

## iMX6 UltraLite COM Board Feature Highlights

- NXP ARM Cortex-A7 i.MX 6UltraLite 528 MHz
- 0.5 GByte DDR3L 800 MT/s, 16-bit databus
- 4 GByte eMMC on-board Flash
- 24-bit parallel RGB graphical output
- 2D graphical acceleration
- Dual 10/100 Mbps Ethernet with on-board PHY
- USB, CAN and many more interfaces
- Low-power consumption
- Linux BSP
- 82 x 50 mm small form factor
- Long term availability



## Introduction

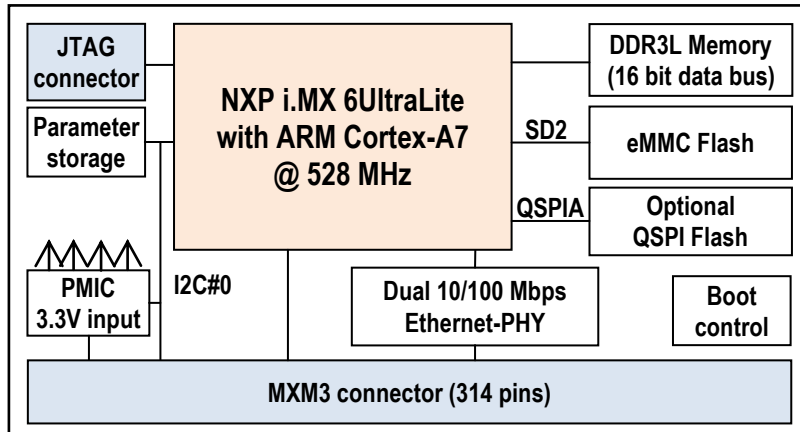
The **iMX6 UltraLite COM Board** provides a quick and easy solution for implementing a high-performance ARM Cortex-A7 based design. The system is ideal for running an OS like **Linux**.

The design has a **low-power implementation** with DDR3L memory and a PMIC supporting DVFS techniques, making the board ideal for portable applications. Other typical applications are graphical interface solutions (GUI/HMI), point-of-sale, communication solutions like telemetric and IoT gateways, access control and connected real-time systems.

## Specification

Processor	Cores	NXP ARM Cortex-A7 i.MX 6UltraLite
	Frequency	528 MHz on Cortex-A7
Memory	SDRAM	0.5 GByte DDR3L 800 MT/s, 16-bit databus
	NAND FLASH	4 GByte eMMC NAND Flash for OS and bootloader
Graphics output	Parallel RGB	24-bit, up to WXGA (1366 x 768 px) at 60 Hz
	Graphics Engines	Pixel Processing Pipeline (XP) supporting 2D image processing
Graphics input	Digital	CMOS sensor interface (camera), parallel interface
Ethernet		Dual 10/100 Mbps Ethernet interface based on Micrel KSZ8081 Ethernet PHY
I/O (all functions are not available at the same time)	USB	1x USB2.0 OTG, 1x USB2.0 Host
	UART, SPI, I2C, Audio	8x UART, 4x SPI, 4x I2C, 3x I2S/SSI, S/PDIF TX/RX
	CAN	2x CAN bus 2.0B
	GPIO	Up to 99 pins and 8 pins for keypad
	Memory card	1x SD/MMC 4.5
	ADC	10ch 12-bit resolution
Other	RTC	i.MX 6UltraLite on-chip RTC
	Watchdog	On-board watchdog functionality
	Power Management (PMIC)	PMIC (MMPF3000) supporting DVFS techniques for low power modes
Power	Supply voltage	+3.3V
	Power consumption	TBD
Environment	Operating Temperature	0 - 70° / -40 - 85°
	Operating Humidity	5 - 90% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	82 x 50 mm, same as SMARC form factor but different pinning for better carrier board routing
Connectors		314 pos MXM3 edge connector, 0.5 mm pitch
		10 pos 0.5 mm pitch FPC for JTAG

## Block Diagram



## Ordering Information

Part No. <sup>[1]</sup>	CPU	SDRAM	eMMC	QSPI	Ethernet	Pinning	Supply Voltage	Operating Temperature
EAC00252	MCIMX6G2DVM05AA	0.5 GByte DDR3L	4 GByte	Not mounted	Dual 10/100 Mbps	EACOM board spec	3.3V	0 - 70° C
EAC00275	MCIMX6G2CVM05AA	0.5 GByte DDR3L	4 GByte	Not mounted	Dual 10/100 Mbps	EACOM board spec	3.3V	-40 -85° C

<sup>[1]</sup> Standard configurations listed. Others on request.

## Support Highlights

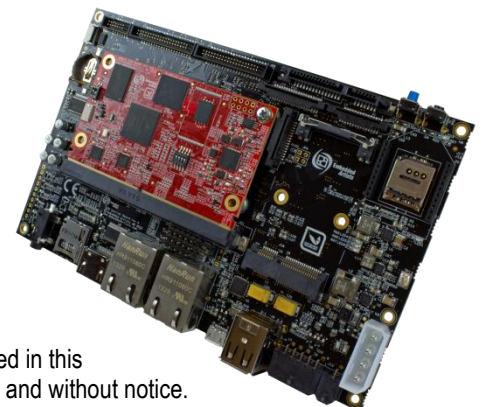
Embedded Artists is a reliable and competent partner - we help you become successful!

- Professional and responsive support
- Pre-designed standard Carrier boards for integration
- Custom Carrier board design
- Customization
  - Different pinning, supply voltage, memory sizes, etc
  - Single Board Computer (SBC) solutions
- Display solutions
- Mechanical solutions
- Schematic review of customer carrier board designs
- Driver and application development

## Development Kit

The iMX6 UltraLite COM Board is supported by the **iMX6 UltraLite Developer's Kit** that provides a quick path to get started with development and integration work.

The kit provides reference implementations of key interfaces. Ordering part No. **EAK00253**



**Disclaimer:** Embedded Artists reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice.