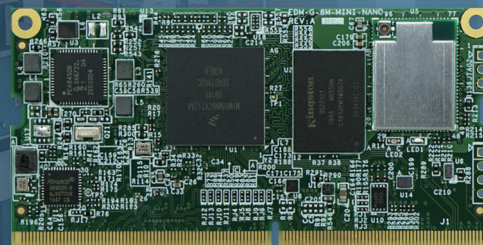


EDM-G-IMX8M-NANO

- Modern System on Module form factor
- Up to 4 Cortex-A53 1.5 GHz processors
- NXP i.MX 8M Nano applications processor
- Armv8 64-Bit CPU cores



Specifications

Core System

Processor	NXP i.MX8M Nano
Architecture	ARM Cortex-A53 + M7
AI / ML	OpenCL CPU: 32 GOPS
PMIC	NXP PCA9450
Memory	Up to 2GB LPDDR4
Storage	32GB eMMC (default)
Board-to-Board Connector	EDM Type G connector (260-pin)
System on Module	EDM SOM
Debug Interface	JTAG Interface by Through-hole

Signaling

I/O	LAN
	MIPI CSI
	MIPI DSI
	USB
	USB OTG
	I ² S
	SDIO
	UART
	SPI
	I ² C
	PWM
	GPIO

Connectivity

Network LAN	1x Realtek RTL8211
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 (optional)

Video

GPU Engine	GC7000UL (2 shaders) OpenGL® ES 2.0/3.0/3.1, Vulkan®, OpenCL™ 1.2
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
Extended Support	Boot2Qt Commercial Linux FreeRTOS Real Time OS

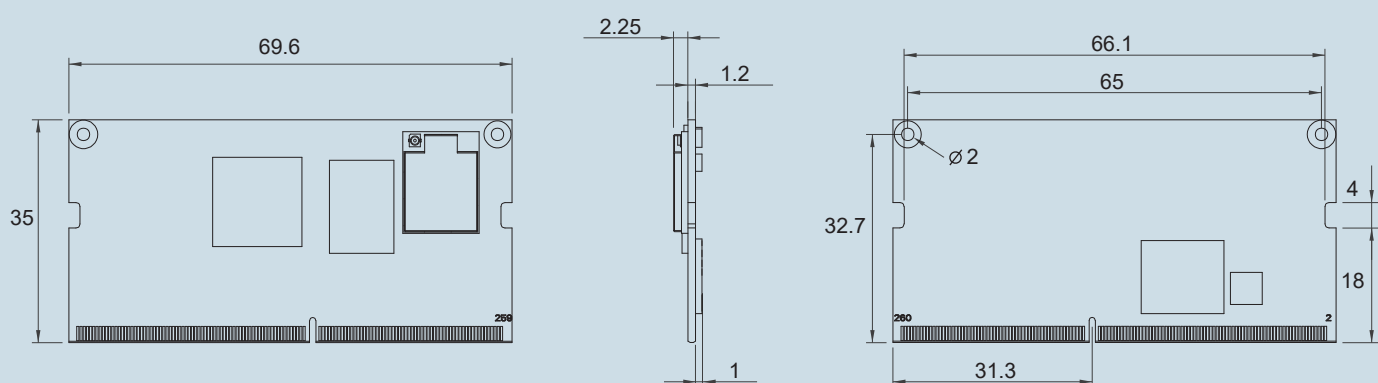
Environmental and Mechanical

Dimensions	69.6 (W) x 35 (H) x 4.45 (D) mm
Form Factor	EDM Type G
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	1 Grms random 5-500Hz hr/axis
Weight	8 grams

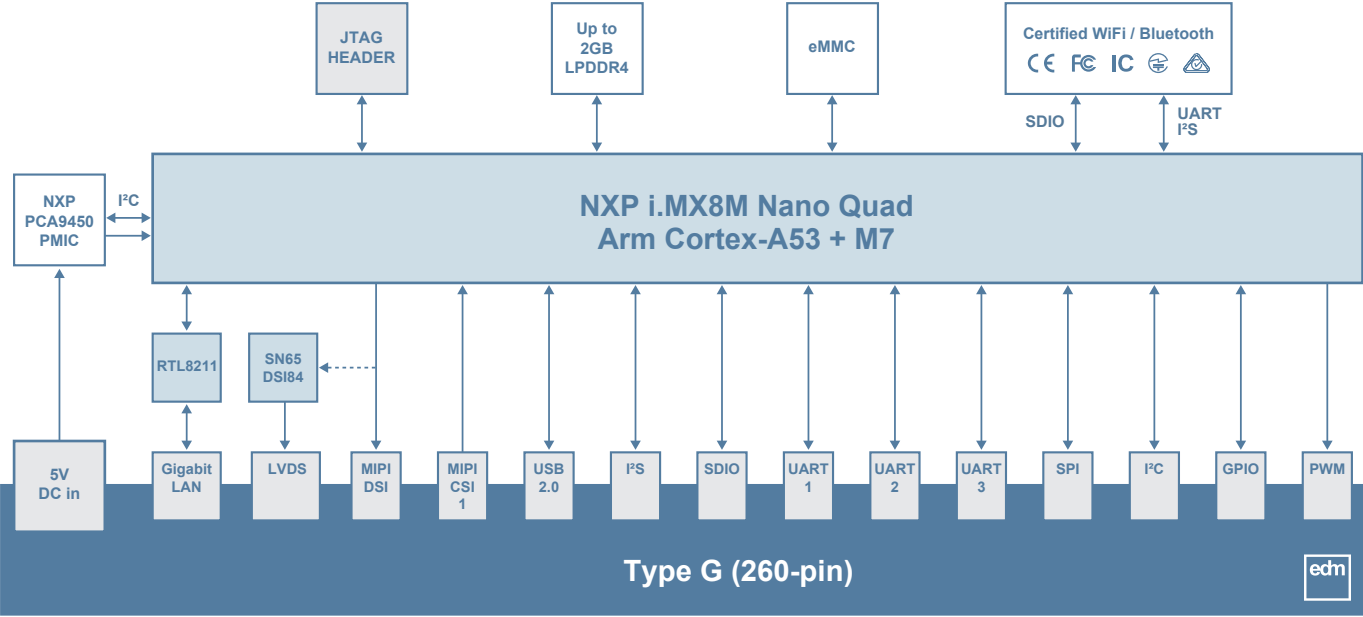
Certification and Compliance

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-G-IMX8MNQ-xx-Rxx-Exx-xxxx-xx-xxxx

	Code	Description
Processor	IMX8MNQ	NXP i.MX8M Nano
Processor Speed	14	1.4GHz
	15	1.5GHz
Memory	R10	1GB LPDDR4
	R20	2GB LPDDR4
Storage	E32	eMMC 32GB
	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)