

JEA-E88I

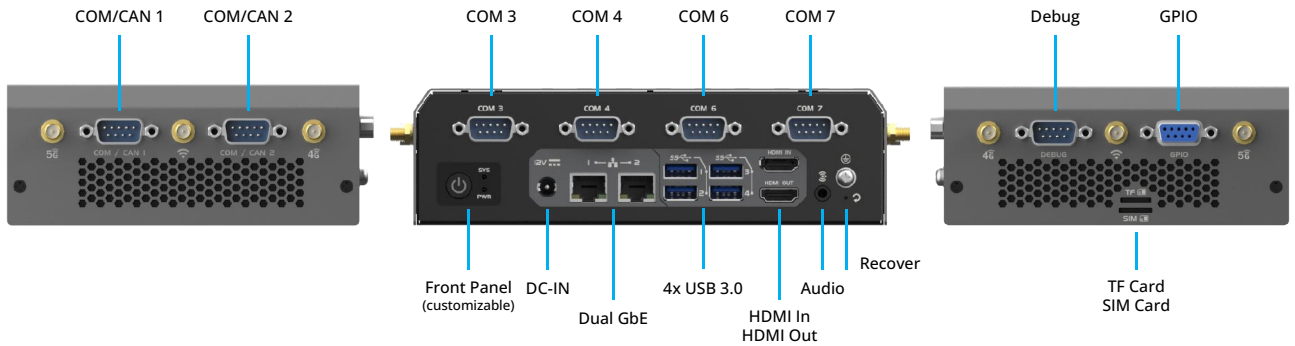
Rockchip RK3588J Arm-based Fanless Embedded BOX PC

Features

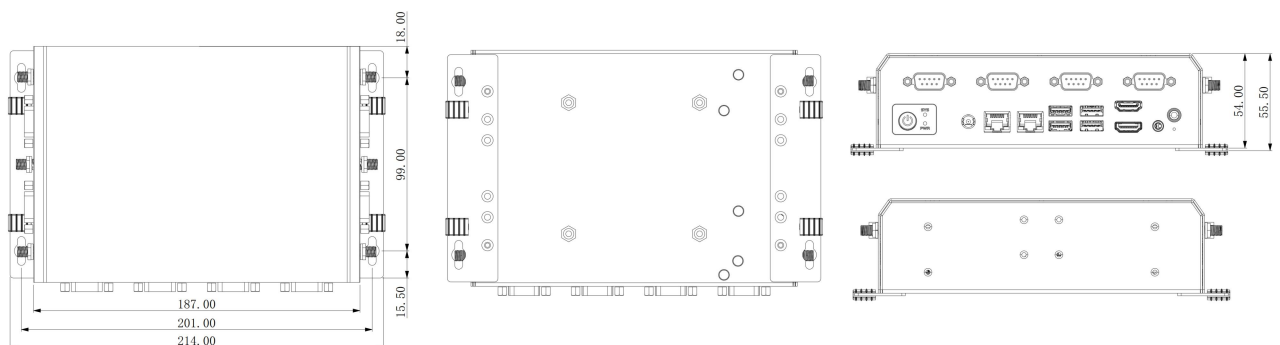
- Industrial grade Rockchip RK3588J SoC
- 4x Cortex-A76 + 4x Cortex-A55 + 6 TOPS NPU
- 4/8/16GB LPDDR4X + 32/64/128GB eMMC
- HDMI In+HDMI Out for 4K video input & output
- 2x GbE, 2x CAN, 4x USB, up to 6x COM
- Supports WiFi, BT, 5G/4G, NVMe SSD expansion
- Supports Android, Debian, Ubuntu, OpenHarmony
- Supports DIN Rail/wall/book-size/VESA mounting
- Supports -40~70°C operating temperature



Product View



Dimensions



System	SoC	Rockchip RK3588J/RK3588	
	CPU	Quad core Arm Cortex-A76 up to 2.2 GHz (consumer) / 2.0 GHz (industrial) Quad core Arm Cortex-A55 up to 1.8 GHz (consumer) / 1.7 GHz (industrial)	
	MCU	-	
	NPU	6 TOPS Neural Network performance	
	Memory	On-board 4GB/8GB/16GB LPDDR4X	
	Storage & Expansion	On-board 32GB/64GB/128GB eMMC 5.1 for OS 1x M.2 2280 (PCIe x4) for NVMe SSD or AI accelerator 1x Micro SD slot for storage expansion	
Video	Graphics Engine	Arm Mali-G610 MP4, supports OpenGL ES 1.1/2.0/3.2, OpenCL 2.2, Vulkan 1.2	
	HW Video Codec	H.265/H.264/VP9/AV1/AVS2 Decoder up to 8K60 H.265/H.264 Encoder up to 8K30	
	Interface	1x HDMI 2.1 Tx up to 4K60 1x HDMI 2.0 Rx up to 4K30	
Audio	Audio Codec	ES8336	
	Interface	1x 3.5mm Line out	
Network	Ethernet	2x RJ45, 10/100/1000 Mbps, 4kV Surge protection	
	WiFi	On-board AW-CM358 WiFi 5 (802.11ac) + Bluetooth 5.2 module	
	5G/4G	1x M.2 Key B for 4G/5G (USB 3.0) with Micro SIM slot	
I/O	Front I/O	4x USB 3.0 Type-A (1 supports OTG for OS image flashing) 2x RS-232/485 by DB9 2x RS-232/TTL by DB9	
	Side I/O	2x RS-232/485/CAN by DB9 7x GPIO+1x ADC by DB9 (3.3V TTL level) 1x debug port by DB9	
Other Features	Watchdog	Watchdog Timer & power on/off management	
	Real Time Clock	On-board RTC chip, battery-backed	
	Security	-	
Power	Power Input	12V DC-IN	Optional 9~36V DC-IN (typical 12/24V) with Reverse Polarity Protection
	Interface	5.5x2.5mm DC Jack	2-pole lockable terminal block
	System Ctrl & Monitoring	1x Power button, 1x Recovery button 2x programmable LEDs	1x Recovery button 2x programmable LEDs (by pin header)
Mechanical	Dimensions	187mm x 135mm x 54mm	
	Mounting	Wallmount, Bookmount, DIN Rail, VESA mount	
Software	OS Support	Android 12, Debian 11, Ubuntu 20.04, OpenHarmony 4.0	
	Boot Options	eMMC	
Environment	Operating Temp.	0~50°C / -20~60°C / -40~70°C optional	
	Storage Temp.	-40~85°C	
	Humidity	10%~90% RH, non-condensing	
EMC & Safety	Compliance	IEC 61000-4-2 ESD level 3 (Contact ±6kV, Air ±8kV) IEC 61000-4-4 EFT level 4 (Power ±4kV, Ethernet ±2kV)	
	Certifications	CCC, CE Class B	

Part Number	SoC	Memory	Flash	WiFi	LAN	USB	COM	CAN	GPIO	Power Supply	Operating Temp.
JEA-E881-AOMW1	RK3588J	8GB	64GB	Yes	2	4	4	2	7	DC 9~36V	-40~70°C
JEA-E881-AOM01	RK3588J	8GB	64GB	Yes	2	4	4	2	7	DC 12V	-40~70°C
JEA-E881-AOX01	RK3588J	16GB	128GB	Yes	2	4	4	2	7	DC 12V	-20~60°C
JEA-E881-BOMW1	RK3588	8GB	64GB	Yes	2	4	4	2	7	DC 9~36V	0~50°C
JEA-E881-BOM01	RK3588	8GB	64GB	Yes	2	4	4	2	7	DC 12V	0~50°C
JEA-E881-BOL01	RK3588	4GB	32GB	Yes	2	4	4	2	7	DC 12V	0~50°C

■ Packing List

Article	Description
60W Power Adaptor	AC 100~240V to DC 12V/5.0A
Power Cord	CCC 10A 250 V
WiFi Antenna	2.4/5 GHz Dual band Antenna for WiFi
Horizontal Wall mount kit	Wall mount brackets with screws

■ Optional Accessories

Article	Description
128GB NVMe SSD	FSB0C128G-C4H1400, M.2 2280 PCIe Gen3 x4 NVMe (0~70°C)
256GB NVMe SSD	FSB0C256G-C4H1400, M.2 2280 PCIe Gen3 x4 NVMe (0~70°C)
512GB NVMe SSD	FSB0C512G-C4H1400, M.2 2280 PCIe Gen3 x4 NVMe (0~70°C)
1TB NVMe SSD	FSB0C001T-C4H1400, M.2 2280 PCIe Gen3 x4 NVMe (0~70°C)
256GB NVMe SSD (wide temp.)	TS256GMTE712A-I, M.2 2280 PCIe Gen4 x4 NVMe (-40~85°C)
1TB NVMe SSD (wide temp.)	TS1TMTE712A-I, M.2 2280 PCIe Gen4 x4 NVMe (-40~85°C)
AI Accelerator	Cambricon MLU220 8TOPS (INT8) module
4G Expansion kit	Quectel EM05-CN LTE Cat 4 module with antenna (optional GNSS)
4G Expansion kit	Quectel EM05-G LTE Cat 4 module with antenna (optional eSIM & GNSS)
5G Expansion kit	Quectel RM500U-CN 5G Sub-6 GHz module with antenna
5G Expansion kit	Fibocom FM650-CN-23 5G Sub-6 GHz module with antenna
Thermal kit for AI module	Al. heatsink with thermal pad & screws
Thermal kit for 5G module	Al. heatsink with thermal pad & screws
Vertical Wall mount kit	Wall mount bracket with screws
DIN Rail kit	DIN Rail clamp with screws