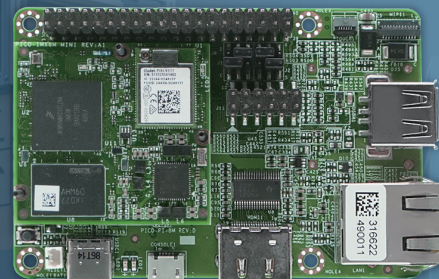


PICO-PI-IMX8M-MINI

- High performance in a small form factor
- Up to 4 Cortex-A53 1.8 GHz processors
- NXP i.MX 8M Mini applications processor
- Armv8 64-Bit CPU cores



Specifications

Core System

Processor	NXP i.MX8M Mini
Processor Speed	1.8GHz
Architecture	ARM Cortex-A53 + M4
AI / ML	OpenCL CPU: 32 GOPS
PMIC	ROHM BD71847
Memory	Up to 4GB LPDDR4
Storage	16GB eMMC (default)
Board-to-Board Connector	PICO 70-pin Hirose connectors
System on Module	PICO SOM
Debug Interface	Micro USB debug

Connectivity

Network LAN	1x Realtek RTL8211
Wi-Fi	Qualcomm Atheros QCA9377 Wi-Fi 5 – 802.11 a/b/g/n/ac
Bluetooth	Qualcomm Atheros QCA9377 Bluetooth
Antenna	MHF4 connector

Signaling

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

Video

GPU Engine	GC NanoUltra (1 shader) GC520L (2D) OpenGL ES 2.0
Video Decode	1080p60 (h.265, h.264, VP9, VP8)
Video Encode	1080p60 (h.264)
Camera	MIPI CSI (4 lanes)

Audio

Audio Interface	I ² S (2 channel)
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Power Specifications

Power Input	5V over USB Type C
Power Consumption	Depending on Configuration
Power Connector	USB Type C Connector

Operation Systems

Standard Support	Linux Yocto Android Ubuntu
Extended Support	Boot2Qt Commercial Linux

Environmental and Mechanical

Dimensions	85 (W) x 56 (H) x 19.4 (D) mm
Relative Humidity	10 to 90 %
MTBF	50,000 Hours
Shock	15G half-sine 11 ms duration
Operation Temperature	Commercial: 0° to +60° C
Vibration	1 Grms random 5-500Hz hr/axis
Weight	50 grams

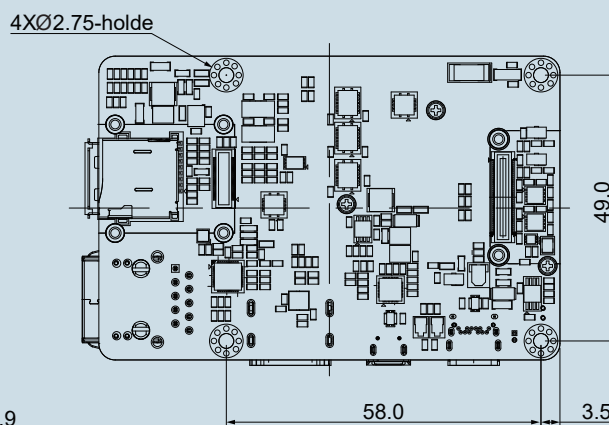
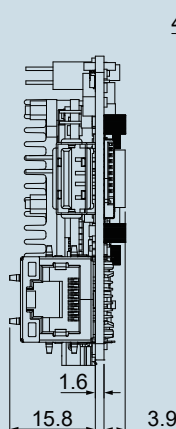
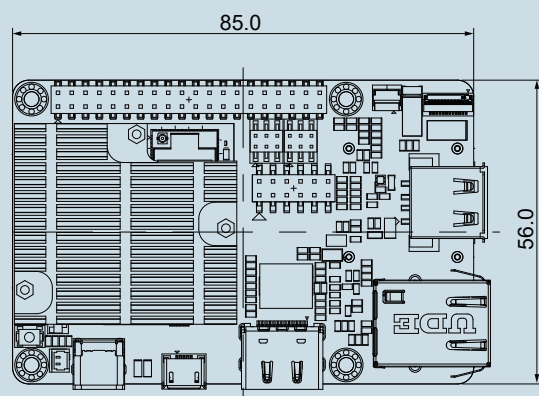
External Connectors

External Connectors	1x HDMI
Network	1x RJ45
USB	1x USB 2.0 Host 1x USB 2.0 OTG (Type-C)
Buttons	1x Reset
SD Cardslot	1x MicroSD Card Slot

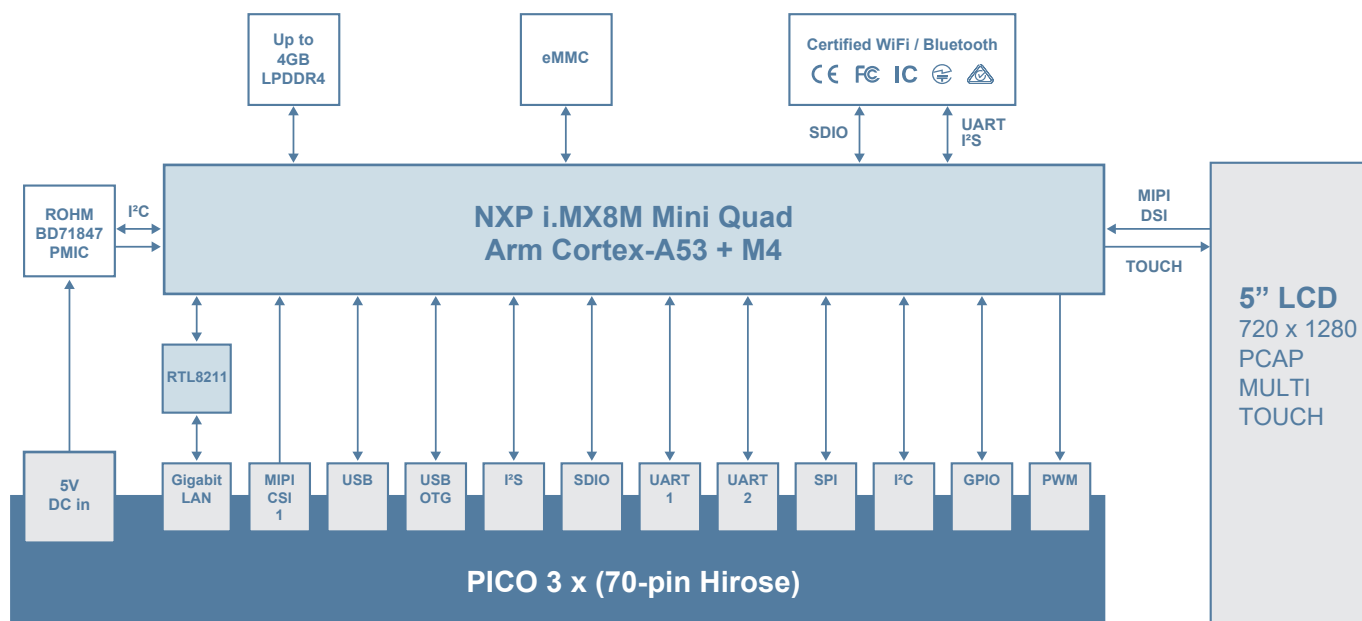
Certification and Compliance

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 CE / FCC / RoHS / REACH directives

Dimensions (units in mm)



Block Diagram



Ordering Information

PICO-PI-IMX8M-MINI-1G-DEV

NXP i.MX8M Mini Quad Development Board with 1GB LPDDR4, 16GB eMMC and Wi-Fi + BT wireless connectivity including antenna, VOICEHAT kit, camera module, 5 inch PCAP display, cable set and cardboard stand.

PICO-PI-IMX8M-MINI-2G-DEV

NXP i.MX8M Mini Quad Development Board with 2GB LPDDR4, 16GB eMMC and Wi-Fi + BT wireless connectivity including antenna, VOICEHAT kit, camera module, 5 inch PCAP display, cable set and cardboard stand.

PICO-PI-IMX8M-MINI-4G-DEV

NXP i.MX8M Mini Quad Development Board with 4GB LPDDR4, 16GB eMMC and Wi-Fi + BT wireless connectivity including antenna, VOICEHAT kit, camera module, 5 inch PCAP display, cable set and cardboard stand.

