



SUMMARY

CY8CTMG240

TrueTouch® Multi-Touch Gesture Touchscreen Controller

Features

- TrueTouch® capacitive touchscreen controller
 - Two finger positions reported
 - Second finger used for gesture detection
 - Screen sizes up to 3.6" diagonal
 - Up to 32 sense pins
 - Fat finger detection and tracking
 - Large-object detection
 - Self-calibrating to environmental changes
 - Resistant to LCD noise
 - Robust operation in noisy RF environments
 - 1.71 V to 5.5 V input supply range
 - Single supply voltage
 - Compatible with 1.8 V I2C signaling
 - Integrated voltage regulators – no need for dedicated voltage regulators
- Performance
 - Noise-free resolution: 0.1 mm
 - Accuracy with 1 finger on the touchscreen: 0.8 mm
 - Finger separation: 3.5 mm
 - >110 Hz refresh rate with one finger on the touchscreen
 - Best in class active power of 3.6 mW
 - Best in class low-power state current: 0.7 mA
 - Best in class deep sleep state current: 100 nA
- Extended feature set
 - Water rejection – no false touches
 - Capacitive buttons supported
 - On-chip gesture detection
 - Single-click, double-click, and two-finger clicks
 - One-finger and two-finger pan gestures
 - Zoom-in and zoom-out
- Sensor and system design
 - Supports chip-on-flex and chip-on-board
 - Supports plastic film and glass touch sensors
 - Supports a variety of touchscreen sensors and stickups
- Communication interface
 - I2C slave up to 400 kHz
 - SPI slave with 2 Mbps sustained data throughput
 - Field upgrades through integrated bootloader
- Host development kit (HDK)
 - Android driver support
 - Supports custom driver development
 - TrueTouch host emulator – acts as host for early prototyping
- Package options
 - 32-pin 5 × 5 × 0.55 mm QFN
 - 48-pin 7 × 7 × 1.0 mm QFN
 - 30-ball 2.2 × 2.32 × 0.4 mm WLCSP

Ordering Information

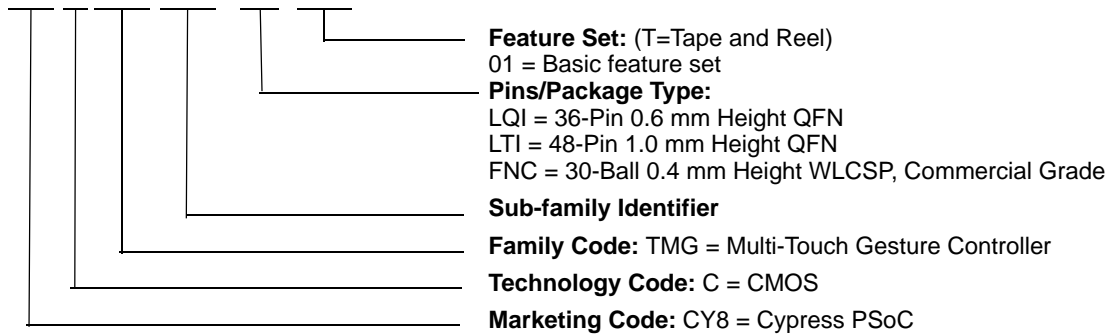
The following table lists the TrueTouch Standard Product Multi-Touch Gesture Touchscreen Controllers. For information on other TrueTouch families, please visit <http://www.cypress.com/truetouch>.

Table 1. Device Ordering Information

Part Number	TrueTouch					Sensor		Minimum Interface Voltage	Supply Voltage Operating Range	Bootloader	I2C	SPI	UART	Package
	Typical Screen Size (in.) (4:3 Aspect Ratio)	Maximum Nodes	Maximum Fingers	On-chip Gesture Decoding	Large Object Detection	Glass	Film							
CY8CTMG240-LQI-01(T)	3.3	24	2	✓	✓	✓	✓	1.8	1.71-5.5	✓	✓	✓	✓	32-pin QFN
CY8CTMG240-LTI-01(T)	3.6	32	2	✓	✓	✓	✓	1.8	1.71-5.5	✓	✓	✓	✓	48-pin QFN
CP8CTMG240-FNC-01	3.3	24	2	✓	✓	✓	✓	1.8	1.71-5.5	✓	✓	✓	✓	30-ball WLCSP

Ordering Code Definitions

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Document History Page

Document Title: CY8CTMG240, TrueTouch® Multi-Touch Gesture Touchscreen Controller Document Number: 001-91027				
Rev.	ECN No.	Orig. of Change	Submission Date	Description of Change
**	4278978	SWU	02/12/2014	New summary datasheet.

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