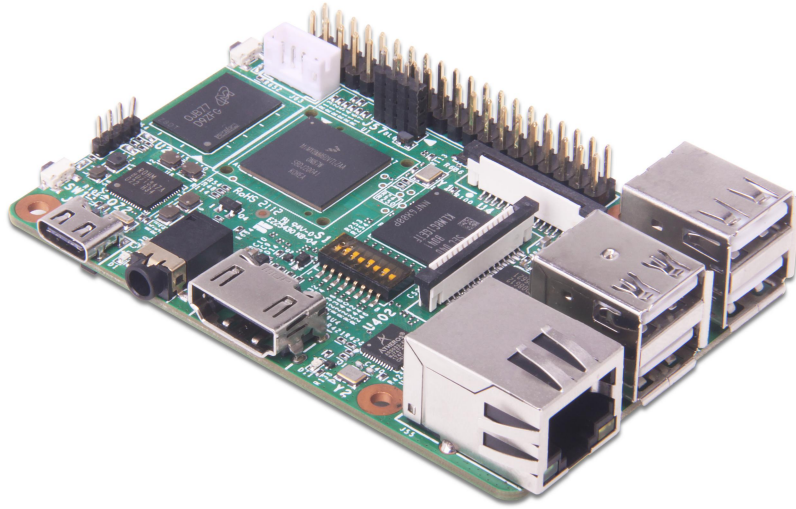


# Raspberry Pi Single Board Computer

## XPI-iMX8M Mini

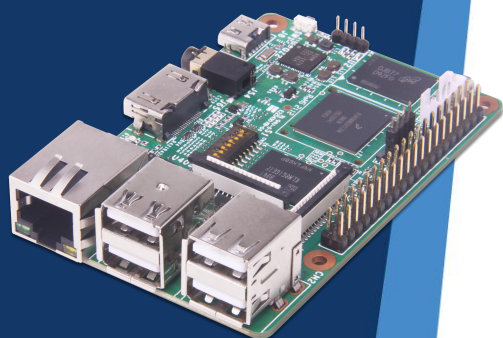
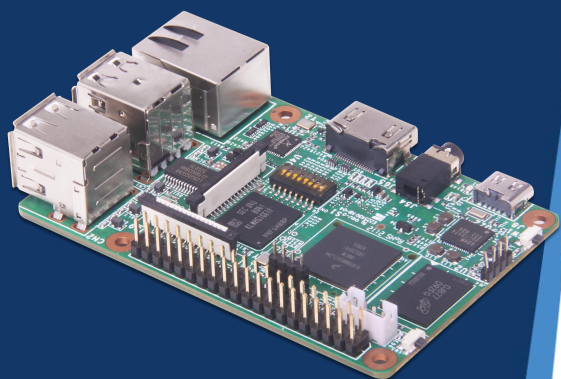


The XPI-iMX8M Mini is a microcomputer product of Raspberry Pi Single Board Computer developed by Geniatech based on the NXP i.Mx 8M Mini platform. It offers ground-breaking increases in processor speed, multimedia performance, memory, and connectivity .

This product's key features include a NXP high-performance 64-bit quad-core processor, HDMI display support at resolutions up to 1080P , hardware video decode at up to 1080P, up to 4GB of RAM, dual-band 2.4/5.0 GHz wireless LAN, Bluetooth 5.0, Gigabit Ethernet, USB 2.0.

The i.MX 8M Mini is NXP's first embedded multi-core applications processor built using advanced 14LPC FinFET process technology, providing high speed and improved power efficiency.

- **Multi-core Processing**
  - 4xCortex-A53 core up to 1.8GHz per core
  - 32KB L1-I Cache/ 32 kB L1-D Cache
  - 512 kB L2 Cache
  - 1x Cortex-M4 core up to 400MHz
  - 16 kB L1-I Cache/ 16 kB L2-D Cache
- **Scalability**
  - Standard 40-pin GPIO header (fully backwards-compatible with previous boards)
  - Can be expanded to I2C,PWM,SPI and UART.
- **Balance of consumption and performance**
  - Support for high-performance scenarios
  - Supports low power scenarios
- **Excellent audio and visual function**
  - A variety of audio interfaces are available, including I2S, AC97, TDM and S/PDIF
- **OS Support**
  - Yocto(Linux) ( By default )
- **Wide range of applications**
  - Programming education      • Software development
  - Multimedia terminal
- **Enterprise service**
  - Provide comprehensive quality assurance, technical support, and mass production services
- **Excellent multimedia processing performance**
  - HDMI display support at resolutions up to 1080P60 ,
  - Hardware video decode at up to 1080P60



## Product Specifications

Processor	Quad core ARM Cortex A53(64bit) Cortex M4
CPU Frequency	1.8GHz
RAM	1GB LPDDR4(1-4GB Optional)
ROM	8GB eMMC5.1(8-128GB Optional)
OS	Linux(Yocto), Free RTOS
WLAN	Support USB-WIFI Module, Wi-Fi 5 dual band 2.4GHz/5GHz(optional) Bluetooth 4.1(integration)
Ethernet	Gigabit Ethernet
Mutlimedia	<ul style="list-style-type: none"> <li>• 1080p60 HEVC/H.265 Decoder</li> <li>• 1080p60 AVC/H.264 Baseline, Main, High decoder</li> <li>• 1080p60 AVC/H.264 Encoder</li> </ul>
Display	HDMI V1.4 Type A
USB	USB 2.0 Type A *4,
TF-Card	SDIO 3.0
Button	Power/Reset
Audio	4-pole stereo audio and composite video port
Indicator light	Power light*1 System status light*1
Connectivity	<b>1x Standard 40-pin GPIO header</b> <ul style="list-style-type: none"> <li>• Can be expanded to UART, SPI, I2C ,PWM function</li> </ul> <b>1x4 pin USB-Wifi connector</b> <ul style="list-style-type: none"> <li>• Support USB-Wifi Module</li> </ul> <b>1x MIPI DSI</b> <ul style="list-style-type: none"> <li>• 2-lane MIPI DSI display port</li> </ul> <b>1x MIPI cSI</b> <ul style="list-style-type: none"> <li>• 2-lane MIPI CSI camera port</li> </ul>
<b>Mechanical properties</b>	
Size (mm)	85*56
Power	5V/3A USB-Type C
Wide working range	Consumer (0° C to 95° C Tj) Industrial (-40° C to 105° C Tj)
RoHS and Reach compliant	Yes