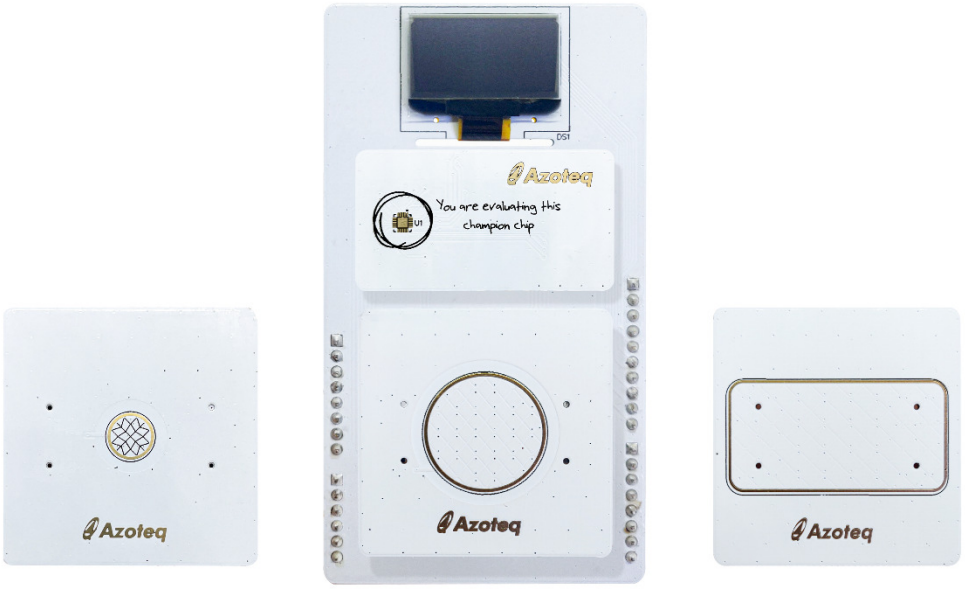
IQS7211A EV-kit User Guide

User guide for IQS7211A Evaluation kit



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1 Introduction

This user guide describes the operation of the IQS7211A Evaluation Kit. The EV-Kit consists of 5 parts:

1. Stamp board
2. Connector board
3. Base board
4. Rectangle trackpad
5. Circle trackpad
6. Flower trackpad

To visualize raw data from the EV-Kit, the stamp board can be interfaced to any personal computer with USB support, and IQS7211A software Graphical User Interface (GUI). The purpose of the IQS7211A EV-Kit is to help application and development engineers in evaluating the IQS7211A's capabilities.

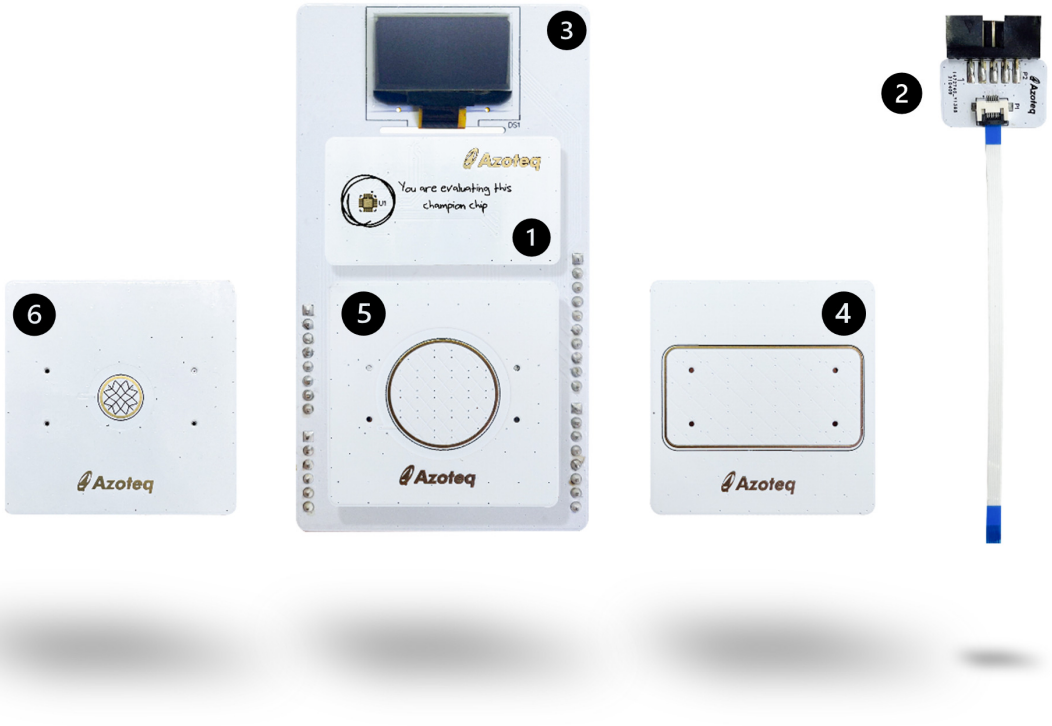

Figure 1.1: EV-kit Representation

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2 Setting up the IQS7211A EV-kit

To interface the IQS7211A Evaluation Kit to a PC we advise using the CT210A (CT210A is sold with EV04 kit, but sold separately from EV02 kit).

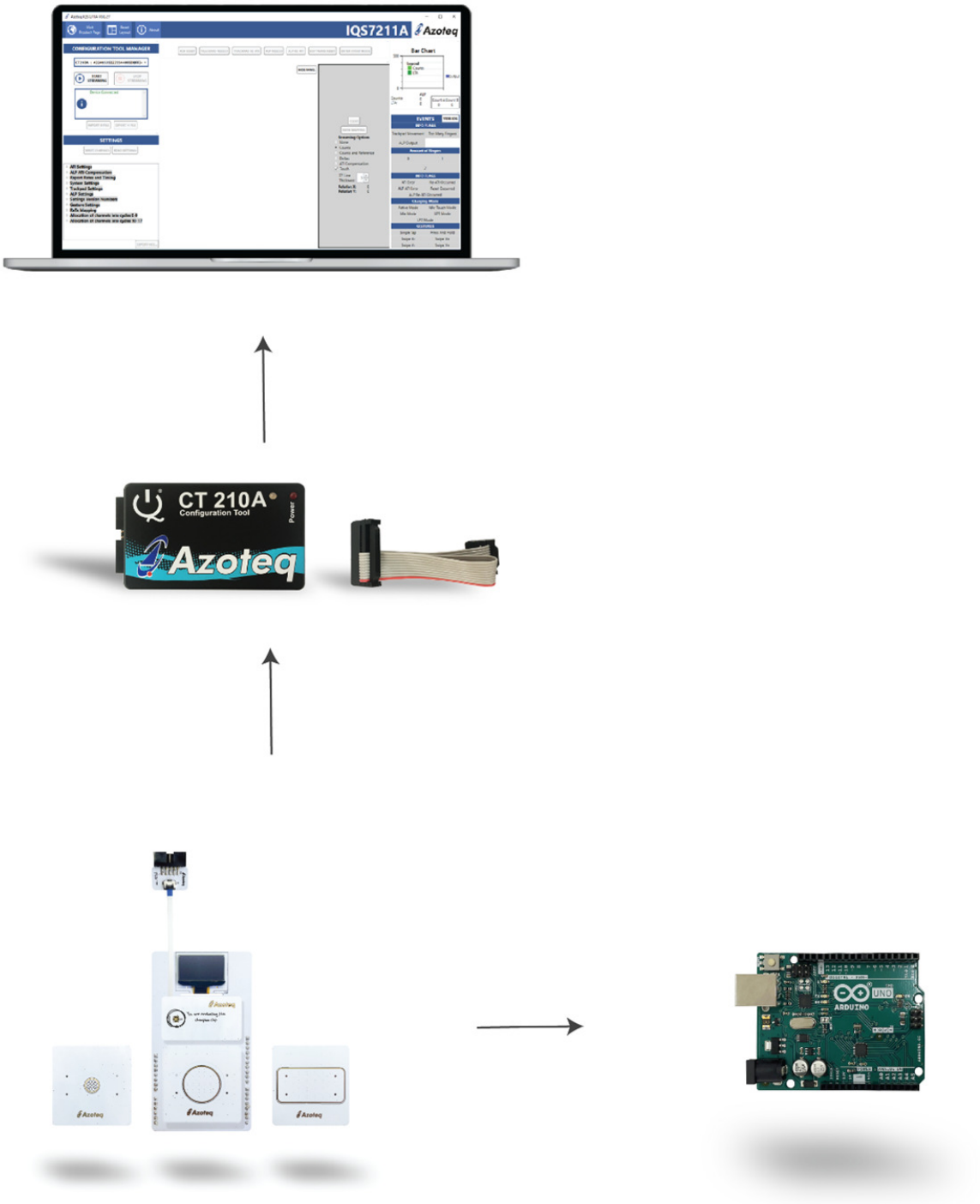

Figure 2.1: How to connect your EV-Kit to the computer

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3 Stamp Board and IQS7211A IC

The IQS7211A IC is located on the stamp board. Run the IQS7211A GUI.

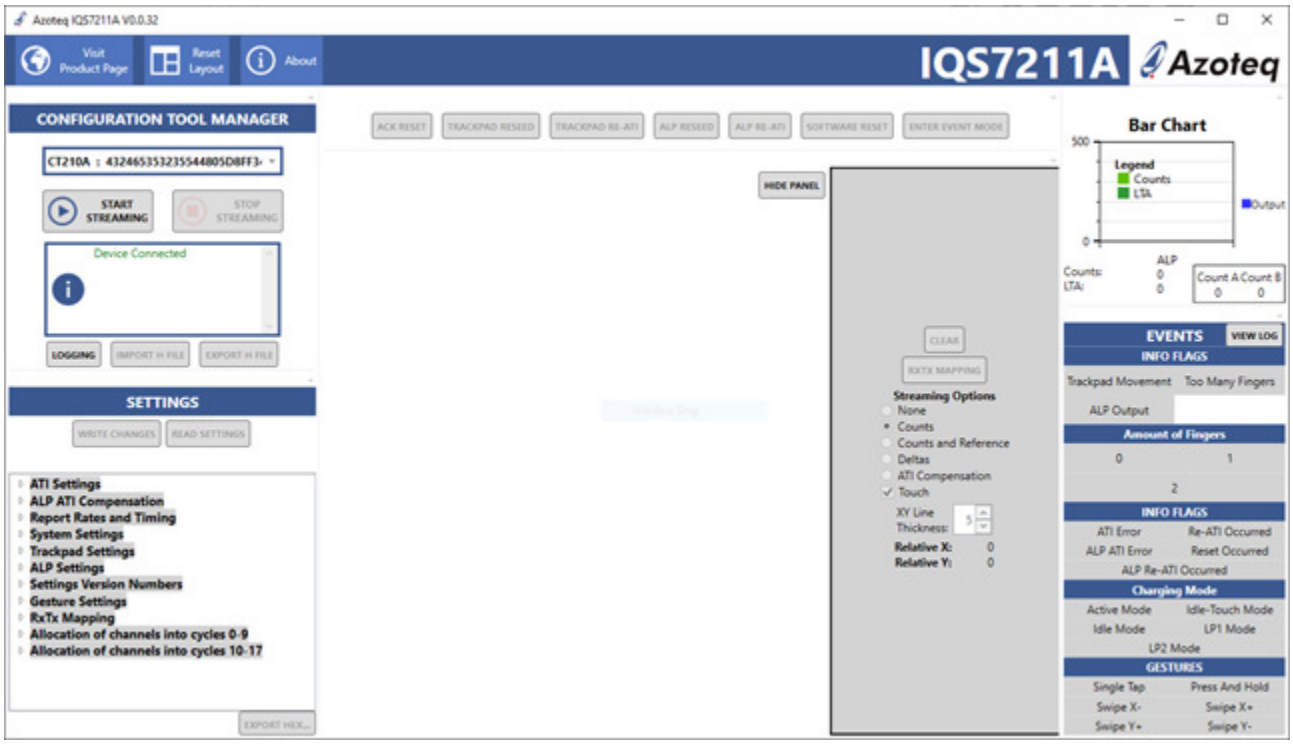

Figure 3.1: How to connect your EVKit to computer

To demonstrate the capabilities of the IQS7211A, we suggest evaluating with the supplied boards.

After this evaluation, the user may want to develop their own trackpad boards.

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4 Plug-in Boards

4.1 Rectangle Trackpad Board

Plug this board into the base board at the PLUGIN marked area.

Figure 4.1: Rectangle Trackpad

Now perform the following actions in the GUI.

> Click the "Start Streaming" button.
> Click on the "ACK RESET" button.
> Browse to "IQS7211A_init_AZP1149A1_8x4_TP.h" and select "Open".
> Click on the "TRACKPAD RE-ATI" button.

See figure 4.2 below for an example

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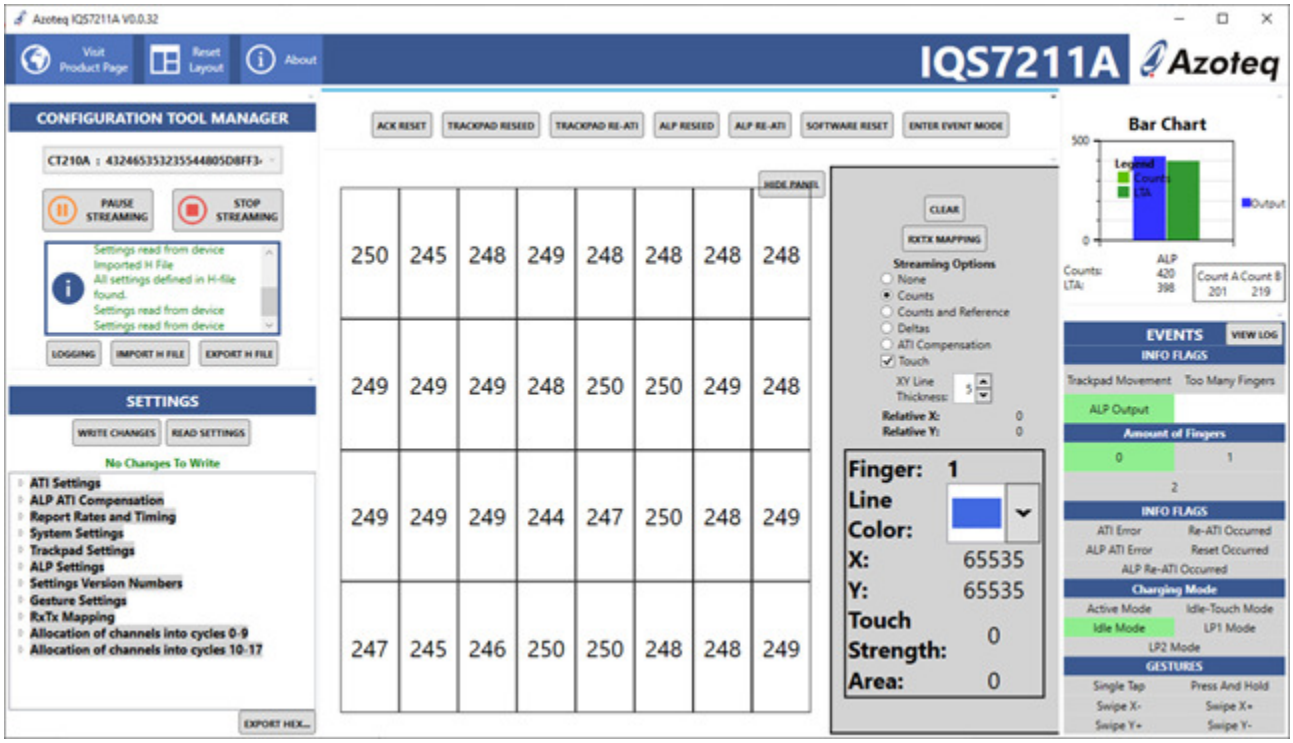

Figure 4.2: IQS7211A GUI Example: Rectangle Trackpad

The IQS7211A and Trackpad can now be evaluated by drawing lines on the trackpad and observing what happens in the GUI.

To the right side of the GUI we see the "EVENTS" section, the GESTURES are located here. Try and perform all 6 possible gestures as shown in this section.

To clear the lines drawn in the GUI, click on one of the channels displayed in the middle of the GUI.

After evaluation click on the "Stop Streaming" button.

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4.2 Circle Trackpad Board

Plug this board into the base board at the PLUGIN marked area.

Figure 4.3: Circle Trackpad

Now perform the following actions in the GUI.

> Click the "Start Streaming" button.
> Click on the "ACK RESET" button.
> Browse to "IQS7211A_init_AZP1148A1_6x5_TP.h" and select "Open".
> Click on the "TRACKPAD RE-ATI" button.

See figure 4.4 below for an example

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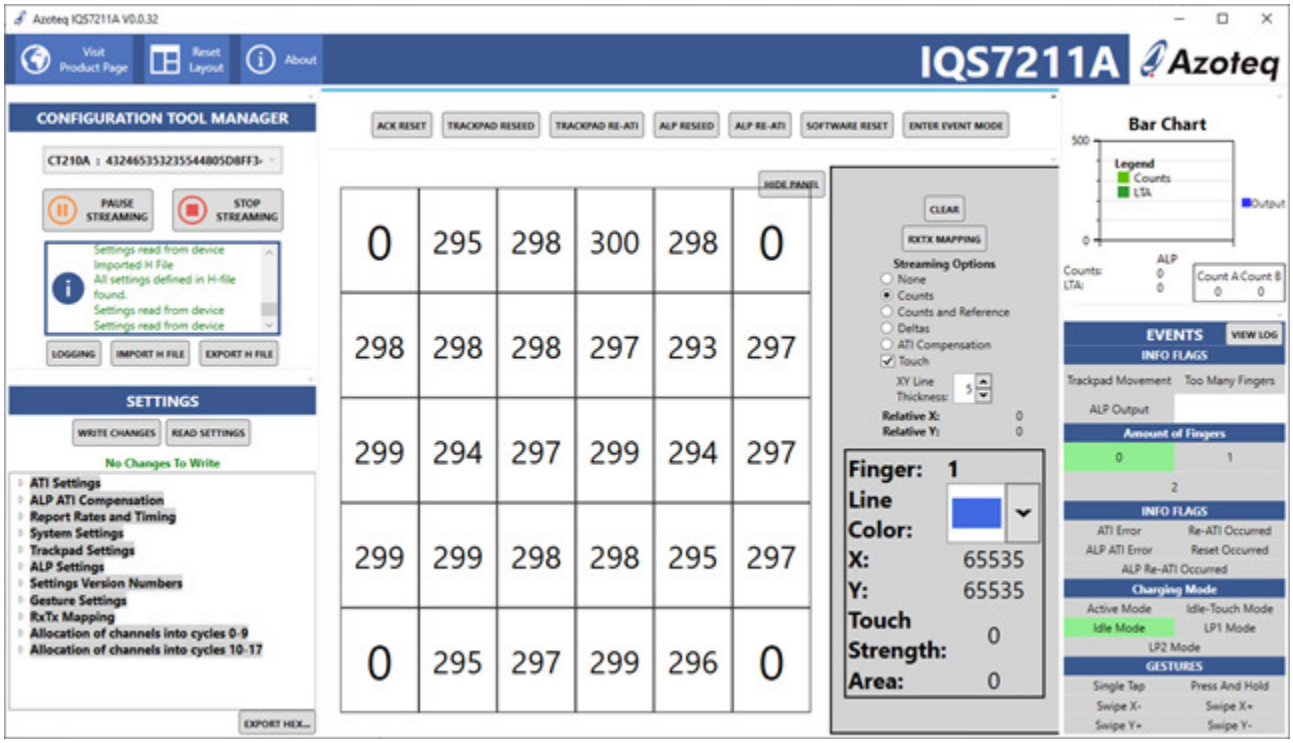

Figure 4.4: IQS7211A GUI Example: Circle Trackpad

The IQS7211A and Trackpad can now be evaluated by drawing lines on the trackpad and observing what happens in the GUI.

To the right side of the GUI we see the "EVENTS" section, the GESTURES are located here. Try and perform all 6 possible gestures as shown in this section.

To clear the lines drawn in the GUI, click on one of the channels displayed in the middle of the GUI.

After evaluation click on the "Stop Streaming" button.

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4.3 Flower Trackpad Board

Plug this board into the base board at the PLUGIN marked area.

Figure 4.5: Flower Trackpad

Now perform the following actions in the GUI.

- Click the "Start Streaming" button.
- Click on the "ACK RESET" button.
- Browse to "IQS7211A_init_AZP1147A2_3x3_TP.h" and select "Open".
- Click on the "TRACKPAD RE-ATI" button.

See figure 4.6 below for an example

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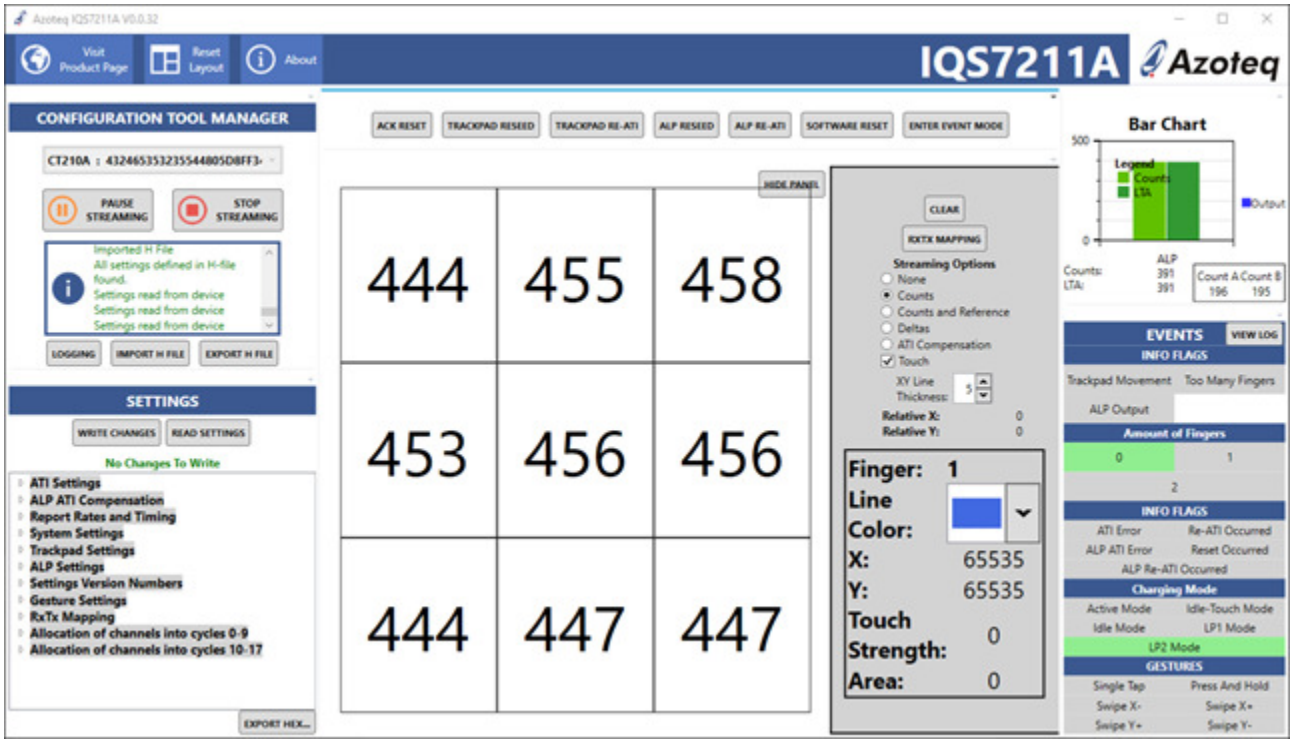

Figure 4.6: IQS7211A GUI Example: Circle Trackpad

The IQS7211A and Trackpad can now be evaluated by drawing lines on the trackpad and observing what happens in the GUI.

To the right side of the GUI we see the "EVENTS" section, the GESTURES are located here. Try and perform all 6 possible gestures as shown in this section.

To clear the lines drawn in the GUI, click on one of the channels displayed in the middle of the GUI.

After evaluation click on the "Stop Streaming" button.

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5 Reference Designs

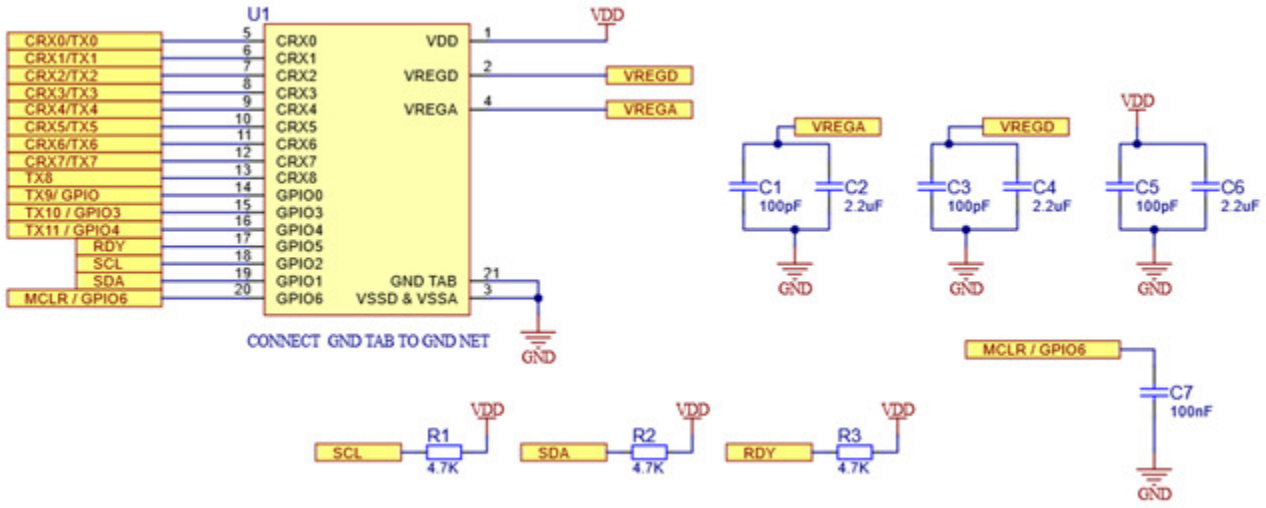
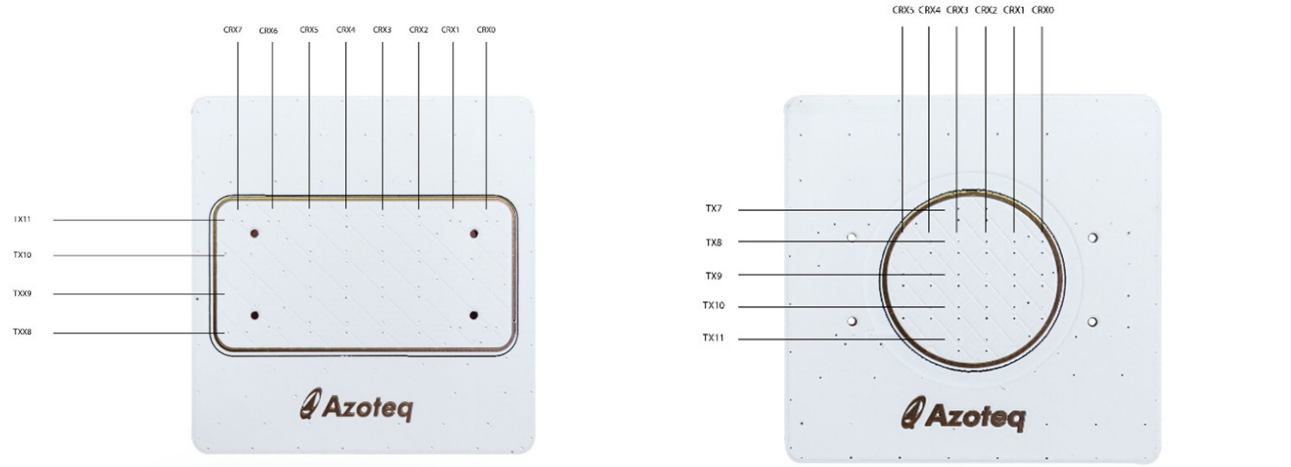


Figure 5.1: Reference Schematic



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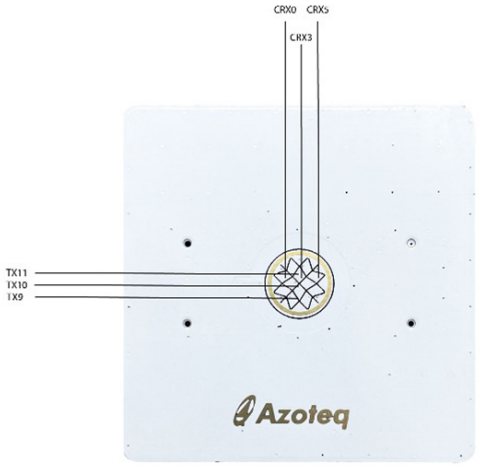

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