

PicoCore™MX6UL100

Computer On Module with NXP i.MX 6ULL

Characteristics

- NXP i.MX 6ULL applications processor Cortex®-A7 up to 900MHz
- max. 1GB DDR3L RAM, 1GB NAND Flash or 32GB eMMC
- LCD interface: 18 Bit RGB/ LVDS
- Touch (resistive or PCAP via I²C, external)
- Audio LINE IN/ OUT/ MIC/ HEADPHONE/ I2S
- 2x Ethernet
- 2x USB 2.0, 4x UART, 4x I²C, 2x CAN, 2x SPI
- 1x SDIO, 4x PWM, Digital I/O
- Watchdog, RTC, SPDIF, 3x SAI (Audio)
- WLAN/ BT 802.11 ac/a/b/g/n – BT5.0 LE
- Linux, WEC2013 (on request)
- 2x 100Pin 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 100 pins each. This results in compact size and low board-to-board distance. SLC NAND Flash or 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 and also WLAN/ BT can be used. The customized F&S Linux comes with various security functions.

More PicoCore modules with 2x 100 pins are available. 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

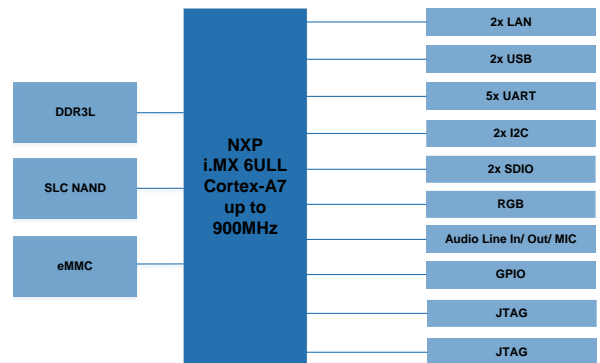
Linux – Asymmetric Multiprocessing

Linux – Secure Boot

Original Size



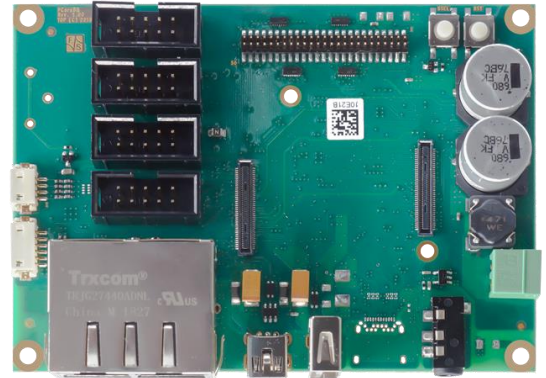
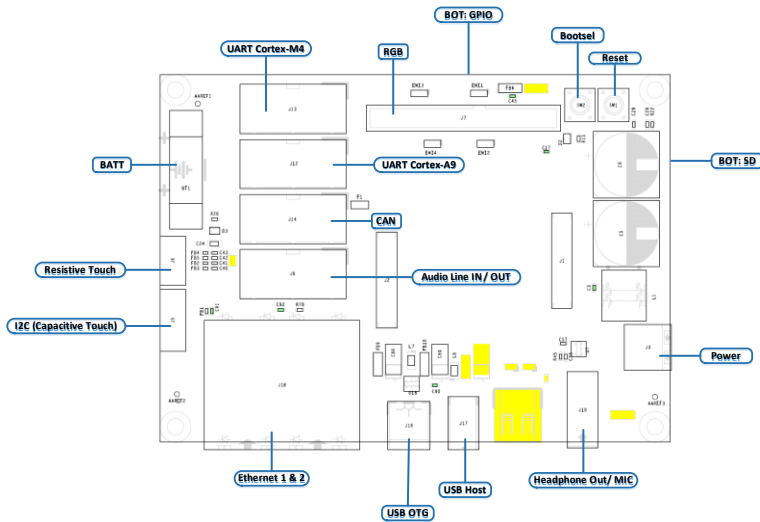
Block Diagram



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 18Bit or LVDS
Interfaces Flex:	4x Serial, 3x I ² C, 1x CAN 2x SPI, 2x SDIO 4x PWM, Watchdog
WLAN/ BT:	1x SPDIF, 3x SAI, 802.11 ac/a/b/g/n BT 5.0 LE
RAM:	DDR3L up to 1GB
Program Memory:	1GB NAND Flash, 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

PicoCoreMX6UL100-V1I-LIN

Cortex®-A7 – 800MHz, 512MB RAM, 4GB eMMC, Audio (I2S), 1x Ethernet, RTC, RGB, -20°C - +85°C, Linux

PicoCoreMX6UL100-V3I-LIN

Cortex®-A7 – 800MHz, 512MB RAM, 1GB SLC NAND Flash, Audio (analog), 2x Ethernet, RTC, LVDS, -20°C - +85°C, Linux

PicoCoreMX6UL-V4-LIN

Cortex®-A7 – 900MHz, 512MB RAM, 4GB eMMC Flash, Audio (analog), WLAN/BT, 2x Ethernet, RTC, LVDS, 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-V4-LIN, base board cable kit, 7" LVDS Display, access data to BSP and documentation

