

## 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

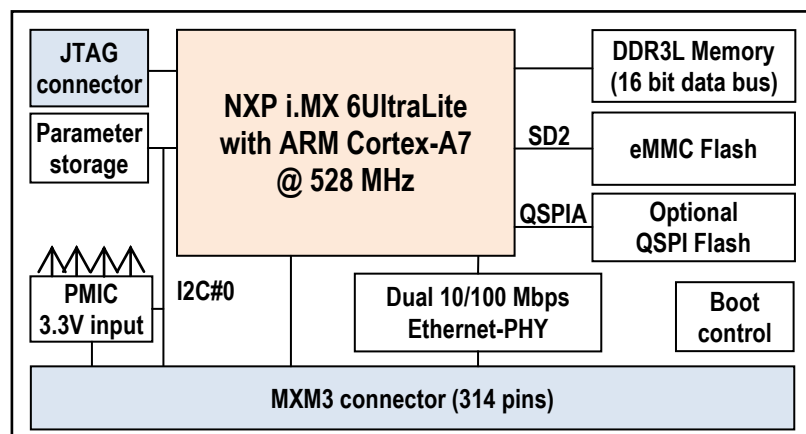
The **iMX6 UltraLite COM Board** provides a quick and easy solution for implementing a high-performance ARM Cortex-A7 based design. The system is ideal for running an OS like **Linux**.

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	24-bit, up to WXGA (1366 x 768 px) at 60 Hz
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	i.MX 6UltraLite on-chip RTC
Power	Watchdog	On-board watchdog functionality
	Power Management (PMIC)	PMIC (MMPF3000) supporting DVFS techniques for low power modes
	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.

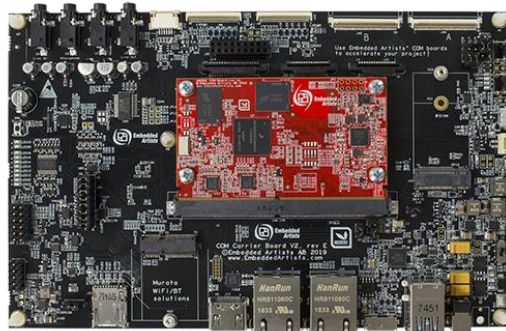
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  - Different pinning, supply voltage, memory sizes, etc
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- Display solutions
- Mechanical solutions
- Schematic review of customer carrier board designs
- Driver and application development

## Development Kit

The iMX6 UltraLite COM Board is supported by the **iMX6 UltraLite Developer's Kit V2** that provides a quick path to get started with development and integration work. The kit provides reference implementations of key interfaces. Ordering part No. **EAK00343**



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