



# THE DATASHEET OF ATMXT154E-CCU





## Atmel maXTouch Solutions for Touchscreens

### Unlimited Touch, Unlimited Product Possibilities

The Atmel® maXTouch™ family of touchscreen controllers offers superior performance and low-power consumption. maXTouch devices support an unlimited number of touches, greatly enhancing the user experience and changing the way users interact with electronic products. Built-in gestures and the ability to ignore unintentional touches result in a user interface that is intuitive and reliable.

### Touching the Leading Edge

maXTouch controllers are extremely responsive, providing real-time characteristics for demanding applications such as handwriting recognition and video games. The high level of resolution and excellent signal-to-noise ratio provided by maXTouch controllers means touchscreens can be used with fingernails and gloves, providing easy text entry on a handheld device.

The rich feature set makes these controllers suitable for any application. They provide unrivalled performance in small-screen mobile phones and Internet devices, and unleash the full potential of a new generation of large-screen tablets, smartbooks, netbooks, and PCs.

### Single-Chip Touch Solution for Small Screens

The maXTouch microcontroller family sets the standard in capacitive touchscreen technology for smartphones and small-format devices, providing the industry's highest-performing, lowest-power multi-touch components. maXTouch controllers feature patented charge transfer technology from Atmel, which enhances the traditional approach to mutual capacitance solutions, and combine all aspects of advanced touch sensing onto a single chip:

- Unambiguous, unlimited touch support
- Extremely low current consumption: < 1.8mW in "touch-ready" state
- Responsive user interface: > 250Hz report rate for a single touch
- Superior performance for first-touch response
- Excellent signal-to-noise ratio for superior precision
- Small footprint with few external components
- Two-touch adjacency of less than 10mm on a 4.3in ( 10.9cm) touchscreen
- Patented algorithms for superior multi-touch experience, including grip and face suppression
- Compatible with the latest Windows™ Phone 7 and Android™ operating systems
- Proximity channel support





# Atmel maXTouch Solutions for Touchscreens

The Atmel® maXTouch™ solution has been adopted by several major handset manufacturers, and is used in several bestselling smartphones.

## Atmel maXTouch Technology Enables the Big Screen

maXTouch technology now supports large format touchscreens, up to 15.6in (39.6cm), for emerging products, including touch-enabled tablets, smartbooks, mobile Internet devices (MIDs), netbooks, PC notebooks, and a range of industrial applications. With true unlimited touch functionality and stylus support, maXTouch technology will enable exciting new software applications and user interactions on one screen. MaXTouch provides:

- True multi-touch capability with support for up to 16 fingers
- Fastest report rate in the industry (>150Hz) for smooth finger tracking and a responsive touchscreen with low latency
- Industry-leading power consumption to preserve battery life
- Rejection of unintended touches (grip suppression, palm rejection, etc.)
- Stretch/pinch and rotate gestures
- Support for stylus, finger tip, and gloves
- Handwriting and shape recognition
- Industry-leading accuracy, linearity, and signal-to-noise ratio
- System flexibility through choice of COF or COB layout
- Software driver for various operating systems (Linux, Android, Windows)
- Partnerships in place with leading ITO and module vendors to enable complete solutions



For more information on Atmel Touchscreen Technology, visit [www.atmel.com/touchscreens](http://www.atmel.com/touchscreens).

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