Using the EVK1010A:

This kit is for the evaluation and development of applications using the AT42QT1010-TSHR ('QT1010') 1 Channel QTouch™ Integrated Circuit (IC). This simple battery powered EVK1010A is configured with one capacitive key behind a 1mm acrylic front panel, where a touch is shown by the LED when KEY is touched.

Please visit http://www.atmel.com/singletouch for details of this (and similar) products, including links to relevant product datasheets.

- Insert the CR2032 3V battery provided into the battery holder on the EVK1010A.
  Ensure that the battery has the correct orientation or the EVK1010A will not work.
- Touch KEY and the LED will illuminate.
- Remove the touch from KEY and the LED will switch off.
- If KEY is touched for longer than ~60 seconds, LED will switch off.
  This is because the Max On-Duration has been exceeded and the QT1010 has recalibrated.

Fast/Low Power/SYNC Mode:

The QT1010 response speed can be changed on the EVK1010A for either a fast response or a slightly slower response (with the benefit of reduced power consumption) by changing the connection to Pin 6 of the QT1010.
The supplied default is Low Power mode. To run in Fast Mode, cut the track from LK1 to C1 and solder a wire link from LK1 to the available VDD connection on top edge of the EVK1010A.
For further details of Fast, Low Power and SYNC Mode, please refer to the QT1010 datasheet.

Power Supply:

An external power supply (1.8V - 5.5V) can be used instead of the battery by connecting to VDD and GND, but ensure that the battery is removed.
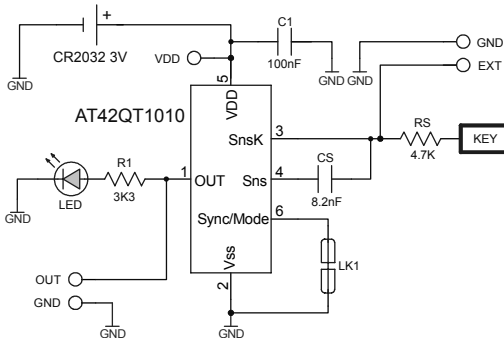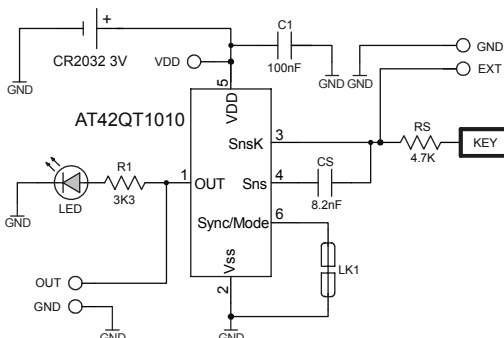

Sample Capacitor/Sensitivity:

CS is the sensing sample capacitor and can be replaced with different value X7R capacitor to change the sensitivity to touch of KEY (or an external electrode).
Increasing the capacitor value will increase sensitivity and decreasing the capacitor value will decrease the sensitivity. (All flux residues should be removed after component replacement.)

External Electrode/Output:

The EVK1010A can be connected to an external electrode by soldering to pads EXT and GND.
The output from the QT1010 can be accessed at OUT. If connected externally, remove R1.
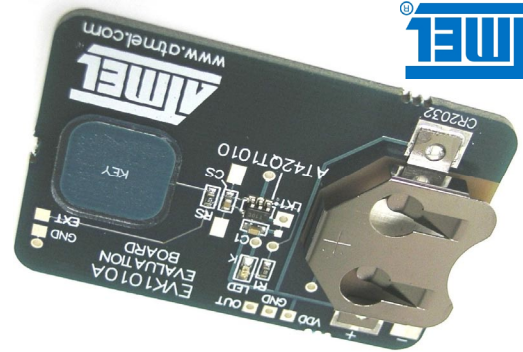
EVK1010A USER GUIDE

EVK1010A Kit Contents:

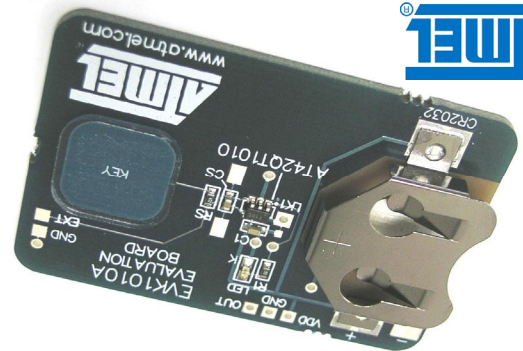|		
1x EVK1010A Assembly		
1x CR2032 Battery, 3V, 235mAh		
2x Sample AT42QT1010-TSHR ICs		
1x EVK1010A User Guide (Please retain for reference)		
Packed by:		*Dated:*

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