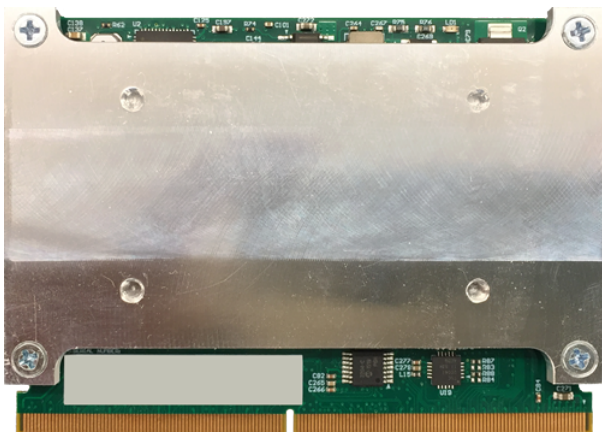
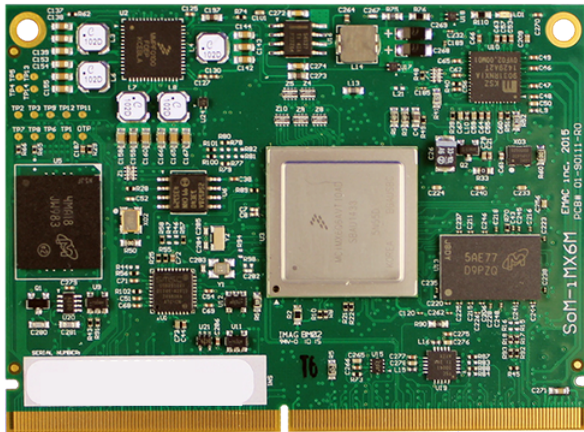


Source URL: <http://emacinc.com/content/som-imx6m-system-module>

SoM-iMX6M System on Module



*Optional Heat Spreader for SoM-iMX6M Dual & Quad Versions

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www.emacinc.com/sites/default/files/EMAC%20OEM%20LOGO_sm_web-opt_2.png

- Solo/Dual/Quad NXP/Freescale i.MX6 ARM Cortex A9 Fanless 800MHz/1GHz/Up to 1.2GHz Processor
- iMX6 Dual Core 1 GHz Processor
- 4 GB or eMMC Flash & 16 MB of Serial Data Flash
- Up to 2 GB of DDR3 RAM
- 1x HDMI Video
- 1x LVDS 24-bit Video
- 1x 4-Wire Resistive Touch Controller
- 4x 12-bit A/D Channels
- 1x Serial Video Capture (CSI) Port
- 1x SATA Port
- 2x SDIO Ports
- 4x Serial Ports with handshake
- 2x CAN Ports
- 2x USB 2.0 High Speed Host Ports
- 1x USB 2.0 High Speed OTG Port
- 2x I2S Ports & 1x SPDIF Port

- 1x 1000 BaseT Ethernet with Status LED Drive
- 1x PCIe Channel
- 2x SPI Ports
- 4x I2C Ports
- 16x GPIO Lines
- I2C hardware port
- 2x Timer/Counters & 4x PWMs
- Programmable LED
- Hardware Video encoding on Dual or Quad CPU supporting up to 1080p x 30fps at 20Mbps encoding of video.
- Supporting H.264, MJPEG, MPEG4, H.263, H.264-MVC for 3D codecs with hardware acceleration Encode or Decode
- RoHS compliance
- Extended Temperature
- Dimensions: 3.15" x 2.37" (80mm x 60mm)
- 5V Input Voltage

The SoM-iMX6 is a System on Module (SoM) based on the Freescale iMX.6 Cortex A9 Single, Dual or Quad Core processor. Designed and manufactured in the USA, this wide temperature, fanless ARM 1GHz SoM has 10/100/1000 BaseT Ethernet included along with 4 serial ports. It utilizes up to 4GB of eMMC Flash, up to 16MB of serial data flash, and up to 1GB of LP DDR2 RAM. A SoM is a small embedded module that contains the core of a microprocessor system.

Specifications

SOM Type:

Microcontroller SODIMM Modules

Processor

Processor:

Freescale NXP Solo/Dual/Quad iMX6 ARM Cortex A9 Fanless Processor

Clock Speed:

1 GHz

Real Time Clock:

Processor Misc.:

MCIMX6S7CVM08AC Solo 800Mhz

MCIMX6D6AVT10AD Dual 1GHz

MCIMX6Q6AVT10AD Quad 1GHz

Optional 1.2GHz processor available (Minimum Order Quantity Applies)

Memory

Primary Flash:

4 GB of eMMC Flash

Secondary Flash:

16 MB of Serial Data Flash

Memory Misc.:

Dual- 1GB DDR3 memory onboard

Quad- 2GB DDR3 memory onboard

Primary I/O

GPIO:

16 GPIO

SDIO:

2x SDIO

Disk Interface:

1x SATA

SPI:

2x SPI Ports

Video Out:

24 bit LVDS / HDMI

Audio:

2x I2S & 1x SPDIF

Ethernet:

1x 1000 BaseT Ethernet with Status LEDs

USB:

3x USB 2.0 High Speed Host ports & 1x USB 2.0 High OTG

Serial Ports:

4x Serial Ports with handshake

I2C:

4x I2C Ports

Watchdog:

Primary I/O Misc.:

Programmable LED

Secondary I/O

CAN:

2x CAN 2.0B Ports

Timers/ Counters/ PWM:

2x Timer/Counters & 4x PWMs

Video Capture:

1x Serial Video Capture (CSI) Port

LPT Port:

Keypad:

PS/2:

Touch:

4 wire analog resistive Touchscreen

Secondary I/O Misc.:

- Hardware Video encoding on Dual or Quad CPU supporting upto 1080px 30fps at 20Mbps encoding of video.
- supporting H.264, MJPEG, MPEG4, H.263, H.264-MVC for 3D codecs with hardware acceleration

Video performance-

- 266MHz (Will change the VPU spec to 350MHz)
- Video Decode Performance 1080i/p@60fps, 3D support at 30fps per view
- Video Encode Performance 1080p@30fps

Analog on

A/D:

A/D Channels:

4

A/D Resolution:

12 bit

D/A:

Dimensions

Dimensions:

3.23 × 2.363 in

Form Factor:

314-pin SODIMM

Power Requirements

Voltage:

5 V

Environmental

Low Operating Temperature:

-40 C

High Operating Temperature:

85 C

Environmental Misc.:

Optional PER-FAN-00013-AR Heat-spreader recommended for operation in temperatures above 40°C

Pricing

SoM-iMX6M-352 (Dual)

iMX6 Dual, iMX6D 2x1GHz, 1GB DDR3, 16MB Serial Data Flash, 4GB eMMC, PCIe, CSI, CAN, HDMI, LVDS (-40° to 85°C, Heat-spreader recommended above 40°C)

\$198.00

Stock

Order:

0

Base Product:

SoM-iMX6M

SoM-iMX6M-364 (Quad)

iMX6 Quad, iMX6Q 4x1GHz, 2GB DDR3, 16MB Serial Data Flash, 4GB eMMC, PCIe, CSI, CAN, HDMI, LVDS (-40° to 85°C, Heat-spreader recommended above 40°C)

\$220.00

Order:

0

Parent Product:

SoM-iMX6M

Base Product:

SoM-iMX6M

SOM-iMX6M-131 (Solo)

iMX6 Solo, iMX6S 1GHz, 512MB DDR3, 4GB eMMC, HDMI/LVDS/PCIe, (0°C to 60°C)

\$150.00

Stock

Order:

0

Parent Product:

SoM-iMX6M

Base Product:

SoM-iMX6M

SoM-iMX6M-354 (Quad)

iMX6 Quad, iMX6Q 4x1GHz, 1GB DDR3, 16MB Serial Data Flash, 4GB eMMC, PCIe, CSI, CAN, HDMI, LVDS (-40° to 85°C, Heat-spreader recommended above 40°C)

\$0.00

Build to Order

Order:

0

Base Product:

SoM-iMX6M

SoM-iMX6M-141 (Solo)

iMX6 Solo, iMX6S 800MHz / 512MB DDR3, 16MB Serial Data Flash, 4GB eMMC, PCIe, CSI, CAN, HDMI, LVDS (-40° to 85°C)

\$180.00

Build to Order

Order:

0

Base Product:

SoM-iMX6M

Non-Stock NCNR:

0

Carrier Boards:**Title: SoM-350ES-000**

Standard Carrier Board 7" LCD 800x480 WVGA without Wi-Fi

\$399.00

Base Product:

SoM-350ES

Title: SoM-350ES-017

Barebones Carrier Board with Wi-Fi (No LCD)

\$285.00

Base Product:

SoM-350ES

Title: SoM-350ES-011

Deluxe Carrier Board 10" LCD 1024 x 600 WSVGA with Wi-Fi

\$435.00

Base Product:

SoM-350ES