

JEA-E88A

Rockchip RK3588J Robot Controller

JWIPC's JEA-E88A is an Arm-based Robot Controller powered by industrial tier Rockchip RK3588J SoC, which includes 4x Arm Cortex-A76 cores, 4x Arm Cortex-A55 cores, 6 TOPS NPU and Arm Mali-G610 3D graphics engine. It supports HDMI, DP, LVDS or eDP display and provides rich I/O resources such as 5x GbE, 8x USB, 5x COM, 8x GPIO, with additional features such as built-in 6-axis IMU and 4x M.2 for WiFi+BT, 5G/4G, SSD and AI expansion. Designed for -20~70°C operating temperature, JEA-E88A is ideal for applications such as industrial robots, mobile collaborative robots, service robots, machine vision, etc.

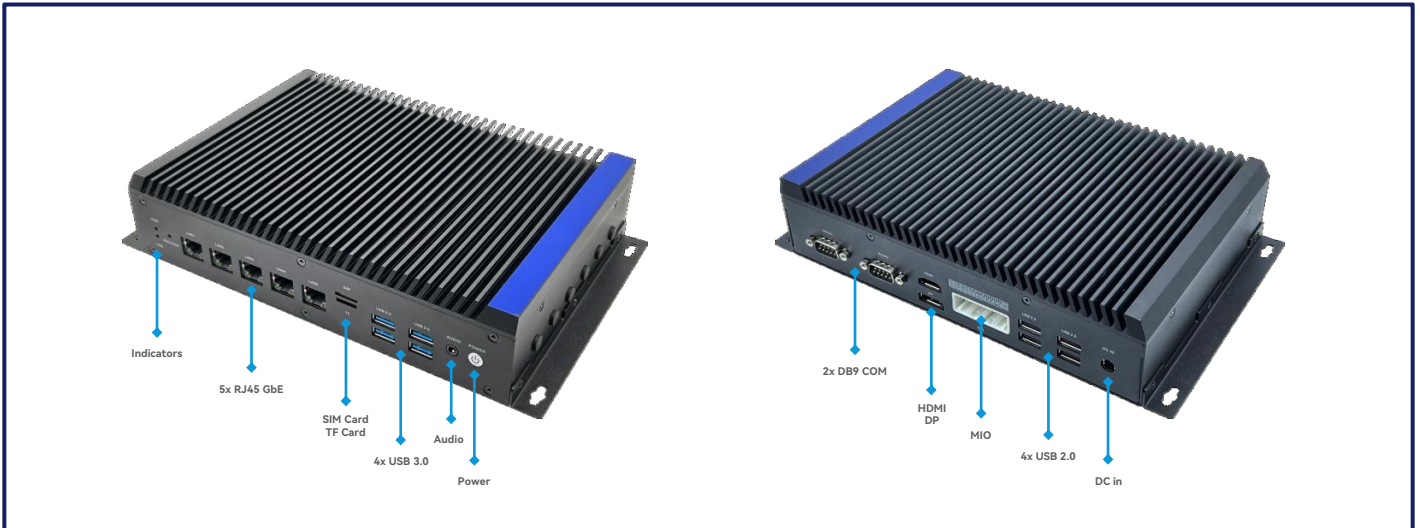


- Arm-based industrial robot control system
- Industrial tier Rockchip RK3588J SoC up to 2.4 GHz
- 4x Cortex-A76 + 4x Cortex-A55 + 6 TOPS NPU
- On-board 4/8GB LPDDR4X + 32/64/128GB eMMC 5.1
- Display: 1x HDMI, 1x DP, 1x LVDS/eDP
- I/O: 5x GbE, 8x USB, 5x COM, 1x CAN, 8x GPIO
- On-board high performance 6-axis IMU
- 4x M.2 for WiFi+BT, 5G/4G, SSD and AI expansion
- Supports Android 12, Ubuntu 20.04

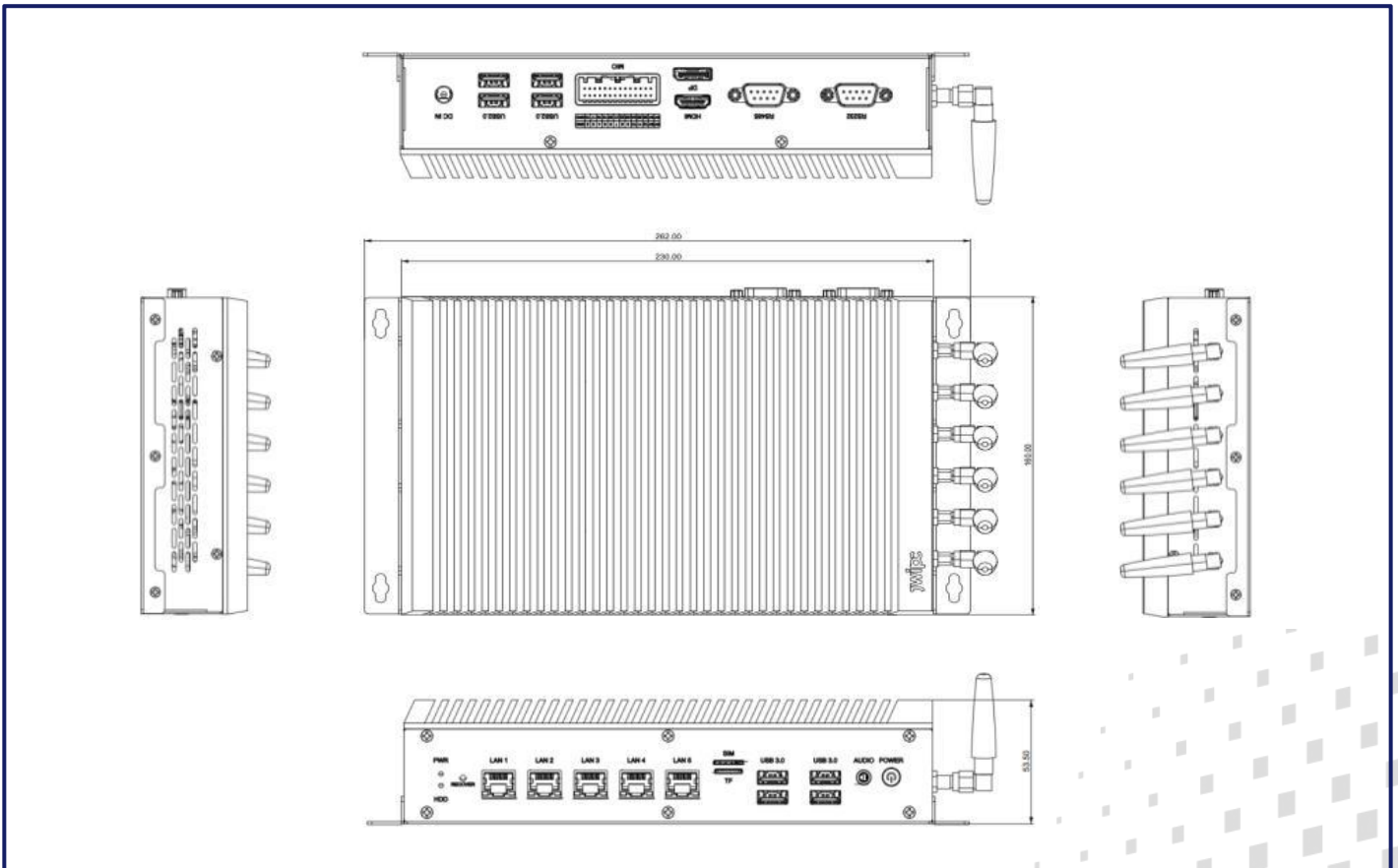
Specifications

CPU	Rockchip RK3588J, Octa core Cortex-A76/A55 processors up to 2.4 GHz, 64-bit Arm® v8.2-A architecture
NPU	6 TOPS Neural Network performance, supports AI accelerator expansion
GPU	Arm Mali-G610 MP4, supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.2, Vulkan 1.2
H/W Video Codec	Decoder: H.265, VP9, AVS2 up to 8K60; Encoder: H.265, H264 up to 8K30
IMU	On-board TDK ICM-42670-P 6-axis IMU, supports 3-axis gyroscope and 3-axis accelerometer
Memory	On-board 4/8GB LPDDR4X
Flash Memory	On-board 32/64/128GB eMMC 5.1 for OS, supports SSD, TF card expansion
Ethernet	5-port 10/100/1000M Ethernet switch
Wireless Connectivity	Supports WiFi/BT/4G/5G expansion
Display	1x HDMI 2.0, 1x DP 1.4; 1x Dual channel LVDS or eDP 1.3
Front I/O	5x RJ45 GbE 4x USB 3.0 Type-A 1x 3.5mm Audio 1x TF card slot, 1x SIM card slot 1x Power button 2x Indicators
Rear I/O	1x HDMI Type-A, 1x DP Type-A 4x USB 2.0 Type-A 2x DB9 COM (RS-232/485 optional) 1x 28 pin MIO (1x RS-232+1x CAN+2x RS-485+4x GPI+4x GPO) 1x DC Jack
Expansion	1x M.2 Key E (PCIe x1/USB) for WiFi/BT 1x M.2 Key B (USB 3.0) for 4G/5G 1x M.2 2280 (SATA) for SSD 1x M.2 2280 (PCIe x2) for AI accelerator
Power Supply	12~36V DC IN with voltage stabilizer
Dimensions	230mm x 160mm x 54mm
Operating System	Android 12, Ubuntu 20.04
Operating Conditions	-20~60°C, 10%~90% RH non-condensing
Storage Conditions	-20~70°C, 5%~95% RH non-condensing

I/O View



Dimensions



Order Information

Part No.	SoC	Memory	Flash	LAN	Expansion	Display	USB	COM	CAN	GPIO	Operating Temperature
JEA-E88A-AOH00	RK3588J Octa core	8GB	128GB	5x 1000M	1x M.2 Key E for WiFi	HDMI+DP+LVDS/eDP	8	5	1	8	-20~70°C
JEA-E88A-AOM00	RK3588J Octa core	8GB	32GB	5x 1000M	1x M.2 Key B for 4G/5G 1x M.2 2280 for SSD	HDMI+DP+LVDS/eDP	8	5	1	8	-20~70°C
JEA-E88A-BOM00	RK3588 Octa core	8GB	32GB	5x 1000M	1x M.2 2280 for AI	HDMI+DP+LVDS/eDP	8	5	1	8	0~50°C