EII-2000E

Rockchip RK3588J Controller

The EII-2000E is an embedded controller powered by the Rockchip RK3588J SoC.
It combines an 8-core CPU, 6 TOPS NPU, LPDDR5 memory, eMMC storage, and multiple I/O interfaces.



- Rockchip RK3588J SoC; 8-core CPU up to 2.2GHz.
- 6 TOPS NPU; 4 × Cortex-A76 + 4 × Cortex-A55.
- 8GB / 16GB LPDDR5; 32GB / 64GB / 128GB eMMC.
- 1 × HDMI 2.0; 6 × RJ45; 2 × CAN; 4 × USB 3.0.
- 2 × RS232; 2 × RS485; expansion I/O includes DI, DO and GPIO.
- ROS 2; Ubuntu 22.04.
- Operating temperature: −20° C to 60° C.

01 Specifications

System	Processor	Rockchip RK3588J, 64-bit processor
	CPU	4 × ARM Cortex-A76 + 4 × ARM Cortex-A55; up to 2.2GHz
	NPU	6 TOPS neural network performance
	Co-processor	Gongga (4-lane PCIe M.2 interface); onboard DRAM (2.5GB / 5GB)
Memory	Capacity	Onboard 8GB / 16GB LPDDR5
Storage	Capacity	32GB / 64GB / 128GB eMMC 5.1 for OS; 1 × M.2 2280 SSD; 1 × M.2 2280 PCIe x4 for Gongga co-processor
Graphics	GPU	Arm Mali-G610 MP4; OpenGL ES 1.1 / 2.0 / 3.2; OpenCL 2.2
	Video Codec	H.265 / VP9 / AVS2 decode up to 8K60; H.265 / H.264 encode up to 8K30
Wireless	Wi-Fi / BT	1 × M.2 Key E for Wi-Fi / Bluetooth
	4G / 5G	1 × M.2 Key B for 4G / 5G
Front I/O	Controls / I/O	1 × power button; 1 × reset; 1 × HDD LED; 1 × power LED; 1 × HDMI; 1 × SIM; 2 × RS485 at 115,200bps; 2 × RS232 at 115,200bps; 2 × CAN FD
Rear I/O	Network / USB	1 × DC IN; 2 × RJ45 10/100/1000Mbps; 1 × USB 3.0 Type-C OTG; 3 × USB 3.0 Type-A
Expansion I/O	Front I/O	8 × DI (optically isolated); 8 × DO (optically isolated); 8 × GPIO; 1 × microphone array; 1 × 3.5mm audio
	Rear I/O	4 × RJ45 10/100/1000Mbps; 2 × Mini FAKRA for up to 8 GMSL cameras
Physical Specs	Dimensions	130 × 125 × 70mm
Power	Input	9–36V DC
Software	System	ROS 2; Ubuntu 22.04
Environment	Temperature / Humidity	Operating: −20° C to 60° C; storage: −40° C to 85° C; 10%–90% RH, non-condensing

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System Summary

Power	**Input**	9–36V DC
Dimensions	**Size**	130 × 125 × 70mm
Environment	**Operating Temperature**	–20° C to 60° C
	Storage / Humidity	–40° C to 85° C; 10%–90% RH, non-condensing

Model Configurations

Model	Configuration
EII-2000E-AOH00	RK3588J; 16GB RAM; 64GB storage; 6 LAN; 4 USB; 1 SSD; 2 RS485; 2 RS232; –20° C to 60° C
EII-2000E-AOM00	RK3588J; 8GB RAM; 32GB storage; 6 LAN; 4 USB; 1 SSD; 2 RS485; 2 RS232; –20° C to 60° C
EII-2000E-BOH00	RK3588J; 16GB RAM; 64GB storage; 6 LAN; 4 USB; 1 SSD; 2 RS485; 2 RS232; 0° C to 60° C
EII-2000E-BOM00	RK3588J; 8GB RAM; 32GB storage; 6 LAN; 4 USB; 1 SSD; 2 RS485; 2 RS232; 0° C to 60° C

Packing List

Part Number	Description
60W Power Adapter	AC 100–240V input to 12V DC @ 5A

Optional Accessories

Part Number	Description
SSD 128GB	128GB M.2 2280 M-Key NVMe SSD
SSD 256GB	256GB M.2 2280 M-Key NVMe SSD
4G / 5G Module	4G / 5G module with antenna
Wi-Fi & Bluetooth Module	Wi-Fi & Bluetooth module with antenna

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