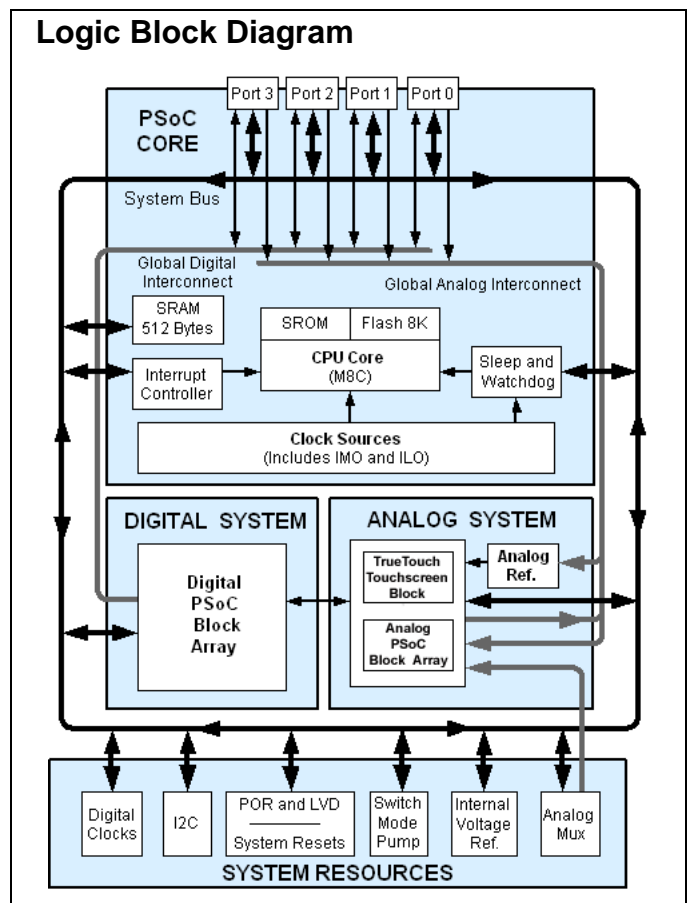# TrueTouch™ Single-Touch Touchscreen Controller

Features

- TrueTouch™ Capacitive Touchscreen Controller
  - Supports Single-Touch Touchscreen Applications
  - Supports up to 25 X/Y Sensor Inputs
  - Supports Screen Sizes 4" and Below (Typical)
  - Fast Scan Rates: Typical 1 ms per Sensor
  - High Resolution: Typical 320 x 240 for 2.6" Screen
  - Available in 32-Pin QFN Package
  - Transition to Higher Function Multi-Touch Gesture Device

- Highly Configurable Sensing Circuitry
  - Allows Maximum Design Flexibility
  - Allows Trade-Off Between Scan Time and Noise Performance

- Provides Maximum EMI Immunity
  - Selectable Spread-Spectrum Clock Source

- Low Power TrueTouch Single-Touch Touchscreen Device
  - 4 mA Average Supply Current at 8 ms Report Rate
  - 2 mA Average Supply Current at 16 ms Report Rate

- Powerful Harvard Architecture Processor
  - M8C Processor Speeds to 24 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
  - In-System Serial Programming (ISSP™)
  - Partial Flash Updates
  - Flexible Protection Modes
  - EEPROM Emulation in Flash

- Complete Development Tools
  - Free Development Software (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 ±2.5% 24/48 MHz Oscillator
  - Internal Oscillator for Watchdog and Sleep

- Programmable Pin Configurations
  - 25 mA Drive on All GPIO
  - Pull Up, Pull Down, High Z, Strong, or Open Drain Drive Modes on All GPIO
  - Up to 8 Analog Inputs on GPIO
  - Configurable Interrupt on All GPIO

- Additional System Resources
  - I^2C™ Master, Slave, and Multi-Master to 400 kHz
  - Watchdog and Sleep Timers
  - User-Configurable Low Voltage Detection
  - Integrated Supervisory Circuit
  - On-Chip Precision Voltage Reference

Logic Block Diagram

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Document History Page

Document Title: CY8CTST110 True Touch™ Single-Touch Touchscreen Controller Document Number: 001-46931				
Revision	ECN	Orig. of Change	Submis-sion Date	Description of Change
**	2518134	DSO/AESA	06/18/08	New data sheet

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