



**THE DATASHEET OF
CY8CTMA140-48LQI-01T**





THIS SPEC IS OBSOLETE

Spec No: 001-91025

Spec Title: CY8CTMA140, TRUETOUCH(R) MULTI-TOUCH
ALL-POINTS TOUCHSCREEN CONTROLLER (SUMMARY)

Sunset Owner: Rachael Sewell (SWU)

Replaced by: None

TrueTouch® Multi-Touch All-Points Touchscreen Controller

Features

- TrueTouch® capacitive touchscreen controller
 - Tracks up to four fingers independently
 - Screen sizes up to 4.5-inch diagonal
 - Can support up to 7-inch diagonal with stretched sensor pitch
 - Up to 32 sense pins; senses up to 252 intersections
 - Large object detection
 - Fat finger detection and tracking
 - Charger Armor™ technology, featuring adaptive frequency hopping, which provides battery charger noise immunity
 - Self-calibrating to environmental changes
 - Smart noise suppression in LCD, battery charger, common-mode, and RF environments
 - Android and Windows Phone Series 7 compliant
 - Supports unregulated dual-rail inputs
 - 1.71 V to 3.6 V digital supply voltage
 - 2.7 V to 3.6 V analog supply voltage
 - Supports single shared supply from 2.7 V to 3.6 V
- Performance
 - Best in class signal-to-noise ratio (SNR)
 - Noise-free resolution: 0.1 mm
- Accuracy: 0.5 mm
- Finger separation: 3.5 mm
- >60 Hz refresh rate with up to four fingers on the touchscreen
- Low Power state current less than 1.3 mA
- Deep Sleep state current of 1 µA
- Extended feature set
 - Integrated CapSense® button support
- Sensor and system design
 - Supports chip-on-flex and chip-on-board
 - Configurable to work with plastic film and glass touch sensors
 - Supports a variety of touchscreen sensors and stackups
- Communication interface
 - I²C slave up to 400 kHz
 - SPI slave with 2 Mbps sustained data throughput
 - Field upgrades through integrated bootloader
- Manufacturing test
 - Integrated test firmware
- Package options
 - 36-pin QFN (5 × 5 × 0.6 mm)
 - 48-pin QFN (6 × 6 × 0.6 mm)

Document History Page

Document Title: CY8CTMA140, TrueTouch® Multi-Touch All-Points Touchscreen Controller Document Number: 001-91025				
Rev.	ECN	Orig. of Change	Submission Date	Description of Change
**	4278978	SWU	02/12/2014	New summary datasheet.
*A	4788718	SWU	06/08/2015	Obsolete document.

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