



i.MX applications processors

Evaluation Kit Based on i.MX 6UltraLite

NXP delivers the next installment in a line of highly flexible, market-focused development tools with an evaluation kit (EVK) based on the i.MX 6UltraLite applications processor.

The i.MX 6UltraLite processor is the first device in the i.MX product line to have a single ARM® Cortex®-A7 core operating at speeds of up to 696 MHz. This EVK enables an LCD display and audio playback as well as many connectivity options. It is designed to showcase the most commonly used features of the processor in a small, low-cost package and to facilitate software development with the ultimate goal of faster time-to-market through the support of the Linux® operating system. A footprint is also available to enable an HDMI display.

EFFICIENT PERFORMANCE WITH LOW POWER AT A LOW BOM COST

Leveraging the energy efficiency of the Cortex-A7 core, the i.MX 6UltraLite is the smallest and most energy-efficient ARM-based processor, providing maximum performance in low-power, space constrained embedded environments. The board is powered by discrete power circuitry consisting of three DC to DC converters and one low dropout (LDO) regulator.

i.MX 6UltraLite EVK System Contents

- ▶ i.MX 6UltraLite CPU board and base board

SENSORS

The NXP FXLS8471Q accelerometer is highly versatile for industrial and consumer high-performance low-g applications that offer noise density, board mount offset, temperature performance and sensitivity. Integrated motion detection features include tilt, shake and tap detection with a new vector magnitude output that simplifies implementation and reduces power consumption. The NXP MAG3110 eCOMPASS is a small, low-power digital 3D magnetic sensor with a wide dynamic range to allow operation in PCBs with high extraneous magnetic fields. A footprint is also available to enable a gyroscope sensor.



i.MX 6UltraLite EVK



SOFTWARE AND TOOLS

Simplify product design with a low-cost, feature-rich development platform that allows you to work with the majority of the processor's primary features with the corresponding software support. For software, design files, development tools and additional information, visit nxp.com/iMX6tools.

MCIMX6UL-EVK FEATURES

CPU Board	
Processor	NXP i.MX 6UltraLite 696 MHz Cortex-A7 core
Power management	Discretes
Memory	<ul style="list-style-type: none">• 4 GB DDR3L SDRAM, 400 MHz• 256 MB Quad SPI flash• MicroSD connector• Footprint for eMMC• Footprint for NAND flash
Size	2.66 inch x 1.27 inch (6.76 cm x 4.24 cm), 4-layer board
Base Board	
Display board interface	<ul style="list-style-type: none">• LCD expansion port connector• HDMI connector and footprint for HDMI transmitter
Audio	<ul style="list-style-type: none">• Audio codec• 3.5 mm stereo headphone output with MIC• Mono-Microphone input on board• Left and right speaker out connectors
Connectivity	<ul style="list-style-type: none">• One USB 2.0 Micro-B OTG connector• One USB 2.0 Standard-A host connector• Two Ethernet (10/100T) connectors• Dual CAN connector• SD/SDIO connector
Camera	Parallel camera connector
Sensors	<ul style="list-style-type: none">• NXP MAG3110 eCOMPASS• NXP FXLS8471Q accelerometer• Footprint for gyroscope
Debug	<ul style="list-style-type: none">• 20-pin standard JTAG connector• UART to Micro USB connector
Expansion port	Arduino header
Size	5.12 inch x 4.25 inch (13.0 cm x 10.8 cm), 4-layer board

www.nxp.com/iMX6ULEVK and imxcommunity.org

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