

Using the EVK1070B:

This kit is for the evaluation and development of applications using the AT42QT1070 ('QT1070') 7 Key QTouch™ Integrated Circuit (IC).

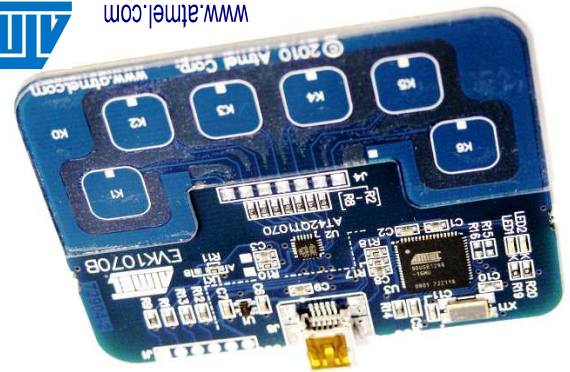
In this example, the QT1070 is shown working in 'Comms' mode, allowing configuration of settings and reading of Reference and Signal values to aid evaluation and development. The EVK1070B can be connected directly to a PC via USB or User application via an I²C compatible bus.

The EVK1070B is configured to allow setup of 1 to 7 keys (or 1 to 6 keys plus a Guard channel)

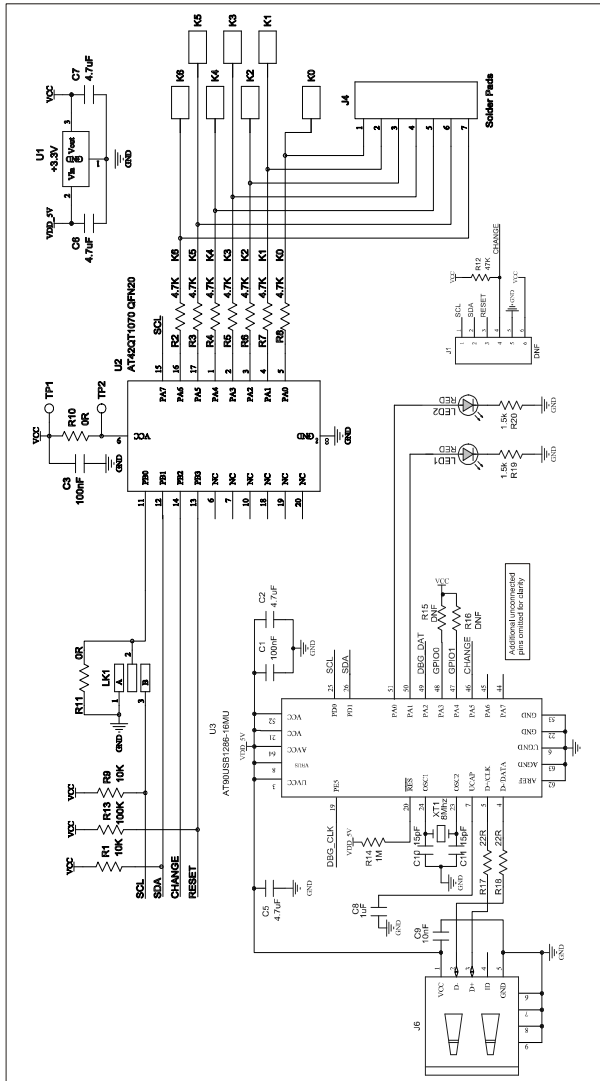
The QT1070 chip is also able to operate in 'Standalone' mode see the datasheet for more details.

Please refer to the [QT1070 datasheet and associated documentation available at http://www.atmel.com/touch/AT42QT1070](http://www.atmel.com/touch/AT42QT1070) for full details.

- Download the latest EVK1070B software, from web address above, and store on your PC.
- Connect the supplied USB cable to J6 of the PCB and to any available USB port. LED2 will illuminate.
- Run the EVK1070B Demonstration Software, Chip Part Number and Code version will be displayed.
- Touch any of the 7 key(s) on the EVK1070B and the corresponding Key on the EVK1070B Demonstration Software will illuminate.
- Chip configuration settings are accessed by selecting the 'Show settings' checkbox.
- Key Signal and Reference values for each key are accessed by selecting the 'Show debug data' checkbox



Quickstart Guide EVK1070B



Adjacent Key Suppression (AKS™) :

AKS™ settings are used to suppress the activation of neighbouring keys at the same time. Only the key with the largest signal change, within the same AKS™ group, can activate.

- The default settings for the QT1070 are AKS™ enabled for all keys, all within the same group (AKS Grp1). When touching multiple keys, only the Key associated with the largest signal change is reported as being touched.
- If all keys are set with AKS™ set to 'Off'; when touching multiple keys, all will be reported as being touched.
- The QT1070 offers up to three AKS™ groups. In addition to the option of turning AKS™ Off

External Keyboard/Electrodes:

The EVK1070B can be connected to User electrodes, using the Solder Pads along J4, and cutting the associated 7 tracks adjacent to keys K0-K6.

I2C User applications:

The EVK1070B can be connected to User application via an I²C compatible bus using the connections on J1.

NOTES:

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Logging Debug Data:

After selecting the 'Show debug data' checkbox a Debug window appears allowing:-

- Signal and Reference values for each key.
- Data from this window to be logged to '.CSV' file for later analysis using the log button.

Viewing Signal and Reference values:

After selecting the 'Show debug data' checkbox, select the 'Show graph' checkbox. The graph gives a visual display of Reference, Signal, Threshold value & Delta.



EVK1070B Kit Contents:

| | |
|------------------------------|--------|
| 1x EVK1070B Assembly | |
| 2x Sample AT42QT1070-MMH | |
| 1x Mini-USB cable | |
| 1x EVK1070B Quickstart Guide | ✓ |
| Packed by: | Dated: |

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