

The MaaXBoard is a low-cost, NXP i.MX 8M processor-based, single board computer ideal for embedded computing and smart edge IoT applications. The i.MX 8M family of application processors are based on the Arm® Cortex®-A53 and Cortex-M4 cores which provide industry-leading audio, voice, and video processing for applications that scale from consumer home audio to industrial building automation and embedded computers. The MaaXBoard is production ready, FCC, CE, and RoHS certified. It is available in quantities from one to thousands.

The MaaXBoard contains everything necessary to support and create a Linux, Android, Windows 10 IoT Core, or other OS based system. The platform offers several on-board peripherals including 2 GB of DDR4 memory, a Gigabit Ethernet port, dual USB 3.0 host ports, HDMI output, MIPI-DSI, MIPI-CSI, WiFi, Bluetooth Low Energy, and MicroSD card slot. A Raspberry Pi hat compatible expansion connector also provides interfaces for UART, SPI, I2C, and GPIO. These combined capabilities make it an ideal platform for investigating AI, IOT, and multimedia applications.

Each MaaXBoard is shipped with a custom passive Heatsink and Quick Start guide to assist developers with getting started on their hardware or software development project. A user supplied 5V/3A USB Type C power supply is required to power the board. A 16 GB microSD card and a HDMI cable is recommended for booting the MaaXBoard and connecting it to a LCD monitor. To jump start your development, Avnet offers supported Android 9.0 and Yocto images available for download. For software debugging, an optional Microchip USB-to-UART evaluation board is recommended, allowing USB terminal access through a UART port on the 40-pin expansion connector.

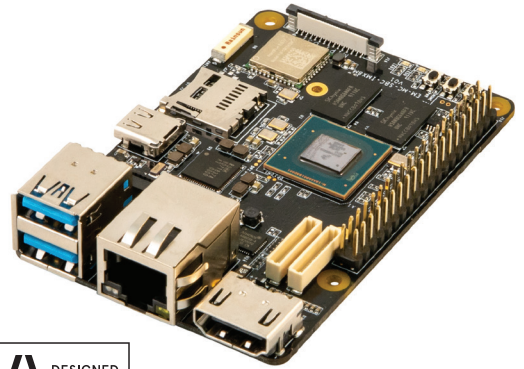
## KIT INCLUDES

- MaaXBoard
- Passive Heatsink
- Quick Start Instructions

## TARGET APPLICATIONS

- Embedded Computing
- Machine Vision
- AI platform
- Embedded Kiosk
- Smart IoT Platform

To purchase this kit, visit [www.avnet.me/maaxboard](http://www.avnet.me/maaxboard)



## FEATURES

### Processor

- NXP i.MX 8M Processor with Quad Arm Cortex-A53 and single Cortex-M4F

### Memory

- 2GB DDR4 SDRAM
- MicroSD Slot
  - Supports eMMC Boot (not populated by default)

### Communications and User Interface

- Gigabit Ethernet
- Dual USB 3.0
- MIPI-DSI
- MIPI-CSI
- HDMI – Supports up to 4k resolution
- Wi-Fi 802.11 b/g/n/ac
- Bluetooth 4.2 (Bluetooth Low Energy)
- Onboard Ceramic Antenna (Default)
  - External Antenna supported
- Audio Expansion

### User I/O

- 40 Pin Low Speed Expansion Interface
  - Raspberry Pi Hat Compatible
  - Digital I/O voltage: 3.3V

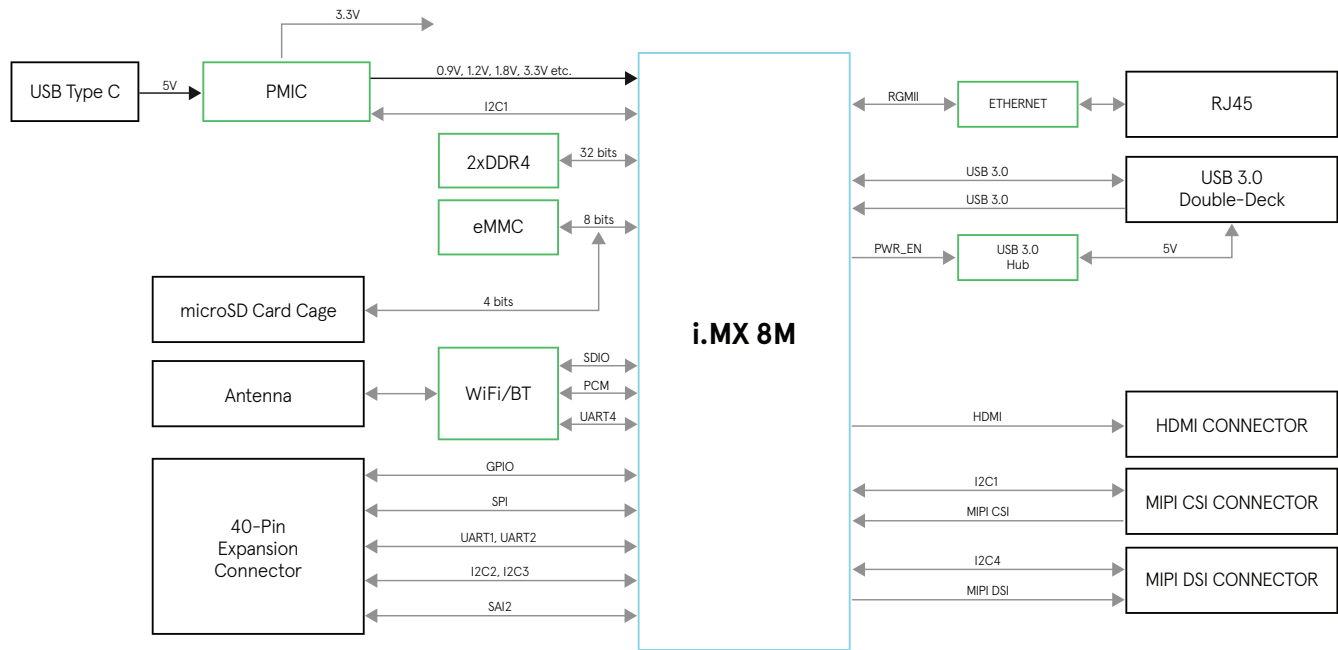
### Other

- Voltage Regulators
- USB Type C 5V/3A Power input
- Operating Temperature: 0~70°C

### Mechanical

- 85mm x 56mm x 12mm form factor

## BLOCK DIAGRAM



## PARTS

Part Number	Description	Resale
AES-MC-SBC-IMX8M-G	MaaxBoard i.MX 8M single board computer	\$85.95
AES-MC-SBC-IMX8M-D2SDQI-G	MaaxBoard - Industrial Temp SD Boot; 100 piece MOQ	CALL
AES-MC-SBC-IMX8M-D2E16QC-G	MaaxBoard - Commercial Temp 16GB eMMC Boot; 100 piece MOQ	CALL
AES-MC-SBC-IMX8M-D2E16QI-G	MaaxBoard - Industrial Temp 16GB eMMC Boot; 100 piece MOQ	CALL

## RELATED PARTS

Part Number	Description	Resale
55Y8325	UART Debug Communication Board	\$21.11
AES-ACC-MAAX-DISP1	MIPI DSI LCD Display	\$51.02
AES-ACC-MAAX-CAM1	MIPI CSI Camera Module	\$26.95
AES-ACC-MAAX-PWRUL	UL Certified 5V/3A USB Type-C Power Supply	\$6.12
S416APG49-U3000-3	16GB MLC UHS-1 Class 10 Utility MicroSD Card	\$21.58
S408APG49-U1000-3	8GB MLC UHS-1 Class 10 Utility MicroSD Card	\$11.46

Countries Available for Purchase: Americas, EMEA

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