



ED-IPC2400

Datasheet

by EDA Technology Co., Ltd

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ED-IPC2400 Series

Industrial Computer Based on Raspberry Pi CM4

- Broadcom BCM2711, quad core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz
- Up to 8GB LPDDR4 RAM and 32GB eMMC storage
- Lan supports up to 1Gbps
- 1 x Gigabit Ethernet, 2 x USB 3.0 and 2 x USB 2.0
- Support 1 x RS232 (options for 2 x RS232 or 3 x RS232) and 2 x RS485 (options for 3 x RS485 or 4 x RS485)
- USB 3.0 supports up to 5Gbps
- 2.4GHz and 5GHz dual-band Wi-Fi and Bluetooth
- Support Micro-SD Card, integrated RTC, EEPROM and encryption chip
- Wide voltage power input range of DC 9V~28V with reverse polarity protection, overvoltage protection and overcurrent protection
- Wide temperature range of -25°C~60°C for working environment
- High-quality metal case, compatible with DIN-rail installation



Specifications

System	
CPU	Broadcom BCM2711, quad core Arm Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz
VPU	H.265(HEVC), up to 4Kp60 decode H.264, up to 1080p60 decode, 1080p30 encode
GPU	OpenGL ES 3.1 & Vulkan 1.0
Memory	Options for 1GB, 2GB, 4GB, 8GB LPDDR4-3200 SDRAM
Storage	Options for 8GB, 16GB, 32GB eMMC storage Micro SD card (user storage expansion)

software	
Operating System	Raspberry Pi OS (Desktop) 32-bit Raspberry Pi OS (Lite) 32-bit Raspberry Pi OS (Desktop) 64-bit Raspberry Pi OS (Lite) 64-bit

Front I/O	
Power	1 x DC IN, DC Jack connector, supporting 9V~28V input.
HDMI	1 x HDMI port, type A connector. It is compatibles with HDMI2.1 standard and supports 4K 60Hz.
1000M Ethernet	1 x adaptive 10/100/1000M ethernet port, RJ45 connector. It can be used to access the network.

Front I/O	
COM	1 x RS232 port, DB9 male connector, using the 2, 3 and 5 pins, the corresponding signal is defined as RX/TX/GND.
RS485	2 x RS485 ports, 4-Pin 3.5mm pitch phoenix terminals. The single signal is defined as A/B/GND.
RS485/232	6-Pin 3.5mm pitch phoenix terminals, different numbers of RS232 and RS485 ports can be selected according to actual application. The signal of RS485 is defined as A/B/GND, and the signal of RS232 is defined as TX/RX/GND. <ul style="list-style-type: none"> • ED-IPC2410 : 2 x RS485 • ED-IPC2420 : 1 x RS232 + 1 x RS485 • ED-IPC2430 : 2 x RS232

Rear I/O	
SD Card Slot	1 x Micro-SD card slot, which is used to install SD card for storing user data.

Side I/O	
USB 2.0	1 x USB 2.0 port, type A connector, which supports up to 480Mbps.
USB 3.0	2 x USB 3.0 ports, type A connector, each channel supports up to 5Gbps.
Antenna	1 x SMA port, which is used to connect Wi-Fi/BT antenna.

Buttons and Indicators	
Reset	1 x Reset button, which can reset the device.
PROGRAM	1 x PROGRAMMING button, which is used to flash to eMMC for the system.
PWR	1 x red power indicator, using to check the status of device power-on and power-off.
ACT	1 x green system indicator, using to check the working status of device.
USER	1 x green user indicator, user can customize a status according to actual application.
COM1~ COM5	5 x green UART indicators, using to check the communication status of UART port.

Expansion I/O	
12V 1A	1 x DC OUT, 2-Pin 2.0mm pitch WTB connector, which supports 12V 1A output. These pins are defined as GND/12V, reserving to provide power supply for extended LCD.
5V 1A	1 x DC OUT, 3-Pin 2.0mm pitch WTB connector, which supports 5V 1A output. These pins are defined as GND/5V/GND, reserving to provide power supply for extended LCD.
USB 2.0	1 x USB 2.0, 5-Pin 1.27mm pitch WTB connector, which supports to expand USB 2.0 port.

Expansion Performance	
EEPROM	Supports 4K byte storage and improves the ease of use of device.
Crypto Authentication	It can be matched to realize the required upper layer application and improves the security of device.
RTC	Ensure that the system clock is not affected by device power-off. Note: A CR1220 battery is provided by default in China.
Buzzer	A tip or an abnormality can be configured according to actual application, which realizes the alarm function.

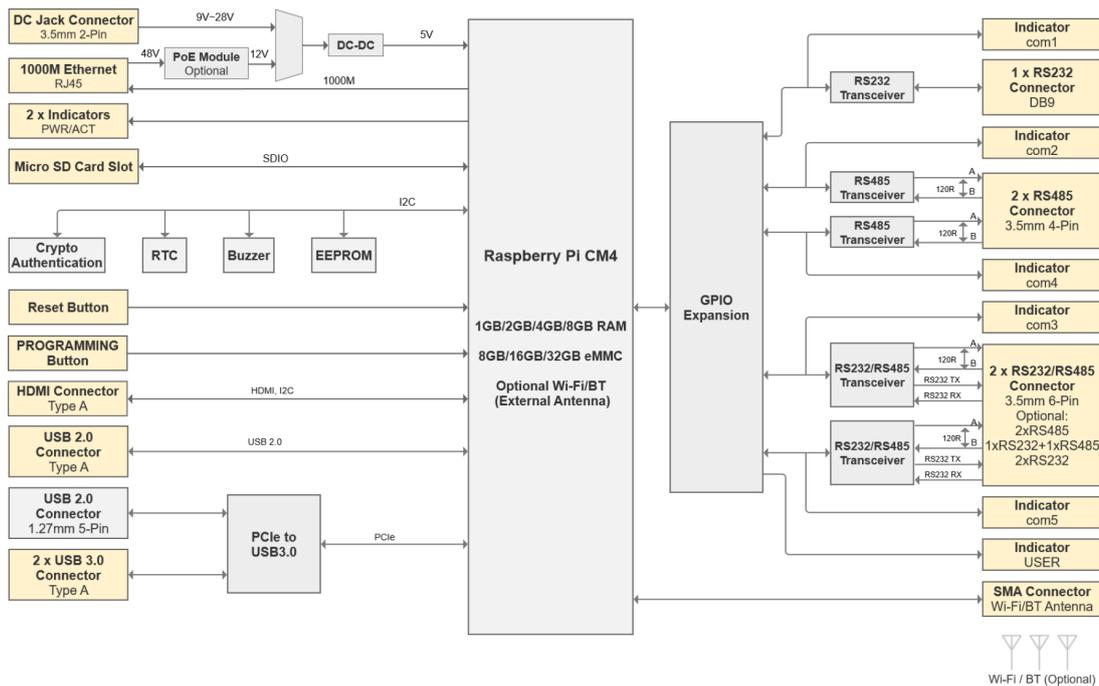
Electrical Characteristics	
Input Voltage	9V ~ 28V DC
Power Consumption	20W (Max)

Mechanical Characteristics	
Dimensions	103mm x 80.5mm x 50mm (WxDxH, antenna and DIN-rail bracket are not included)
Weight	500g
Installation	DIN-rail mounting

Wireless	
Wi-Fi/Bluetooth (optional)	2.4GHz and 5GHz dual-band Wi-Fi with antenna <ul style="list-style-type: none"> • 2.4GHz Wi-Fi: Compatible with IEEE 802.11 b/g/n • 5GHz Wi-Fi: Compatible with IEEE 802.11 a/n/ac • Bluetooth 5.0 with antenna, compatible with 2402MHz ~ 2480MHz frequency

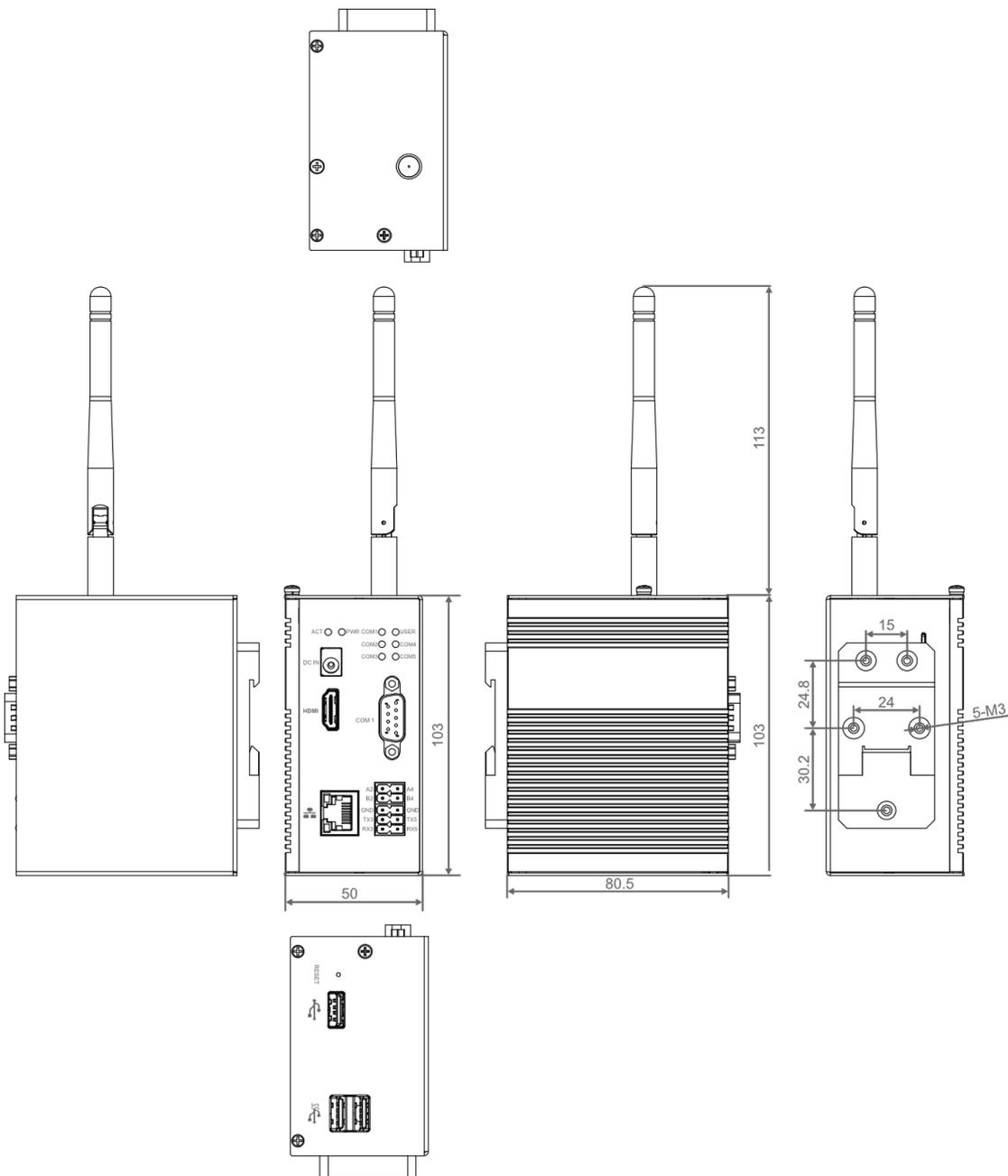
Environmental & Regulatory	
Operating Temperature	-25°C ~ 60°C
Storage Temperature	-25°C ~ 60°C
Ambient humidity	5% ~ 95% (non-condensing)
Certifications	FCC FCC 47 CFR Part 15 Subpart B CE EN IEC 62368-1/EN IEC 62311/EN IEC 61000-3-2/EN IEC 61000-3-3 EN 55032/EN 55035 EN 301 489-1/EN 301 489-3/EN 301 489-17/EN 301 489-52 EN 301 328/EN 301 440/EN 301 511/EN 301 908-1/EN 301 908-2

System Diagram

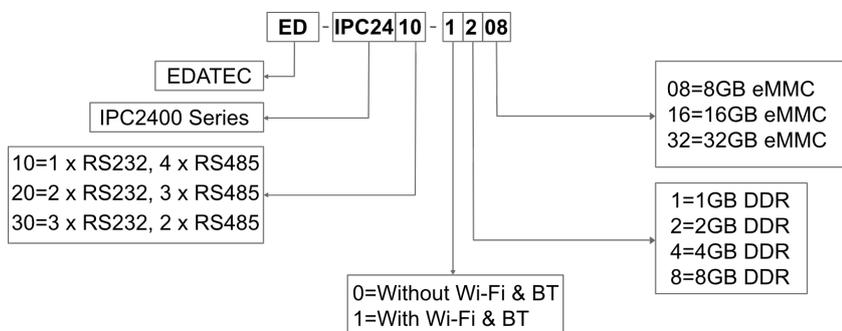


Dimensions

Unit: mm



Ordering Code



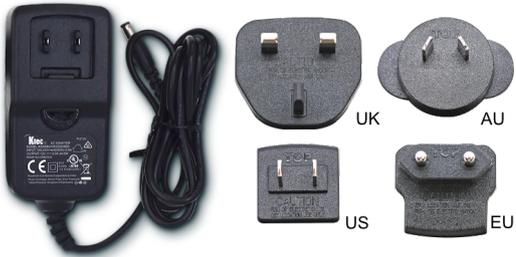
Example

P/N: **ED-IPC2410-1208**

Configuration: Industrial Computer Based on Raspberry Pi CM4, with Wi-Fi & Bluetooth, 2GB DDR, 8GB eMMC, 1 x RS232 and 4 x RS485.

Optional Accessory

You can choose a power adapter according to actual needs.

Model	Description	Picture
ED-PSU1202-UK	100~240VAC to 12VDC/2A Adapter, with UK AC plug, 5.5mm DC plug	
ED-PSU1202-US	100~240VAC to 12VDC/2A Adapter, with US AC plug, 5.5mm DC plug	
ED-PSU1202-AU	100~240VAC to 12VDC/2A Adapter, with AU AC plug, 5.5mm DC plug	
ED-PSU1202-EU	100~240VAC to 12VDC/2A Adapter, with EU AC plug, 5.5mm DC plug	

NOTE: Each model contains only one of the UK, US, AU and EU plugs.

Packing List

- 1 x ED-IPC2400 Unit
- [Wi-Fi/BT Version - optional] 1 x 2.4GHz/5GHz Wi-Fi/BT Antenna