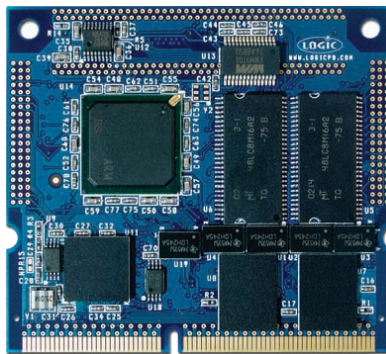# LH7A404 CARD ENGINE System on Module

The LH7A404 Card Engine is a compact, product-ready hardware and software solution that fast forwards your embedded product design.

The LH7A404 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 LH7A404 Card Engine and software Board Support Packages (BSPs), which enables you to seamlessly transfer your application code and hardware into production.

The LH7A404 Card Engine is ideal for applications in the medical, point-of-sale, industrial, and security markets. From patient

LH7A404 CARD ENGINE

monitoring and medical imaging, to card payment terminals and bar code readers, to CCTV cameras and intruder alarms, the LH7A404 Card Engine allows for powerful versatility and long-life products.
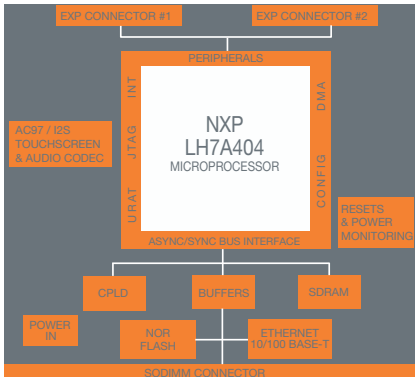
LH7A404 CARD ENGINE :: HIGHLIGHTS:

+ Product-ready System on Module with the NXP LH7A404 microprocessor running up to 200 MHz
+ Compact form factor—Card Engine 60.2 x 67.8 x 4.4 mm
+ Long product life-cycle
+ 0°C to 70°C (commercial temp) or -40°C to 85°C (industrial temp)
+ RoHS compliant

LH7A404 ZOOM™ SDK :: FEATURES:

+ Application baseboard
+ LH7A404 Card Engine (CENGLH7A404-11-503HCR)
+ Necessary accessories to immediately get up and running
+ Kit available from Logic (SDK-LH7A404-11-6416R)
+ See Zoom™ SDK product brief for more information

LOGIC

LH7A404 Card Engine Block Diagram

Product Features

Processor
+NXP ARM 922TDMI LH7A404 microprocessor running up to 200 MHz

SDRAM Memory
+64 MB SDRAM standard

Flash Memory
+16 or 32 MB NOR

Display
+Programmable color LCD controller
+Built-in driver supports up to 1024x768 with 8-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
+AC97audio codec

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

USB
+Two USB 2.0 full-speed host interfaces
+One USB 2.0 full-speed device interface

Serial Ports
+Three 16C550 compatible UARTs

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

GPIO
+Programmable I/O depending on peripheral requirements

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

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

RoHS Compliant

LH7A404 Card Engine Ordering Information

Logic Model Number	Speed (MHz)	SDRAM (MB)	NAND Flash (MB)	NOR Flash (MB)	Touch	Audio	Ethernet	Temp (°C)
CENGLH7A404-11-503HCR	200	64	0	16	Y	Y	Y	0 – 70
CENGLH7A404-11-504HCR	200	64	0	32	Y	Y	Y	0 – 70
CENGLH7A404-11-504HIR	200	64	0	32	Y	Y	Y	-40 – 85

LH7A404 ZOOM™ SDK Ordering Information

Logic Model Number	SOM Configuration	Recommended Resale
SDK-LH7A404-11-6416R	CENGLH7A404-11-503HCR	$399

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

LOGIC

embedded product solutions

411 N. Washington Ave. Suite 400 Minneapolis, MN 55401

T : 612.672.9495   F : 612.672.9489   I : www.logicpd.com

NXP founded by Philips

PN: 1000571 Rev F