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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	MCU Core
Core Processor	PXA270
Co-Processor	-
Speed	416MHz
Flash Size	64MB
RAM Size	64MB
Connector Type	SO-DIMM-144
Size / Dimension	2.37" x 2.67" (60.2mm x 67.8mm)
Operating Temperature	-40°C ~ 85°C
Purchase URL	https://www.e-xfl.com/product-detail/logic-pd/cengpxa270-416-10-550ei

PRODUCT BRIEF:

Logic :: Marvell

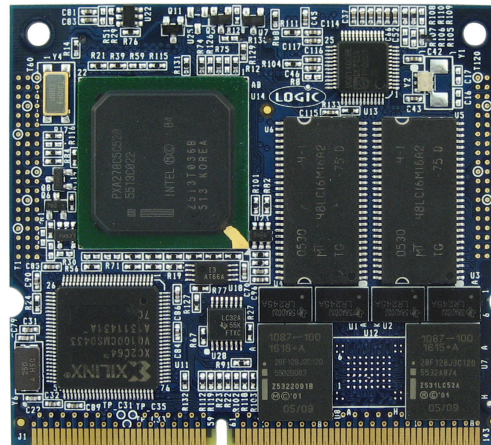
PXA270 CARD ENGINE System on Module

The PXA270 Card Engine is a compact, product-ready hardware and software solution that fast forwards your embedded product design.

The PXA270 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 PXA270 Card Engine and software Board Support Packages (BSPs), which enables you to seamlessly transfer your application code and hardware into production.

The PXA270 Card Engine is ideal for applications in the medical, point-of-sale, industrial, and security markets. From patient



PXA270 CARD ENGINE

monitoring and medical imaging, to card payment terminals and bar code readers, to CCTV cameras and intruder alarms, the PXA270 Card Engine allows for powerful versatility and long-life products.

PXA270 CARD ENGINE :: HIGHLIGHTS:

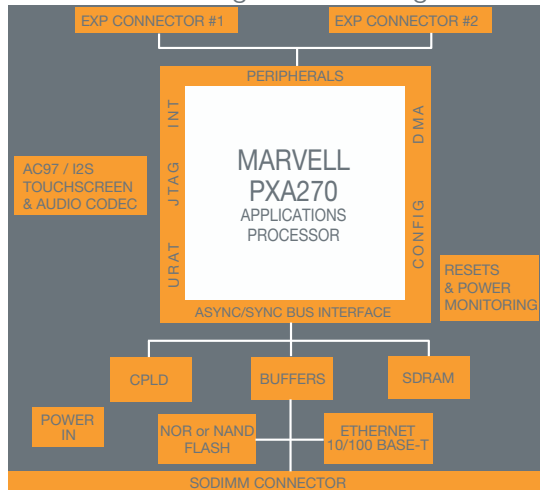
- + Product-ready System on Module with the Marvell PXA270 Applications Processor running at 312, 416, or 520 MHz
- + Compact form factor 60.2 mm x 67.8 mm x 4.4 mm
- + Long product lifecycle
- + 0 °C to 70 °C (commercial temp) or -40 °C to 85 °C (industrial temp)
- + RoHS compliant

PXA270 ZOOM™ SDK :: FEATURES:

- + Application baseboard
- + PXA270 Card Engine (CENGPXA270-520-10-504HCR)
- + Necessary accessories to immediately get up and running
- + Kit available from Logic (SDK-PXA270-520-10-6432R)
- + See Zoom™ SDK product brief for more information



PXA270 Card Engine Block Diagram



PXA270 Card Engine Ordering Information

Logic Model Number	Speed (MHz)	SDRAM (MB)	NAND Flash (MB)	NOR Flash (MB)	Touch	Audio	Ethernet	Temp (°C)
CENGPXA270-312-10-550ECR	312	64	64	0	Y	Y	–	0 – 70
CENGPXA270-416-10-550EIR	416	64	64	0	Y	Y	–	-40 – 85
CENGPXA270-416-10-550HIR	416	64	64	0	Y	Y	Y	-40 – 85
CENGPXA270-520-10-504HCR	520	64	0	32	Y	Y	Y	0 – 70
CENGPXA270-520-10-550HCR	520	64	64	0	Y	Y	Y	0 – 70

PXA270 ZOOM™ SDK Ordering Information

Logic Model Number	SOM Configuration	Recommended Resale
SDK-PXA270-520-10-6432R	CENGPXA270-520-10-504HCR	\$499

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



embedded product solutions

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Product Features

Processor

- + Marvell PXA270 Applications Processor running at 312, 416, or 520 MHz

SDRAM Memory

- + 64 MB SDRAM standard

Flash Memory

- + Choice of 64 MB NAND or 32 MB NOR

Display

- + Programmable color LCD controller
- + Built-in driver supports up to 800x600 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

- + AC97 audio codec

PC Card Expansion

- + CompactFlash Type I card (memory-mapped mode only)
- + Smart Card, MMC/SD, dual PCMCIA interfaces

USB

- + USB 2.0 full-speed host and device interface

Serial Ports

- + Three 16C550 compatible UARTs, two I2C

IrDA

- + SIR supports up to 115.2 Kbps, multiplexed IrDA/Bluetooth

GPIO

- + Programmable I/O depending on peripheral requirements

Software

- + LogicLoader™ (bootloader/monitor)
- + Windows Embedded CE 5.0 BSP

Mechanical

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

RoHS Compliant