

Evaluation Kit Based on i.MX 8M Quad Applications Processors

The i.MX 8M Quad EVK has industry-leading audio and video capabilities for developing high performance and flexible applications.

The i.MX 8M Quad EVK provides a platform for rapid evaluation of the i.MX 8M Quad, i.MX 8M Dual and i.MX 8M QuadLite applications processors, utilizing 2 to 4x Arm® Cortex®-A53 cores and 1x Cortex-M4 core. It offers high performance with low power, flexible options for memory and high-speed interfaces, as well as industry-leading audio and video capabilities.

The board enables HDMI output for simple out-of-the-box bring up. It has LPDDR4, eMMC, QSPI and SDMicro memory options, 10/100/1000 Ethernet port, USB 3.0 connectors and PCIe high-speed interfaces ideal for connected, high performance embedded applications. For audio, video and HMI evaluations, it brings HDMI 2.0a Type-A and MIPI-DSI connectors, as well as 32-bit audio samples with up to 768 kHz sampling rate, an audio interface expansion connector and a headphone 3.5 mm audio jack.

VIDEO AND GRAPHICS

The EVK integrated video and graphics capabilities decodes most relevant video formats as h.264, h.265 and VP9, and renders up to 4Kp60 video resolution with High Dynamic Range (HDR), delivering more vibrant colors, contrast and brightness. Applications like video streaming and digital signage, among others, are evolving to these higher standards.

HMI AND CONNECTIVITY

Today, Human Machine Interface (HMI) must respond accurately, and in milliseconds, to touch screen and gesture inputs. Connectivity is a must, demanding increasingly faster and more reliable wired and wireless capabilities, associated with security to protect sensitive data and privacy. The i.MX 8M Quad EVK provides capabilities for development of these key functionalities.

TARGET APPLICATIONS

- ▶ Human Machine Interface (HMI)
- ▶ Building Automation
- ▶ Smart Homes
- ▶ Imaging and Scanning
- ▶ Machine Vision
- ▶ Video Streaming
- ▶ Audio Streaming



i.MX 8M QUAD EVK CONTENTS

- ▶ i.MX 8M Quad EVK board
- ▶ Power supply
- ▶ Quick Start Guide
- ▶ USB 3.0 Type C to Type A
- ▶ USB 2.0 Type A to Type Micro

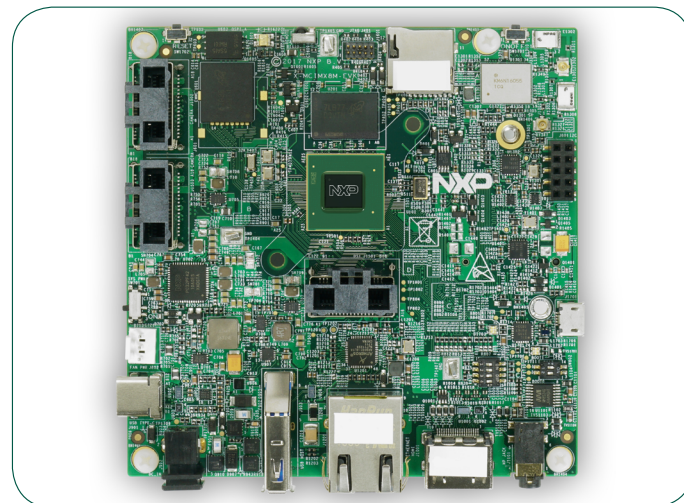
SOFTWARE AND TOOLS


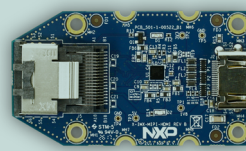
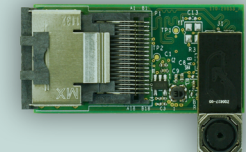
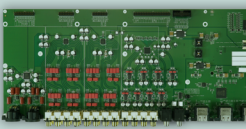
The i.MX 8M Quad EVK comes pre-installed with a boot image flashed on one eMMC memory. Android, Linux OS and FreeRTOS board support packages are also offered. Additional information can be found at www.nxp.com/iMX8MQuadEVK.

i.MX 8M QUAD EVK FEATURES

Board	
Processor	<ul style="list-style-type: none">• i.MX 8M Quad applications processor• 4x Arm Cortex-A53 @ 1.5GHz• 1 MB L2 cache• Arm Cortex-M4 @ 266 MHz
Power Management	<ul style="list-style-type: none">• NXP PMIC PF4210
Memory	<ul style="list-style-type: none">• LPDDR4 x32 @3200MT w/4 GB• eMMC 5.0 w/16 GB• MicroSD connector• QSPI w/256 Gb
Display/Camera Connectors	<ul style="list-style-type: none">• HDMI 2.0a Type-A connector• MIPI-CSI Camera mini-SAS connector• MIPI-DSI Display mini-SAS connector
Wireless	<ul style="list-style-type: none">• Bluetooth 4.1/EDR• WiFi 802.11 a/b/g/n/ac MIMO 2x2• Onboard chip antenna• External antenna connector
Audio	<ul style="list-style-type: none">• Audio DAC 24-bit 192 kHz Stereo• HP Jack 3.5 mm audio connector• Board expansion connector for audio interfaces
Connectivity	<ul style="list-style-type: none">• 10/100/1000 Ethernet• USB 3.0 Type A connector• USB 3.0 Type C connector• PCIe M.2 interface• Infrared
Debug	<ul style="list-style-type: none">• JTAG connector• UART via USB
Tools and OS support	<ul style="list-style-type: none">• Linux• Android• FreeRTOS

i.MX 8M Quad EVK



i.MX 8M Quad EVK Accessory Boards		
Description	Part Number	Photo
MIPI-DSI OLED Display	Coming soon	
MIPI-DSI to HDMI Adapter	IMX-MIPI-HDMI	
MIPI-CSI Camera	MINISASTOCSI	
i.MX 8M Quad Audio Board	MCIMX8M-AUDIO	

www.nxp.com/iMX8MQuadEVK and imxcommunity.org

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. Arm, Cortex and Keil are registered trademarks of Arm Limited (or its subsidiaries) in the EU and/or elsewhere. Mbed is a trademark of Arm Limited (or its subsidiaries) in the EU and/or elsewhere. All rights reserved. © 2018 NXP B.V.

Document Number: IMX8MQUADEVKA4 FS REV 0