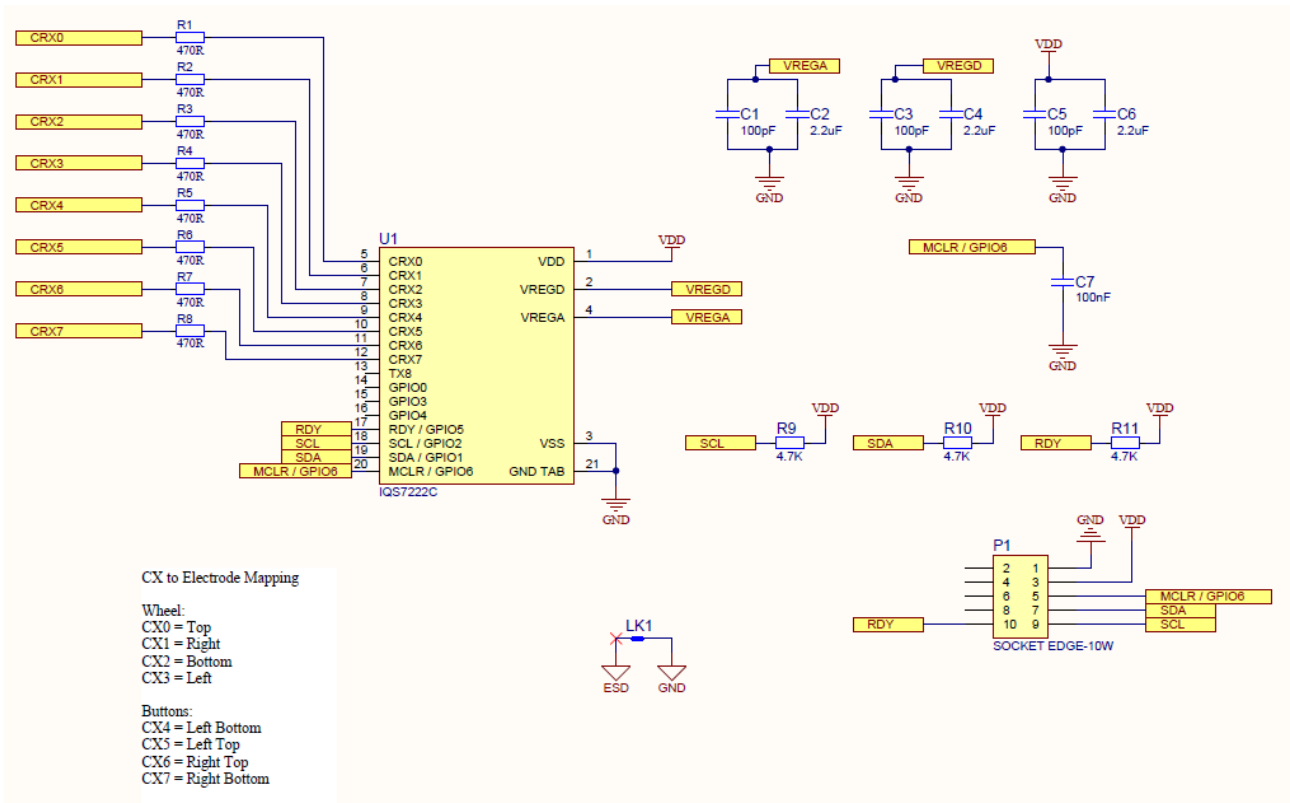


Figure 4 Buttoned Wheel