

Open-X™ 8M Development Kit

Based on the NXP® i.MX 8M™ processor

Intrinsic's Open-X™ 8M Development Kit is a cost-effective, feature rich, multimedia-focused, exposed board platform powered by our Open-X™ 8M SOM (System on Module). It is ideal for evaluation of the Open-X™ 8M SOM as well as jump-starting development of streaming video/audio devices, voice control and general human-machine interface solutions.

An HDMI 2.0a video output is provided for ease of use out of the box, and our optional LCD/touchpanel is also compatible. With a multitude of high performance interconnect options, including two USB3.0 ports, Gigabit Ethernet, PCIe Gen2, and pre-certified dual-band 2x2 MU-MIMO WLAN, this Dev Kit is ideal for development of a wide range of embedded and IoT products.

Key Features

- Powered by the Open-X™ 8M SOM
- Open-frame Mini-ITX Form-factor Carrier Board for evaluation and development
- Generous I/O and connectivity options
- 4K HDMI 2.0a output, USB Type-C , PCIe Gen2 Connector
- Android™ 8, Linux®



Open-X™ 8M SOM



Hardware Specifications

Open-X™ 8M SOM

*See the Open-X™ 8M SOM datasheet for complete details

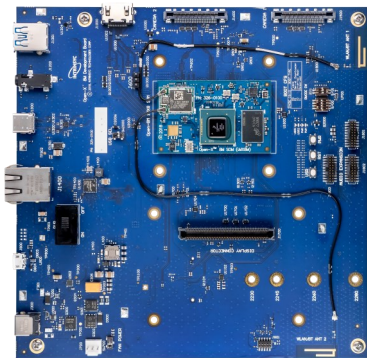
Processor	NXP® i.MX 8M processor — Quad-core ARM Cortex-A53 MPCore at 1.5 GHz + single-core ARM Cortex-M4
Memory/Storage	3GB LPDDR4 RAM, 16GB eMMC Flash
Wireless	WLAN 802.11a/b/g/n/ac 2.4/5.0 GHz 2x2 MU-MIMO + Bluetooth 4.1—pre-certified module (FCC/IC)

Open-X™ 8M Carrier Board

Display Interfaces	HDMI Type-A connector supporting HDMI 2.0a for 4096 x 2160 @ 60Hz MIPI DSI display connector for optional LCD / Touch Panel to mount on carrier board
Camera Interfaces	2 x MIPI CSI2 camera connectors for optional camera module
Audio Interfaces	3.5mm line-level stereo output Audio expansion: 1x 16 channel bi-directional SAI digital audio interface (I2S, AC97, TDM, DSP) 1x 8 channel receive SAI digital audio interface (I2S, AC97, TDM, DSP) 1x 2 channel receive SAI digital audio interface (I2S, AC97, TDM, DSP) 1x S/PDIF input and output
I/O Expansion	I2C, NAND interface, GPIO, JTAG header, dual debug UART on USB serial micro-B
High Speed	1x USB3.0 Type-A, 1x USB3.0 Type-C, Gigabit Ethernet J45
Expansion Sockets	M.2 socket with PCIe Gen2, USB HS, UART, I ² C, I ² S microSD card socket
Wireless	Two WLAN/Bluetooth PCB antennas on carrier board with coaxial connection to SOM
Power	Input Power: 12V/3A to barrel jack (power supply included) or USB Type-C power Power probe header for SOM power consumption measurement
Form Factor	SOM size: 55mm x 35mm Carrier Board size: Mini-ITX 170mm x 170mm with on-board mounting for optional LCD panel

Software

OS Support	Android™ 8, Linux® *Note that all hardware features may not be supported by SW — see latest SW release notes for details
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Optional Display

Purchasing Information

Open-X™ 8M Dev Kit	Part number: QC-DB-Q00003	Store Link
Open-X™ 8M SOM	Part number: QC-DB-Q00004	Store Link
Open-X™ 8M LCD	Part number: QC-DB-G00005	Store Link

Intrinsyc Product Design Services

Intrinsyc also offers comprehensive product development including hardware, software, mechanical engineering, as well as specialty services such as camera, audio, DSP, and RF development.

Contact Intrinsyc to discuss your product design needs today:

sales@intrinsyc.com

Development Kit includes: Carrier board, SOM, 12V power supply, HDMI cable, Quick Start Guide, access to full documentation, SW updates, and basic development kit support.

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