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of MCUs and
System-on-Chips**

APPLICATIONS:

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

LH79520 System-on-Chip Solution for Color LCD Applications

FEATURES

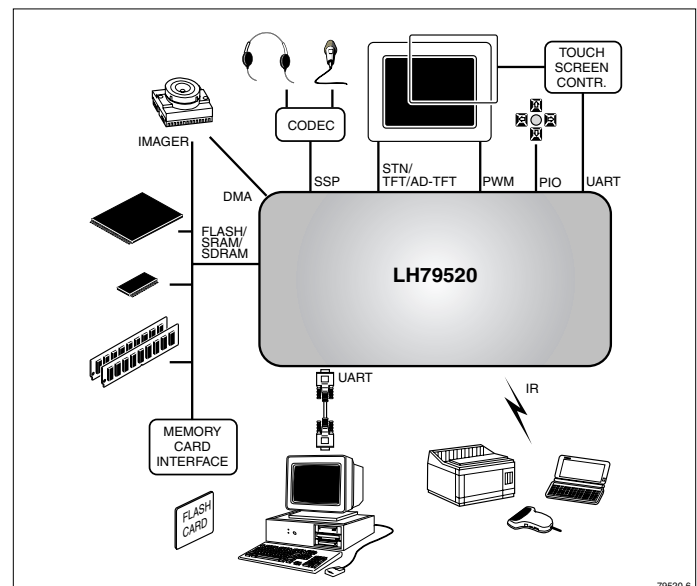
- ARM720T™ Core
 - 32-bit ARM7TDMI™ RISC Core
 - 8KB Cache
 - MMU
- High Performance (77.4 MHz)
- 32KB On-Chip SRAM
- Clock and Power Management
 - 32 kHz Oscillator for RTC
 - 14.7 MHz Oscillator and PLL for System Clock
- Programmable Color LCD Controller
 - Up to SVGA (800 × 600) 16-bit Resolution
 - Up to XGA (1,024 × 768) 8-bit Resolution
 - Supports STN, Color STN, AD-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 with Classic IrDA
- Real Time Clock (RTC)
- Up to 64 General Purpose I/Os (5 V Tolerant)
- Programmable Vectored Interrupt Controller
- Watchdog Timer
- JTAG Debug Interface and Boundary Scan
- Low Power Modes
 - Active Mode: 55 mA (MAX.)
 - Standby Mode: 35 mA (MAX.)
 - Sleep Mode: 5.5 mA (MAX.)
 - Stop Mode: 18 µA
- Operating Voltage
 - 1.8 V Core
 - 3.3 V Input/Output
- Temperature
 - -40°C to +85°C Industrial
- 176-pin 22 x 22 mm LQFP

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, Infra-red Support, Counter/Timers, Real Time Clock, Watchdog Timer, Pulse Width Modulators, and an on-chip Phase Lock Loop.

This high level of integration lowers overall system cost, reduces development cycle time and accelerates product introduction. Featuring 5 V tolerant inputs, the LH79520's fully static design, power management unit, low voltage operation (1.8 V Core, 3.3 V Input/Output), on-chip PLL, and very low power RISC core provide high performance at a low current draw.

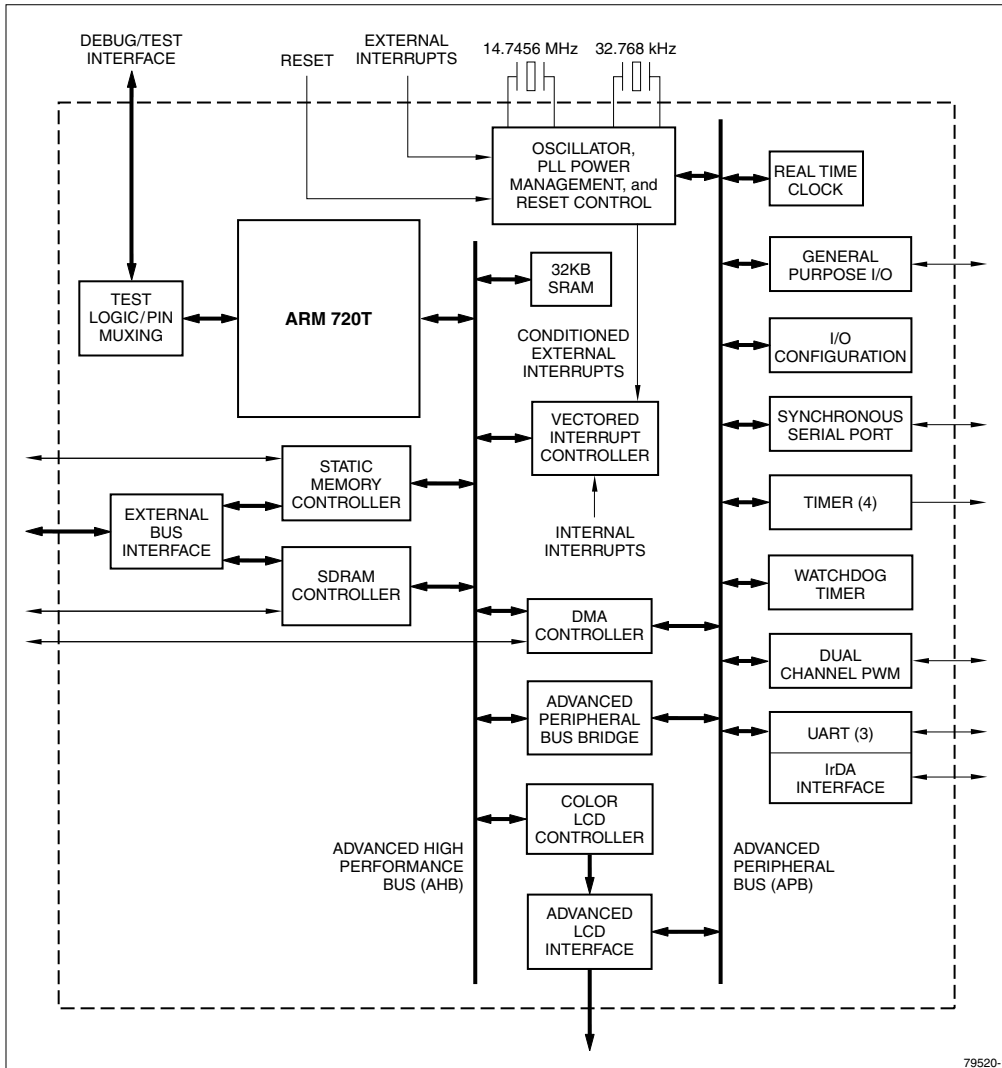
HANDHELD PDA APPLICATION EXAMPLE



PRODUCT INFORMATION

SHARP

LH79520 BLOCK DIAGRAM



79520-1

SHARP[®]

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