

## Touch Sensing Platform Offers Combination of Capacitive And Resistive Touch

[Freescale Semiconductor](#) [1] today announced the industry's first solution that combines gesture recognition on resistive screen technology and capacitive touch sensing in a single integrated circuit. This addition to the Xtrinsic sensing portfolio is ideal for applications involving control panels, human machine interface (HMI), keyboard replacement, automotive, point of sale terminals, signature capture devices and kiosks.

In addition to providing capacitive touch capability, the new [Xtrinsic touch sensing platform](#) [2] adds gesture recognition to resistive screens for markets and situations in which capacitive screens are not a viable option. Resistive touch screens are inexpensive to implement and therefore an excellent option to upgrade the user experience for many applications. Its proven capability allows the detection of different gestures, such as slide, touch rotate and two pinch for zooming in and out. Resistive touch screens are also a good alternative when the use of gloves is necessary due to medical, weather or security reasons.

The Xtrinsic touch sensing platform also expands Freescale's Ready Play solutions [portfolio](#) [3]. Freescale Ready Play solutions integrate certified application functionality, allowing customers to add features while reducing development cost, simplifying design cycles and enabling scalability in applications and systems. By implementing capacitive and resistive technologies in a single, turnkey device, customers can reduce software development costs, board space and time to market while adding additional features to their products.

"Freescale's Xtrinsic capacitive and resistive touch sensing platform is the first device to integrate gesture recognition without the need for complex hardware or screen modifications," said Geoff Lees, vice president of Freescale's Industrial and Multi-Market MCU business. "It offers a quick and inexpensive solution for customers to develop advanced user interfaces for markets that haven't previously incorporated touch sensing technologies and should have a strong impact on mobile health care applications, automobiles, netbooks and smart mobile devices."

The Xtrinsic touch sensing platform enables the addition of up to four capacitive electrodes to a customer's system – all packaged in a 5x5 mm, 32-pin QFN. The platform includes standard X-Y resistive touch screen detection with optional calibration and pressure detection on resistive screens. Gesture detection includes slide, two-touch pinch and expand, and two-touch rotate with four capacitive electrodes independent from the touch screen utilizing I2C and UART communications protocols, as well as a user-configurable screen resolution.

Expanding on its more than 30-year heritage of sensor innovation, Freescale's [Xtrinsic sensing solutions](#) [4] are designed with the right combination of high-performance sensing capability, processing capacity and customizable software to

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help deliver smart, differentiated sensing applications. With Xtrinsic sensing solutions, Freescale's vision is to offer a diverse and differentiated product portfolio to meet the expanding needs of the automotive, consumer and industrial segments. Xtrinsic solutions offer distinct blends of functionality and intelligence designed to help customers differentiate and win in highly competitive markets.

The Xtrinsic capacitive and resistive touch sensing platform (CRTouch) will be included in the Tower System LCD development board, enabling advanced capabilities throughout the Freescale portfolio. Sample quantities of the cost-effective development board are planned for Q1 2012 at \$85 (USD). Linux and Android drivers will be available online, along with a complimentary demo graphic user interface (GUI) and Freescale's PEG graphic library examples, at <http://www.freescale.com/PEG> [5]. For more information, visit [www.freescale.com/CRTouch](http://www.freescale.com/CRTouch).

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<http://www.ecnmag.com/products/2012/01/touch-sensing-platform-offers-combination-capacitive-and-resistive-touch>

### Links:

[1] <http://www.freescale.com/>

[2] <http://www.freescale.com/crtouch>

[3] [http://www.freescale.com/webapp/sps/site/prod\\_summary.jsp?code=USB2SER](http://www.freescale.com/webapp/sps/site/prod_summary.jsp?code=USB2SER)

[4] <http://www.freescale.com/webapp/sps/site/homepage.jsp?nodeId=011269&tid=rpr>

[5] <http://www.freescale.com/PEG>