MY-i.MX6





LVDS Option only:

- Dual LVDS display port
- SATA

OS Support

- Linux 3.0
- Android 4.2

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Computer On Module

- Processor Freescale i.MX 6Quad, 1GHz
- RAM 1GB DDR3 SDRAM 64-bit
- ROM 4GB NAND Flash UP to 16GB
- ROM 2M SPI Nor Flash
- Power supply Single 5V
- Size 40mm SO-DIMM
- Temp.-Range
 - 0 to + 95C (Consumer)
 - -20 to + 105C (Extended Consumer)
 - -40 to +105C (Industrial)
 - -40 to + 125C (Automotive)

Key Features

- 10/100Mbps Ethernet
- One High Speed USB 2.0 ports
- Full HD LCD controller, 24bpp
- OpenGL ES 2.0 and OpenVG 1.1 hardware accelerators
- Multi-format HD 1080p60 video decoder and

1080p30 encoder hardware engine

- Two Camera Interfaces
- NEON MPE coprocessor
- SIMD Media Processing Architecture
- dual, single-precision floating point execute pipeline
- Unified 1MB L2 cache
- Several interfaces:

5x UART, 2x SDIO, 1x SSI/AC97/I2S, 3x I2C, 2xCSPI

- 3.3V I/O
- 2x Controller Area Network (FlexCAN)
- PCle 2.0 (1-lane)

Application: Media Tablet, Education Tablet PC, EBook, Automotive Infotainment, Aviation Infotainment, HMI, Portable Medical Instruments, IPTV, IP Phone, Smart Energy Systems, Intelligent industrial control systems

BEIJING MYZR TECHNOLOGY CO., LTD

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MY-i.MX6



Board highlights:

- · Highly integrated
- Standard MY-DIMM200 pinout
- as small as possible only 40mm
- 3.3V I/O

The MY-i.MX6 is a member of the MY module series, specially designed for Freescales i.MX multimedia processors. MY modules are complete computers, implemented on a board smaller than a credit card, and ready to be designed into your embedded system. MY modules includes a Freescale® i.MX processor, SDRAM and Flash memory. The integrated LCD-controller enables direct connection of an LCD screen. The MY-i.MX6 is specifically targeted at embedded applications where size, high cpu-performance and cost are critical factors.

Standard MY-DIMM200 pinout:

- 4-wire UARTs (x2)
- LCD
- I2C / PWM
- Serial Audio Interfaces (x2)
- 4-wire SD-Card/SDIO

High-Speed communication interfaces incl. onboard Ethernet PHY / on-chip USB PHY allows direct use of connectors/magnetics on the baseboard without the need for additional logic:

- 10/100 Mbps Ethernet
- 480 Mbps USB OTG (Host or Device)
- 480 Mbps USB Host

Power Supply

The MY-i.MX6 accepts an input voltage from various sources:

- 1-cell Li-lon/Polymer (up to 4.2V)
- 5.0V USB supply or AC wall adapter
- 3.3V

Processor

The i.MX 6Dual and i.MX 6Quad processors represent Freescale Semiconductor's latest achievement in integrated multimedia applications processors. These processors are part of a growing family of multimedia-focused products that offer high performance processing and are optimized for lowest power consumption.

The i.MX 6Dual and i.MX 6Quad processors feature Freescale's advanced implementation of the quad ARM Cortex[™]-A9 core, which operates at speeds up to 1 GHz. They include 2D and 3D graphics processors, 3D 1080p video processing, and integrated power management. Each processor provides a 64-bit DDR3/LVDDR3/LPDDR2-1066 memory interface and a number of other interfaces for connecting peripherals, such as WLAN, Bluetooth[™], GPS, hard drive, displays, and camera sensors.

System Control Connectivity **CPU Platform** Secure JTAG MMC 4.4/ **USB2 HSIC** Quad ARM® Cortex™-A9 Core SD 3.0 x3 Host x2 PLL, Osc. 32 KB D-Cache 32 KB I-Cache per Core MMC 4.4/ MIPI HSI Clock and Reset SDXC **NEON per Core** PTM per Core S/PDIF Smart DMA UART x5, Tx/Rx 1 MB L2-Cache + VFPv3 5 Mbps **IOMUX** PCIe 2.0 Multimedia Timer x3 (1-Lane) I2C x3, Hardware Graphics Accelerators SPI x5 PWM x4 **Vector Graphics** FlexCAN x2 2D MLB150+ Watch Dog x2 ESAI, I2S/SSI DTCP Video Codecs Audio **Power Management** 1080p30 Enc/Dec ASRC **3.3V GPIO** 1 Gb Ethernet Temperature Power + IEEE® 1588 Keypad **Imaging Processing Unit** Internal Memory Resizing and Blending Image Enhancement NAND Cntrl. ROM S-ATA and (BCH40) Inversion/Rotation PHY 3 Gbps Security LP-DDR2. Display and Camera Interface RNG ecurity Cntri **USB2 OTG** DDR3/ HDMI and PHY 24-bit RGB, LVDS (x2) and PHY LV-DDR3 TrustZone Secure RTC **USB2 Host** x32/64. MIPI DSI 20-bit CSI and PHY 533 MHz Ciphers eFuses MIPI CSI2

High Performance CPU : ARM Quad Cortex-A9

- ARM Cortex-A9, with ARMv7™, Neon, VFPv3 and Trustzone support
- 32K instruction and data L1 caches and 256 KB to 1 MB of L2 cache
- Multi-stream-capable HD video engine delivering 1080p60 decode, 1080p30 encode and 3D video playback in HD in high performance families
- Superior 3D graphics performance with up to quad

shaders performing 200 MT/s Separate 2D and/or Vertex acceleration engines for an optimal user interface experience

 Stereoscopic image sensor support for 3D Imaging

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