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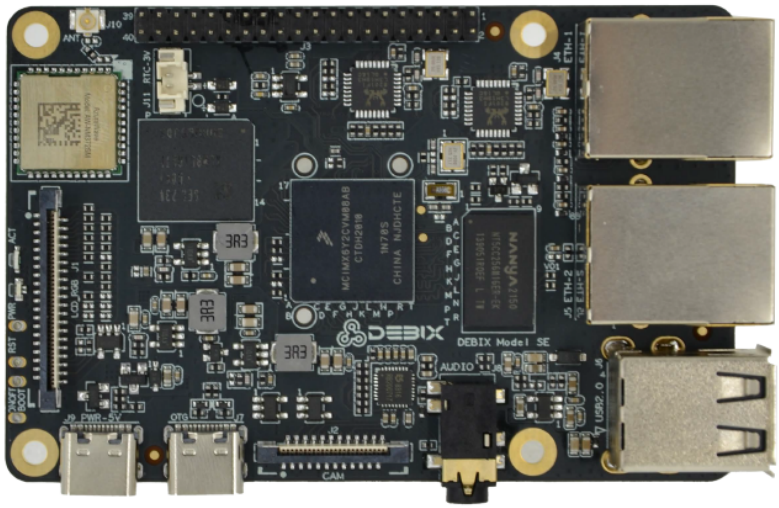
DEBIX Model S



DEBIX Industrial Computer

DEBIX Model S Industrial Single Board Computer

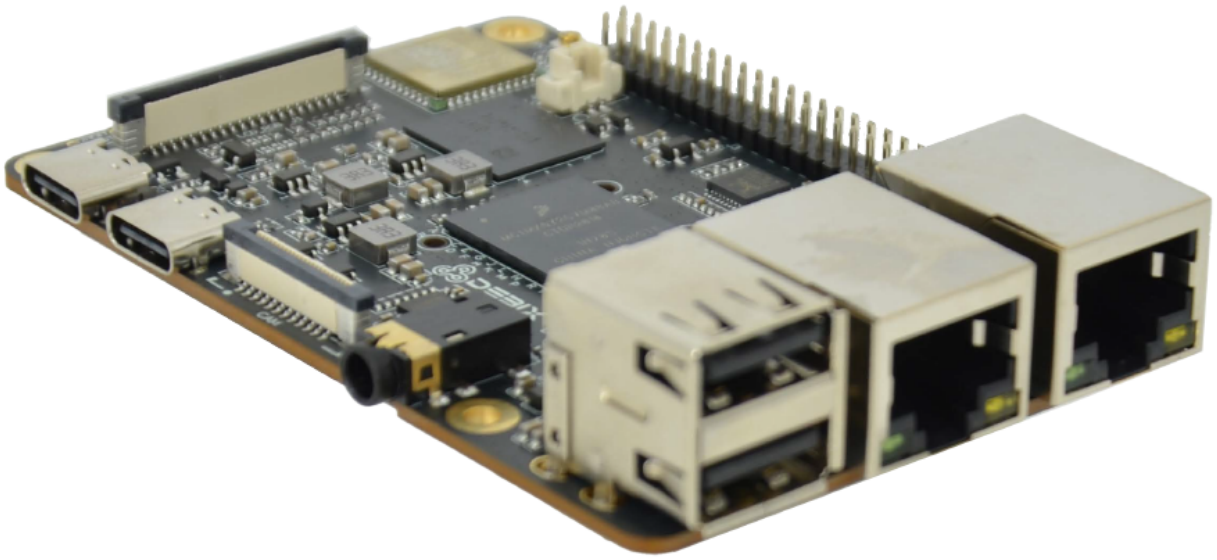
Overview:

DEBIX Model S is the first DEBIX single board computer to feature the NXP i.MX 6ULL, a low-power processor rating up to 792MHz with only 0.53 watt of power at full load consumption.

Designed to provide a more energy-efficient and cost-effective solution for smart edge computing, DEBIX Model S mainly provides 2 x 100Mbps Ethernet ports, 2.4GHz WiFi, BT5.1, 2 x USB 2.0, 1 x 24bit RGB Display Output, 1 x 8bit DVP Parallel CSI Camera, and 40Pin expansion ports for IoT, Non-contact HMI, smart home, building control and industrial applications.

Main Features:

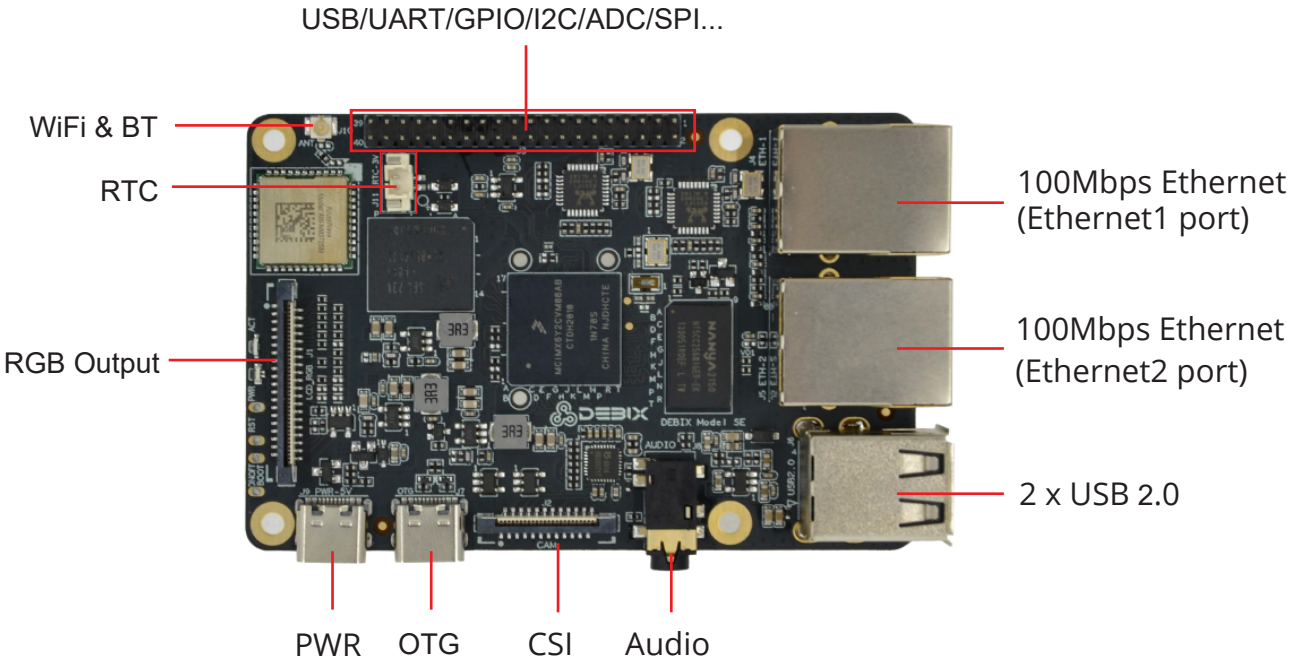
· Low-power processor with NXP i.MX 6ULL, consuming only 0.53 watts at full load (Extended Industrial grade, Industrial grade and Commercial grade processor optional).
· Feature an advanced implementation of a single Arm® Cortex®-A7 core, which operates at speeds up to 792 MHz.
· High security with support for secure encryption, tamper-proof monitoring, secure boot, and more.
· Rich and extensible interfaces: 2 x USB 2.0 Host, 1 x 24bit RGB, 1 x 8bit DVP CSI, 40Pin dual-row headers etc. to enhance scalability.
· Compatible with DEBIX PoE module and DEBIX 5" LCD monitor.

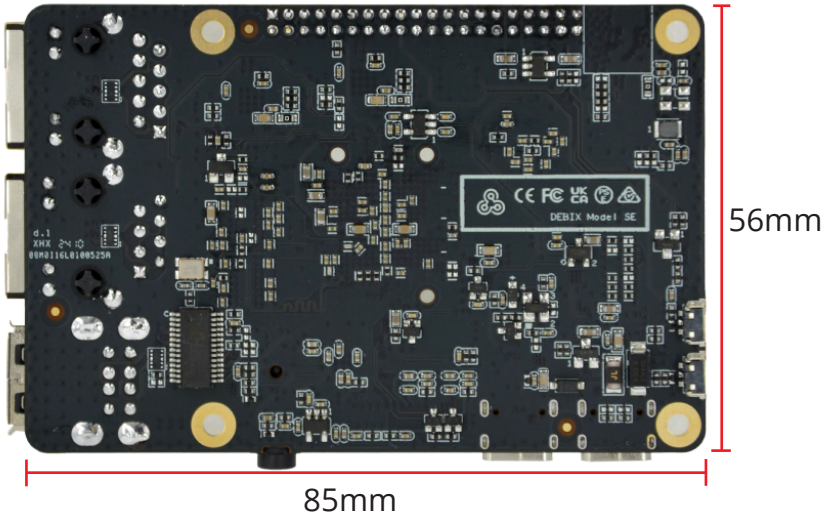


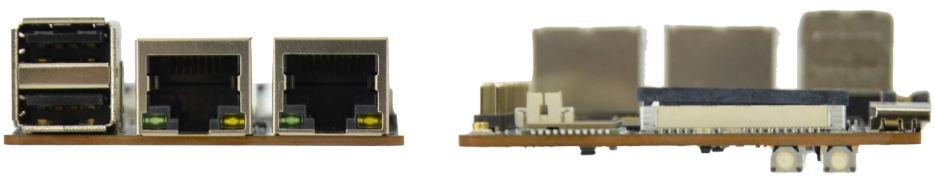
Specification:

System	
CPU	NXP i.MX 6ULL/MCIMX6Y2CVM08AB, 1 x Arm® Cortex®-A7 @792MHz i.MX 6ULL series CPU optional, commercial grade up to 900MHz
Memory	512MB DDR3/DDR3L (128MB/256MB optional)
Storage	On board 8GB eMMC (16GB/32GB/64GB/128GB/256GB optional)
OS	Yocto, OpenWRT
I/O Interfaces	
Ethernet	2 x 10/100Mbps Ethernet port, (1) 1 x Ethernet port, support POE power supply (need POE power device module) (2) 1 x Ethernet port (POE power supply not supported)
WiFi & BT	2.4GHz WiFi, BT5.1, external WiFi&BT SMA antenna (IPEX-1) connector
USB	2 x USB 2.0 Host 1 x USB OTG
Audio	1 x 3.5mm Headphone and Mic combo port
Expansion	
40-Pin Double-Row Headers	(1) 2 x USB 2.0 Host, 1 x UART Debug (2) Default 12 x GPIO, up to 3 x UART, 6 x ADC, 1 x SPI, 2 x I2C, 1 x CAN, 3 x PWM through software configuration. (3) 5V power input/output, 1.8V/3.3V@300mA power output, system reset, ON/OFF
RGB Display	1 x 24bit RGB Display Output
CSI	1 x 8bit DVP Parallel CSI
LED & KEY	1 x ACT LED (Green) 1 x Power LED (Red and Blue) 1 x ON/OFF (eMMC firmware USB upgrade button) 1 x Reset
Power Supply	
Power Supply	DC 5V/2A Type-C
Mechanical & Environmental	
Size	85.0mm x 56.0mm (±0.5mm)
Operating Temp.	-20℃ to 70℃ (-40℃ to 85℃ optional)
Net Weight	43g(±0.5g)

I/O Interfaces:







Safety Instruction and Warnings:

General:

• Avoid exposure to water, moisture, and conductive surfaces while operating.
• Handle with care to avoid mechanical or electrical damage to the circuit board and connectors.
• Only handle the board by the edges when powered on to minimize the risk of electrostatic discharge damage.

Power:

• Use only a 5V/2A DC minimum external power supply that complies with relevant regulations and standards for your country.

Environment:

• Operate in a well-ventilated environment, even if using a case.
• Place on a stable, flat, non-conductive surface and avoid contact with conductive items.

Connections:

• Only connect compatible devices to the GPIO ports to avoid damage and warranty voiding.
• Use peripherals that comply with relevant standards for the country of use and ensure proper insulation and operation.

Additional notes:

• This summary is not exhaustive, please refer to the full User Manual for details.
• If you are unsure about any aspect of safety or operation, consult a qualified professional.

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