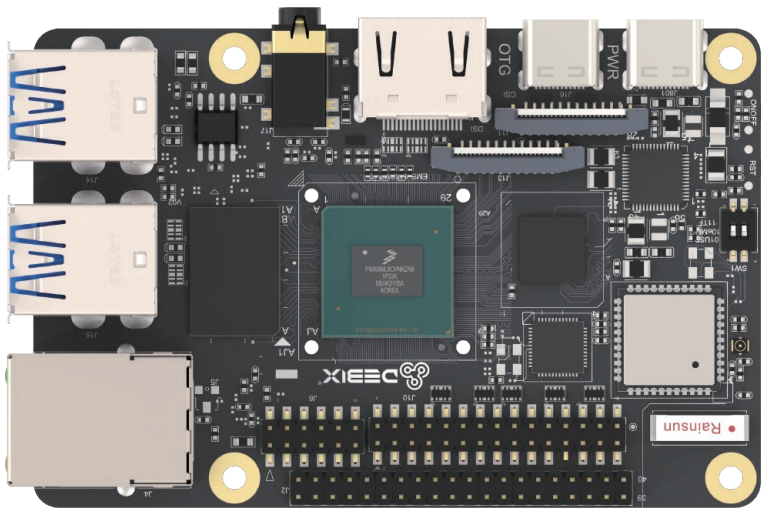


# DEBIX Model A





## DEBIX Model A Industrial Single Board Computer

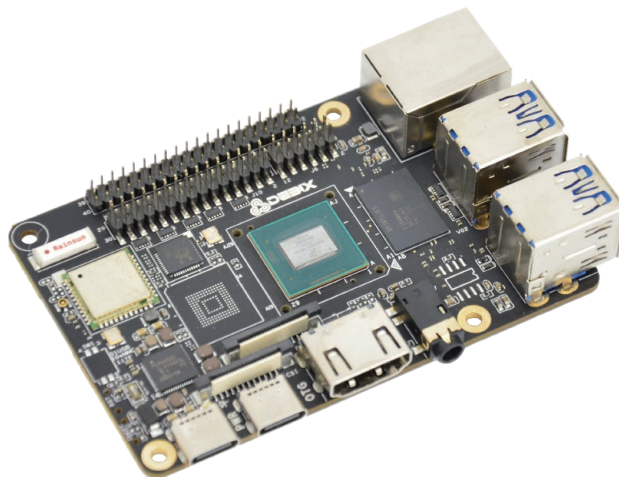
### Overview:

OKdo Technology and Polyhex Technology jointly launch DEBIX Model A, an industrial grade single board computer to bring you faster speed and more powerful performance. Based on quad core i.MX 8M Plus with 2.3 TOPS NPU, DEBIX Model A with complete software development and rich I/O ports is ready and capable for direct applications in industry 4.0, IoTs, smart cities and multimedia.

DEBIX Model A features industrial grade components and wide CPU temperature range of  $-40^{\circ}\text{C}$  to  $105^{\circ}\text{C}$  to work stably in extreme environment. Its DDR inline ECC design and 14 FinFET process ensure high industrial reliability. Combining Gigabit network, 2.4GHz & 5GHz Wifi and Bluetooth 5.0, it provides robust network control of peripherals in industrial control, industrial automation and IoTs. With quad core ARM Cortex-A53 CPU up to 1.8GHz and 2GB/4GB/8GB LPDDR4, it is able to perform sophisticated processing tasks.

### Main Features:

- Powerful industrial grade single board computer built to meet the needs of industry 4.0, IoTs, smart cities and multimedia
- Complete software development including Android 11/ Yocto-L5.10.72\_2.2.0/ Ubuntu 20.04/ Windows 10 IoT Enterprise operating system and basic software for fast and direct applications
- Gigabit network, 2.4GHz & 5GHz Wifi, Bluetooth 5.0, high-speed USB 3.0 and PCIe support connection and control of a variety of industrial peripherals
- Advanced multimedia capabilities include 1080p60 video encode and decode (including H.265, H.264), 3D/2D graphic acceleration, and multiple audio and voice functionalities



## Specification:

System	
CPU	NXP i.MX 8M Plus (default), 4 x ARM Cortex-A53, comes with an integrated neural processing unit (NPU) that delivers up to 2.3 TOPS. Industrial grade CPU runs at 1.6GHz, and commercial grade CPU runs at up to 1.8GHz. (i.MX 8M Plus series CPU optional)
Memory	2GB LPDDR4 (4GB/8GB optional)
Storage	Micro SD card (Onboard 8GB/16GB/32GB/64GB/128GB eMMC optional)
Operating System	Android 11, Yocto-L5.10.72_2.2.0, Ubuntu 20.04, Windows 10 IoT Enterprise Note: 4GB/8GB LPDDR4 supports Windows 10 IoT, recommend 8GB version.
I/O Interfaces	
Gigabit Ethernet	1 x RJ45 with POE power supply (need POE power device module) 1 x pin header (without network transformer)
WIFI & BT	2.4GHz & 5GHz WIFI, BT5.0
USB	4 x USB 3.0 Host Type-A, 1 x USB 2.0 OTG Type-C
Audio	1 x Headphone and Mic combo port
HDMI	1 x HDMI OUT
Expansion	
40-Pin Double-Row Headers	(1) 3 x UART, 2 x I2C, 2 x SPI, 2 x CAN, 6 x GPIO for default, can be reused as I2S, PWM, SPDIF and GPIO through software configuration. (2) 5V power supply, system reset, ON/OFF
LVDS	1 x LVDS, single & dual channel 8bit, double-row pin headers
MIPI CSI	1 x MIPI CSI, support 4-lane 24-Pin 0.5mm Pitch FPC socket
MIPI DSI	1 x MIPI DSI, support 4-lane 24-Pin 0.5mm Pitch FPC socket
PCIe	1 x PCIe, support PCIe x1, 19-Pin 0.3mm Pitch FPC socket
Power Supply	
Power Supply	DC 5V/3A Type-C
Mechanical & Environmental	
Size	85.0mm x 56.0mm
Operating Temp.	-20°C to 70°C

## Product Version:

DEBIX Model A has two versions, the standard and SE version. Their differences lie in the CPU modules, see the table below for details.

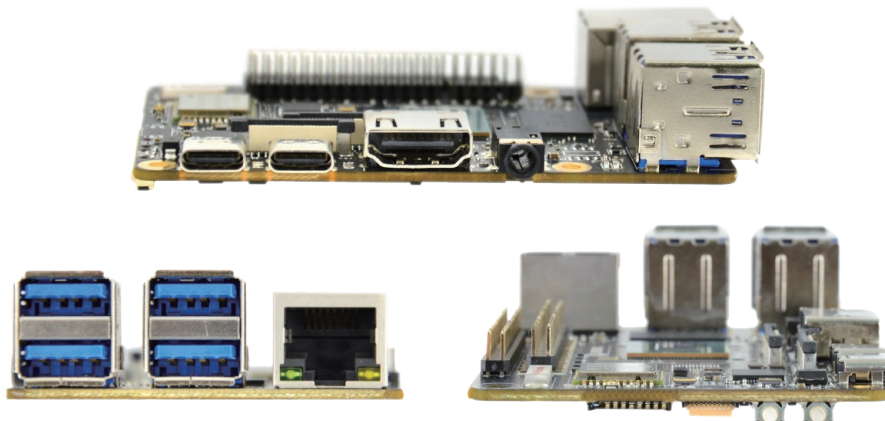
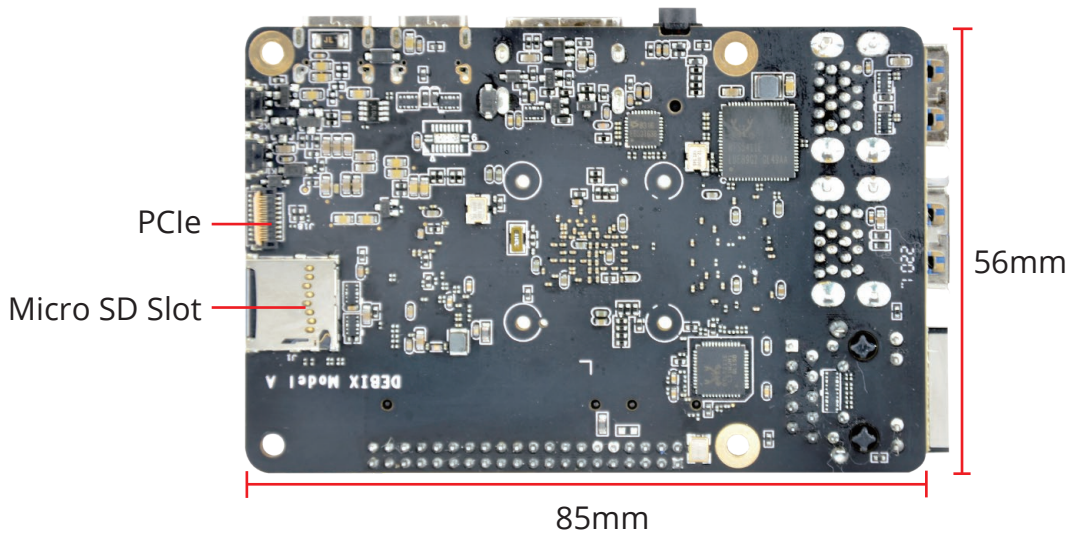
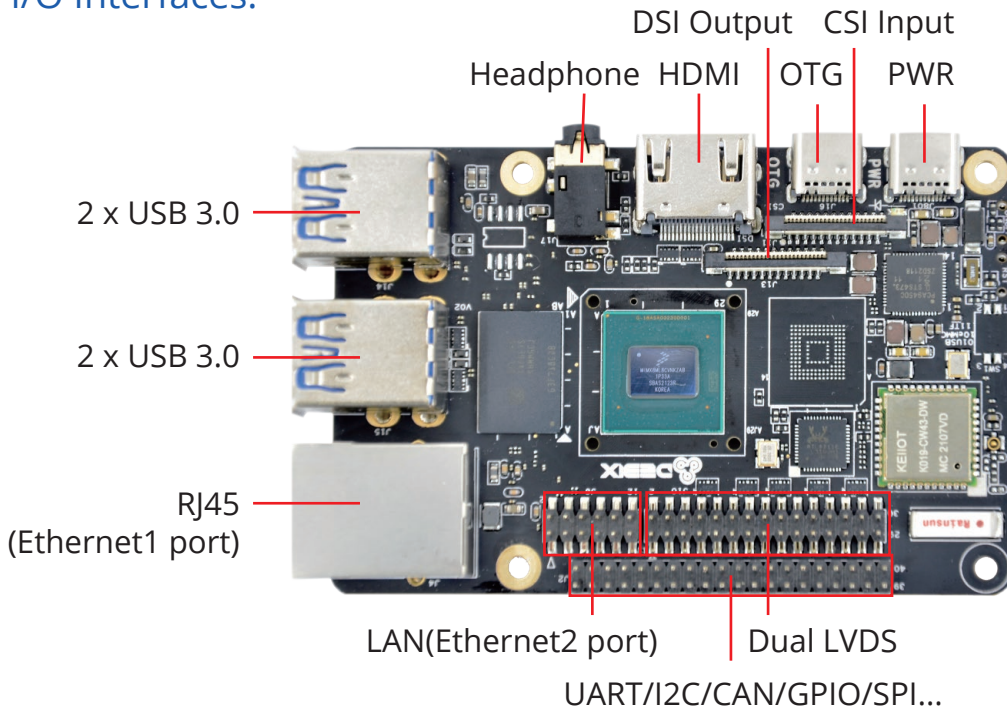
Version	NPU	VPU	ISP	HiFi 4
DEBIX Model A Standard	1	1	1	1
DEBIX Model A SE	N/A	N/A	N/A	N/A

## Certificates:



FCC ID: 2A4SS-DEBIX-MODEL-A

## I/O Interfaces:



## Safety Instruction:

***To avoid malfunction or damage to this product please observe the following:***

- Do not expose to water, moisture or place on a conductive surface whilst in operation.
- Take care while handling to avoid mechanical or electrical damage to the printed circuit board and connectors.
- Avoid handling the printed circuit board whilst it is powered and only handle by the edges to minimize the risk of electrostatic discharge damage.

## Warnings:

- This product should only be connected to an external power supply rated at 5V/3A DC minimum. Any external power supply used with DEBIX Model A shall comply with relevant regulations and standards applicable in the country of intended use.
- This product should be operated in a well-ventilated environment and, if used inside a case, the case should not be covered.
- This product should be placed on a stable, flat, non-conductive surface in use and should not be contacted by conductive items.
- The connection of incompatible devices to the GPIO connection may affect compliance and result in damage to the unit and invalidate the warranty.
- All peripherals used with this product should comply with relevant standards for the country of use and be marked accordingly to ensure that safety and performance requirements are met. These articles include but are not limited to keyboards, monitors and mice when used in conjunction with DEBIX.
- Where peripherals are connected that do not include the cable or connector, the cable or connector must offer adequate insulation and operation in order that the relevant performance and safety requirements are met.

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## Contact Us:

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