ED-HMI2020-101C

Datasheet

by EDA Technology Co., Ltd

built: 2026-07-29

ED-HMI2020-101C

10.1-inch Industrial HMI Based on Raspberry Pi CM4

- 10.1" TFT, resolution 1280x800, multi-point capacitive touch screen
- Broadcom BCM2711, quad core Arm Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz
- Up to 8GB LPDDR4 RAM and 32GB eMMC storage
- Lan supports up to 1Gbps
- 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
- Embedded installation, compatible with VESA standard bracket 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	
Camera	Built-in 8-megapixel front camera (optional)

Side I/O	
Power	1 x DC IN, DC Jack connector (5.5x2.5mm), supporting 9V~28V input.

Side I/O	
Audio	1 x Audio In/Stereo Out, 3.5mm audio jack connector. It can be used as MIC IN and Audio OUT. • When a headphone is connected, the audio output switches to the headphone. • When no headphone is connected, the audio output switches to the speaker.
1000M Ethernet	1 x adaptive 10/100/1000M ethernet port, RJ45 connector. It can be used to access the network.
SD Card Slot	1 x Micro SD card slot, using to install SD card for storing user data.
HDMI	x HDMI port, type A connector. It is compatible with HDMI 2.0 and supports 4K 60Hz.
USB 2.0	1 x USB 2.0 port, type A connector, which supports up to 480Mbps transmission rate.
USB 3.0	2 x USB 3.0 ports, type A connector, which support up to 5Gbps transmission rate.
Antenna (optional)	1 x SMA port, using to connect Wi-Fi/BT antenna.
Speaker	1 x PA output, built-in a 4Ω 3W speaker.

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, 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.

Expansion Functions	
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 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 abnormity can be configurated according to actual application, which realizes the alarm function.

LCD	
LCD Size	10.1" TFT
Resolution	1280 x 800
Colors	16.7MB
Active Area	216.576mm(H) x 135.36mm(V)
Backlight	LED

LCD	
MTBF	>30000h
Luminance	400cd/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

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

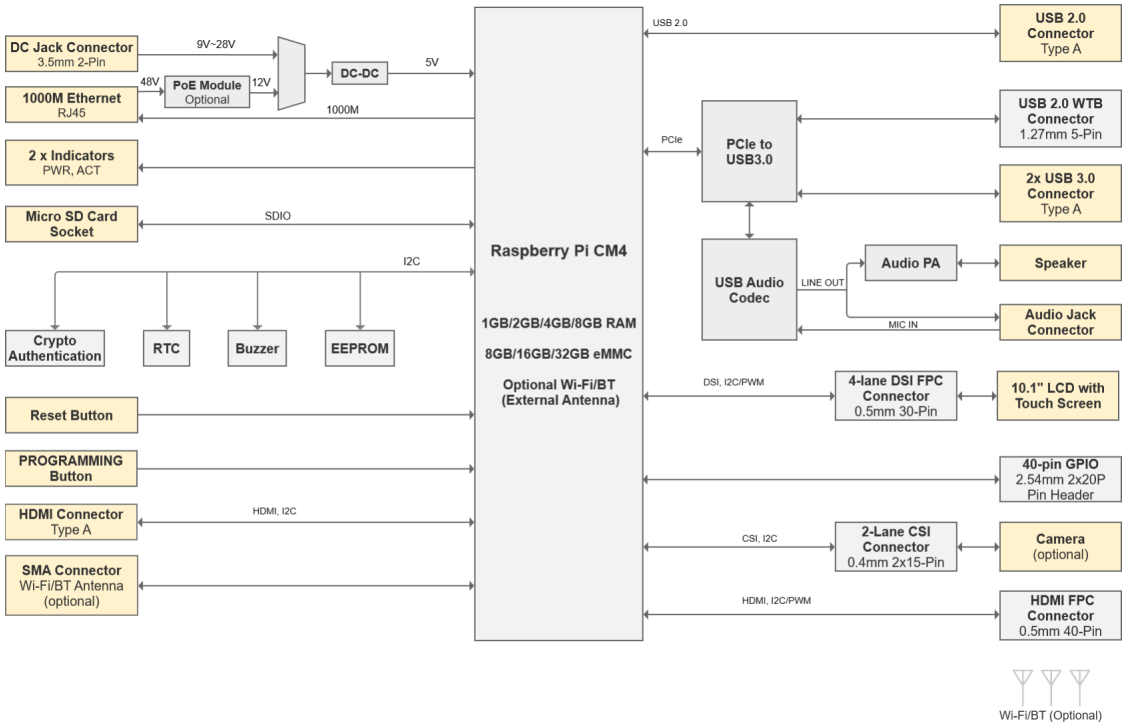
Mechanical Characteristics	
Dimensions	258mm x 172mm x 40mm (WxDxH, antenna is not included.)
Weight	About 1.1kg
Installation	Embedded front installation

Wireless	
Wi-Fi/Bluetooth (optional)	2.4GHz & 5GHz dual-band Wi-Fi and Bluetooth 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

Environmental & Regulatory	
	-25°C ~ 60°C

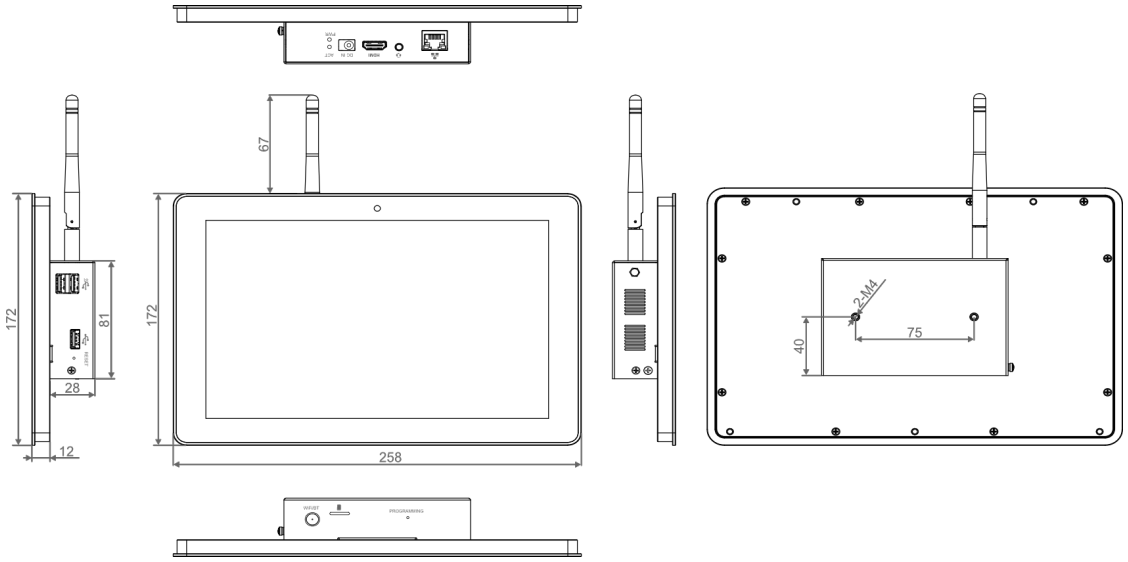
Environmental & Regulatory	
Operating Temperature	
Storage Temperature	-25°C ~ 60°C
Ambient Humidity	5% ~ 95% (non-condensing)
Certifications	• FCC ◦ FCC 47 CFR Part 15 Subpart B • CE ◦ EN IEC 62368-1:2020+A11:2020 ◦ EN IEC 62311:2020 ◦ ETSI EN 301 489-1 V2.2.3 (2019-11)/Draft ETSI EN 301 489-17 V3.2.6 (2023-06) EN 55032:2015 + A1:2020 + A11:2020/EN 55035:2017 + A11:2020 EN IEC 61000-3-2:2019 + A1:2021/EN 61000-3-3:2013 + A1:2019 + A2:2021 ◦ ETSI EN 300 328 V2.2.2 (2019-07)/ETSI EN 301 893 V2.1.1 (2017-05)

System Diagram

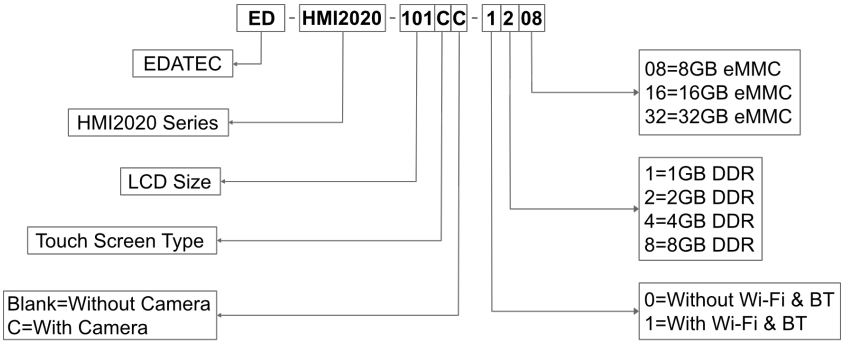


Dimensions

Unit: mm



Ordering Code

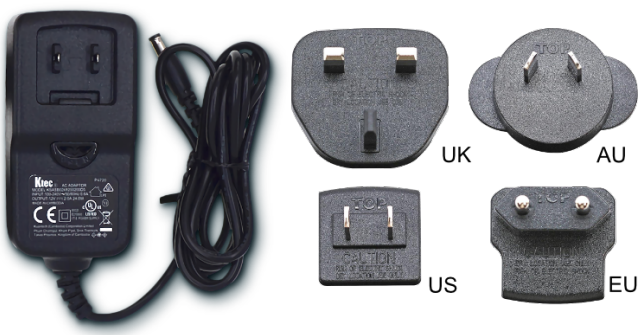


Example

P/N: **ED-HMI2020-101CC-1208**
Configuration: 10.1-inch Industrial HMI Based on Raspberry Pi CM4, with Wi-Fi & Bluetooth, 2GB DDR, 8GB eMMC and Camera.

Optional Accessory

You can choose a power adapter according to actual needs.

Model	Description	Picture
ED-PSU1202-UK	100~240VAC to12VDC/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		

Model	Description	Picture
	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-HMI2020-101C Unit
- 1 x Mounting Kit (including 4 x buckles, 4xM4*10 screws and 4xM4*16 screws)
- [Wi-Fi/BT Version - optional] 1 x 2.4GHz/5GHz Wi-Fi/BT Antenna