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Continuity of document content

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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.



PSoC™ Automotive Multitouch All-Points Touchscreen Controller

Features

- **Automotive Electronics Council (AEC) Q100 qualified**
- **Multitouch 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-μW 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

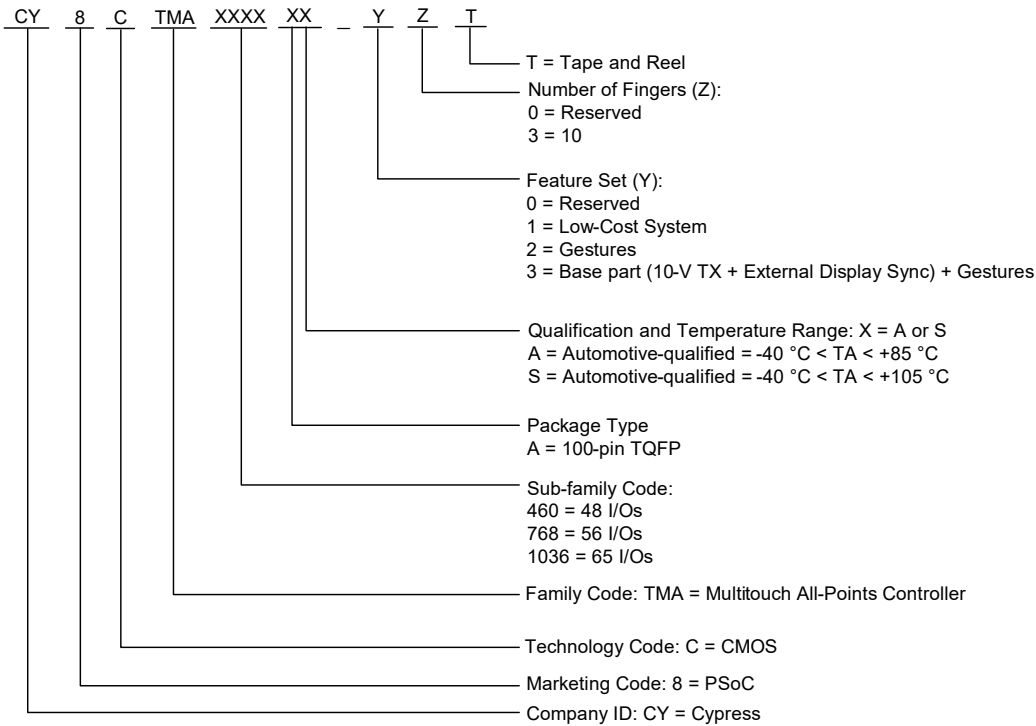
Ordering Information

Table 1 lists the CY8CTMA1036/768/460 PSoC™ Automotive Multitouch touchscreen controllers.

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 |
| | CY8CTMA1036AA-13 | 65 | 10 | ✓ | ✓ | ✓ | ✓ | - | - | - | 100 TQFP | 14 × 14 × 1.4 mm | 0x01772390 |
| Base | CY8CTMA460AS-33 | 48 | 10 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100 TQFP | 14 × 14 × 1.4 mm | 0x01882390 |
| | CY8CTMA768AS-33 | 56 | 10 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100 TQFP | 14 × 14 × 1.4 mm | 0x017E2390 |
| | CY8CTMA1036AS-33 | 65 | 10 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100 TQFP | 14 × 14 × 1.4 mm | 0x01802390 |

Ordering Code Definitions



Document History Page

| Document Title: CY8CTMA1036/768/460, PSoC™ Automotive Multitouch All-Points Touchscreen Controller Document Number: 001-94115 | | | |
|--|---------|-----------------|---|
| Revision | ECN | Submission Date | Description of Change |
| ** | 4495966 | 09/09/2014 | New summary datasheet. |
| *A | 5718187 | 04/28/2017 | Updated Cypress Logo and Copyright. |
| *B | 5861817 | 08/30/2017 | Updated Ordering Code Definitions . Updated Sales page and Copyright information. |
| *C | 7761532 | 05/16/2022 | Updated to the PSoC™ Automotive Multitouch branding guidelines. Removed the following Obsolete/EOL Prune part numbers from Ordering Information : CY8CTMA460AS-13, CY8CTMA768AA-13, CY8CTMA768AS-13, CY8CTMA1036AS-13, CY8CTMA460AA-23, CY8CTMA460AS-23, CY8CTMA768AA-23, CY8CTMA768AS-23, CY8CTMA1036AA-23, CY8CTMA1036AS-23, CY8CTMA460AA-33, CY8CTMA768AA-33, CY8CTMA1036AA-33, CY8CTMA1036AA-00, and CY8CTMA1036AS-00. |

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