

LH79520 System-on-Chip Solution for Color LCD Applications

APPLICATIONS:

- PDAs
- GPS
- Web Pads
- Media Players
- Test and Measurement

FEATURES

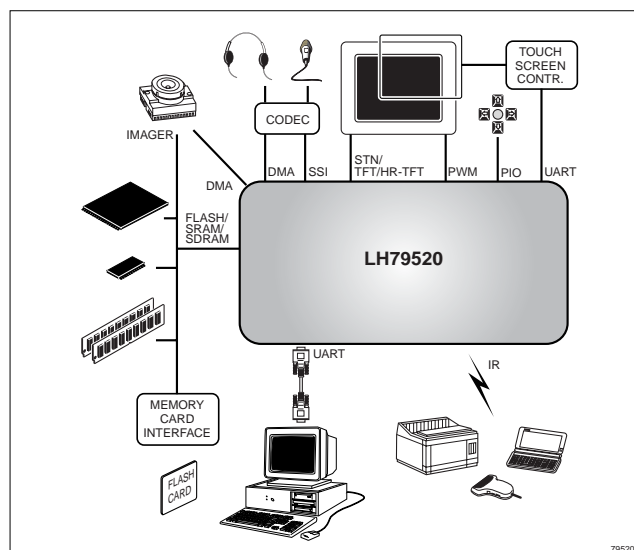
- ARM720T™ Core
 - 32-bit ARM7TDMI™ RISC Core
 - 8KB Cache
 - MMU
- High Performance (75 MHz)
- 32KB On-Chip SRAM
- Clock and Power Management
 - 32 kHz Oscillator for RTC
 - 14.7 MHz Oscillator and PLL for System Clock
- Programmable Color LCD Controller
 - Up to 800 × 600 Resolution
 - Supports STN, Color STN, HR-TFT, TFT
 - Up to 64 k Colors
- Flexible External Memory Interface
 - SDRAM support
 - SRAM/Flash/ROM support
- DMA (four channels)
- Synchronous Serial Interface (SSI)
- Four Counter/Timers
- Two Pulse Width Modulators (PWM)
- Three UARTs — 16C550-like
 - Classic IrDA (115 kbps)
- Real Time Clock (RTC)
- Up to 64 General Purpose I/Os
- Programmable Vectored Interrupt Controller
- Watchdog Timer
- JTAG Debug Interface and Boundary Scan
- Low Power Modes
 - Active Mode: 70 mA (MAX.)
 - Standby Mode: 40 mA (MAX.)
 - Sleep Mode: 3 mA (MAX.)
 - Stop Mode: 5 µA
- Operating Voltage
 - 1.8 V Core
 - 3.3 V Input/Output (1.8 V I/O optional)
- Temperature
 - 0°C to 70°C Commercial
 - -40°C to +85°C Industrial
- 176-pin LQFP Package

DESCRIPTION

The LH79520, powered by an ARM720T, is a complete System-On-Chip that breaks the cost/performance barrier with a high level of integration to satisfy a wide range of requirements and expectations. The LH79520 combines a 32-bit ARM7TDMI RISC, 8KB Cache, MMU, color LCD controller, and local SRAM. Also included are a number of essential peripherals such as a DMA Controller, Serial and Parallel Interfaces, Infrared Support, Counter/Timers, Real Time Clock, Watchdog Timer, Pulse Width Modulators, etc. and an on-chip Phase Lock Loop.

This high level of integration lowers overall system cost, reduces development cycle time and accelerates product introduction. The LH79520's fully static design, power management unit, low voltage operation (1.8 V Core, 3.3 V Input/Output [1.8 V I/O optional]), on-chip PLL, and very low power RISC core provide high performance at a low current draw.

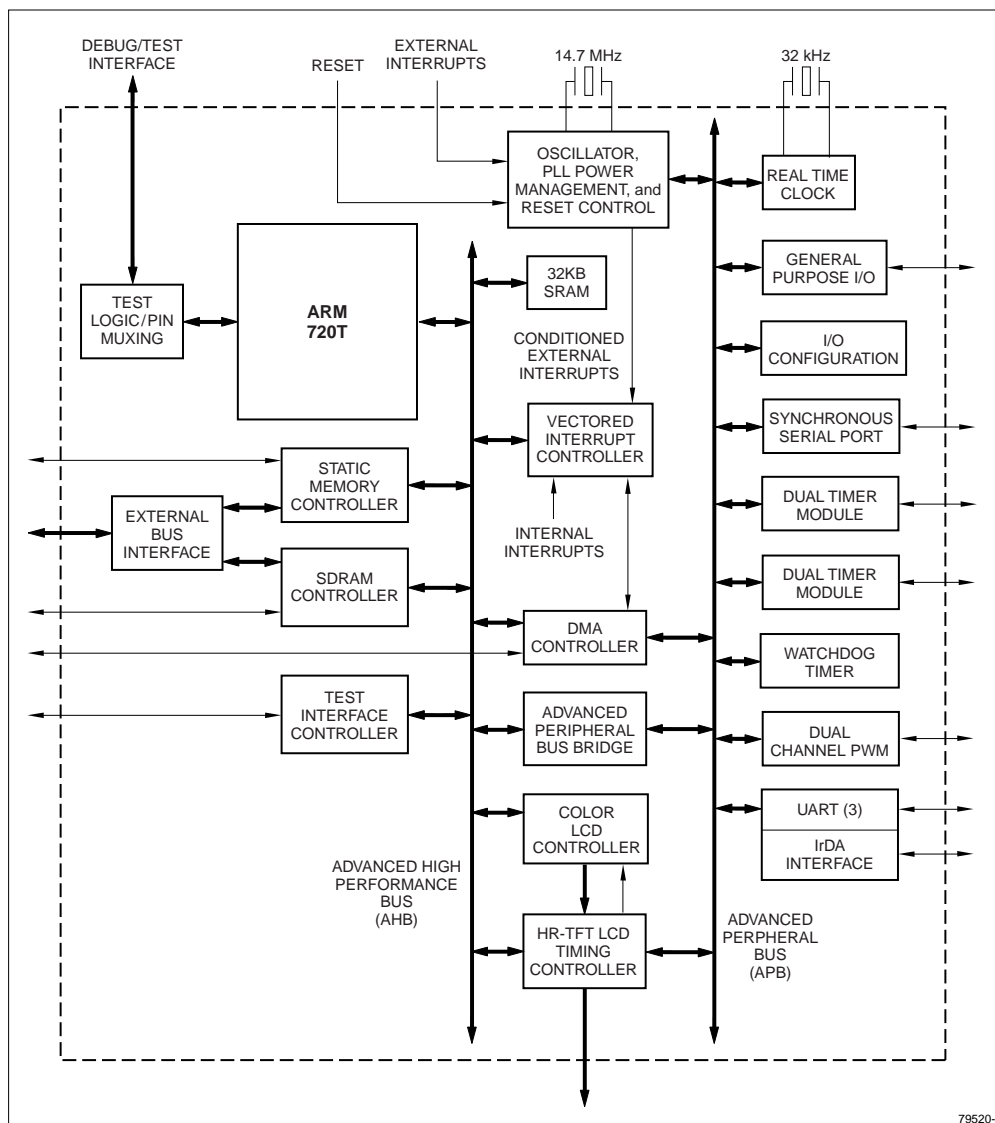
HANDHELD PDA APPLICATION EXAMPLE



PRELIMINARY PRODUCT INFORMATION

SHARP®

LH79520 BLOCK DIAGRAM



79520-1

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