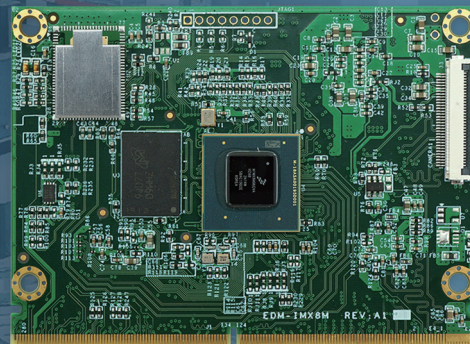


EDM-IMX8

- The EDM-IMX8M is a System on Module (SOM) based on an NXP i.MX8M Quad core Cortex-A53™ + M4™ processor clocking up to 1.5GHz.
- The EDM-IMX8M operates in commercial and industrial temperature ranges from -40 to 85°C. The on-board Vivante GC7000Lite GPU OpenGL® ES 3.1, OpenGL® 3.0, Vulkan®, Open CL™ 1.2 yields superb 4K HDR content on HDMI and MIPI-DSI display complementing 2 MIPI-CSI2 camera interfaces.
- 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

Core System

Processor	NXP i.MX8M Quad
Processor speed	Up to 1.5GHz
Architecture	ARM Cortex-A53 + M4
PMIC	ROHM BD71837
Memory	Up to 4GB LPDDR4
Storage	16GB eMMC (default)
Board-to-Board Connector	EDM connector (314-pin MXM3)
System on Module	EDM SOM
Debug Interface	JTAG Interface by Through-hole

Signaling

I/O	HDMI	SDIO
	LAN	UART
	MIPI CSI	SPI
	MIPI DSI	I²C
	PCIe	PWM
	USB	GPIO
	USB OTG	
	I²S	

Connectivity

Network LAN	1x Atheros AR8035 Gigabit LAN
Wi-Fi	Qualcomm Atheros QCA9377 Wi-Fi 5 – 802.11 a/b/g/n/ac (optional)
Bluetooth	Qualcomm Atheros QCA9377 Bluetooth (optional)
Antenna	MHF4 connector

Video

GPU Engine	Vivante GC7000Lite
Video decode	4K UltraHD HDR 4Kp60, H.265 VP9
Video encode	1080p120 H.264
Camera	MIPI CSI (4 lanes)

Audio

Audio Codec	On carrier board
Audio Connectors	I ² S (2 channel)

Power Specifications

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

Operation Systems

Standard Support	Linux Yocto Android Ubuntu
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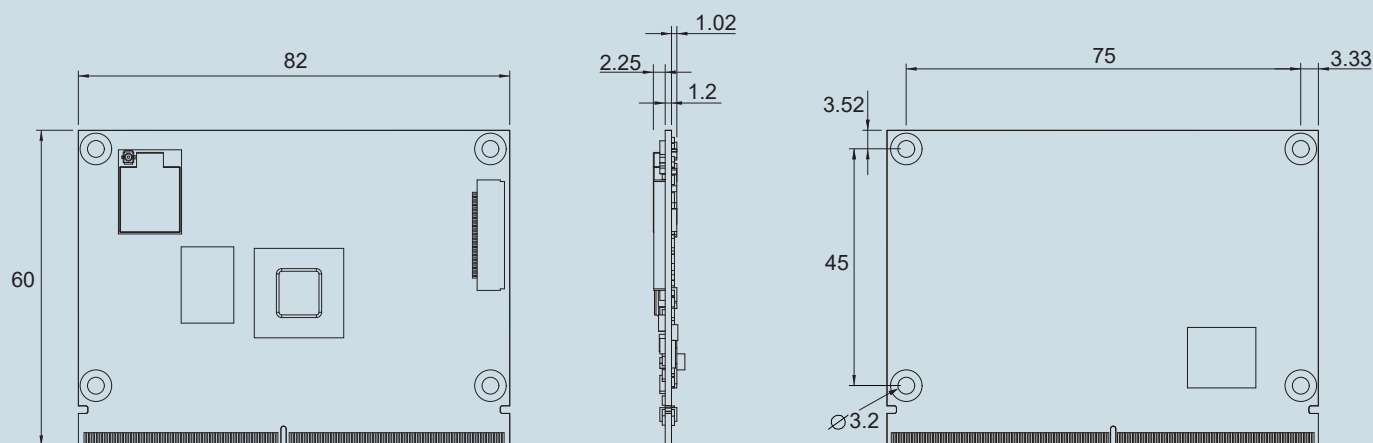
Environmental and Mechanical

Dimensions	82 (W) x 60 (H) x 4.47 (D) mm
Form Factor	EDM Type 1
Relative Humidity	10 to 90 %
MTBF	100,000+ Hours
Shock	15G half-sine 11 ms duration
Operation Temperature	Commercial: 0° to +60° C Industrial: -40° to +85° C
Vibration	20G/0-600Hz
Weight	20 grams

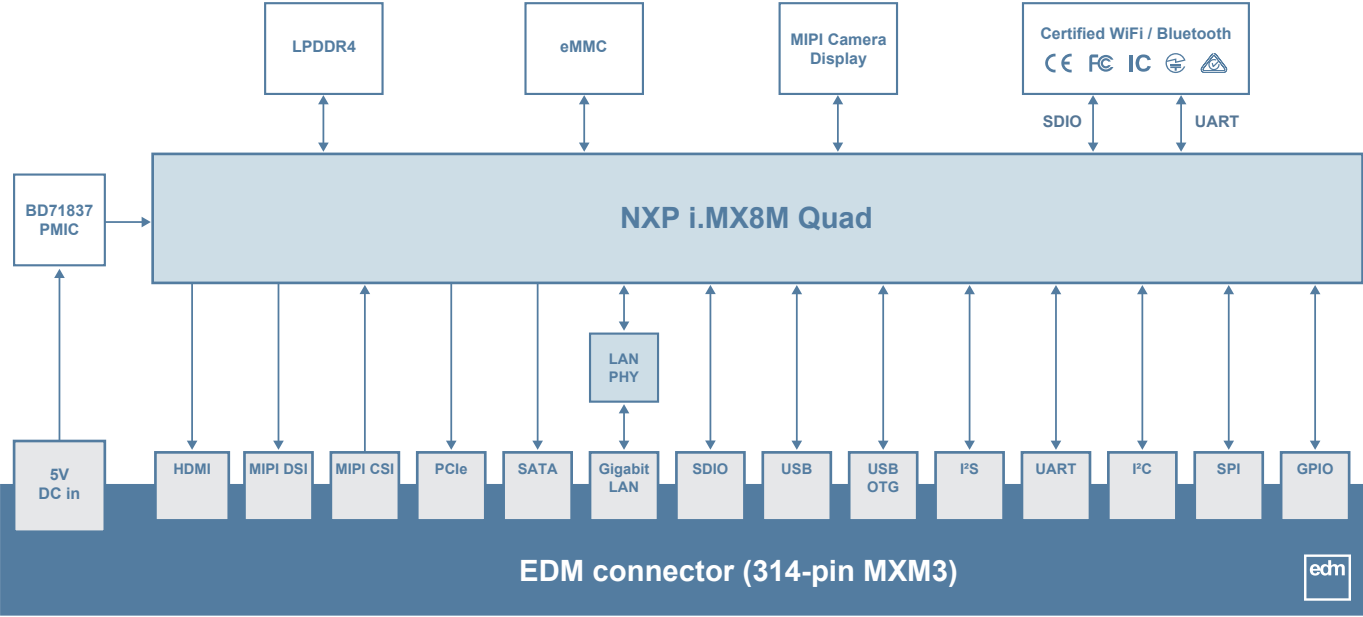
Certification and Compliance

USA	FCC ID: 2AKZA-QCA9377
Canada	IC: 22364-QCA9377
European Union	EN 300 328 v2.2.2 EN 301 893 v2.1.1 EN 55032 / EN 55024
Japan	TELEC: 201-180629
Australia/New Zealand	RCM Compliant
Bluetooth Logo	QDID 150839 (Bluetooth 4.2) QDID 193238 (Bluetooth 5)
Certification	Compliant with RoHS / REACH directives

Dimensions (units in mm)



Block Diagram



Order Information

EDM-IMX8Mx-xx-Rxx-Exx-xxxx-xx-xxxx

	Code	Description
Processor	IMX8MQ	NXP i.MX8M Quad
Processor Speed	13	1.3GHz
	15	1.5GHz
Memory	R10	1GB LPDDR4
	R20	2GB LPDDR4
	R40	4GB LPDDR4
Storage	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 range (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)