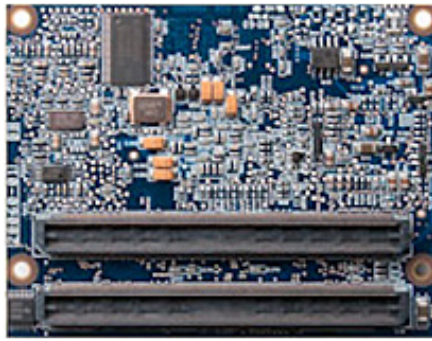


i.MX31 SOM-LV

Fast forward 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.



i.MX31 SOM-LV

**Enlarged to show detail*

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

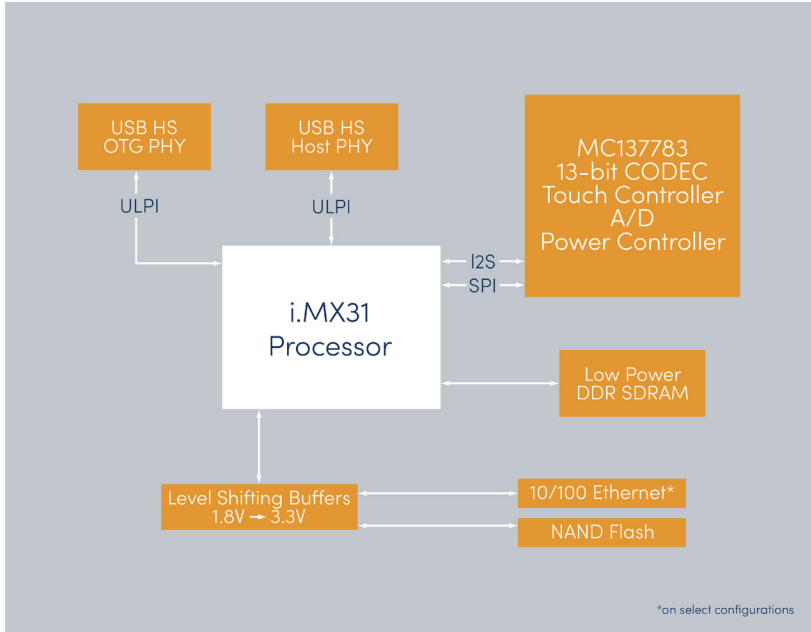
- Product-ready System on Module with the Freescale i.MX31 processor running up to 532 MHz
- Compact form factor—SOM-LV Type I 59.1 x 76.2 x 7.9 mm
- Long product lifecycle
- Microsoft Windows Embedded CE Board Support Packages (BSPs)
- Commercial temp (0°C to 70°C) or Extended temp (-30°C to 85°C)
-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

Zoom™ i.MX LITEKIT EVM Development Kit

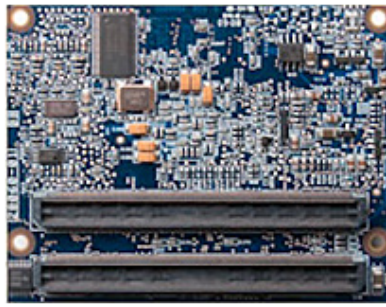
FEATURES

- Application baseboard
- i.MX31 SOM-LV (MIMX31CSOMCR)
- Necessary accessories to immediately get up and running
- Kit available from Freescale (MCIMX31LITEKITC)
- Necessary accessories to immediately get up and running

i.MX31 SOM-LV Block Diagram



Top View



Bottom View

i.MX31 SOM-LV Ordering Information

| MODEL NUMBER | SPEED (MHz) | SDRAM (MB) | NAND Flash (MB) | NOR Flash (MB) | TOUCH | AUDIO | ETHERNET | TEMP. (°C) |
|--------------|-------------|------------|-----------------|----------------|-------|-------|----------|------------|
| MIMX31ASOMCR | up to 532 | 64 | 64 | 2 | Y | Y | - | 0°-70° |
| MIMX31BSOMCR | up to 532 | 64 | 64 | 2 | Y | Y | Y | 0°-70° |
| MIMX31CSOMCR | up to 532 | 128 | 64 | 2 | Y | Y | Y | 0°-70° |
| MIMX31CSOMXR | up to 532 | 128 | 64 | 2 | Y | Y | Y | -30°-85° |

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

Touchscreen

- 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