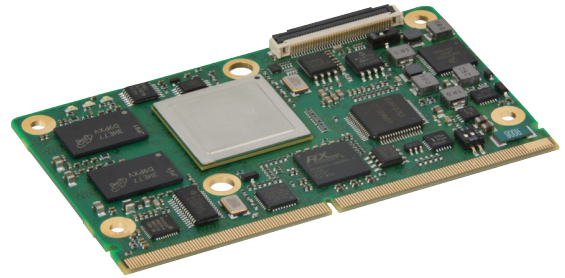


LEC-iMX6

SMARC[®] Short Size Module with Freescale i.MX6 Solo, DualLite, Dual or Quad Processor

Features

- Freescale SoC i.MX6 ARM Cortex A9 Solo, DualLite, Dual or Quad processor
- Integrated 2D/3D graphics processors, 3D 1080p video processing, power management
- Onboard DDR3L/1067 system memory from 512 MB to 2 GB
- Supports up to 64 GB eMMC, 1x SD/MMC, 1x SATA 3Gb/s
- Extreme Rugged operating temperature: -40°C to +85°C



Specifications

• Core System

CPU

Freescale i.MX6 Solo, DualLite, Dual or Quad processor

i.MX6 Quad, 4 cores, 800 MHz, 1 MB L2 cache, 3 displays, 1x SATA

i.MX6 Dual, 2 cores, 800 MHz, 1 MB L2 cache, 3 displays, 1x SATA

i.MX6 DualLite, 2 cores, 800 MHz, 512 kB L2 cache, 1 display, no SATA

i.MX6 Solo, 1 core, 800 MHz, 512 kB L2 cache, 1 display, no SATA

Memory

Onboard DDR3L-1066 system memory from 512 MB to 2 GB

Boot Loader

U-Boot boot loader

L2 Cache

From 512 kB to 1 MB

SEMA Board Controller

Supports: Voltage/Current monitoring, Power Sequencing, Logistics and Forensic

Information, Flat Panel Control, I²C Bus Control, GPIO Control, User Flash, Failsafe

BIOS (dual BIOS), Watchdog Timer and Fan Control

Debug Headers

JTAG debug interface on test-points

• Ethernet

Interface

10/100/1000 GbE

• Audio

Audio Codec

Located on carrier

Interface

S/PDIF

• Camera

Serial

MIPI CSI camera, 2 lanes

Parallel

PCAM, 10-bit

• I/O Interfaces

PCIe

1x PCIe x1

USB

2x USB 2.0 host, 1x USB OTG

SATA

1x SATA 3Gb/s

Flash Memory

Up to 64 GB eMMC (custom option)

GPIO

12x GPIO with interrupt

SDIO

1x SDIO

SPI

2x SPI

I²C

3x I²C

I²S

1x I²S

S/PDIF

1x S/PDIF

WDT

1x WDT

CAN

2x CAN

Management

Battery and System Management

Specifications

- **Graphics**

LCD

Parallel LCD 24-bit

LVDS

LVDS single channel 24-bit

HDMI

HDMI 1.4a

- **Graphics**

High-performance video processing unit (VPU), supports SD and HD-level video decoders and SD-level encoders as a multi-standard video codec engine, as well as several important video processing functions, such as rotation and mirroring

- **Mechanical and Environmental**

Form Factor

Form Factor

SMARC Specifications v1.0

Dimensions

SMARC short size module, 82 mm x 50 mm

Operating Temperature

Standard: 0°C to +60°C

Extreme Rugged: -40°C to +85°C

Humidity

5-90% RH operating, non-condensing

5-95% RH storage (and operating with conformal coating)

HALT

Thermal Stress, Vibration Stress, Thermal Shock and Combined Test

- **Operation System**

Standard Support

Windows Embedded Compact 7, Linux

Extended Support (BSP)

Android, VxWorks, QNX

- **Intelligent Middleware**

SEMA

Local management, control of embedded computer systems Extended EAPI for monitoring, controlling and analytics applications Multiple OS support and across platforms (x86, ARM)



Functional Diagram

