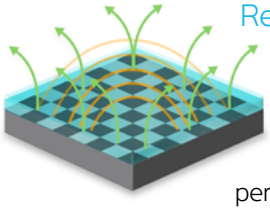
maXTouch U Series

Enabling the Latest Generation of Mobile Products

Create the touch experiences you always imagined with Atmel® maXTouch® U Series devices — the newest additions to our capacitive touchscreen controller family.

Intelligent, Futuristic and Elegant

The maXTouch U Series puts the industry's leading capacitive touchscreen technology in the hands of mobile device engineers. These revolutionary controllers enable mobile OEMs to implement the superior touch-screen experience that consumers demand.



Revolutionary Adaptive-Sensing Architecture

The maXTouch U Series architecture combines the best of mutual- and self-capacitance to ensure optimal touch performance with the highest noise immunity and lowest power consumption.

Finger Tracking Hover

The maXTouch U Series supports up to 25mm finger tracking performance — the touchscreen knows the precise position of the fingertip prior to a touch contact. This unique and futuristic experience opens a third dimension for intelligent mobile applications to interact with the user.

"Any Pen" – Passive Stylus Support

Superior Signal-to-Noise Ratio (SNR) enables very sensitive touch inputs, such as a slim 1.0mm passive stylus. This "any pen" experience allows the user to interact with the device using virtually any conductive device, such as an HB pencil, ballpoint pen, spoon — or even a fingernail.

Glove Touch Support

maXTouch U Series touch controllers support multi-finger glove touches. Imagine users being able make or pick up an incoming call, or play Angry Birds, without taking off their ski gloves.

Moisture and Water Droplet Touch Support

Robust moisture touch and recalibration capabilities make it possible to use a mobile device in moist or rainy conditions without experiencing any false touches or screen lock-up issues. So users can navigate Google Maps or capture those priceless moments in any weather.

Integrated Capacitive Buttons

Without tying-up any X/Y lines from the touch controller, the maXTouch U Series supports dedicated hardware IP for outside-screen touch buttons. Up to 10 channels of buttons, sliders and wheels are supported through an embedded hardware block, the Atmel Peripheral Touch Controller (PTC).

Superior Noise Immunity

Combining the integrated charge pump for high-voltage transmission lines and advanced frequency hopping intelligence, the maXTouch U Series delivers unparalleled signal clarity through its advanced Analog Front End (AFE) system. Its industry-leading Signal-to-Noise Ratio (SNR) also allows the touchscreen system to perform consistently and reliably under a variety of noisy conditions, such as with low-quality chargers and ambient signal interferences.

maXTouch U Series
Enabling the Latest Generation of Mobile Products

Active Stylus Support

maXTouch U Series controllers support the Atmel maXStylus® active stylus. The maXStylus offers high resolution and an accuracy of ±0.25mm for a precise writing experience. The maXStylus family also provides:

- Advanced gesturing
- Palm rejection
- Pressure-sensing capability with 256 pressure levels to enhance writing and drawing experiences

Shorter Design Cycle

The maXTouch U Series of devices are shipped pre-loaded with touch firmware. Unlike with other solutions on the market, this eliminates the expensive and time-consuming step of programming the firmware during mass production. A small, simple configuration file can be easily loaded during the device's startup process, setting up the device for your specific application.

From Smartphones to Tablets and Beyond – the mXT874U

With 874 nodes, the Atmel mXT874U sets the bar high for the industry's latest generation of touchscreen controllers. It delivers a variety of top-notch touchscreen capabilities, including 25mm finger tracking hover, 1.0mm passive stylus, up to 5.0mm thick multi-finger gloved touch, solid moisture touch performance and robust noise immunity in a single device. It also provides unparalleled user experiences for premium mobile applications, such as flagship smartphones, phablets and small tablets.

From Imagination to Reality

Intelligent touch processing algorithms. Unparalleled noise suppression. High responsiveness. Pinpoint precision. It all adds up to the touchscreen controller technology you need to create what you have always imagined. Ready to get started? Get more details at www.atmel.com/microsite/maxtouch-U-series.

Atmel | Enabling Unlimited Possibilities®

Atmel Corporation 1600 Technology Drive, San Jose, CA 95110 USA **T :** (+1)(408) 441. 0311 **F :** (+1)(408) 436. 4200 | **www.atmel.com**