

**PRODUCT BRIEF:**

Logic :: Freescale

## i.MX31 SOM-LV System on Module

The i.MX31 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.MX31 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 provides a common reference pin-out on its expansion connectors, which enables easy scalability when new functionality or performance is required.

Application development is performed right on the product-ready i.MX31 SOM-LV and software Board Support Packages (BSPs), which enables you to seamlessly transfer your application code and hardware into production.

The i.MX31 SOM-LV is ideal for applications in the medical, point-of-sale, industrial, and security markets. From patient monitoring



i.MX31 SOM-LV SYSTEM ON MODULE

and medical imaging, to card payment terminals and bar code readers, to CCTV cameras and intruder alarms, the i.MX31 SOM-LV allows for powerful versatility and long-life products.

**i.MX31 SOM-LV :: HIGHLIGHTS:**

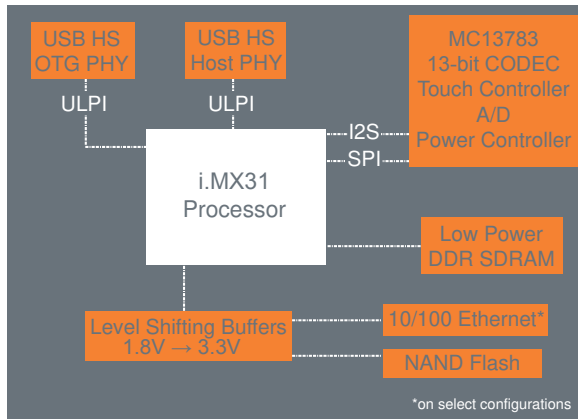
- + Product-ready System on Module with the Freescale i.MX31 processor running up to 532 MHz
- + Compact form factor—SOM-LV Type I 59.1 x 76.2 x 7.9 mm
- + Long product lifecycle
- + Microsoft Windows Embedded CE Board Support Packages (BSPs)
- + 0 °C to 70 °C (commercial temp) or -30 °C to 85 °C (extended temp)
- + RoHS compliant

**ZOOM™ i.MX LITEKIT :: FEATURES:**

- + Application baseboard
- + i.MX31 SOM-LV (MIMX31CSOMCR)
- + Necessary accessories to immediately get up and running
- + Kit available from Freescale (MCIMX31LITEKITC)
- + See i.MX LITEKIT product brief for more information



## i.MX31 SOM-LV Block Diagram



## i.MX31 SOM-LV Ordering Information

Model Number	Speed (MHz)	SDRAM (MB)	NAND Flash (MB)	NOR Flash (MB)	Touch	Audio	Ethernet	Temp
MIMX31ASOMCR	up to 532	64	64	2	Y	Y	--	0 °C to 70 °C
MIMX31BSOMCR	up to 532	64	64	2	Y	Y	Y	0 °C to 70 °C
MIMX31CSOMCR	up to 532	128	64	2	Y	Y	Y	0 °C to 70 °C
MIMX31CSOMXR	up to 532	128	64	2	Y	Y	Y	-30 °C to 85 °C

## ZOOM™ i.MX LITEKIT Ordering Information

Model Number	SOM-LV Configuration	Recommended Resale
MCIMX31LITEKITC	MIMX31CSOMCR	\$675

### LOGIC WEBSITE :: DESIGN RESOURCES:

- + Logic Products : [www.logicpd.com/products](http://www.logicpd.com/products)
- + Logic Technical Support : [www.logicpd.com/product-support](http://www.logicpd.com/product-support)
- + For more information contact Logic Sales : [product.sales@logicpd.com](mailto:product.sales@logicpd.com)



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## Product Features

### Processor

- + Freescale ARM 1136JF-S i.MX31 processor running up to 532 MHz

### SDRAM Memory

- + Low power 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 800 x 600 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 (SMSC LAN9117)

### 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 (Philips ISP1504CBS)

### Serial Ports

- + Three 16C550 compatible UARTs

### GPIO

- + Programmable I/O depending on peripheral requirements

### Software

- + LogicLoader™ (bootloader/monitor)
- + Windows Embedded CE 5.0 and 6.0 BSPs

### Mechanical

- + SOM-LV Type I form factor
- + 59.1 mm wide x 76.2 mm long x 7.9 mm high

### RoHS Compliant