

PicoCore™MX6UL

Computer On Module with NXP i.MX 6ULL

Characteristics

- NXP i.MX 6ULL applications processor Cortex®-A7 up to 900MHz
- max. 1GB DDR3L RAM, 512MB SLC NAND/ 32GB eMMC
- LCD interface for TFT: 24 Bit RGB
- Touch (resistive or PCAP via I²C, external)
- Audio LINE IN/ OUT/ MIC/ HEADPHONE/ I2S
- 2x Ethernet
- 1x USB 2.0 OTG, 6x UART, 4x I²C, 2x CAN, 4x SPI
- 1x SDIO, 8x PWM, Digital I/O
- Watchdog, RTC
- SPDIF, 3x SAI (Audio)
- Linux, WEC2013 (on request)
- 2x 80Pin plug connector
- 35 x 40mm
- 0°C - +70°C (opt. -20°C/ -40°C - +85°C)

Description

The PicoCore™ Computer On Module product family has a new member, based on the NXP i.MX 6 ULL ARM® CPU.

It uses a NXP CPU with ARM® Cortex®-A7 core with 900MHz, making PicoCore™MX6UL a very inexpensive COM module. The power loss of only 1W makes it the perfect solution for portable and battery-powered devices. The PicoCore™ standard uses two plug connectors (Hirose DF40C) with 80 pins each. This results in compact size and low board-to-board distance. SLC NAND Flash (high reliability) and eMMC Flash are available for program memory, a SD-Card slot is also available externally. Audio Codec on board offers analog audio signals, as well as digital audio signals. For networking, 2x Ethernet can be used. The customized F&S Linux comes with various security functions. PicoCore™ MX6UL will be available until minimum 2030.

On-Board Operating System



The F&S Linux BSP (uboot, Buildroot, Yocto, QT, GStreamer) contains the customized kernel and all interface drivers including source.

For a quick start into software development, the following workshops are offered:

Linux on F&S Modules (Standard Workshop)

Additional workshops:

Linux – Qt5 Workshop

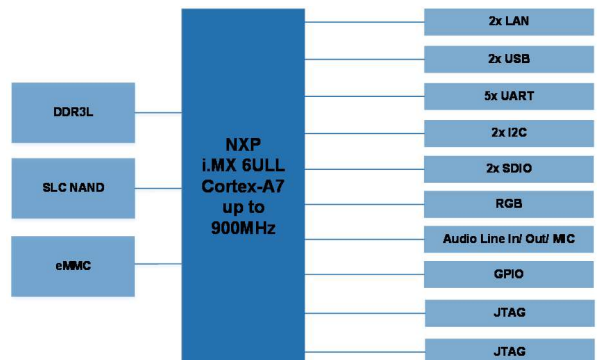
Linux – Asymmetric Multiprocessing

Linux – Secure Boot

Original Size



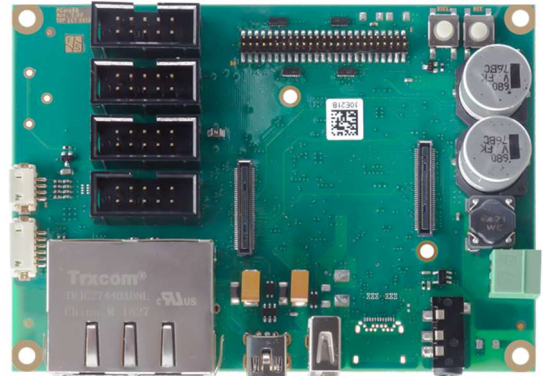
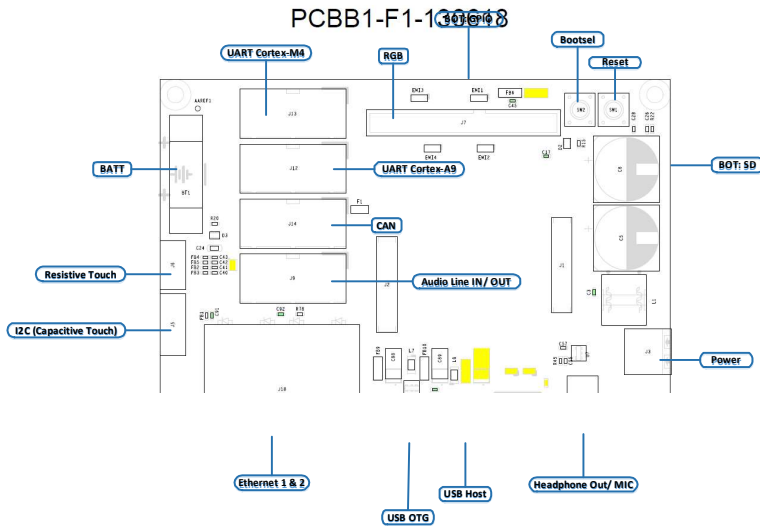
Block Diagram



Starterkit

The PicoCore™MX6UL starterkit is available with Linux or – on request - WEC2013. The starterkit consists of a base board with plugged on PicoCore™MX6UL, a cable kit and the access data to the F&S download area. Our support forum with more than 3000 registered customers is always online for help. Start your development fast and easy by attending one of our workshops.





Accessories

Displaykit RGB 2

7" WVGA Display with RGB interface and touch panel, connection cable (40pol film cable), display adapter and touch cable

PicoCore™ Connector

to connect PicoCore™ modules to the base board.

More accessories can be found on our website.

Technical Data

Power Supply:	3.8..5.5V
Power Consumption:	1 Watt typ.
Interfaces Fix:	2x Serial, 2x Ethernet 1x USB Host, 1x USB Device 1x CAN, 1x I2C Audio Line In/ Out/ Mic/ HP
Display:	RGB 24Bit
Interfaces Flex:	6x Serial, 3x I ² C, 1x CAN 2x SPI, 2x SDIO 1x RGB 16 + 24 Bit 8x PWM, Watchdog 1x SPDIF, 3x SAI, 1x ADR/ DATA Bus
RAM:	DDR3L up to 1GB
Program Memory:	SLC NAND up to 512MB or eMMC up to 32GB
Processor:	ARM Cortex®-A7 900MHz
Temperature Range:	0°C - +70°C (-20°C - +85°C/ -40°C - +85°C)
Size:	35mm x 40mm x 8mm (LxBxD)
Plug Connector:	2x 80pol Hirose DF40C
Weight:	~10g

Standard Versions/ Order Notations

PicoCoreMX6UL-V1-LIN

Cortex®-A7 – 528MHz, 256MB RAM, 256MB SLC NAND Flash, Audio (I2S), 1x Ethernet, RTC, RGB, 0°C - +70°C, Linux

PicoCoreMX6UL-V3-LIN

Cortex®-A7 – 900MHz, 512MB RAM, 512MB SLC NAND Flash, Audio (analog), 2x Ethernet, RTC, RGB, 0°C - +70°C, Linux

PicoCoreMX6UL-V4-LIN

Cortex®-A7 – 900MHz, 512MB RAM, 4GB eMMC Flash, Audio (analog), 2x Ethernet, RTC, RGB, 0°C - +70°C, Linux

WEC2013 on request!

Minimum Order Quantity for Special Versions:

Customer-specific software: 500 pieces

Assembly Variant: 1000 pieces

Standard Versions/ Order Notations

PicoCore™MX6UL-SKIT-LIN

Starterkit with PicoCoreMX6UL-V3-LIN, base board cable kit, access data to BSP and documentation

