



THE DATASHEET OF ATMXT154





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.

Atmel Corporation
2325 Orchard Parkway
San Jose, CA 95131
USA
Tel: (+1) (408) 441-0311
Fax: (+1) (408) 487-2600
www.atmel.com

Atmel Asia Limited
Unit 01-5 & 16, 19F
BEA Tower, Millennium City 5
418 Kwun Tong Road
Kwun Tong, Kowloon
HONG KONG
Tel: (+852) 2245-6100
Fax: (+852) 2722-1369

Atmel Munich GmbH
Business Campus
Parking 4
D-85748 Garching b. Munich
GERMANY
Tel: (+49) 89-31970-0
Fax: (+49) 89-3194621

Atmel Japan
9F, Tonetsu Shinkawa Bldg.
1-24-8 Shinkawa
Chuo-ku, Tokyo 104-0033
JAPAN
Tel: (+81) (3) 3523-3551
Fax: (+81) (3) 3523-7581

© 2010 Atmel Corporation. All rights reserved. / Rev.: MAXTOUCH-BH

Atmel®, logo and combinations thereof, maXTouch™, tinyAVR®, XMEGA®, AVR®, AVR UC3®, QTOUCH®, picoPower® and others are registered trademarks or trademarks of Atmel Corporation or its subsidiaries. Other terms and product names may be trademarks of others.

Disclaimer: The information in this document is provided in connection with Atmel products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Atmel products. EXCEPT AS SET FORTH IN THE ATMEL TERMS AND CONDITIONS OF SALES LOCATED ON THE ATMEL WEBSITE, ATMEL ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL ATMEL BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS AND PROFITS, BUSINESS INTERRUPTION, OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF ATMEL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Atmel makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and products descriptions at any time without notice. Atmel does not make any commitment to update the information contained herein. Unless specifically provided otherwise, Atmel products are not suitable for, and shall not be used in, automotive applications. Atmel products are not intended, authorized, or warranted for use as components in applications intended to support or sustain life.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View ATMXT154](#) on WIN SOURCE

 [Atmel](#) Information

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management