
Atmel maXTouch Now Enabling the Big Screen

Solution enables high-resolution screens, unlimited touch, faster response, stylus support, and more accuracy for enhanced consumer experience with touch-enabled applications

Atmel®, a leader in microcontroller and touch solutions, announced its maXTouch™ technology. It can enable advanced capacitive touch functionality for large format touchscreens. Rapidly becoming the favored touch technology solution for smartphones, Atmel's maXTouch solutions now support large touchscreens up to 15 inches 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, the maXTouch technology will enable exciting new applications and user interactions on one screen. The chip technology, combined with proprietary algorithms, will offer higher performance and faster response times to provide a better user experience. The larger screen solution is an enhancement of existing maXTouch products that provide best-in-class configurability to exceed today's user interface requirements. Advanced touchscreen functionality includes unlimited touches and rejection of unintended touches; stretch/pinch and rotate gestures; stylus support; handwriting and shape recognition, including face detection on mobile phones; grip suppression and palm rejection on MIDs and Netbook screens.

The lower power consumption of Atmel's maXTouch solutions enables longer battery life for portable devices to provide users more productivity and convenience. Based on the touch accuracy and linearity in maXTouch solutions, users can draw more accurately with a stylus or their fingers on touch-enabled tablets and other touch applications. These solutions come complete with a full suite of software drivers and advanced touch functionality for finger pinch to expand a screen, stylus support for character writing, and gesturing to turn pages for eBooks and multi-page applications.

Atmel is committed to the touch market segment. With the recent adoption of touchscreens for smartbooks, MIDs and Netbooks, consumers continue to demand a better touch experience.

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 stylus, fingernails and gloves, providing easy text entry on a handheld device.

The rich feature set makes the devices 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

Atmel's 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 Atmel's patented charge transfer technology which enhances the traditional approach to mutual capacitance solutions and combines all aspects of advanced touch sensing onto a single chip:

- Unlimited touches



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- Low power consumption
 - Fast response — completely redraws screen every 4/1000 of a second (4ms) to eliminate recalibration issues
 - Excellent signal-to-noise ratio for superior precision — 3x better than competitive products
 - Superior performance for first-touch response — 3x better than competitive products
 - Unambiguous, unlimited touch support
 - Responsive user interface: > 250 Hz report rate for a single touch
 - Extremely low current consumption: < 1.8 mW in "touch-ready" state
 - Two touch adjacency of less than 10 mm on a 4.3 inch (10.9 cm) touchscreen
 - Small footprint with few external components
 - Supports stylus, fingernails, and gloves
 - Grip and face suppression functionality: avoids false touches
 - Size and angle of touch supported
 - Screen sizes up to 10.2 inches (25.9 cm) are supported by a single chip
 - Proximity channel support



Atmel maXTouch Enables the Big Screen

Atmel's maXTouch technology now supports large format touchscreens up to 15.6 inch (39.6 cm) 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, the maXTouch chip technology will enable exciting new software applications and user interactions on one screen. Atmel's solution provides:

- True multi-touch capability with support for up to 16 fingers
- Fastest response times in the industry
- Industry-leading power consumption to preserve battery life
- Rejection of unintended touches
- Stretch/pinch and rotate gestures
- Stylus support
- Handwriting and shape recognition
- Industry-leading accuracy, linearity, and signal-to-noise