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Continuity of ordering part numbers

Infineon continues to support existing part numbers. Please continue to use the ordering part numbers listed in the datasheet for ordering.



THIS SPEC IS OBSOLETE

Spec No: 001-91022

Spec Title: CY8CTMA1036/768 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

■ Multi-touch capacitive touchscreen controller

- 32-bit ARM Cortex CPU
- Register configurable
- Noise suppression technologies for battery charger and display
 - Effective 28-V drive for higher signal-to-noise ratio (SNR)
 - ChargerArmor™ for charger noise immunity
 - External display synchronization
- Water rejection and wet finger tracking
- Large object rejection
- Automatic baseline tracking to environmental changes
- Low-power look-for-touch mode
- Field upgrades via bootloader
- Android™ driver support
- Cypress manufacturing test kit (MTK)
- Touchscreen sensor self-test and ID reporting

■ System performance

- Screen sizes up to 10.1-inch diagonal
 - 5.5-mm sensor pitch, 4:3 aspect ratio
- Up to 65 sense pins
 - 1036 intersections, (37 × 28)
- Reports up to 10 fingers
- Small finger support down to 4 mm
- Large finger support up to 22 mm
- Refresh rate up to 80 Hz; other rates configurable
- Fast first-touch response (≤25 ms)

■ Charger noise immunity

- Immunity up to 5 peak-to-peak voltage (V_{PP})

■ Power (configuration dependent)

- 1.71- to 5.5-V digital and I/O supply
- 2.60- to 5.5-V analog supply
- 9.25-mW average power
- 45- μ W typical deep-sleep power

■ Sensor and system design (configuration dependent)

- Supports a variety of touchscreen sensors and stackups
 - Manhattan and diamond patterns
 - Sensor-on-lens (SOL)
 - Plastic (PET) and glass sensor substrates
 - LCD and AMOLED displays
- Single-layer flexible printed circuit (FPC) routing enabled by flexible TX/RX configurations

■ Communication interface

- I²C slave at all standard bit rates
 - 100 kbps, 400 kbps, 1 Mbps, and 3.4 Mbps
- SPI slave bit rates up to 10 Mbps

■ Package

- 84-ball 6 × 6 × 0.6 UFBGA (0.5-mm ball pitch)

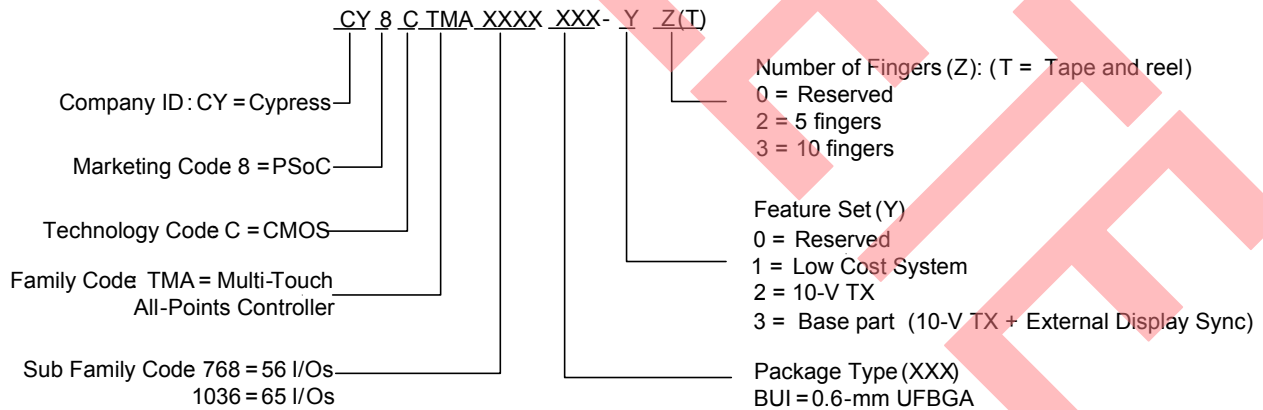
Ordering Information

Table 1 lists the CY8CTMA1036/768 (Gen4_L) TrueTouch touchscreen controllers. For information on other TrueTouch families, visit <http://www.cypress.com/truetouch>.

Table 1. Device Ordering Information

Family	Part Number	TrueTouch									Package	
		Number of Sense Pins	Typ Screen Size " (4.7mm pitch, 4:3 aspect ratio)	Maximum Fingers	ChargerArmor	CapSense Buttons	Water rejection	Large Object detect & Reject	10-V TX	External Display Sync	Package	Package Size (mm)
Low Cost System	CY8CTMA768BUI-12 (T)	56	7.5	5	4	4	4	4	–	–	84 BGA	6 x 6 x 0.6
	CY8CTMA768BUI-13 (T)	56	7.5	10	4	4	4	4	–	–	84 BGA	6 x 6 x 0.6
	CY8CTMA1036BUI-12 (T)	65	8.6	5	4	4	4	4	–	–	84 BGA	6 x 6 x 0.6
	CY8CTMA1036BUI-13 (T)	65	8.6	10	4	4	4	4	–	–	84 BGA	6 x 6 x 0.6
10-V TX	CY8CTMA768BUI-23 (T)	56	7.5	10	4	4	4	4	4	–	84 BGA	6 x 6 x 0.6
	CY8CTMA1036BUI-23 (T)	65	8.6	10	4	4	4	4	4	–	84 BGA	6 x 6 x 0.6
Base	CY8CTMA768BUI-33 (T)	56	7.5	10	4	4	4	4	4	4	84 BGA	6 x 6 x 0.6
	CY8CTMA1036BUI-33 (T)	65	8.6	10	4	4	4	4	4	4	84 BGA	6 x 6 x 0.6
Custom: Reserved for Kits	CY8CTMA768BUI-00	56	7.5	10	4	4	4	4	4	4	84 BGA	6 x 6 x 0.6
	CY8CTMA1036BUI-00	65	8.6	10	4	4	4	4	4	4	84 BGA	6 x 6 x 0.6

Ordering Code Definitions



Document History

Document Title: CY8CTMA1036/768 TrueTouch® Multi-Touch All-Points Touchscreen Controller				
Document Number: 001-91022				
Revision	ECN	Orig. of Change	Submission Date	Description of Change
**	4274818	SWU	02/11/2014	New datasheet.
*A	4788718	SWU	06/08/2015	Obsolete document.

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