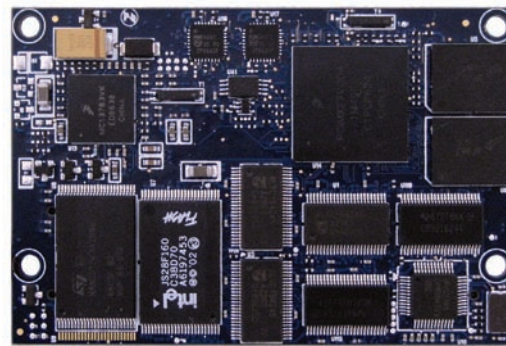# i.MX27 SOM-LV System on Module

The i.MX27 System on Module (SOM) is a compact, product-ready hardware and software solution that fast forwards your embedded product design.

Designed in the SOM-LV form factor, the i.MX27 module offers essential features for handheld and embedded networking applications. Use of custom baseboards makes the SOM-LV the ideal foundation for OEMs developing handheld and compact products. The SOM-LV expansion connectors use a common reference pin-out scheme, which enables easy scalability to next generation microprocessor SOMs when new functionality or performance is required.

Application development is performed right on the product-ready i.MX27 SOM-LV and software Board Support Packages (BSPs), which enables you to seamlessly transfer your application code and hardware into production.

The i.MX27 SOM-LV is ideal for applications in the medical, point-of-sale, industrial, and security markets. From patient monitoring

i.MX27 SOM-LV SYSTEM ON MODULE

and medical imaging, to card payment terminals and bar code readers, to CCTV cameras and intruder alarms, the i.MX27 SOM-LV allows for powerful versatility and long-life products.
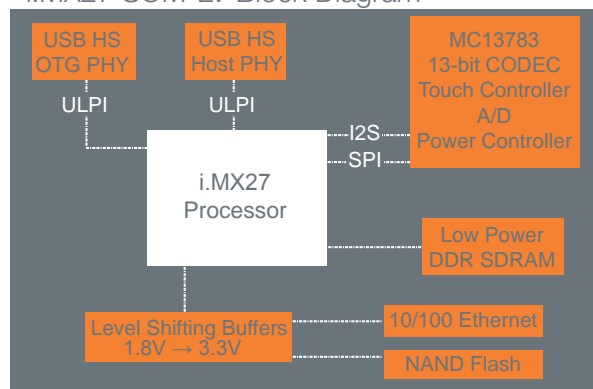
i.MX27 SOM-LV :: HIGHLIGHTS:

+ Product-ready System on Module with the Freescale i.MX27 processor running up to 400 MHz
+ Compact form factor—SOM-LV Type II 50.8 mm x 76.2 mm x 7.9 mm
+ Long product lifecycle
+ Microsoft Windows® Embedded CE Board Support Packages (BSPs)
+ 0 °C to 70 °C (commercial temp) or -20 °C to 85 °C (extended temp)
+ RoHS compliant

ZOOM™ i.MX LITEKIT :: FEATURES:

+ Application baseboard
+ i.MX27 SOM-LV (MIMX27CSOMCR)
+ Necessary accessories to immediately get up and running
+ Kit available from Freescale (MCIMX27LITEKIT)
+ See i.MX LITEKIT product brief for more information

LOGIC

i.MX27 SOM-LV Block Diagram

USB HS OTG PHY — ULPI
USB HS Host PHY — ULPI
MC13783 13-bit CODEC Touch Controller A/D Power Controller
I2S
SPI
i.MX27 Processor
Low Power DDR SDRAM
Level Shifting Buffers 1.8V → 3.3V
10/100 Ethernet
NAND Flash

i.MX27 SOM-LV Ordering Information

Model Number	Speed (MHz)	SDRAM (MB)	NAND Flash (MB)	NOR Flash (MB)	Touch	Audio	Ethernet	Temp
MIMX27BSOMCR	up to 400	64	64	2	Y	Y	Y	0 ℃ to 70 ℃
MIMX27CSOMCR	up to 400	128	64	2	Y	Y	Y	0 ℃ to 70 ℃
MIMX27CSOMXR	up to 400	128	64	2	Y	Y	Y	-20 ℃ to 85 ℃

ZOOM™ i.MX LITEKIT Ordering Information

Model Number	SOM-LV Configuration	Recommended Resale
MCIMX27LITEKIT	MIMX27CSOMCR	$675

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

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freescale
semiconductor

PN: 1007430 Rev C

Product Features

Processor
+Freescale ARM926EJ-S i.MX27 processor running up to 400 MHz

SDRAM Memory
+Low power 266 MHz DDR, 64 or 128 MB (128 MB standard)

Flash Memory
+2–4 MB scalable NOR flash (2 MB standard)
+Scalable NAND flash (64 MB standard)

Display
+Programmable color LCD controller
+Built-in driver supports up to 800x600 with 18-bit LCD interface

Touch Screen
+Integrated 4-wire touch screen controller (Freescale MC13783)

Network Support
+10/100 Base-T Ethernet controller for application/debug

Audio
+I2S compliant audio codec (Freescale MC13783—16-bit stereo DAC, 13-bit ADC)

PC Card Expansion
+CompactFlash Type I card
+MMC/SD card support

ATA Support

USB
+One USB 2.0 high-speed host interface
+One USB high-speed On-the-Go device interface

Serial Ports
+Three 16C550 compatible UARTs

GPIO
+Programmable I/O depending on peripheral requirements

Software
+LogicLoader™ (bootloader/monitor)
+Windows® Embedded CE 6.0 BSP

Mechanical
+SOM-LV Type II form factor
+50.8 mm wide x 76.2 mm long x 7.9 mm high

RoHS Compliant