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### Understanding [Embedded - Microcontroller, Microprocessor, FPGA Modules](#)

Embedded - Microcontroller, Microprocessor, and FPGA Modules are fundamental components in modern electronic systems, offering a wide range of functionalities and capabilities. Microcontrollers are compact integrated circuits designed to execute specific control tasks within an embedded system. They typically include a processor, memory, and input/output peripherals on a single chip. Microprocessors, on the other hand, are more powerful processing units used in complex computing tasks, often requiring external memory and peripherals. FPGAs (Field Programmable Gate Arrays) are highly flexible devices that can be configured by the user to perform specific logic functions, making them invaluable in applications requiring customization and adaptability.

### Applications of [Embedded - Microcontroller,](#)

#### Details

Product Status	Obsolete
Module/Board Type	MPU Core
Core Processor	ARM720T, LH79520
Co-Processor	-
Speed	77.4MHz
Flash Size	16MB
RAM Size	32MB
Connector Type	SO-DIMM-144
Size / Dimension	2.37" x 2.67" (60.2mm x 67.8mm)
Operating Temperature	0°C ~ 70°C
Purchase URL	<a href="https://www.e-xfl.com/product-detail/logic-pd/cenglh79520-10-403hcr-a">https://www.e-xfl.com/product-detail/logic-pd/cenglh79520-10-403hcr-a</a>

**PRODUCT BRIEF:**

Logic :: NXP

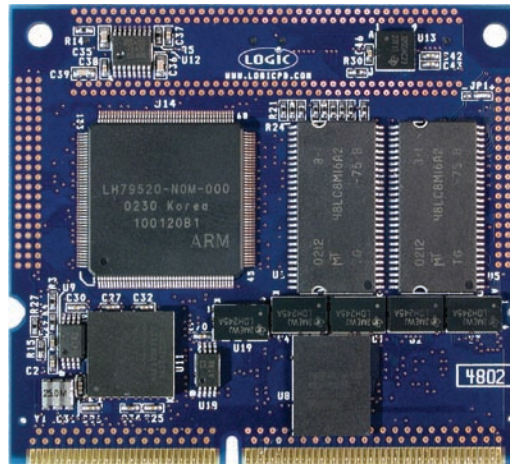
## LH79520 CARD ENGINE System on Module

The LH79520 Card Engine is a compact, product-ready hardware and software solution that fast forwards your embedded product design.

The LH79520 Card Engine is a complete System on Module (SOM) that offers essential features for handheld and embedded networking applications. Use of custom baseboards makes the Card Engine the ideal foundation for OEMs developing handheld and compact products. The Card Engine provides a common reference pin-out on its expansion connectors, which enables easy scalability to next generation microprocessor Card Engines when new functionality or performance is required.

Application development is performed right on the product-ready LH79520 Card Engine and software Board Support Packages (BSPs), which enables you to seamlessly transfer your application code and hardware into production.

The LH79520 Card Engine is ideal for applications in the medical, point-of-sale, industrial, and security markets. From patient



LH79520 CARD ENGINE

monitoring and medical imaging, to card payment terminals and bar code readers, to CCTV cameras and intruder alarms, the LH79520 Card Engine allows for powerful versatility and long-life products.

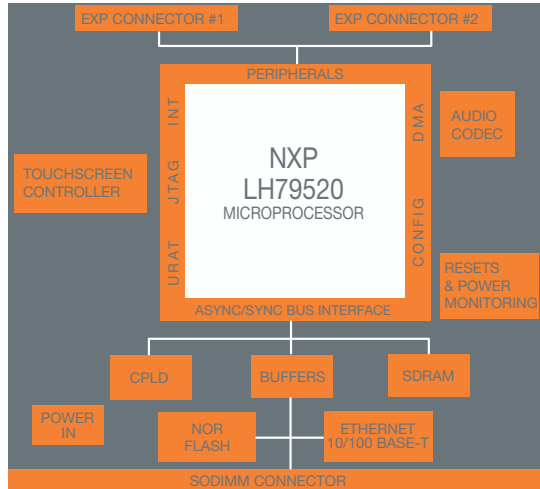
**LH79520 CARD ENGINE :: HIGHLIGHTS:**

- +Product-ready System on Module with the NXP LH79520 microprocessor running up to 77.4 MHz
- +Compact form factor 60.2 mm x 67.8 mm x 4.4 mm
- +Long product life-cycle
- +0°C to 70°C (commercial temp)
- +RoHS compliant

**LH79520 ZOOM™ SDK :: FEATURES:**

- +Application baseboard
- +LH79520 Card Engine (CENGLH79520-10-402HC)
- +Necessary accessories to immediately get up and running
- +Kit available from Logic (SDK-LH79520-10-3208)
- +See Zoom™ SDK product brief for more information

## LH79520 Card Engine Block Diagram



## LH79520 Card Engine Ordering Information

Logic Model Number	Speed (MHz)	SDRAM (MB)	NAND Flash (MB)	NOR Flash (MB)	Touch	Audio	Ethernet	Temp (°C)
CENGLH79520-10-402HC <sup>1</sup>	77.4	32	0	8	Y	Y	Y	0 – 70
CENGLH79520-10-403HCR	77.4	32	0	16	Y	Y	Y	0 – 70

1. This non-RoHS configuration is only available as part of the LH79520 Zoom SDK.  
For production volumes, please use the RoHS compliant configuration.

## LH79520 ZOOM™ SDK Ordering Information

Logic Model Number	SOM Configuration	Recommended Resale
SDK-LH79520-10-3208 <sup>1</sup>	CENGLH79520-10-402HC <sup>1</sup>	\$299

1. This is a non-RoHS configuration.

### LOGIC WEBSITE :: DESIGN RESOURCES:

- + Logic Technical Support : <http://www.logicpd.com/support/>
- + Technical Discussion Group : <http://www.logicpd.com/support/tdg/>
- + Frequently Asked Questions (FAQ) : <http://www.logicpd.com/support/faq/>
- + For more information contact Logic Sales : [product.sales@logicpd.com](mailto:product.sales@logicpd.com)

## Product Features

### Processor

- + NXP ARM720T LH79520 microprocessor running up to 77.4 MHz

### SDRAM Memory

- + 32 MB SDRAM standard

### Flash Memory

- + 8 or 16 MB NOR

### Display

- + Programmable color LCD controller
- + Built-in driver supports up to 800 x 600 with 16-bit LCD interface

### Touch Screen

- + Integrated 4-wire touch screen controller

### Network Support

- + 10/100 Base-T Ethernet controller for application/debug (SMSC LAN 91C111)

### Audio

- + 16-bit I2S audio codec

### PC Card Expansion

- + CompactFlash Type I card (memory-mapped mode only)

### USB

- + One USB 2.0 full-speed device interface

### Serial Ports

- + Two 16C550 compatible UARTs

### SSP

- + Supports Motorola SPI, National Semiconductor MICROWIRE, TI SSI

### GPIO

- + Programmable I/O depending on peripheral requirements

### Software

- + LogicLoader™ (bootloader/monitor)

### Mechanical

- + 60.2 mm wide x 67.8 mm long x 4.4 mm high

### RoHS Compliant



embedded product solutions

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