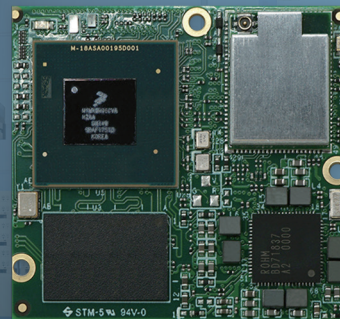


PICO-IMX8M

- NXP i.MX 8M Quad applications processor
- Up to 4 Cortex-A53 1.5 GHz processors
- Armv8 64-Bit CPU cores
- Certified Wi-Fi 5 and Bluetooth LE



Specifications

Core System

Processor	NXP i.MX8M Quad
Architecture	ARM Cortex-A53 + M4
AI / ML	OpenCL CPU: 32 GOPS
PMIC	ROHM BD71837
Memory	Up to 8GB LPDDR4
Storage	16GB eMMC (default)
Board-to-Board Connector	PICO 70-pin Hirose connectors
System on Module	PICO SOM

Signaling

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

Network LAN	RGMII
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	GC7000Lite (4 shaders) OpenGL [®] ES 2.0/3.0/3.1, Vulkan [®] , OpenCL [™] 1.2
Video decode	4Kp60 HEVC, VP9, 4Kp30 H.264, legacy
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

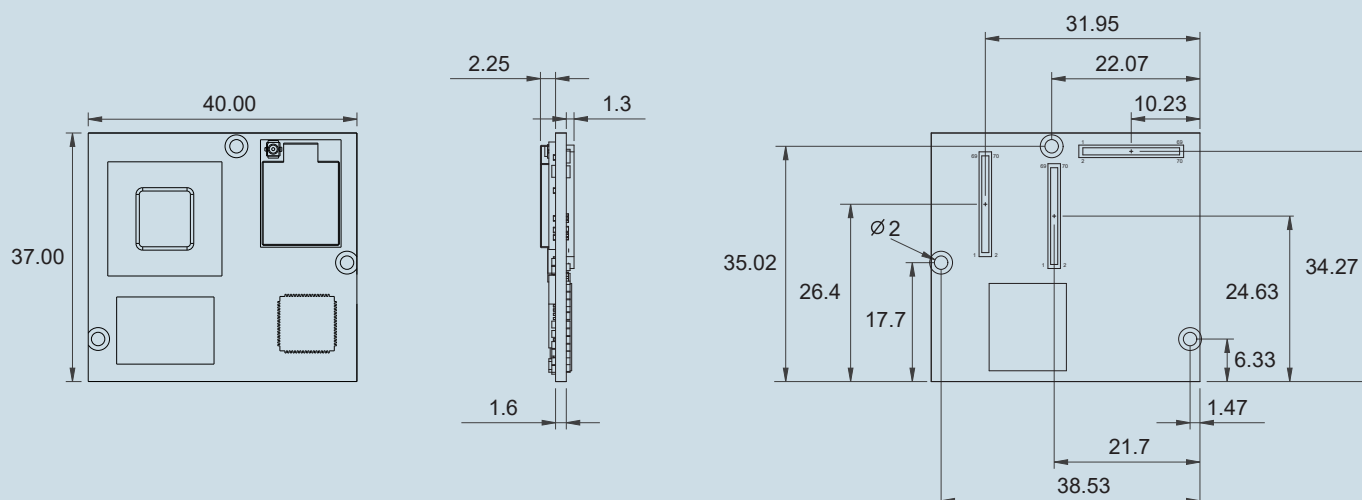
Environmental and Mechanical

Dimensions	40 (W) x 37 (H) x 5.15 (D) mm
Form Factor	PICO
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

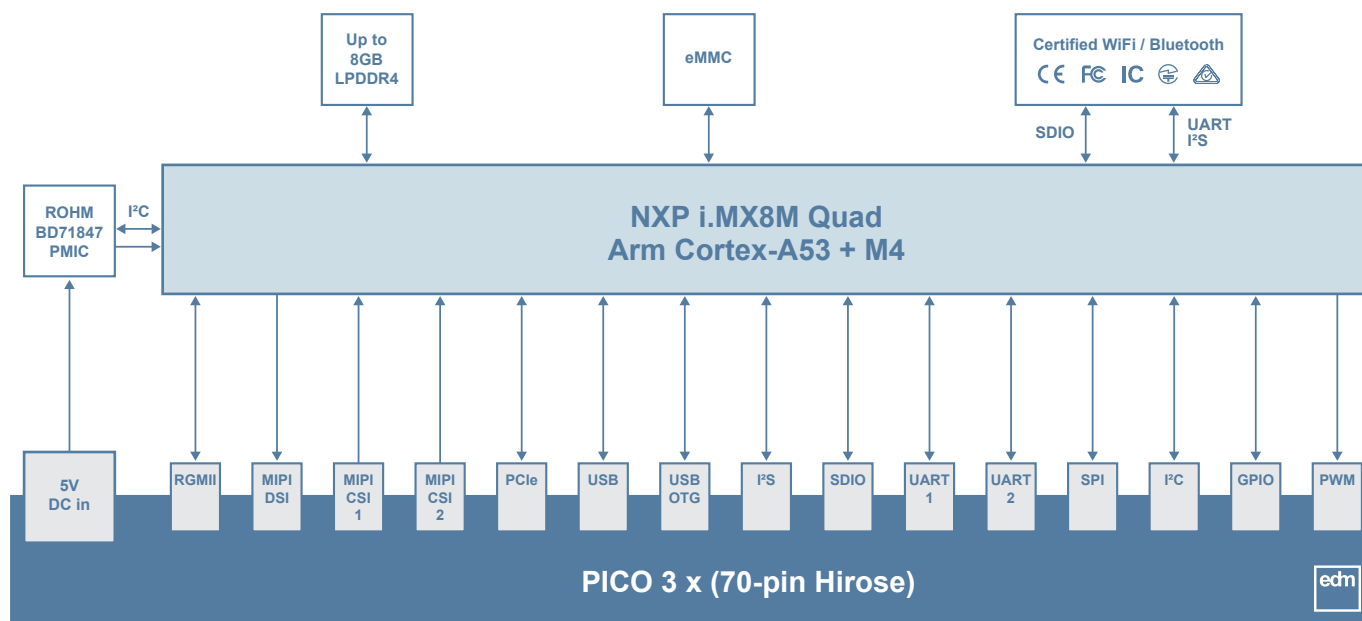
Certification and Compliance

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

PICO-IMX8Mx-xx-Rxx-Exx-xxxx-xx-xxxx

	Code	Description
Processor	IMX8MQ	NXP i.MX8M Quad
Processor Speed	13	1.3GHz
Memory	R10	1GB LPDDR4
	R20	2GB LPDDR4
	R40	4GB LPDDR4
	R60	6GB LPDDR4
	R80	8GB 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)