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Continuity of document content

The fact that Infineon offers the following product as part of the Infineon product portfolio does not lead to any changes to this document. Future revisions will occur when appropriate, and any changes will be set out on the document history page.

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.

Automotive TrueTouch® Multi-Touch All-Points Touchscreen Controller

Features

- **Automotive Electronics Council (AEC) Q100 qualified**
- **Multi-touch capacitive touchscreen and touchpad controller**
 - 32-bit ARM Cortex CPU
 - Register configurable
 - Noise suppression technologies for display and EMI
 - On-chip 10-V TX supply for higher signal-to-noise ratio (SNR)
 - 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, 4:3 aspect ratio (37 × 28)
 - Reports up to 10 fingers
 - Small finger support down to 5 mm
 - Large finger support up to 22 mm
 - Refresh rate up to 80 Hz; other rates configurable
 - Fast first-touch response (≤ 37.5 ms for a 10.1-inch panel)
- **Power (configuration dependent)**
 - 1.71-V to 5.5-V digital and I/O supply
 - 2.60-V to 5.5-V analog supply
 - 71-mW average power while sensing
 - 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 on cell flexible printed circuit (FPC) routing enabled by flexible TX/RX configurations
- **I²C and SPI interface options**
 - I²C slave at all standard bit rates
 - 100 kbps, 400 kbps, 1 Mbps, and 3.4 Mbps
 - SPI slave bit rates up to 8 Mbps
- **Package options**
 - 100-pin TQFP, 14 × 14 × 1.4 mm, 0.5-mm pin-pitch
- **Temperature ranges**
 - Automotive-A: -40 °C to 85 °C
 - Automotive-S: -40 °C to 105 °C

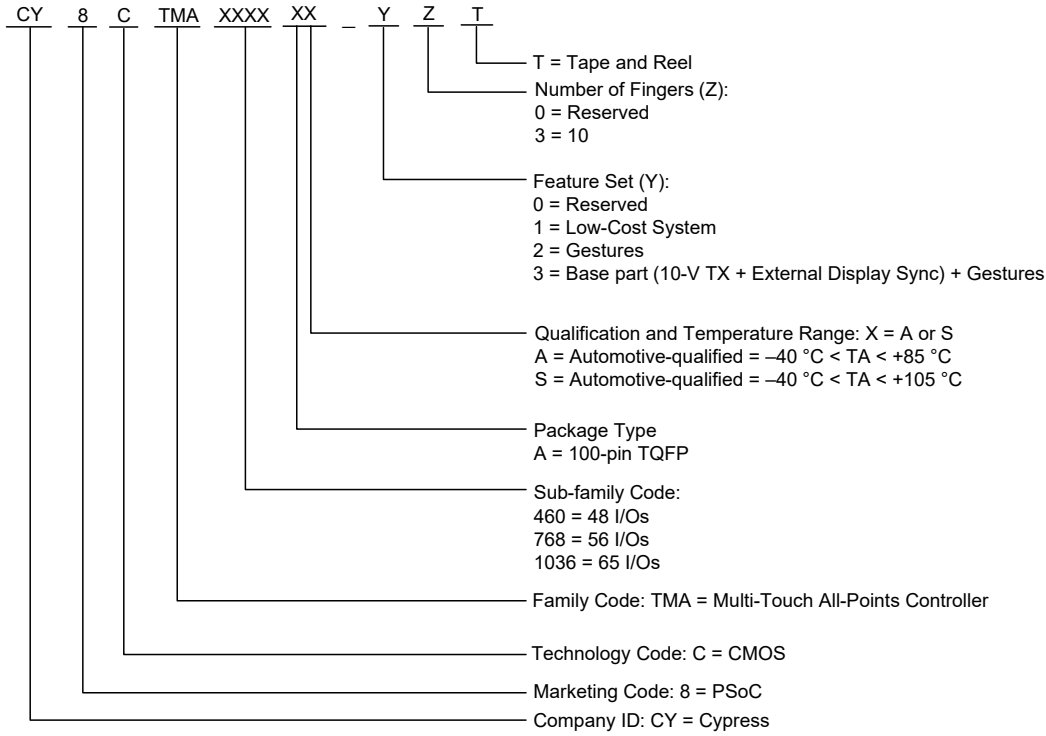
Ordering Information

Table 1 lists the CY8CTMA1036/768/460 TrueTouch touchscreen controllers. For information on other TrueTouch families, visit <http://www.cypress.com/truetouch>.

Table 1. Device Ordering Information

Family	Marketing Part Number	Number of Sense Pins	Number of fingers	CapSense Buttons	Water Rejection	Object Detect and Reject	Glove Support	Gestures	10-V TX	External Display Sync	Package	Package Size	Silicon ID
Low cost	CY8CTMA460AA-13	48	10	✓	✓	✓	✓	-	-	-	100 TQFP	14 × 14 × 1.4 mm	0x01832390
	CY8CTMA460AS-13	48	10	✓	✓	✓	✓	-	-	-	100 TQFP	14 × 14 × 1.4 mm	0x01842390
	CY8CTMA768AA-13	56	10	✓	✓	✓	✓	-	-	-	100 TQFP	14 × 14 × 1.4 mm	0x01752390
	CY8CTMA768AS-13	56	10	✓	✓	✓	✓	-	-	-	100 TQFP	14 × 14 × 1.4 mm	0x01762390
	CY8CTMA1036AA-13	65	10	✓	✓	✓	✓	-	-	-	100 TQFP	14 × 14 × 1.4 mm	0x01772390
	CY8CTMA1036AS-13	65	10	✓	✓	✓	✓	-	-	-	100 TQFP	14 × 14 × 1.4 mm	0x01782390
Gestures	CY8CTMA460AA-23	48	10	✓	✓	✓	✓	✓	-	-	100 TQFP	14 × 14 × 1.4 mm	0x01852390
	CY8CTMA460AS-23	48	10	✓	✓	✓	✓	✓	-	-	100 TQFP	14 × 14 × 1.4 mm	0x01862390
	CY8CTMA768AA-23	56	10	✓	✓	✓	✓	✓	-	-	100 TQFP	14 × 14 × 1.4 mm	0x01792390
	CY8CTMA768AS-23	56	10	✓	✓	✓	✓	✓	-	-	100 TQFP	14 × 14 × 1.4 mm	0x017A2390
	CY8CTMA1036AA-23	65	10	✓	✓	✓	✓	✓	-	-	100 TQFP	14 × 14 × 1.4 mm	0x017B2390
	CY8CTMA1036AS-23	65	10	✓	✓	✓	✓	✓	-	-	100 TQFP	14 × 14 × 1.4 mm	0x017C2390
Base	CY8CTMA460AA-33	48	10	✓	✓	✓	✓	✓	✓	✓	100 TQFP	14 × 14 × 1.4 mm	0x01872390
	CY8CTMA460AS-33	48	10	✓	✓	✓	✓	✓	✓	✓	100 TQFP	14 × 14 × 1.4 mm	0x01882390
	CY8CTMA768AA-33	56	10	✓	✓	✓	✓	✓	✓	✓	100 TQFP	14 × 14 × 1.4 mm	0x017D2390
	CY8CTMA768AS-33	56	10	✓	✓	✓	✓	✓	✓	✓	100 TQFP	14 × 14 × 1.4 mm	0x017E2390
	CY8CTMA1036AA-33	65	10	✓	✓	✓	✓	✓	✓	✓	100 TQFP	14 × 14 × 1.4 mm	0x017F2390
	CY8CTMA1036AS-33	65	10	✓	✓	✓	✓	✓	✓	✓	100 TQFP	14 × 14 × 1.4 mm	0x01802390
Custom	CY8CTMA1036AA-00	65	10	✓	✓	✓	✓	✓	✓	✓	100 TQFP	14 × 14 × 1.4 mm	0x01812390
	CY8CTMA1036AS-00	65	10	✓	✓	✓	✓	✓	✓	✓	100 TQFP	14 × 14 × 1.4 mm	0x01822390

Ordering Code Definitions



Document History Page

Document Title: CY8CTMA1036/768/460 Automotive TrueTouch® Multi-Touch All-Points Touchscreen Controller Document Number: 001-94115				
Revision	ECN	Orig. of Change	Submission Date	Description of Change
**	4495966	KAUL	09/09/2014	New summary datasheet.
*A	5718187	AESATMP7	04/28/2017	Updated Cypress Logo and Copyright.
*B	5861817	ANEE	08/30/2017	Updated Ordering Code Definitions . Updated Sales page and Copyright information.

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