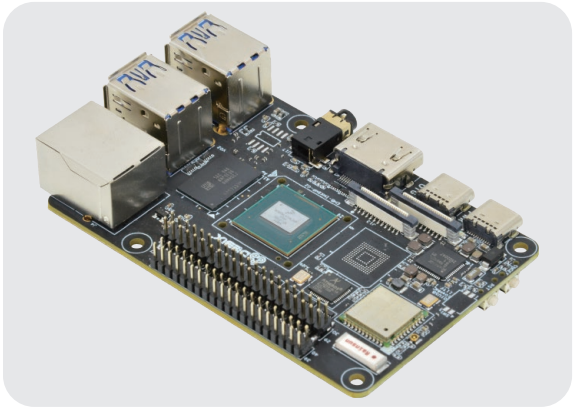
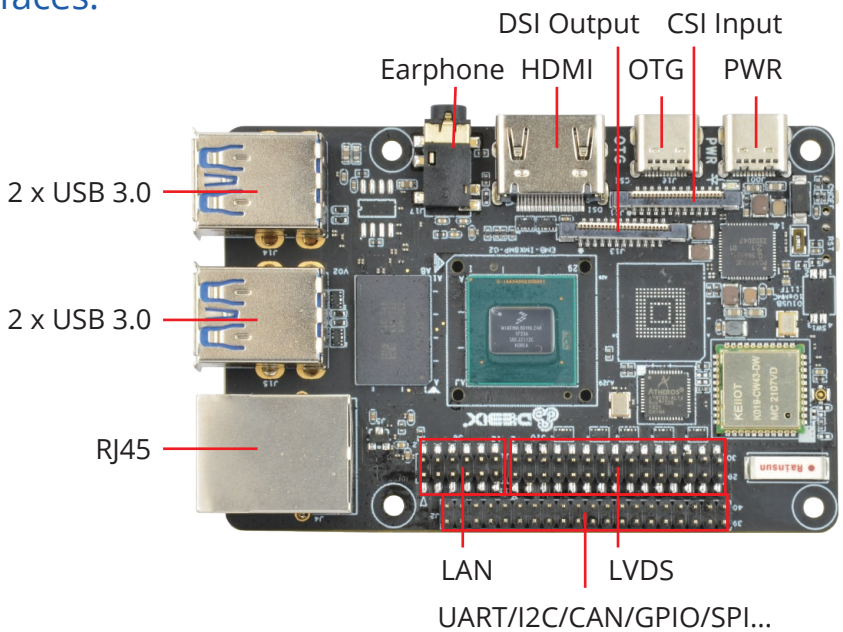
DEBIX Model A: Industrial Grade Single Board Computer Based on NXP i.MX 8M Plus

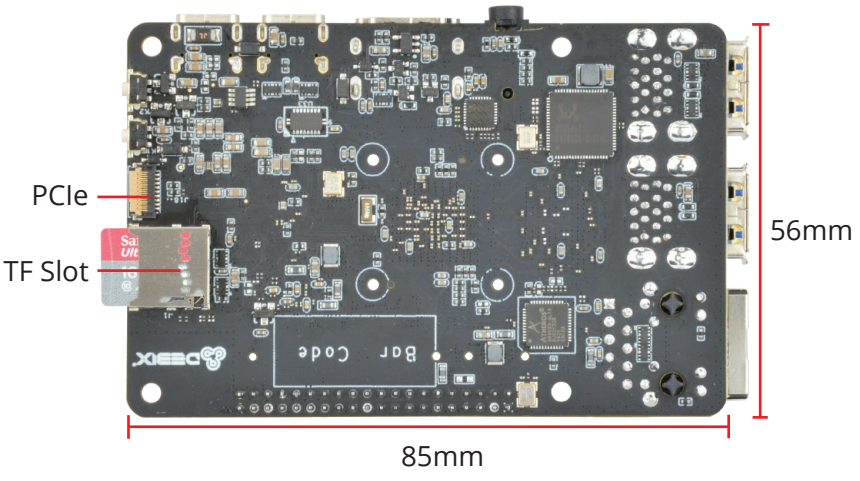
Main Features:

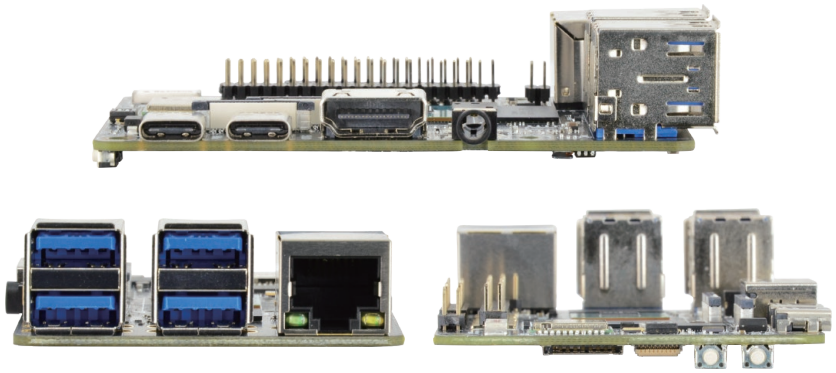
(1) Powerful quad core CPU with 2.3 TOPS NPU
(2) -40℃~105℃ CPU temperature for both industrial and commercial contexts such as industry 4.0, IoTs, multimedia and smart cities
(3) Gigabit network, 2.4G & 5G Wifi, BT5.0 to monitor and control networked industrial equipment
(4) Complete software development for direct application (Ubuntu, Yocto, Android 11 OS with basic software)



I/O Interfaces:





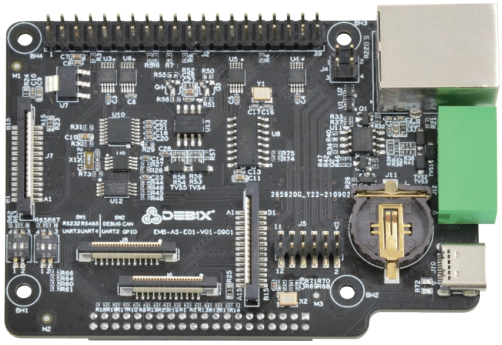


Certificates:

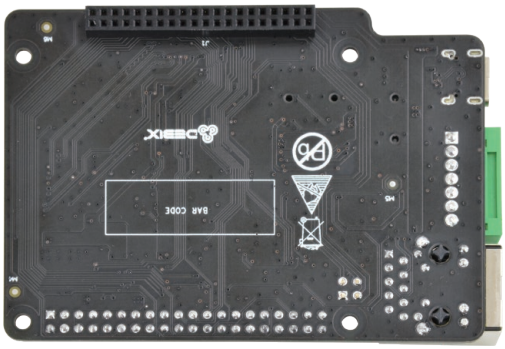
Specification:

System	
CPU	NXP i.MX 8M Plus (default), 4 x 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/6GB optional)
Storage	Default: TF card (Onboard 8GB/16GB/32GB/64GB eMMC optional)
Operating System	Android 11, Yocto, Ubuntu
I/O Interfaces	
Network	1 x RJ45 with POE power supply (need POE power supply module) 1 x pin header (without network transformer)
WIFI & BT	2.4G & 5G dual-frequency WIFI, BT5.0
USB	4 x USB 3.0 Host Type-A, 1 x USB 2.0 OTG Type-C
Audio	1 x Earphone L & R OUT，1 x Earphone Mic IN
HDMI	1 x HDMI OUT
Expansion	
40 Pin Double-Row Pin Headers	(1) 3 x UART, 2 x SPI, 2 x I2C, 2 x CAN, 1 x PWM, 2 x GPIO, dedicated interfaces can be reused as GPIO ports (2) 1 x SPDIF digital audio input/output (3) 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 4Lane FPC socket
MIPI DSI	1 x MIPI DSI, support 4Lane FPC socket
PCIe	1 x PCIe, support PCIe X1 FPC socket
Power Supply	
Power Supply	DC 5V/3A Type-C
Mechanical & Environmental	
Size	85.0 x 56.0mm
CPU Temperature	-40℃ to 105℃

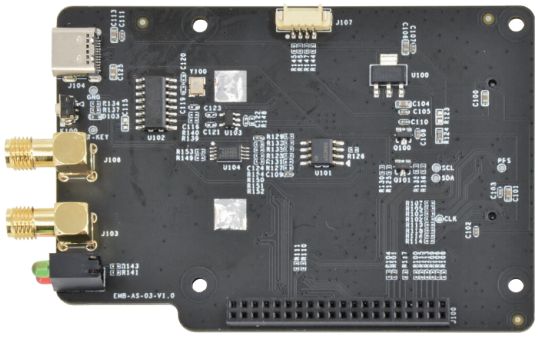
Daughter Board:



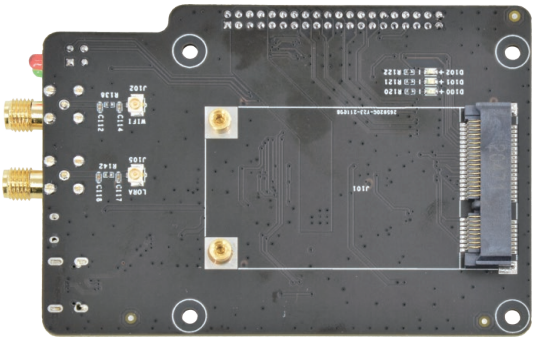
EMB-AS-E01 (Front View)



(Back View)



EMB-AS-03 (Front View)



(Back View)

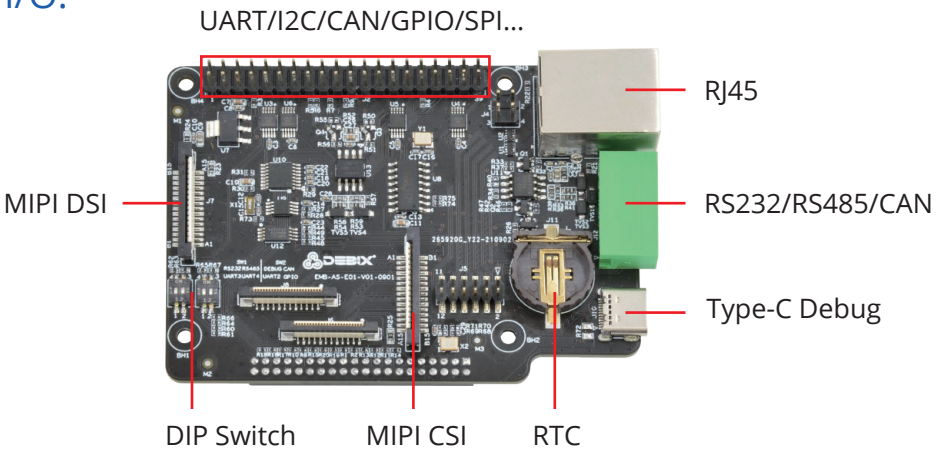
EMB-AS-E01 Specification:

I/O Interfaces	
Network	1 x RJ45 1000M 1 x POE (Compatible with Raspberry Pi)
USB	1 x USB Debug Type-C
RTC	1 x RTC Clock
Serial Ports	1 x RS232 1 x RS485
CAN	1 x CAN Transceiver
DIP Switch	2 x 2bit DIP Switch (used for selecting USB-Debug, RS232, RS485 and CAN)
Expansion	
40pin Double-Row Pin Headers	1) 3 x TTL UART, 2 x SPI, 2 x I2C, 2 x PWM, 2 x CLKO, 2 x CAN, 1 x I2S (Dedicated interfaces can be reused as GPIO ports) 2) 1 x SPDIF Digital Audio Input/Output
MIPI CSI	1 x MIPI CSI, support 2Lane, FPC Jack 1 x MIPI CSI Transfer Interface, FPC Jack to DEBIX
MIPI DSI	1 x MIPI DSI, support 2Lane, FPC Jack 1 x MIPI DSI Transfer Interface, FPC Jack to DEBIX
E2PROM	1 x E2PROM

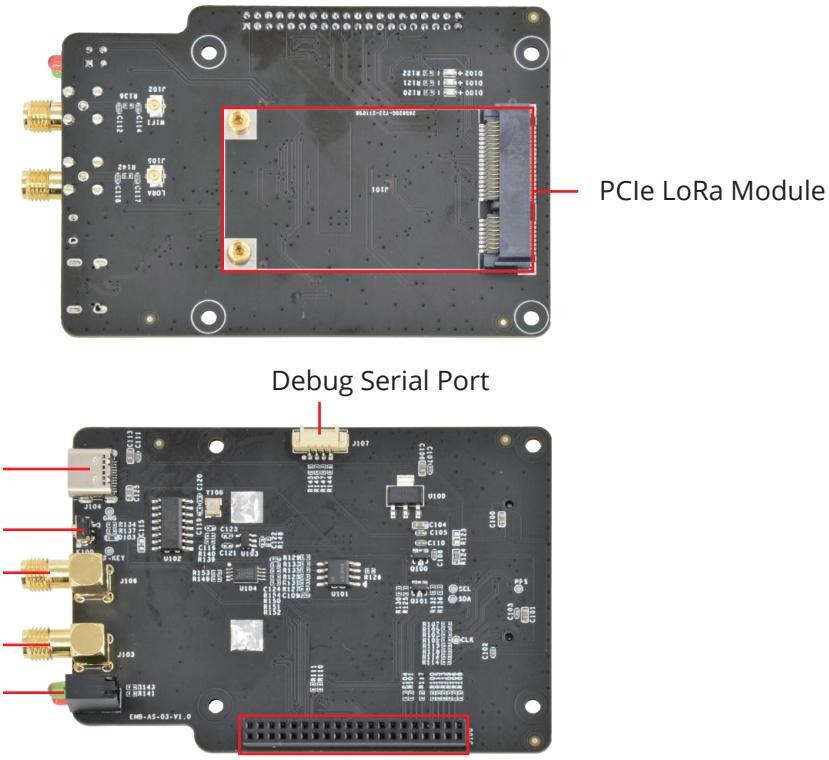
EMB-AS-03 Specification:

I/O Interfaces	
Serial Ports	1 x DEBUG
USB	1 x USB Type-C DC 5V Input
Mini PCIe	1 x Mini PCIe (LoRa Module Interface)
Buttons	1 x Bluetooth Pairing Button
LED	1 x Operation Indicator, 1 x Pairing Indicator
External Antenna	1 x LoRa Antenna, 1 x Wifi Antenna

EMB-AS-E01 I/O:



EMB-AS-03 I/O:



Connection Interface with DEBIX Model A