



**SHARP's New Line
of MCUs and
System-On-Chips**

LH75400 16/32-bit Microcontroller with Grayscale LCD Controller

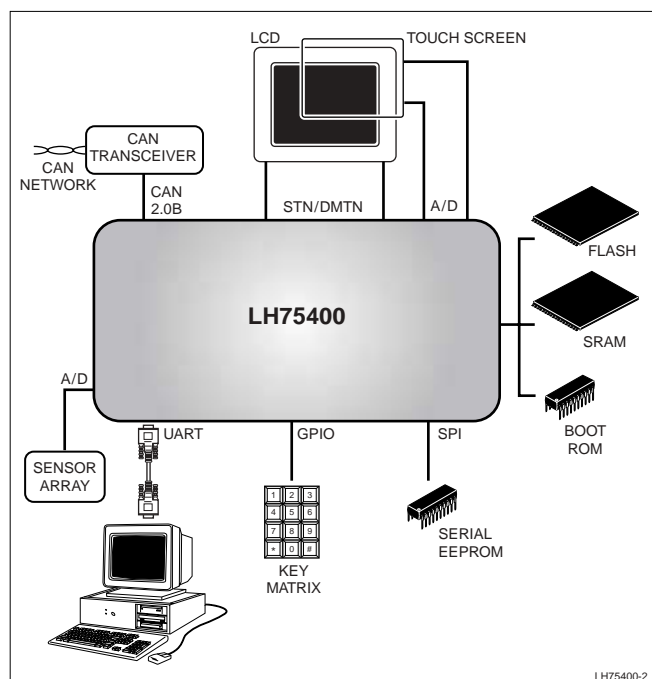
FEATURES

- ARM7TDMI™ Core
- High Performance (50 MHz)
 - Internal PLL-driven or External Clock
- 32KB On-chip SRAM
- Clock and Power Management
 - Low Power Modes: Standby, Sleep, Stop
- Grayscale LCD Controller
 - Up to VGA (640 × 480)
 - 4-bit Video Bus
 - Supports STN Displays
 - 4-bit (16) Gray Shade Support
- Eight Input, 10-bit A/D Converter
- Four DMA Channels
- Integrated Touch Screen Controller
- Serial Interfaces
 - 2 × 16C550 UARTs
 - 1 × 82510 UART
 - SSP
- Full-featured Real Time Clock (RTC)
 - Operates from 32 kHz XTAL
- CAN Version 2.0b
- Three 16-bit Counter/Timers with Capture/Compare/PWM Capability
- Watchdog Timer
- Low Voltage Detector
- JTAG Debug Interface and Boundary Scan
- 3.3 V Operating Voltage
- -40°C to +85°C Operating Temperature
- 144-pin TQFP Package

DESCRIPTION

The LH75400 is a low cost microcontroller that utilizes the ARM7TDMI core integrated with a wide variety of functions including the capability to control black and white and grayscale LCD displays with up to 16 shades of gray. Other functions include: 32KB of on-chip SRAM, three UARTs, SSP, CAN version 2.0b, three 16-bit Counter/Timers, Analog to Digital Converter with integrated touch screen controller, Watchdog Timer, and Low Voltage Detector. The LH75400 operates up to 50 MHz at 3.3 V over the industrial temperature range of -40°C to +85°C and is offered in a 144-pin TQFP package.

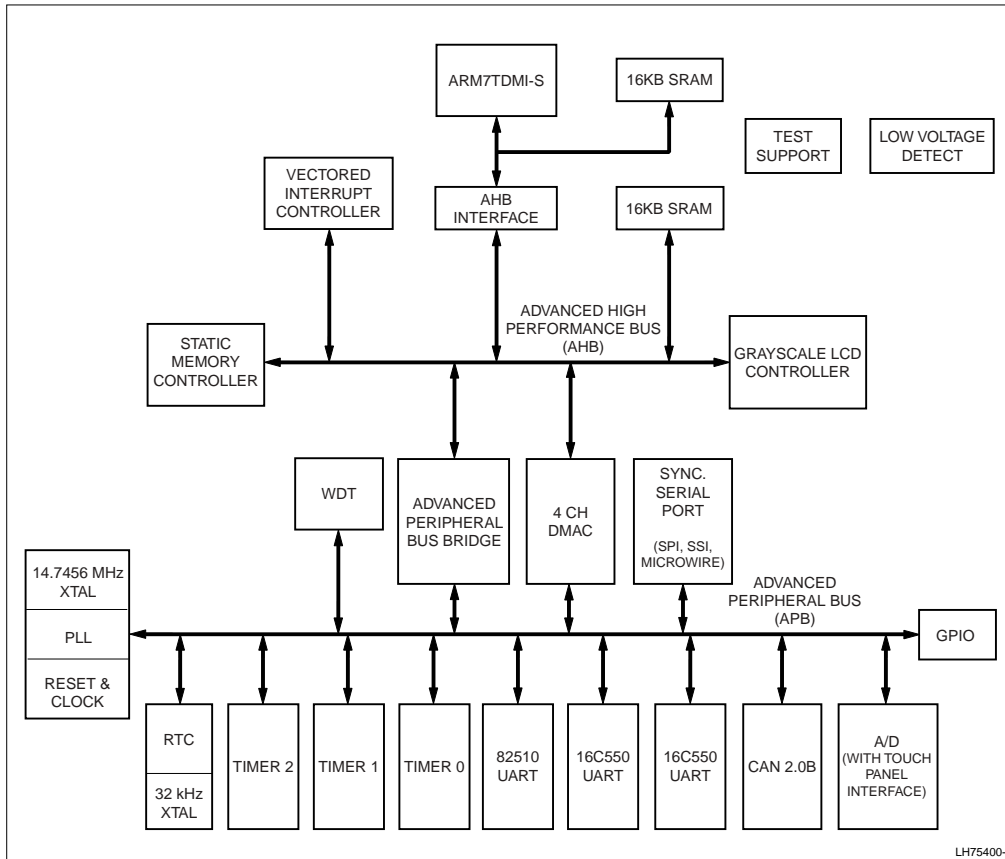
SYSTEM APPLICATION EXAMPLE



PRELIMINARY PRODUCT INFORMATION

SHARP

LH75400 BLOCK DIAGRAM



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