

ED-HMI3020-101C

10.1 inch High Performance Industrial Panel PC Based on Raspberry Pi 5

- ◆ 10.1" TFT, resolution 1280x800, multi-point capacitive touch screen
- ◆ Broadcom BCM2712 2.4GHz quad-core 64-bit Arm Cortex-A76 CPU
- ◆ Up to 8GB LPDDR4X RAM
- ◆ Support Micro SD Card and M.2 NVMe SSD storage expansion
- ◆ 1 x Gigabit ethernet port with optional PoE
- ◆ Optional 8-megapixel front camera
- ◆ 2 x USB 3.0, 2 x USB 2.0, 1 x RS232, 1 x RS485 and 1 x Buzzer
- ◆ Dual 4Kp60 HDMI display output
- ◆ Stereo audio input and output with separately 3.5mm audio jack, built-in speaker
- ◆ 5V DC power input via USB-C, support ON/OFF power button
- ◆ Built-in RTC, support SuperCAP and CR1220 battery backup
- ◆ Aluminum CNC + sheet metal case, fanless design, providing excellent cooling performance



Specifications

System	
CPU	Broadcom BCM2712 2.4GHz quad-core 64-bit Arm Cortex-A76
VPU	4Kp60 HEVC decoder
GPU	OpenGL ES 3.1 & Vulkan 1.2
Memory	4GB and 8GB LPDDR4X-4267 SDRAM are optional
Storage	• Micro SD Card Slot, supporting to select the 00GB/32GB/64GB SD card • M.2 NVMe SSD, supporting to select the 00GB/128GB/256GB SSD

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	
Camera	Built-in 8-megapixel front camera(optional).

Side I/O	
Audio OUT	1 x Audio Output(HPO), 3.5mm audio jack connector(green), stereo audio output.
Audio IN	1 x Audio Input(LINE IN), 3.5mm audio jack connector(red), supporting stereo audio input.
Speaker	1 x PA output, built-in a 4Ω 3W speaker.
RS485	1 x RS485 port, 3-Pin 3.5mm spacing phoenix terminals with 120Ω terminal resistor. The signal is defined as GND/A/B.
RS232	1 x RS232 port, 3-Pin 3.5mm spacing phoenix terminals, the signal is defined as GND/TX/RX.
USB 2.0	2 x USB 2.0 ports, dual layer type A connector, each channel supports up to 480Mbps.
USB 3.0	2 x USB 3.0 ports, dual layer type A connector, each channel supports up to 5Gbps.
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.
SD Card Slot	1 x Micro SD card slot, which is used to install SD card. It supports booting the OS from SD card.
HDMI	2 x HDMI ports, Micro HDMI connector, supporting 4K 60Hz
Power	1 x power in port, USB Type-C connector, supporting 5V/5A DC power input.

Buttons and Indicators	
ON/OFF	1 x power button, which is used to turn on and turn off the device.
PWR	1 x red power indicator, which is used to check the status of device power-on and power-off.
ACT	1 x green system indicator, which is used to check the working status of device.
COM1~COM2	2 x green UART indicators, which is used to check the communication status of UART port.

Internal I/O	
M.2 M	1 x M.2 M port, M.2 M Key connector, using to connect SSD and other fast peripherals. It compatibles with M.2 2230, M.2 2242 and M.2 2260, supporting to boot the OS from SSD.

LCD	
LCD Size	10.1" TFT
Resolution	1280 x 800
Colors	16.7MB
Active Area	216.576mm(H) x 135.36mm(V)
Backlight	LED
MTBF	>30000h
Luminance	250cd/m ²
Contrast Ratio	1000:1
Response Time	30ms
Viewing Angle (CR≥10)	80°(L)/80°(R)/80°(U)/80°(D)

Touch Screen

Type	Multi-point Capacitive Touch Screen
Transmittance	≥85%
Connection Method	COF
Controller Interface	I2C
Driver Support	Linux
Multi-touch	10 points
Surface Hardness	6H

Expansion Performance

RTC	RTC with SuperCAP and CR1220 battery backup, which can 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	5V DC
Power Consumption	25W(Max)

Mechanical Characteristics

Dimensions	258mm x 172mm x 39.6mm (WxDxH)
Weight	About 1Kg
Installation	Embedded front installation

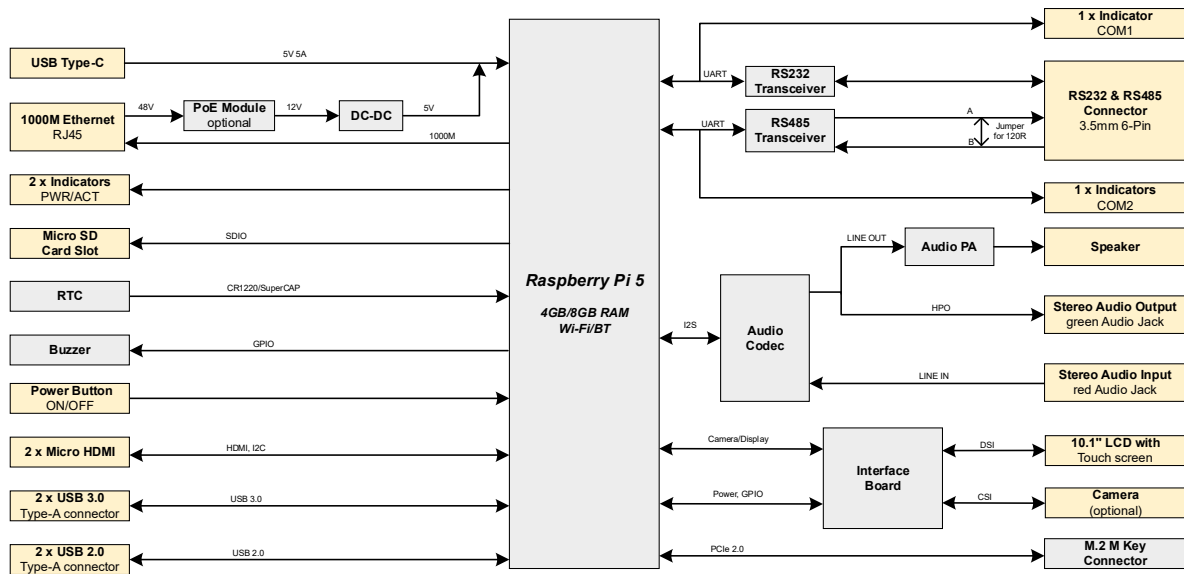
Wireless

Wi-Fi	Dual-band 802.11ac Wi-Fi
Bluetooth	Bluetooth 5.0 / Bluetooth Low Energy (BLE)

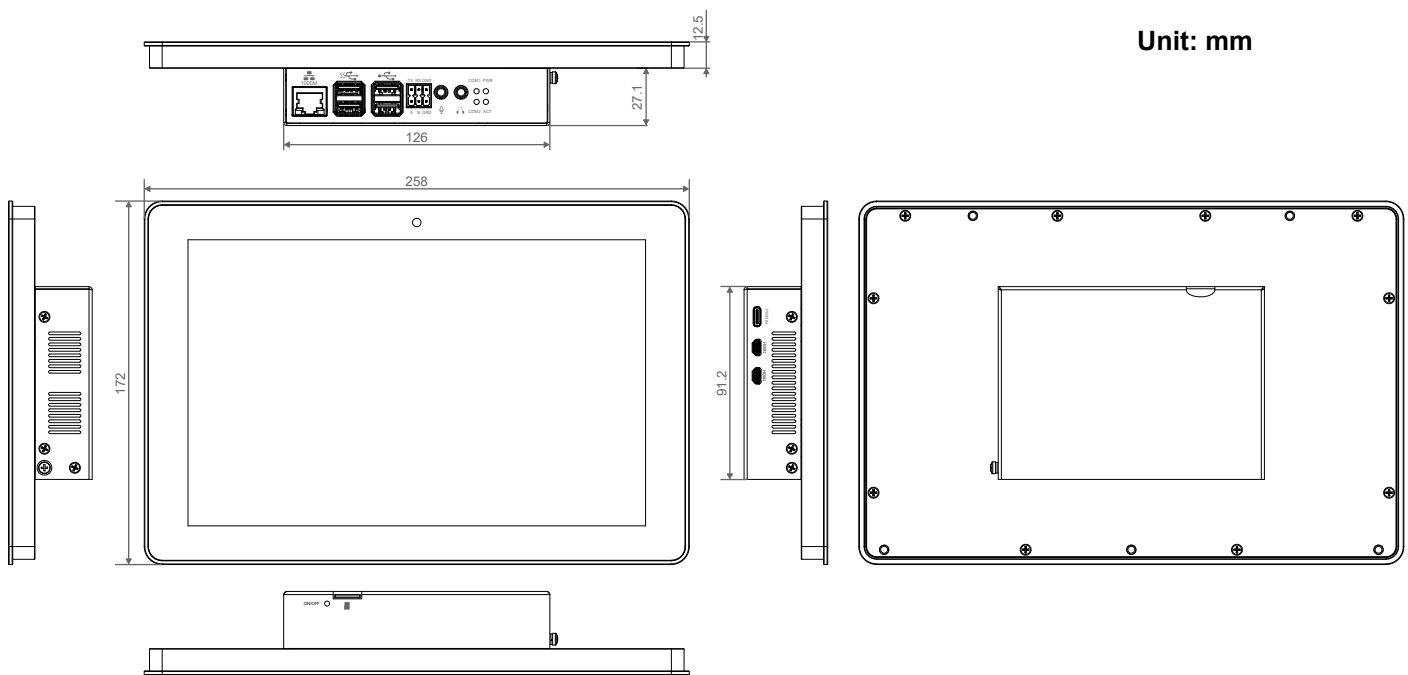
Environmental & Regulatory

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

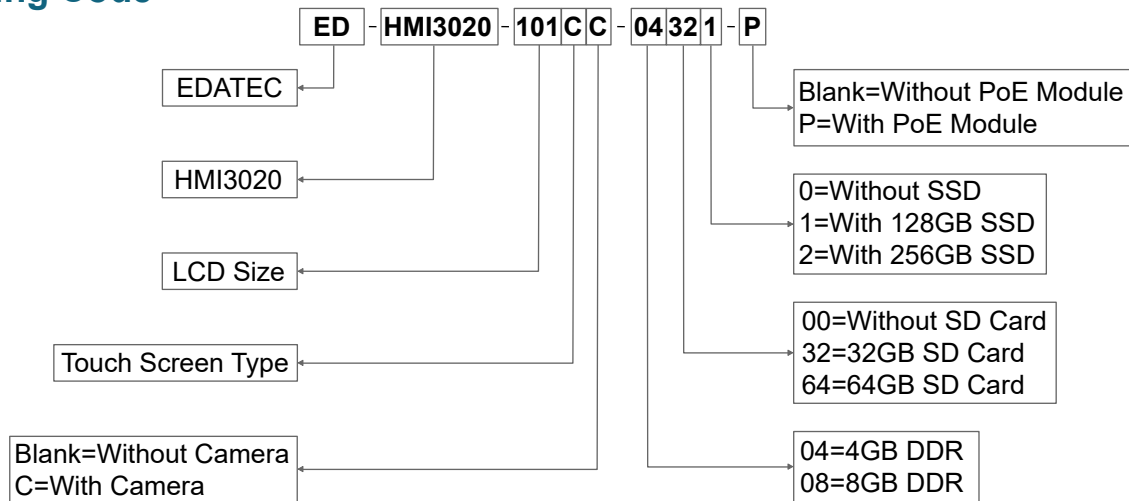


Dimensions



Unit: mm

Ordering Code



Note:

Because Raspberry Pi 5 does not have eMMC, so when you select a product model, you need choose at least one of SD card and SSD.

Example

P/N : **ED-HMI3020-101CC-04321-P**

Configuration : 10.1 inch High Performance Industrial Panel PC Based on Raspberry Pi 5, with 4GB DDR, Camera, 32GB SD card, 128GB SSD and PoE Module.

Packing List

- 1 x ED-HMI3020-101C Unit
- 4 x buckles(including 4xM4*8 screws and 4xM4*16 screws)

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