

ADVANCED

CY8CTMG100

TrueTouch[™] Multi-Touch Gesture Touchscreen Controller

Features

- TrueTouch[™] Capacitive Touchscreen Controller
 - □ Supports Single-Touch and Multi-Touch Applications
 - □ Supports up to 25 X/Y Sensor Inputs
 - □ Supports Screen Sizes 4.7" and Below (Typical)
 - □ Fast Scan Rates: Typical 300 us per Sensor
 - □ High Resolution: Typical 320 x 240 for 2.6" Screen
 - □ I²C Slave: 1.8V I²C Support
 - Available in Thin 0.6 mm 32-Pin QFN Package
- Lowest Power TrueTouch Touchscreen Device
 1.9 mA Average Supply Current at 8 ms Report Rate
 1.0 mA Average Supply Current at 16 ms Report Rate
- Includes Gesture Detection Library
- Allows Development of Customized Gestures
- Powerful Harvard Architecture Processor
 M8C Processor Speeds Running up to 12 MHz
 Low Power at High Speed
 2.4V to 5.25V Operating Voltage
 Industrial Temperature Range: -40°C to +85°C
- Flexible On-Chip Memory
- 8K Flash Program Storage, 50000 Erase/Write Cycles
- □ 512 Bytes SRAM Data Storage
- Partial Flash Updates
- □ Flexible Protection Modes
- Interrupt Controller
- □ In-System Serial Programming (ISSP)
- Complete Development Tools
 - □ Free Development Tool (PSoC Designer™)
 - TrueTouch Touchscreen Tuner
 - □ Full Featured, In-Circuit Emulator and Programmer
 - Full Speed Emulation
 - Complex Breakpoint Structure
 - □ 128K Trace Memory
- Precision, Programmable Clocking
 - □ Internal ±5.0% 6 and 12 MHz Main Oscillator
 - Internal Low Speed Oscillator at 32 kHz for Watchdog and Sleep
- Programmable Pin Configurations
 - Pull Up, High Z, Open Drain, and CMOS Drive Modes on All GPIO
 - Configurable Inputs on All GPIO
 - Selectable, Regulated Digital IO on Port 1
 - □ 3.0V, 20 mA Total Port 1 Source Current
 - □ 5 mA Strong Drive Mode on Port 1 Versatile Analog Mux
 - Common Internal Analog Bus
 - Simultaneous Connection of IO Combinations

- Additional System Resources
 - Configurable Communication Speeds
 - I²C: Selectable to 50 kHz, 100 kHz, or 400 kHz
 - SPI: Configurable between 46.9 kHz and 3 MHz
 - □ SPI Master and SPI Slave
 - Watchdog and Sleep Timers
 - □ Internal Voltage Reference
 - □ Integrated Supervisory Circuit



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Document History Page

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Revision	ECN	Orig. of Change	Submission Date	Description of Change			
**	2518134	DSO/AESA	06/18/08	New data sheet			
*A	2523303	DSO/PYRS	06/30/08	Updated supported screen sizes to 4.7" and below			

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Page 2 of 2

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