

Features

Performance

- NXP® i.MX8M Industrial Processor @ 1.3 GHz
- Dual and Quad arm Cortex®-A53
- Cortex-M4 core processor for low-power processing
- Up to 4GB LPDDR4 RAM

Environment

- -40°C to +85°C Operating Temperature Range
- Pico-ITX Form Factor (102 x 73 mm)
- Wide Range Power Input (9 - 36 DC)

Connectivity and I/O for Embedded Systems

- 2x Gigabit Ethernet (GbE)
- 1x USB 3.1 Gen 1
- 3x USB 2.0
- 2x RS-232/422/485 Serial ports
- 6 x General Purpose Input/Output (GPIO)
- 1x MIPI-CSI (4-Lanes)
- 1x SPI bus
- 1x I2C bus
- HD Audio Interface

Graphics Support

- HDMI output with 4K UltraHD resolution and HDR capability
- Single channel LVDS output with backlight

Storage

- Up to 32GB onboard eMMC
- MicroSD Socket

Expansion Options

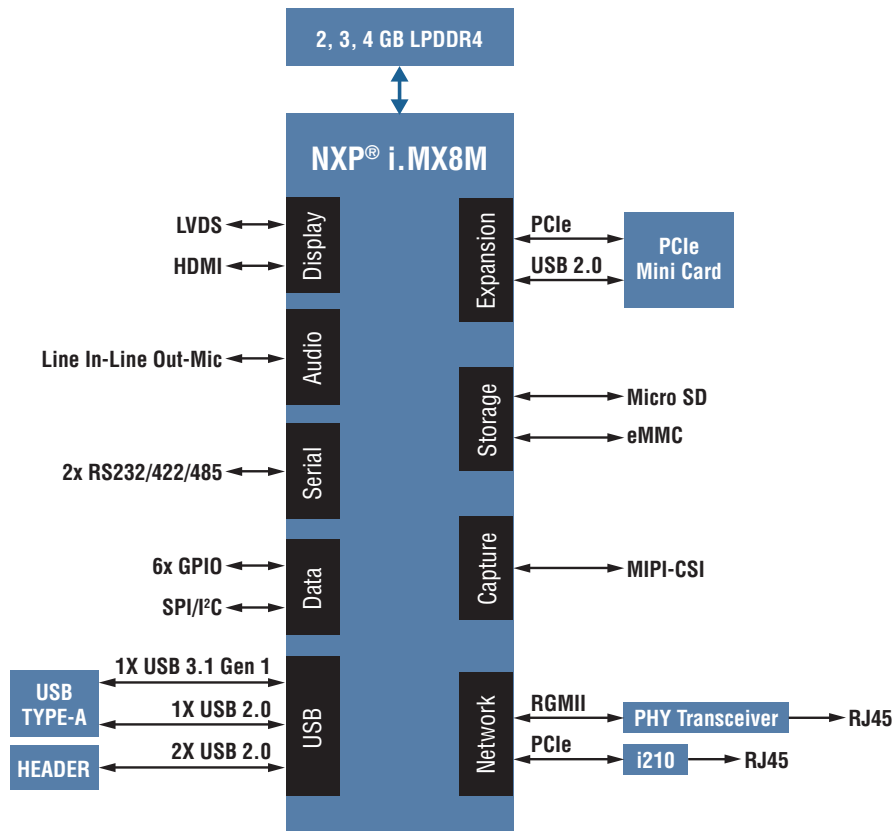
- PCIe Mini Card (mPCIe)



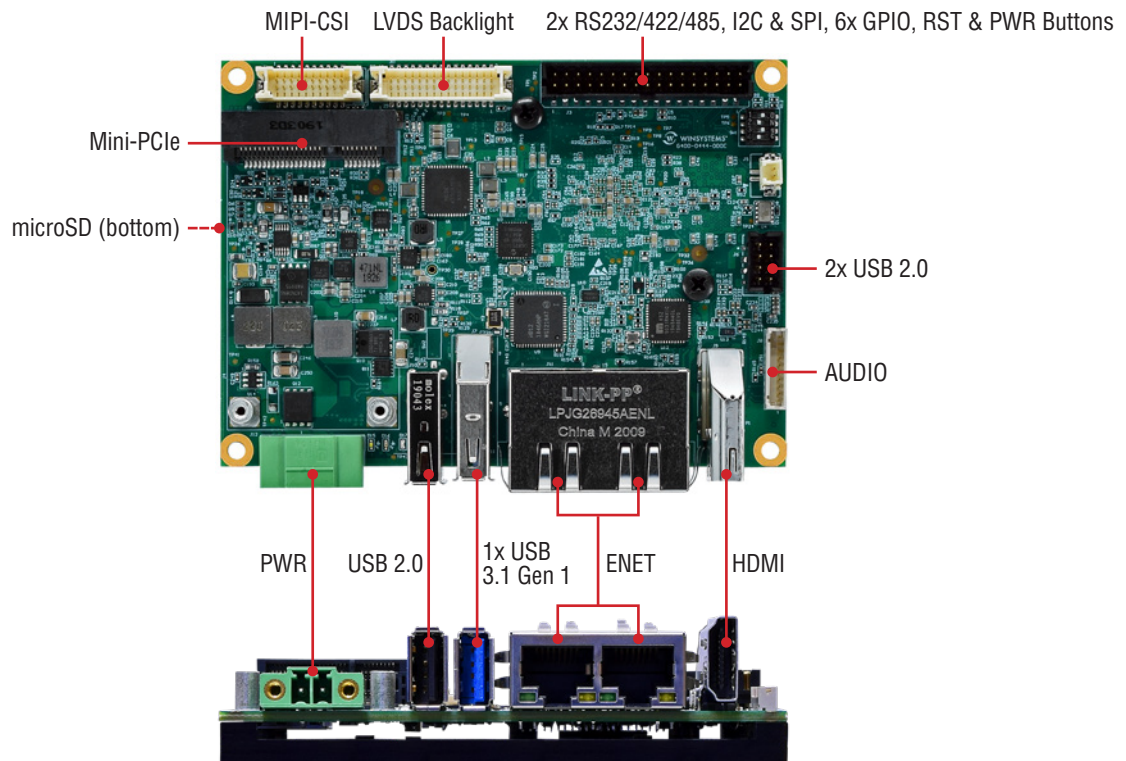
Product Description

The ITX-P-C444 is an industrial Pico-ITX single board computer (SBC) based upon NXP's i.MX8M application processor and packed with dual Ethernet, industrial I/O, and expansion options. The processor supports industry-leading video processing along with M4 microcontroller for real-time subsystems making it an ideal fit for industrial IoT applications requiring performance in harsh conditions such as digital signage, industrial automation, energy, building automation and others.

Block Diagram



Connectors



ITX-P-C444

Technical Specifications

PROCESSOR	NXP i.MX8M Processor
OS COMPATIBILITY	<ul style="list-style-type: none">• Compatible with Linux, Android
MEMORY	<ul style="list-style-type: none">• Embedded LPDDR4 (up to 4GB)
DISPLAY	<ul style="list-style-type: none">• HDMI 2.0a<ul style="list-style-type: none">– 4096 x 2160 at 60 Hz– HDR10• Single channel LVDS output with backlight (18 and 24 bpp color panel support)• Hardware acceleration utilized for video playback
VIDEO INPUT	<ul style="list-style-type: none">• MIPI/CSI Capture
STORAGE	<ul style="list-style-type: none">• eMMC• MicroSD
NETWORK INTERFACE	2x Gigabit Ethernet ports (Front Panel I/O)
ONBOARD I/O	<ul style="list-style-type: none">• 1x USB 3.1 Gen 1 (Front Panel I/O)• 3x USB 2.0 (1x Front Panel I/O)• 2x RS-232/422/485 Serial ports• 6x General Purpose Input/Output (GPIO)• 1x MIPI-CSI (4-Lane)• 1x SPI bus• 1x I2C bus• HD Audio Interface (Line Out, Line In, Mic In)
EXPANSION BUS	PCIe Mini Card (mPCIe)
POWER	+9 to 36 VDC
ENVIRONMENTAL	<ul style="list-style-type: none">• Operational from -40°C to +85°C (-40°F to +185°F)• RoHS compliant
MECHANICAL	Dimensions: 3.93 in x 2.83 in (100 mm x 72mm) Weight: 5.95 oz (168.5 g) Board thickness: 0.078 inches

Order Information

SBC PART NUMBER	ITX-P-444P-R-M P = CPU (D = Dual-Core, Q = Quad-Core) R = RAM (2, 3, 4) M = eMMC (0, 16, 32)
CABLES	<ul style="list-style-type: none">• CBL-AUDIO-001-20 AUDIO• CBL-MULTI-IO-12 Multi I/O cable includes: Serial, GPIO, I²C, SPI, Power and Reset Buttons• CBL-USB2-006-12 USB• CBL-LVDSB-021-20 LVDS and Backlight to AUO panel
OPTIONAL BATTERY	<ul style="list-style-type: none">• BAT-LPC-BR2330 3V 255 mAH Removable Battery -40°C to +85°C

Expansion and Customization Options

WinSystems provides additional cables, expansion cards, power supplies, and solid state drives to complete your embedded computing solution including data acquisition, communications, location, and other features via expansion interfaces. Our Application Engineers are available to guide you through product selection and customized options.

Contact an Application Engineer or visit our website for more information.



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