



ATMXT641TD-A ☆

Status: In Production

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Features:

- Fully automotive-qualified (Grade 2), operating within the temperature range of -40 to +105 deg C
- Supports up to 16 concurrent touches in real time with touch size reporting
- Communication via a serial interface (I2C or SPI)
- Integrated voltage doubler option to increase the signal to noise ratio (SNR)
- Adaptive Sensing (Self and Mutual cap)
- Supports thick glove (5mm) touch

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Overview



Documents



Development
Environment

Device Overview

Summary

In Production

The ATMXT641TD-A Automotive touchscreen controller is aimed at display sizes up to 9” used in center stacks, navigation systems or rear seat entertainment systems. This family of automotive touchscreen controller brings Microchip’s unmatched Adaptive Sensing technology to the Automotive market. It enables dynamic touch classification, a feature that automatically and intelligently switches between self- and mutual-capacitance sensing to provide users a seamless transition between a finger touch and glove touch. Adaptive Sensing is also resistant to water and moisture and ensures superior touch performance even in these harsh conditions.

In addition, the ATMXT641TD-A supports Hover operation, which tracks the position of the finger when it floats within 20mm of the touchscreen. Hover allows user interaction without making a physical contact, and brings a more dynamic interface to user applications.

Please contact your local Microchip sales office for pricing information and to place an order.

Additional Features

Fully automotive-qualified (Grade 2), operating within the temperature range of -40 to +105 deg C

Supports up to 16 concurrent touches in real time with touch size reporting

Communication via a serial interface (I2C or SPI)

Integrated voltage doubler option to increase the signal to noise ratio (SNR)

Adaptive Sensing (Self and Mutual cap)

Supports thick glove (5mm) touch

Support thick lenses (up to 3mm plastic)

Superior moisture performance

Hover tracking up to 20mm

Package: TQFP100

Parametrics

Name	
Value	
Interface Type	
I2C and SPI	

Max Screen Size (Inch)
9
Touch Response
>250 Hz
Automotive Qualified
Yes
Temperature Range (degC)
-40 to 105
Number of Touches
16
Max Nodes Supported
640

