

Features

- NXP i.MX8M Nano Quad Core SoC Cortex-A53 core processor
- 1GB Onboard DDR4 Memory (expandable up to 2GB Max)
- Onboard 8GB eMMC Flash, 1 x MicroSD Card Slot
- 3D GPU (2x shader, OpenGL ES 2.0/3.0/3.1, OpenCL 1.2, Vulkan), 2D GPU
- 1 x LVDS Through MIPI to LVDS Bridge
- TI@ SN65DSI84 MIPI-DSI to LVDS Bridge
- Wolfson@ WM8960 Ultra Low Power Audio Codec
- TI@ TPA2008D2 3-W Stereo Class-D Audio Amplifier
- 1 x Micrel@ KSZ9031 Gigabit Ethernet
- Optional 802.11 a/b/g/n/ac + Bluetooth 4.0 Through SDIO
- MIPI-CSI, LVDS, LED Backlight, 2 x RS-232 COM, 2 x I2C, I2S, 1 x 8-bit GPIO, 1 x Front Panel, Mic-in, Line-out
- RJ-45 LAN, USB Type C OTG, Line-out, DC-in, 5V DC Input
- Compact size (4.72" x 3.07") (palm size)



Specifications

System	
CPU	NXP i.MX8M Nano Quad Core SoC Cortex-A53 core processor
System Memory	1GB Onboard DDR4 Memory (expandable up to 2GB Max)
Storage	Onboard 8GB eMMC Flash 1 x MicroSD Card Slot
Audio	Wolfson@ WM8960 Ultra Low Power Audio Codec
Amplifier	TI@ TPA2008D2 3-W Stereo Class-D Audio Amplifier
Ethernet	1 x Micrel@ KSZ9031
RTC	Optional Seiko@ S-35390 External RTC
Wireless	Optional AzureWave@ AW-CM389NF 802.11 a/b/g/n/ac + Bluetooth 4.0 Through SDIO
Supported OS	Android 9.0, Linux
Display	
Chipset	3D GPU (2x shader, OpenGL ES 2.0/3.0/3.1, OpenCL 1.2, Vulkan), 2D GPU
Interface	1 x LVDS Through MIPI to LVDS Bridge
External I/O	
Audio	1 x Line-Out
USB	1 x USB Type C OTG
LAN	1 x RJ-45
DC-in	1 x Barrel Type Connector
Internal I/O	
Display	1 x LVDS Header 1 x MIPI-CSI Header
COM	2 x RS-232 COM
Audio	Mic-in, Line-out
MIO	2 x I2C, I2S, 1 x 8-bit GPIO, 1 x Front Panel

Mechanical & Environment	
Power	5V DC Input
Operating Temp	0°C ~ 60°C (32°F ~ 140°F)
Storage Temp	-20°C ~ 80°C (-40°F ~ 176°F)
Operating Humidity	5% ~ 95% Relative Humidity, Non-condensing
Form Factor	Custom, Small Form Factor
Dimensions	4.72" x 3.07" (120mm x 78mm)
Weight	3.5 oz

Ordering Info	
AR8MXMN	NXP i.MX 8M Nano Compact ARM Motherboard

* All product specifications and images are subject to change without notice. Last update: 2019/11/11

