PXA270 CARD ENGINE

CARD ENGINE ADVANTAGE

- Reduce TIme to Market
  → 6 to 9 month savings
- Product-Ready Hardware Platform
- Production Quality Software
- Continuation Engineering Support

PRODUCT HIGHLIGHTS

- Ready to run Windows® CE BSP
- LogicLoader™ Bootloader/Monitor
- Industrial Temperature Available
- Small, scalable form factor

ORDERING INFORMATION

- Zoom™ Starter Development Kit (Model # SDK-PXA270-520-10-6432)

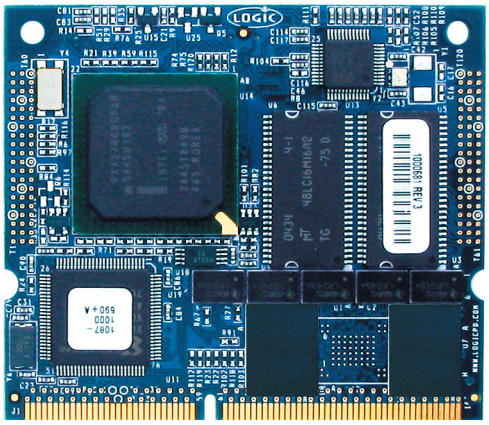
CONTACT

For more information on our Embedded Product Solutions, please contact Logic Sales at product.sales@logicpd.com or 612.672.9495.

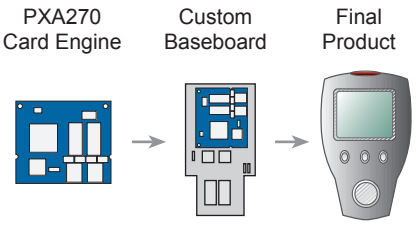
Microsoft® Windows® Powered

The PXA270 Card Engine is a compact, product-ready hardware and software solution for developing embedded products with **less time, less cost, less risk ... more innovation.**

The PXA270 Card Engine is a complete system on module offering the essential features for handheld and embedded networking applications in the industrial, consumer and medical markets. The 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 customers to easily scale to next generation microprocessor Card Engines when new functionality or performance is required.



Actual Size (2.37" x 2.67")



- **Processor** Intel® PXA270 32 bit XScale® RISC microprocessor
  - Running up to 520 MHz (0 to 70 Degrees C) with 104 MHz external bus speed
  - Running up to 416 MHz (-40 to 85 Degrees C) with 104 MHz external bus speed
  - Running up to 312 MHz (0 to 70 Degrees C) with 104 MHz external bus speed
- **SDRAM Memory** 64 or 128 MBytes on board
- **Flash Memory** NOR or NAND
  - 0, 16, or 32 Mbytes NOR
  - 0, 64, or 128 Mbytes NAND
- **Display** Programmable color LCD controller
  - Built in driver supports up to 800 x 600 x 16 bit color standard
  - Supports STN, Color STN, Dual STN, TFT
- **Network Support** 10/100 BASE-T Ethernet controller (application/debug)
  - SMSC LAN 91C111 (MAC & PHY)
- **Audio** Audio Codec AC97 (Phillips UCB1400)
- **Touch Screen** Four wire integrated touch interface (UCB 1400)
- **Memory Card Expansion**
  - CompactFlash Type 1 card (memory storage only)
  - Dual PCMCIA interface
  - Smart Card Interface (ISO7816)
  - MMC/SD
- **USB** Host and Device interface (USB 2.0 Full Speed)
- **Serial Ports** 3 X 16C550 like standard UARTs, 2 X I2C
- **RTC** On board
- **IrDA** SIR supports up to 115.2 Kbps, multiplexed IrDA/ Bluetooth
- **GPIO** Programmable depending on peripheral requirements
- **SSP** Supports either Motorola SPI™, National Semiconductor MICROWIRE™, TI SSI
- **Software**
  - Windows® CE 5.0 BSP available
  - LogicLoader™ (bootloader/monitor)
- **Mechanical**
  - Compact Size: 2.37" (60.2 mm) long x 2.67" (67.8 mm) wide x 0.17" (4.4 mm) high
  - 144 pin SODIMM Connector for connection to custom peripheral board
  - Two high density 80-pin expansion connectors for peripheral access

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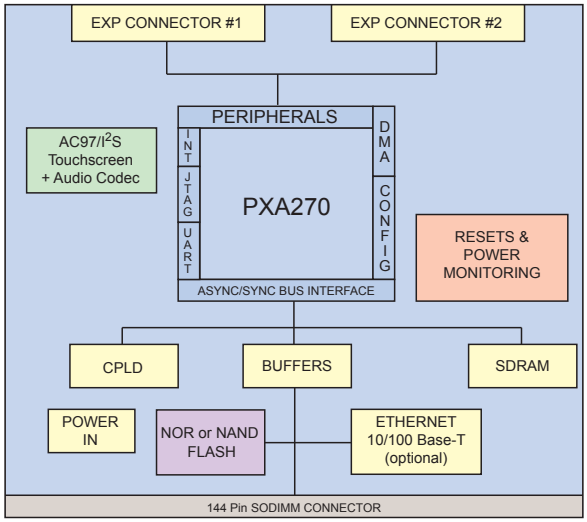
PN: 1001781 Rev A

Card Engine Block Diagram



Actual size (2.37" x 2.67")

Card Engine CPLD Provides:

- CF Card Support (memory mode only)
- ISA-like bus interface
- SMSC LAN91C111 wired LAN bus interface and power
- Buffer control logic
- Chip select decoder logic
- Flash program control logic
- Processor mode control logic
- EEprom register
- Flash control
- IC code revision register
- PCMCIA support logic

Windows® CE 5.0 BSP provides:

- 10/100 SMSC 91C111 Ethernet driver
- PXA270 integrated graphics controller driver
- USB host & device driver
- CF card block driver (memory mode only)
- Touch screen driver
- Audio driver
- Serial driver
- Remote update support via Ethernet

Windows CE 5.0 BSP is a collection of the peripheral device drivers, OAL (OEM Adaptation Layer), and build environment.

The binary CPLD and binary Windows CE BSP are available free of charge for customers designing the Card Engine into their final product or for purchase if implementing a custom board solution.

Please contact Logic Sales at product.sales@logicpd.com for more information.

Standard Card Engine Configuration

Logic Model Number	Speed	SDRAM	Nor Flash (MB)	NAND Flash (MB)	Ethernet	Audio	Touch	Temp. Rating
CENGPXA270-312-10-500EC	312	64	0	0	-	Y	Y	0 to 70 deg C
CENGPXA270-416-10-550EI	416	64	0	64	-	Y	Y	-40 to 85 deg C
CENGPXA270-520-10-503EC	520	64	16	0	-	Y	Y	0 to 70 deg C
CENGPXA270-520-10-503HC	520	64	16	0	Y	Y	Y	0 to 70 deg C
CENGPXA270-520-10-504HC[1]	520	64	32	0	Y	Y	Y	0 to 70 deg C
CENGPXA270-520-10-550HC	520	64	0	64	Y	Y	Y	0 to 70 deg C

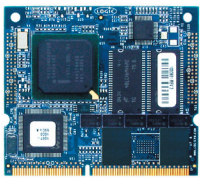
Please contact Logic for custom configurations and availability
1) Development Kit Configuration (SDK-PXA270-520-10-6432)

System on Module Advantage: Less time, less cost, less risk ... More Innovation

Zoom™ Starter Development Kit (SDK)

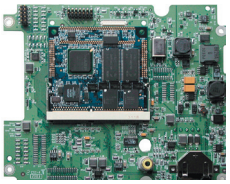
SDKs simplify:
- *Application specific code development*
- *Evaluation of the MCU / System on Module*
- *The transfer of application code, OS and BSPs into production*

Card Engine (with common footprint)



Card Engine complete with:
- *Board Support Packages (Windows CE, Linux, and other RTOS)*
- *Bootloader provides in-field device management, manufacturing, and test capabilities*

Custom Baseboard (with Card Engine)



Baseboard provides:
- *Power*
- *Connectors*
- *Custom peripherals*
- *Custom form factor*

Final Product

Final Product results:
- *Accelerated time to market*
- *Reduced development cost*
- *Customer focuses on core competencies*

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