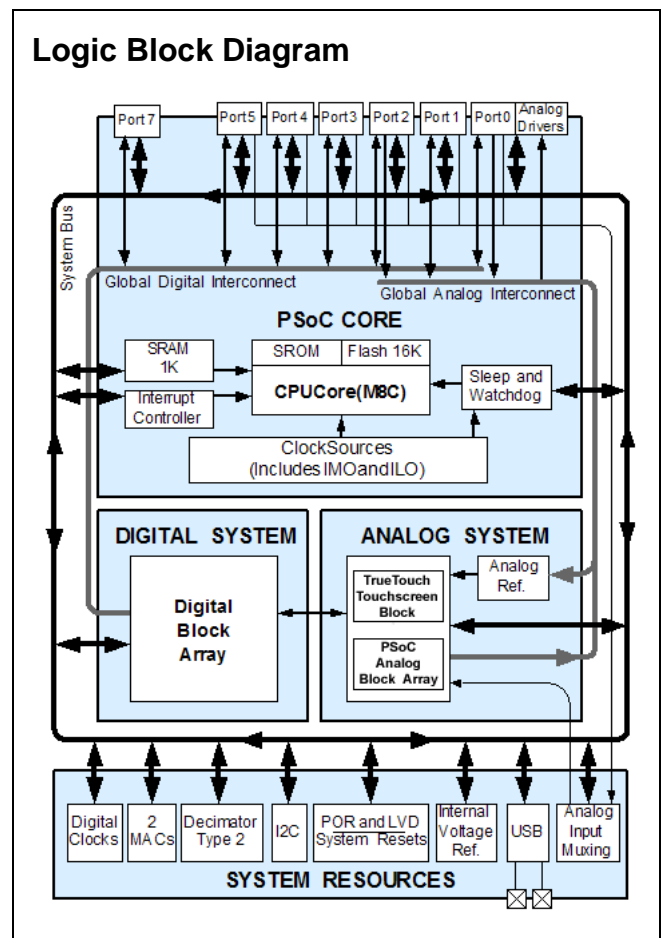


TrueTouch™ Single-Touch Touchscreen Controller

Features

- TrueTouch™ Capacitive Touchscreen Controller
 - Supports Single-Touch Touchscreen Applications
 - Supports up to 45 X/Y Sensor Inputs
 - Supports Screen Sizes 8.5" and Below (Typical)
 - Fast Scan Rates: Typical 125 us per X/Y Crossing
 - High Resolution: Typical 480 x 360 for 3.5" Screen
 - Available in 56-Pin QFN Package
 - Seamless Transition up to Higher Function Multi-Touch Gesture and Multi-Touch All-Points-Addressable Devices
- Lowest Noise TrueTouch 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
- Powerful Harvard Architecture Processor
 - M8C Processor Speeds to 24 MHz
 - Two 8x8 Multiply, 32-Bit Accumulate
 - Low Power at High Speed
 - 3V to 5.25V Operating Voltage
 - Industrial Temperature Range: -40°C to +85°C
 - USB Temperature Range: -10°C to +85°C
- Full-Speed USB (12 Mbps)
 - Four Uni-Directional Endpoints
 - One Bi-Directional Control Endpoint
 - USB 2.0 Compliant
 - Dedicated 256 Byte Buffer
 - No External Crystal Required
- Flexible On-Chip Memory
 - 16K Flash Program Storage, 50000 Erase/Write Cycles
 - 1K SRAM Data Storage
 - In-System Serial Programming (ISSP)
 - Partial Flash Updates
 - Flexible Protection Modes
 - EEPROM Emulation in Flash
- Precision, Programmable Clocking
 - Internal ±4% 24/48 MHz Oscillator
 - Internal Oscillator for Watchdog and Sleep
 - 25% Accuracy for USB with no External Components
- Additional System Resources
 - I²C™ Slave, Master, and Multi-Master to 400 kHz
 - Watchdog and Sleep Timers
 - User-Configurable Low Voltage Detection
 - Integrated Supervisory Circuit
 - On-Chip Precision Voltage Reference
- 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 Bytes Trace Memory
- Programmable Pin Configurations
 - 25 mA Sink on All GPIO
 - Pull Up, Pull Down, High Z, Strong, or Open Drain Drive Modes on All GPIO
 - Configurable Interrupt on All GPIO

Logic Block Diagram



Document History Page

| Document Title: CY8CTST120 TrueTouch™ Single-Touch Touchscreen Controller | | | | |
|--|---------|-----------------|-----------------|-----------------------|
| Document Number: 001-46932 | | | | |
| Revision | ECN | Orig. of Change | Submission Date | Description of Change |
| ** | 2518134 | DSO/AESA | 06/18/08 | New data sheet |

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