

QTouch™ library

IT'S FREE
EASY TO USE
A FLEXIBLE TOUCH SOLUTION
SUPPORTS UP TO 32 TOUCH CHANNELS
FITS A WIDE RANGE OF AVR PRODUCTS



Atmel QTouch Library

A royalty free software library allowing access to Atmel's industry-leading QTouch™ technology



Atmel's Touch Technology

QTouch



Market Leading Capacitive Touch Sensing Technology for Buttons, Sliders and Wheels

maXTouch™

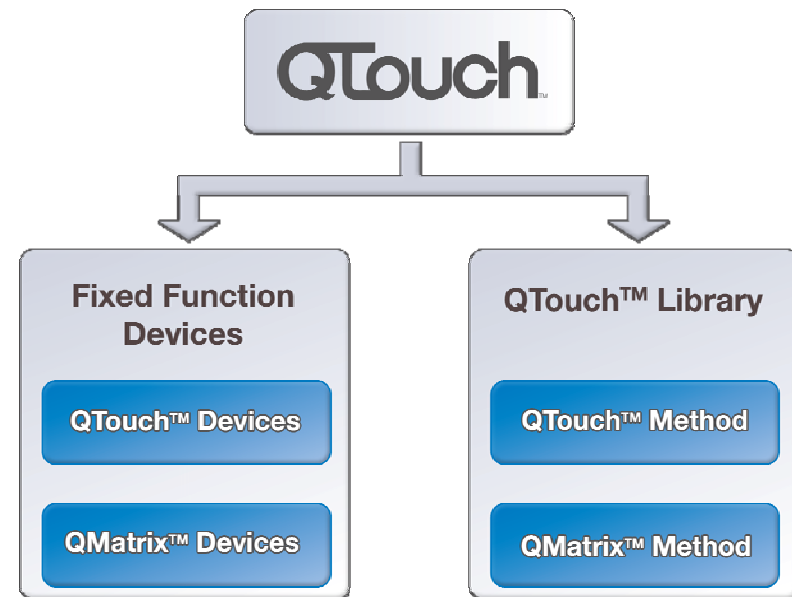


Revolutionary Unlimited Touchscreen Technology



Based on Atmel's QTouch Technology

- **QTouch™ is Atmel's Solution for**
 - Buttons
 - Sliders
 - Wheels
- **Atmel provides**
 - Fixed Function devices
 - QTouch Library for AVR MCUs
- **QTouch™ comes in two flavors**
 - QTouch method (original)
 - QMatrix method (supports more sensors)
 - Each method has some advantages





Atmel QTouch Library – Key Benefits

- **It's Free**
 - *Full access to the industry leading QTouch technology.*
- **Easy to use**
 - *Just Compile, Plug and Play.*
- **A flexible Touch Solution**
 - *Adds capacitive touch capabilities on AVR and AVR32 microcontrollers.*
- **Supports up to 32 Touch Channels**
 - *Any combinations of Buttons, Sliders and Wheels possible.*
- **Fits a wide range of AVR products**
 - *Supports tinyAVR, megaAVR, XMEGA and AVR32 UC3 devices.*



QTouch Library 2.0 Device Support

Available Now!

	tinyAVR	megaAVR	XMEGA	AVR32
QTouch	All devices <i>(4K flash or more)</i>	All devices	Partial Support <i>(ATxmega128A1)</i>	UC3A Support <i>UC3B on request</i>
QMatrix	Partial Support <i>(ATtinyx8)</i>	Partial Support <i>(ATmegax8)</i>	Not yet Supported <i>(Planned for Q4)</i>	Not yet Supported

- **Version 2.0 provide complete QTouch support for all AVR devices**
 - Including USB AVR, CAN AVR, LCD AVR and Lighting AVR
 - In total, Atmel QTouch library supports more than 70 devices



QTouch vs. QMatrix - Differences

- **QTouch and QMatrix are the two technologies available in Atmel's QTouch library. The main differences are:**

- **QTouch**
 - Simple sensor design rules, which makes it good for "first-timers" engineers
 - Very stable and reliable
 - Uses no peripherals like timers or ADCs

- **QMatrix**
 - Predictable timing
 - Tolerant regarding moisture and high temperatures
 - Uses the ADCMUX and one Timer/Counter



QTouch Offers Superior Performance

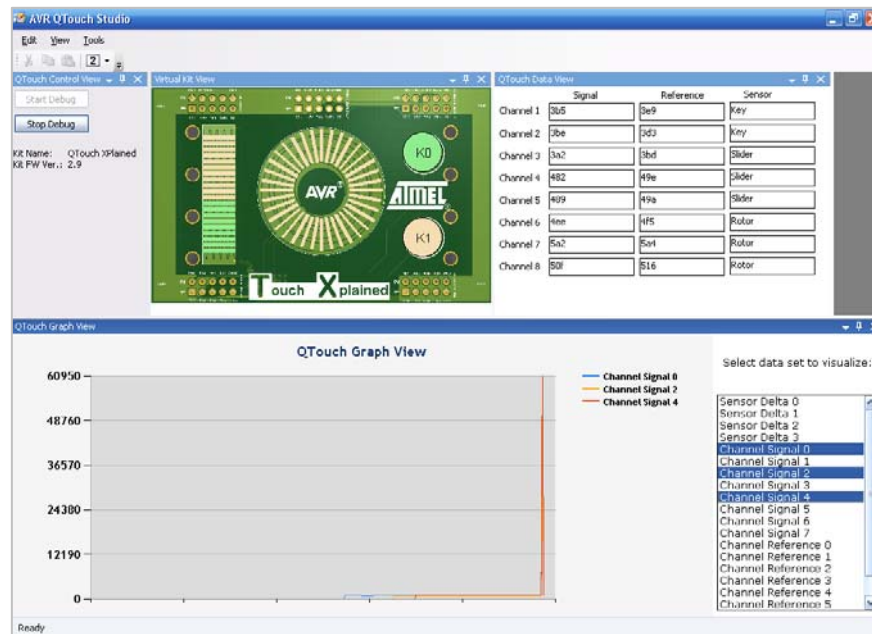


- **Excellent when it comes to high resolution using very few pins**
 - Atmel QTouch Only needs 3 channels to achieve 256 levels of resolution
 - Cypress will typically need up to 10 channels to achieve the same accuracy
- **Uses 3 channels for one slider or wheel**
 - Two wheels, two Sliders or one of each can be supported on the 8 channel QTouch library



QTouch Library Tools

Atmel QTouch Studio



ATAVRTS2080A and B



QTouch Library is available for both IAR and GCC compiler



**More information and free
downloadable Software can be
found at:**

<http://www.atmel.com/touchlib>

