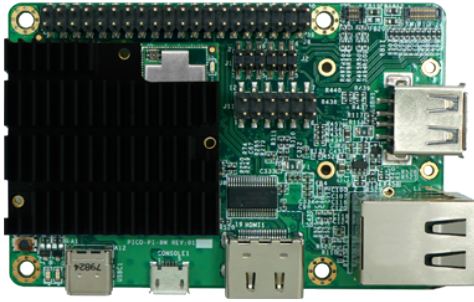# PICO-PI-IMX8M

Main Features

- TechNexion PICO-PI-IMX8M evaluation kits, based on NXP i.MX8M (ARM Cortex A-53 + M4 architecture), introduce groundbreaking functionality to a wide spectrum of next-generation devices.
- The development kit's features include high-performance compute, advance video processing, power efficiency, and embedded security.
- PICO-PI-IMX8M brings new capabilities to your next-gen smart designs, as well as other compute-intensive use cases, such as industrial controls, building automation, machine vision, imaging and scanning.
- Software source code at your fingertips: Android, Linux, Yocto and Ubuntu.

Specifications

Core System

Processor	NXP i.MX8M Quad
Processor Speed	1.3GHz
Architecture	ARM Cortex-A53 + M4
PMIC	ROHM BD71837
Memory	up to 4GB LPDDR4
Storage	up to 16GB eMMC
Board-to-Board Connector	PICO 70-pin Hirose connectors
System on Module	PICO SOM
Debug Interface	Micro USB debug

Connectivity

Network LAN	1x Atheros AR8031 Gigabit LAN
Wi-Fi/Bluetooth	Qualcomm QCA9377 (optional)
	802.11 a/b/g/n/ac + BT 5 (BR+EDR+BLE)
Antenna	MHF4 connector (optional)

Internal Headers

Internal Display	MIPI CSI+DSI signals on FPC connectors
Expansion Headers	GPIO
	I²C
	I²S
	PWM
	SPI
	UART

External Connectors

External Display	1x HDMI
Network	1x RJ45
USB	1x USB 2.0 Host
	1x USB 2.0 OTG (Type-C)
Buttons	1x Reset

Video

Graphic Engine	Vivante GC7000Lite
Video Decode	4K UltraHD HDR 4Kp60
	H.265 VP9
Camera	MIPI CSI (4 lanes)

Audio

Audio Interface	I²S (2 channel)

Power Specifications

Power Consumption	Depending on Configuration

Operation Systems

Standard Support	Linux
	Yocto
	Ubuntu
	Android

Block Diagram

PICO-IMX8M

| NXP i.MX8M | eMMC |
| LPDDR4 | PIXI-9377 / QCA9377 / 802.11 ac / BT 5 | MHF4

40-Pin Expansion Header

Clix Header

PICO-PI-8M

MIPI CSI
MIPI CSI
MIPI DSI
TOUCH

UART to Micro USB Debug Console
USB Host
USB OTG (Type-C) 5V

HDMI
Gigabit LAN
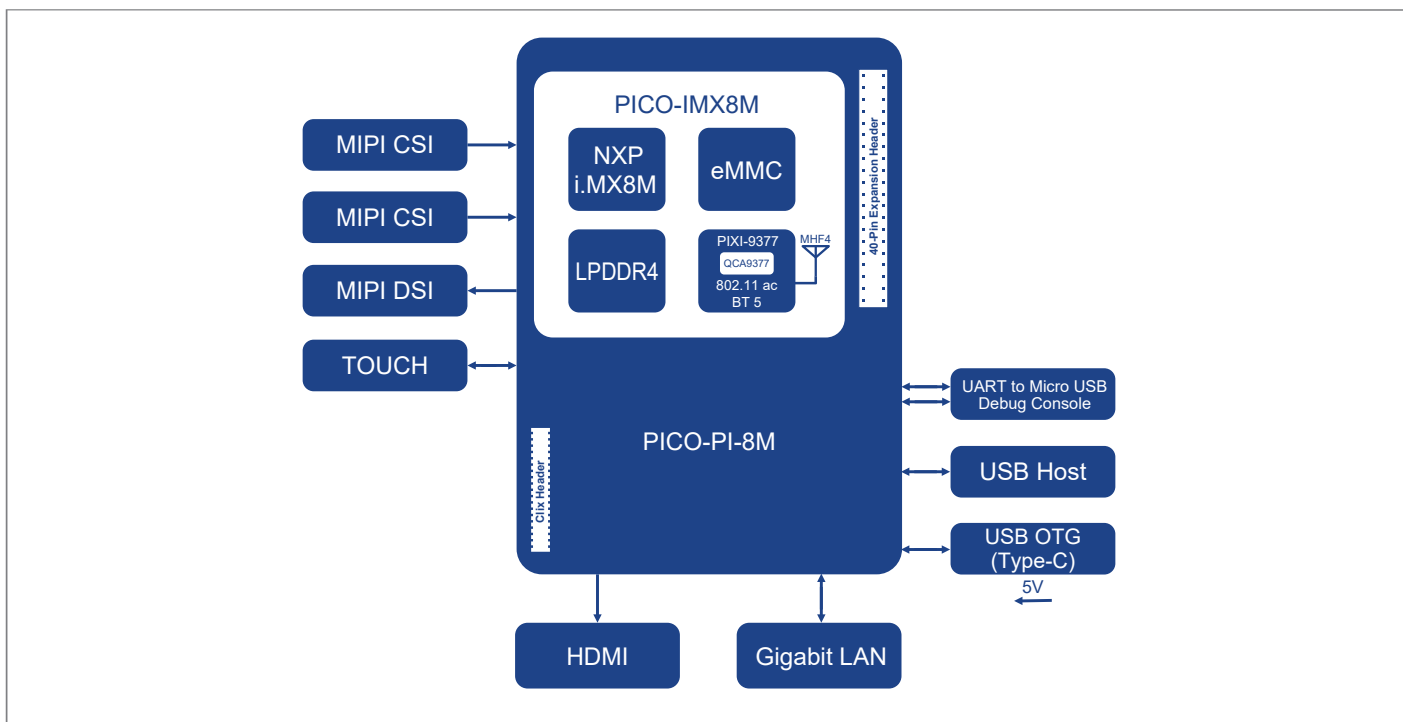
Environmental and Mechanical

Dimensions	85 (W) x 56 (H) x 25 (D) mm
Weight	70 grams
Temperature	Commercial: 0° to +50° C
Relative Humidity	10 to 90 %
MTBF	50 000 Hours
Shock	15G half-sine 11 ms duration
Vibration	1 Grms random 5-500Hz hr/axis
Certification	Compliant with CE / FCC / RoHS / REACH directives

Dimensions
(units in mm)

85
32.5
56
52.4
36.07
Φ 2.75
51.82

7.8   1.6
19.4
25.2

61.5   3.5
h=2mm
52.5
28.7
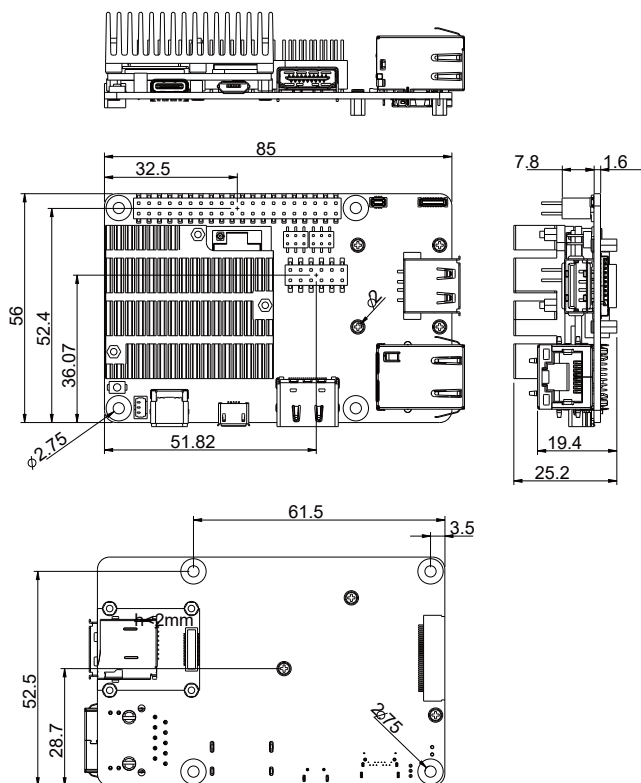
Ordering Information

PICO-PI-IMX8M-1G

NXP i.MX8M Quad Development Board with 1GB LPDDR4, 8GB eMMC and Wi-Fi + BT wireless connectivity including antenna and cable set.

PICO-PI-IMX8M-2G

NXP i.MX8M Quad Development Board with 2GB LPDDR4, 8GB eMMC and Wi-Fi + BT wireless connectivity including antenna and cable set.

PICO-PI-IMX8M-4G-DEV

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