ED-IPC2630

Industrial Computer Based on Raspberry Pi CM4



- Broadcom BCM2711, quad core Arm Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz
- Up to 8GB LPDDR4 RAM and 32GB eMMC storage
- Support Micro-SD Card and M.2 NVMe SSD storage expansion
- Dual Lans, 1 x Gigabit Ethernet and 1 x 100M Ethernet
- 4 x isolated RS232/RS485 with electrostatic and surge protection
- 2 x isolated CAN with led indicator, support CAN 2.0B standard
- 8 x isolated DI with led indicator, support AC input
- 8 x isolated DO with led indicator, support overcurrent protection
- 2.4GHz and 5GHz dual-band Wi-Fi, Bluetooth and 4G LTE
- Wide voltage power input range of DC 9V~36V with reverse polarity protection, overvoltage protection and overcurrent protection
- Integrated supercapacitor (backup power supply, optional) , RTC, Watch Dog, EEPROM and crypto authentication
- Wide temperature range of -25℃~60℃ 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) • M.2 NVMe SSD (options for 128GB, 256GB, 512GB)

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

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Front I/O	
Power	1 x DC IN, 2-Pin 3.5mm pitch phoenix terminals with screw holes. It supports 9V~36V input, the signal is defined as VIN+/GND.
RS485/232	12-Pin 3.5mm pitch phoenix terminals with IO isolator, which are equipped with electrostatic and surge protection. Different numbers of RS232 and RS485 ports can be selected according to actual application. The signal of RS485 is defined as IGND/A/B, and the signal of RS232 is defined as IGND/TX/RX. • ED-IPC2622: 2 x RS485 + 2 x RS232 • ED-IPC2623: 3 x RS485 + 1 x RS232 • ED-IPC2624: 4 x RS485
1000M Ethernet	1 x adaptive 10/100/1000M ethernet port, RJ45 connector. It can be used to access the network. PoE can be supported through expansion module.
100M Ethernet	1 x adaptive 10/100M ethernet port, RJ45 connector. It can be used to access the network.
CAN	2 x CAN ports, 6-Pin 3.5mm pitch phoenix terminals • Isolation Protection: 3 KV • CAN Protocol: CAN 2.0B • Baud Rate: 10~1000 kbps • Signals: CANH, CANL, GND
DI	8 x DI ports, 10-Pin 3.5mm pitch phoenix terminals • Sensor Type: Wet Contact (NPN & PNP), Dry Contact • Isolation Protection: 5 KV • Every 4 DI share one common pin (called COM): X0, X2, X4 and X6 share COMX0; X1, X3, X5 and X7 share COMX1 • DI to COM: ON: 5~30 VDC or -30~-5 VDC OFF: 0~2 VDC or -2~0 VDC
DO	8 x DO ports, 10-Pin 3.5mm pitch phoenix terminals • Sensor Type: NPN • Isolation Protection: 5 KV • Output: 5~36 VDC (24 VDC is recommended), maximum current is 1.5A(per channel)

Rear I/O	
SD Card Slot	1 x Micro SD card slot, which is used to install SD card for storing user data.
SIM Card Slot	1 x Nano SIM card slot, which is used to install SIM card for getting 4G signal.
Micro USB	1 x Micro USB port, which supports to flash to eMMC for the system.

Side I/O	
HDMI	1 x HDMI port, type A connector. It is compatible with HDMI 2.1 standard and supports 4K 60Hz.
USB 2.0	2 x USB 2.0 ports, type A connector, supporting up to 480Mbps.
Antenna	2 x SMA ports, using to connect 4G antenna and Wi-Fi/BT antenna.

Buttons and Indicators	
Reset	1 x Reset button, which can reset the device.
PWR	1 x red power indicator, which is used to check the status of device power-on and power-off.
4G	1 x green 4G indicator, which is used to check the status of 4G signal.
ACT	1 x green system indicator, which is used to check the working status of device.
USER	1 x green user indicator, user can customize a status according to actual application.
COM1~COM4	4 x green UART indicators, using to check the communication status of UART ports.
CAN0~CAN1	2 x green CAN indicators, using to check the communication status of CAN ports.
X0~X7	8 x green DI indicators, using to check the input status of DI ports.
Y0~Y7	8 x green DO indicators, using to check the output status of DO ports.

Expansion I/O	
12V 1A	3 x DC OUT, 2-Pin 2.0mm pitch WTB connector, supporting 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 2.0mms pitch WTB connector, supporting 12V 1A output. These pins are defined as GND/5V/GND, reserving to provide power supply for extended LCD.
10-Pin GPIO	1 x GPIO Pin Header, 2x5-Pin 2.54mm pitch header, using to lead out the expansion GPIO ports. User can customize the function according to actual application, these pins are defined as 8xGPIO/3V3/GND.
USB	1 x USB 2.0, 5-Pin 1.5mm pitch WTB connector, supporting to expand the USB 2.0 port.
M.2 B	1 x M.2 B, M.2 B Key connector, supports to connect SSD. It is compatible with M.2 B 2230 and M.2 B 2242 SSD.

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	RTC with 1F SuperCAP backup, which can ensure that the system clock is not affected by device power-off. We also provide a battery base, and you can buy a CR1220 battery backup for RTC.
Buzzer	A tip or an abnormity can be configurated according to actual application, which realizes the alarm function.
Watch Dog*	This function has been reserved on hardware. But we need additional software to support it, which is under development.

Electrical Characteristics	
Input Voltage	9V ~ 36V DC
Power Consumption	24W (Max)

Mechanical Characteristics	
Dimensions	143mm x 100mm x 55mm (WxDxH, DIN-rail and antenna are not included.)
Weight	1Kg
Installation	DIN-rail mounting

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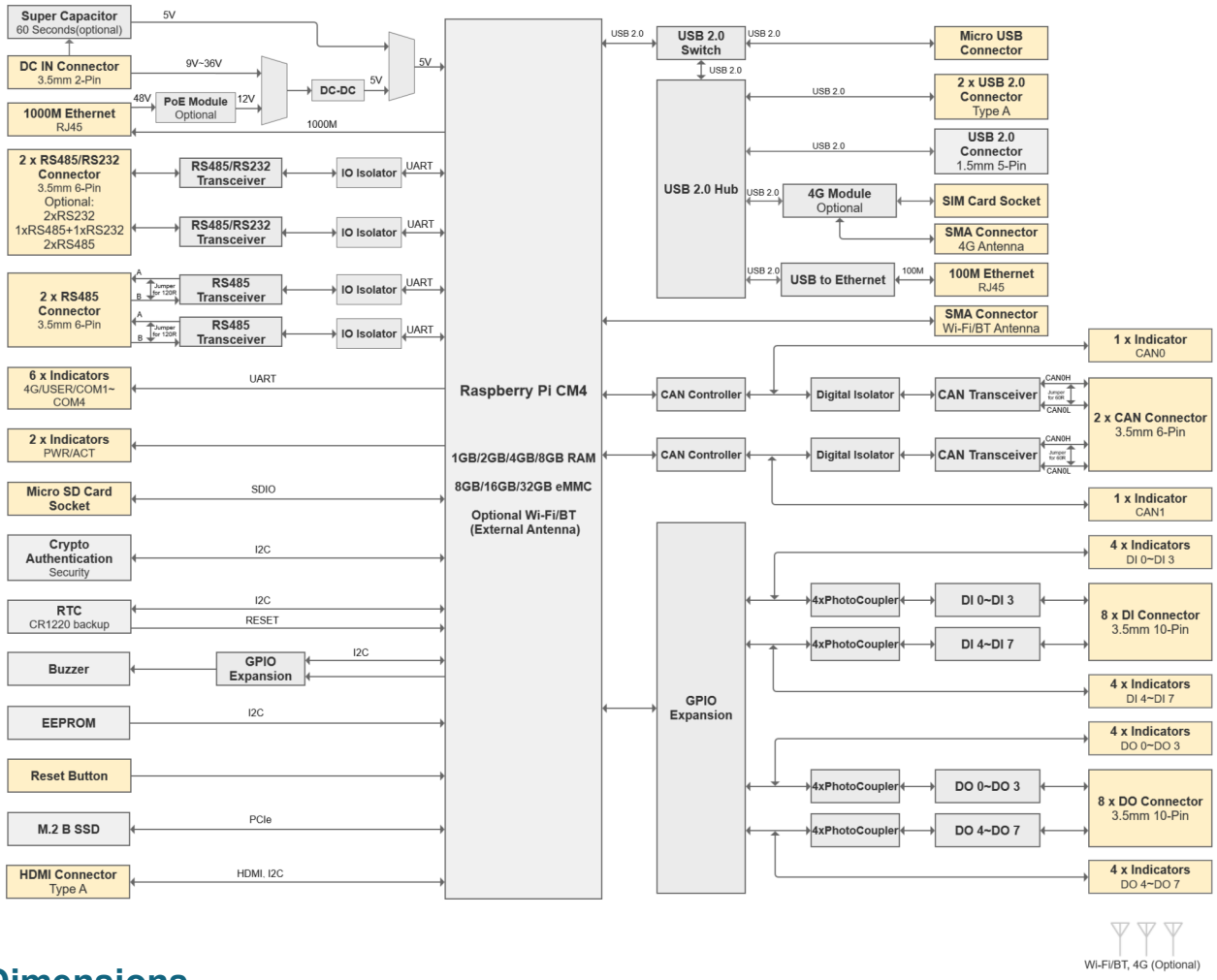
Wireless	
Wi-Fi/Bluetooth (optional)	2.4GHz&5GHz dual-band Wi-Fi and Bluetooth 5.0 with antenna • 2.4GHz Wi-Fi: Compatible with IEEE 802.11 b/g/n • 5GHz Wi-Fi: Compatible with IEEE 802.11 a/n/ac • The Bluetooth supports 2402MHz ~ 2480MHz frequency.
4G (optional)	Connect with various 4G LTE modules through the Mini PCIe interface, with antenna . • **EC20-CN Module (China/India)** LTE FDD: B1/B3 LTE TDD: B38/B39/B40/B41 TDSCDMA: B34/B39 WCDMA: B1 CDMA 1x/EVDO: BC0 GSM: 900/1800MH • **EC25-AFX Module (North America)** LTE-FDD: B2/B4/B5/B12/B13/B14/B66/B71 LTE-TDD WCDMA: B2/B4/B5 GSM/EDGE • **EC25-AUX Module (Latin America/Australia/New Zealand)** LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B28 LTE-TDD: B40 WCDMA: B1/B2/B4/B5/B8 GSM/EDGE: B2/B3/B5/B8 • **EC25-EUX Module (Europe/Middle East/Africa/Thailand)** LTE-FDD: B1/B3/B7/B8/B20/B28A LTE-TDD: B38/B40/B41 WCDMA: B1/B8 GSM/EDGE: B3/B8

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

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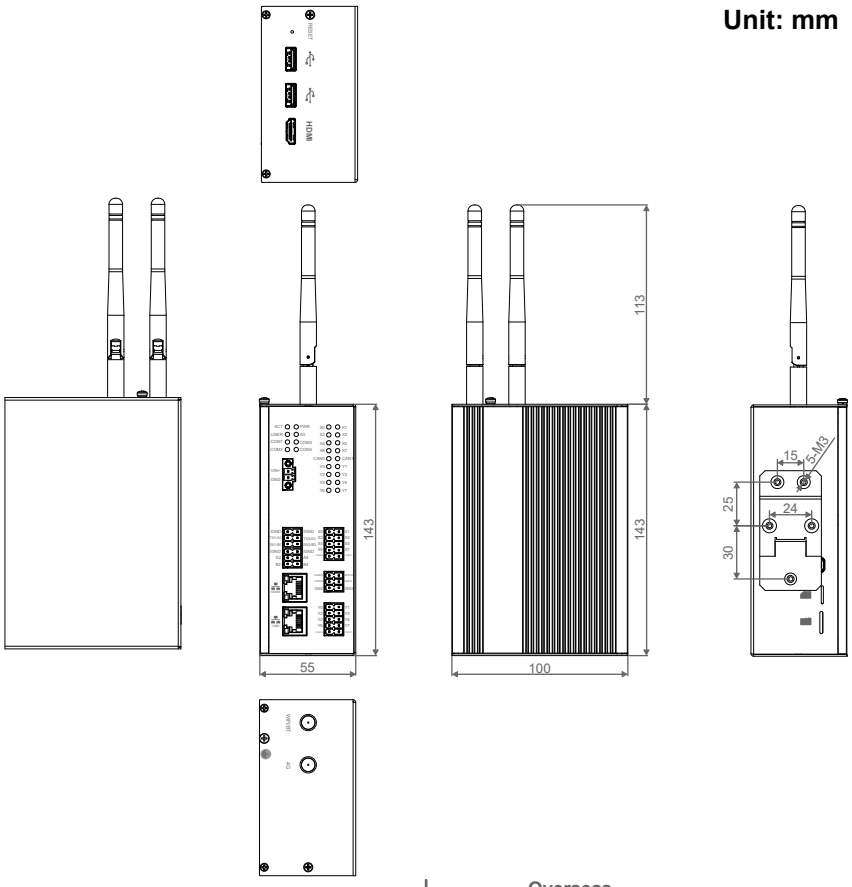
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System Diagram



Dimensions

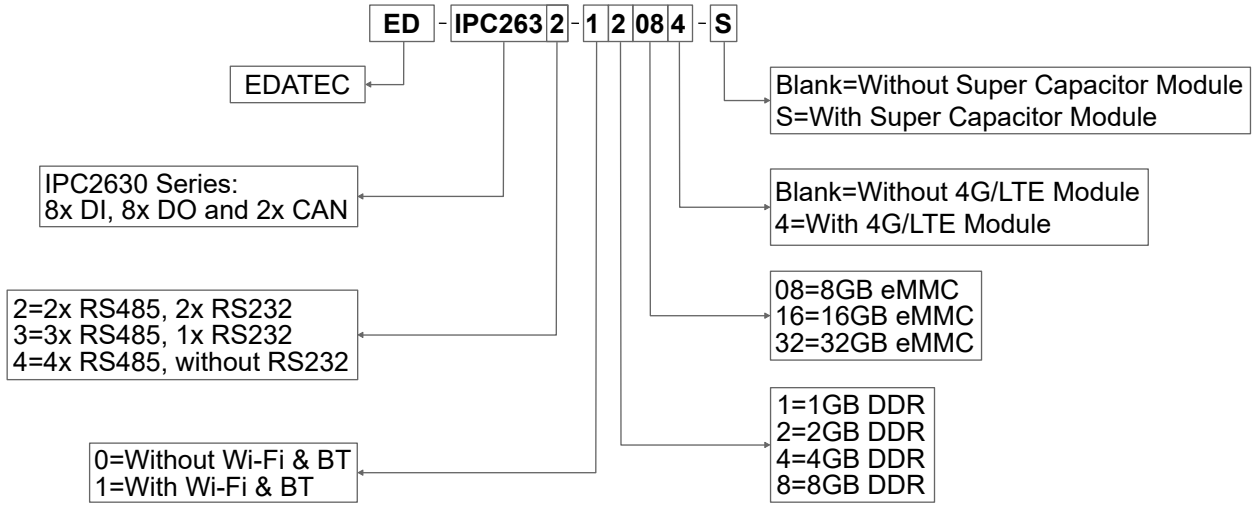
Unit: mm



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Ordering Code



Example

P/N: **ED-IPC2632-12084-S**

Configuration: Industrial Computer Based on Raspberry Pi CM4, with Wi-Fi & Bluetooth, 4G, 2GB DDR, 8GB eMMC, 8 x DI, 8 x DO, 2 x CAN, 2 x RS485, 2 x RS232 and Super Capacitor Module.

Optional Accessory

You can choose a power adapter according to actual needs.

Model	Description	Picture
ED-PSU1202-UK-3.5PL	100~240VAC to12VDC/2A Adapter, with UK AC plug, 3.5mm pitch phoenix plug with lock	
ED-PSU1202-US-3.5PL	100~240VAC to 12VDC/2A Adapter, with US AC plug, 3.5mm pitch phoenix plug with lock	
ED-PSU1202-AU-3.5PL	100~240VAC to 12VDC/2A Adapter, with AU AC plug, 3.5mm pitch phoenix plug with lock	
ED-PSU1202-EU-3.5PL	100~240VAC to 12VDC/2A Adapter, with EU AC plug, 3.5mm pitch phoenix plug with lock	
NOTE: Each model contains only one of the UK, US, AU and EU plugs.		

Packing List

- 1 x ED-IPC2630 Unit
- [**WiFi/BT Version - optional**] 1 x 2.4GHz/5GHz Wi-Fi/BT Antenna
- [**4G Version - optional**] 1 x 4G/LTE Antenna

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