

# EDM1-IMX6



From  
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- The EDM1-IMX6 is a System on Module (SOM) based on an NXP i.MX6 Solo, Duallite, Quad or QuadPlus multicore Cortex-A9™ processor clocking up to 1GHz.
- The EDM1-IMX6 operates in commercial and industrial temperature ranges from -40 to 85°C. The system's built-in Vivante GC2000 GPU enriches the multimedia experience on interfaces such as HDMI, RGB TTL, LVDS, and an MIPI-CSI2 camera interface.
- The EDM1-IMX6 provides scalable solutions with industrial interfaces such as Gigabit Ethernet, USB, I<sup>2</sup>S, CAN, UART, SPI, I<sup>2</sup>C, PWM, GPIO for sensors for IIoT edge devices.
- Accelerate your time-to-market and reduce development costs with TechNexion pre-certified FCC / IC / CE / RCM / TELEC dual-band Wi-Fi 802.11 ac/a/b/g/n, Bluetooth.
- Linux, Yocto, Android runtime images and full source code available.

## Specifications



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PROJECT



### Core System

Processor	NXP i.MX6 Solo NXP i.MX6 Duallite NXP i.MX6 Quad NXP i.MX6 QuadPlus
Processor speed	up to 1GHz
Architecture	ARM Cortex-A9
PMIC	NXP MMPF0100
Memory	up to 2GB DDR3
Storage	eMMC (16GB Default) MicroSD Cardslot (optional)
Board-to-Board Connector	EDM connector (314-pin MXM3)
System on Module	EDM Type 1
Debug Interface	JTAG Interface by Through-hole

### Connectivity

Network LAN	1x Atheros AR8035 Gigabit LAN
Wi-Fi/Bluetooth	Qualcomm QCA9377 802.11 a/b/g/n/ac + BT (BR+EDR+BLE)
Antenna	MHF4 connector

### Signaling

I/O	HDMI	SATA
	LVDS	SDIO
	RGB TTL	CAN
	LAN	UART
	PCIe	SPI
	USB	I <sup>2</sup> C
	USB OTG	GPMC
	I <sup>2</sup> S	PWM
	SPDIF	GPIO

### Video

Graphic Engine	Vivante GC320 (2D Composition) Vivante GC355 (Dual/Quad/QuadPlus) Vivante GC880 (Solo/DualLite) Vivante GC2000 (Dual/Quad) Vivante GC2000+ (QuadPlus)
Video Decode	1080p30 + D1 (Solo/DualLite) 1080p60 H.264 (Dual/Quad) HD (1080p +720p) (QuadPlus)
Video Encode	1080p30 H.264 BP/Dual 720p
Camera	MIPI CSI (4 lanes)

### Audio

Audio Codec	On carrier board
Audio Interface	I <sup>2</sup> S (2 channel)

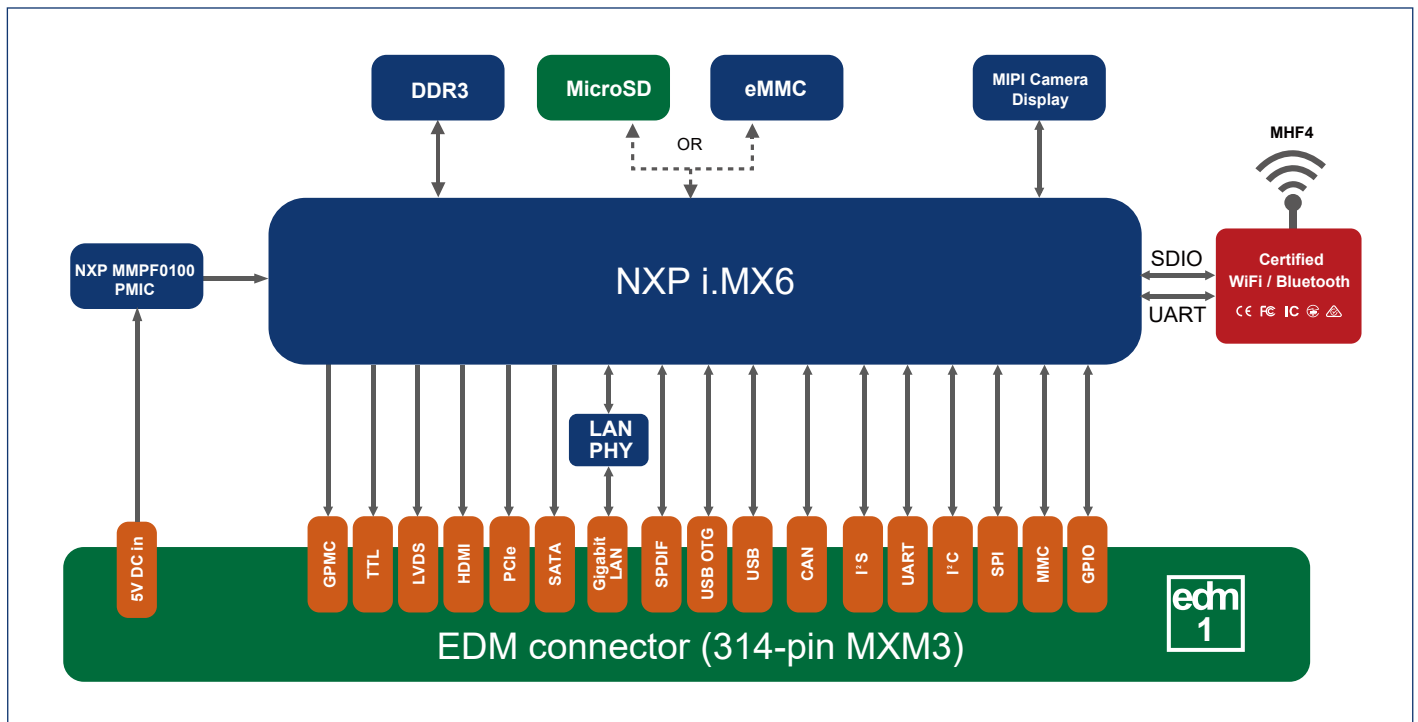
### Operation Systems

Standard Support	Linux Yocto Android
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### Certification and Compliance

USA	FCC ID: 2AKZA-QCA9377
Canada	IC: 22364-QCA9377
Japan	TELEC: 201-180629
European Union	EN 55032 / EN 55024 EN 300 328 v2.2.2 EN 301 893 v2.1.1
Australia/New Zealand	RCM
Bluetooth Logo Certification	QDID150839 (Bluetooth 4.2) Compliant with RoHS / REACH directives

**Block Diagram**



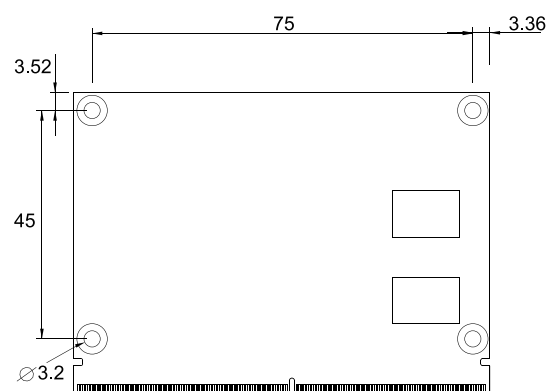
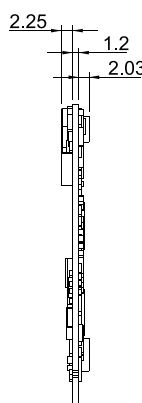
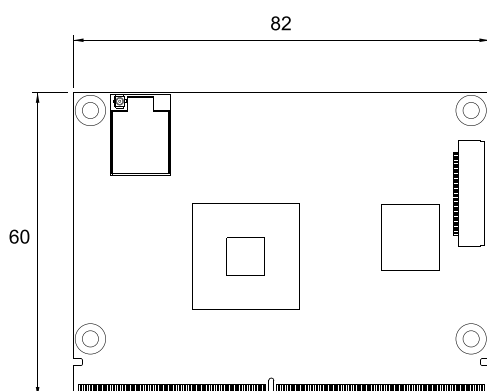
**Environmental and Mechanical**

Dimensions	82 x 60 mm / 3 <sup>1</sup> / <sub>8</sub> x 2 <sup>3</sup> / <sub>8</sub> inch
Form Factor	EDM Compact
Weight	20 grams
Temperature	Commercial: 0° to +60°C Extended: -20° to +70°C Industrial: -40° to +85°C
Relative Humidity	10 to 90 %
MTBF	>100 000 Hours
Shock	50G/25ms
Vibration	20G/0-600Hz

**Power Specifications**

Power Input	5V DC +/-5%
Power Consumption	Depending on Configuration

**Dimensions**  
(units in mm)



**Order Information :**

EDM1-IMX6xx-xx-Rxx-xxx-xxxx-xx-xxxx

	Code	Description
Processor	IMX6S	NXP i.MX6Solo
	IMX6U	NXP i.MX6DualLite
	IMX6Q	NXP i.MX6Quad
	IMX6QP	NXP i.MX6QuadPlus
Processor Speed	08	800MHz
	10	1.0GHz
Memory	R05	512 MB DDR3
	R10	1GB DDR3
	R20	2GB DDR3
Storage	MSD	MicroSD Cardslot
	E16	eMMC 16GB
	EXX	eMMC other capacity
Wi-Fi / Bluetooth	-	-
	9377	Qualcomm QCA9377 802.11a/b/g/n/ac (2.4 + 5GHz) + Bluetooth
Temperature Range	-	Commercial Temperature (0° to +60°C)(Default)
	TI	Industrial Temperature range (-40° to +85°C)
Custom ID	XXXX	Custom Part number ID for customized Software loader and special component (BOM)