

ED-HMI3010-215C

Datasheet

by EDA Technology Co., Ltd

built: 2026-09-01

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ED-HMI3010-215C

21.5-inch Industrial HMI Based on Raspberry Pi 5

- 21.5" TFT, resolution 1920x1080, multi-point capacitive touch screen
- Broadcom BCM2712 2.4GHz quad-core 64-bit Arm Cortex-A76 CPU
- Up to 16GB LPDDR4 RAM and 64GB SD Card storage
- 1 x Gigabit ethernet port, 2 x USB 3.0, 2 x USB 2.0
- 1 stereo audio output, support headphone and speaker
- 12V power input on DC Jack connector
- Support backlight adjustment via DDCUI software
- Embedded installation, compatible with VESA standard bracket installation



Specifications

System	
CPU	Broadcom BCM2712 2.4GHz quad-core 64-bit Arm Cortex-A76
VPU	H.265 (HEVC), up to 4Kp60 decode
GPU	OpenGL ES 3.1 & Vulkan 1.2
Memory	Options for 2GB, 4GB, 8GB, 16GB LPDDR4X-4267
Storage	Options for 32GB, 64GB SD Storage Card

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

Side I/O	
1000M Ethernet	1 x adaptive 10/100/1000M ethernet port, RJ45 connector. It can be used to access the network.
USB 2.0	2 x USB 2.0 ports, dual layer type A connector, each channel supports up to 480Mbps transmission rate.
USB 3.0	2 x USB 3.0 ports, dual layer type A connector, each channel supports up to 5Gbps transmission rate.
Audio	1 x 3.5mm audio jack, stereo audio output
Speaker	1 x PA output, built-in a 4Ω 5W speaker.
Power	1 x DC Jack port (5.5x2.5mm), support 12V power input.

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Side I/O	
SD Card Slot	1 x Micro SD card slot, which is used to install Micro SD card. It supports booting the OS from SD card.

Buttons and Indicators	
PWR	1 x Red power indicator, using to check the status of device power-on and power-off.
PWR/ACT	1 x Power/System status indicator, red and green, using to view the status of device power-up and system read/write.
Brightness Adjustment Button	2 x Brightness adjustment buttons for increasing and decreasing the brightness.
Volume Adjustment Button	2 x Volume adjustment buttons for increasing and decreasing the volume.
Mute Button	1 x Mute button for mute and unmute audio.
ON/OFF Button	1 x power button, which is used to turn on and turn off the device.

LCD	
Type	21.5" TFT
Resolution	1920 x 1080
Color Number	16.7M
Active Area	478.656mm (H) x 260.28mm (V)
Backlight	LED
Luminance	400cd/m^2
Contrast Ratio	3000:1
Response Time	6.5ms
Viewing Angle (CR≥10)	89° (L) / 89° (R) / 89° (U) / 89° (D)

Touch Screen	
Type	Capacitive Touch Screen
multi-touch	Up to 5 points
Communication Method	USB
Transmittance	≥82%

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Touch Screen	
Surface Hardness	≥7H

Electrical Characteristics	
Input Voltage	12V DC (±10%)
Power Consumption	41.2W (Max)

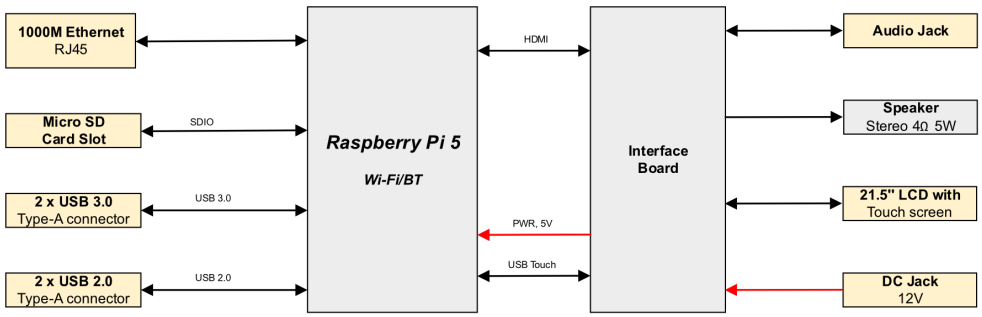
Mechanical Characteristics	
Dimensions	531.3mm x 317.8mm x 46.5mm (WxDxH)
Weight	About 4.8kg
Installation	Embedded front installation and VESA bracket mounting

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

Environmental	
Operating Temperature	-20°C ~ 50°C
Storage Temperature	-25°C ~ 60°C
Ambient humidity	5% ~ 95% (non-condensing)
Certifications	• FCC ◦ FCC Part 15 Subpart B • CE ◦ EN IEC 62368-1:2024+A11:2024 ◦ EN IEC 62311:2020 ◦ ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-3 V2.3.2 (2023-01) ETSI EN 301 489-17 V3.3.1 (2024-09) EN 55032:2015 + A1:2020 + A11:2020 EN 55035:2017 + A11:2020 EN IEC 61000-3-2:2019 + A1:2021 + A2:2024 EN 61000-3-3:2013 + A1:2019 + A2:2021 ◦ ETSI EN 300 328 V2.2.2 (2019-07) ETSI EN 301 893 V2.2.1 (2024-11) ETSI EN 300 440 V2.2.1 (2018-07)

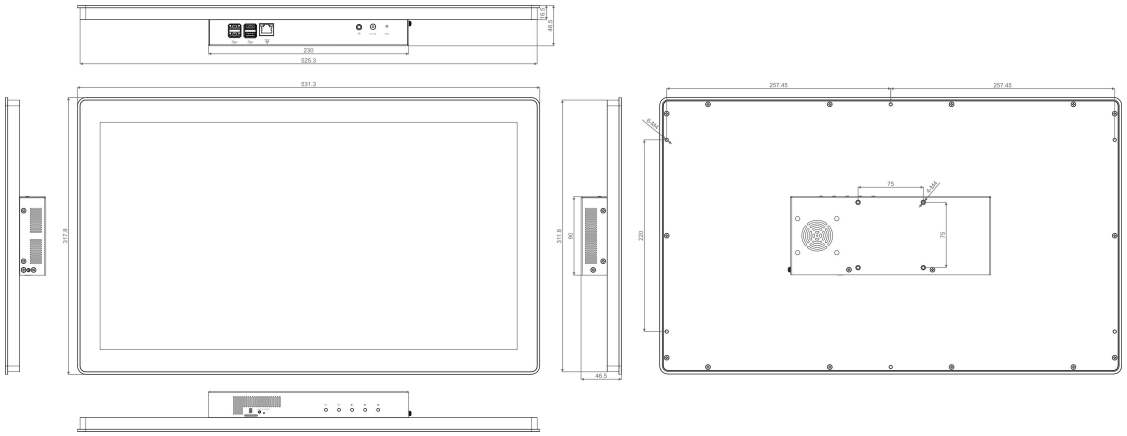
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System Diagram

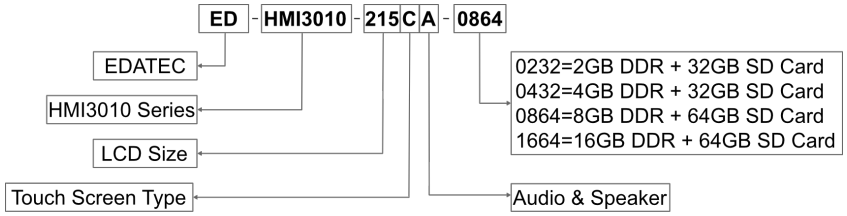


Dimensions

Unit: mm



Ordering Code



Example

P/N: **ED-HMI3010-215CA-0864**
Configuration: 21.5-inch Industrial HMI Based on Raspberry Pi 5,
with 8GB DDR, 64GB SD card, Audio & Speaker and ED-Pi5PCOOLER.

Optional Accessory

You can choose a power adapter according to actual needs.

Model	Description	Picture
ED-PSU1204-UK	100~240VAC to 12VDC/4A adapter, equipped with UK standard AC plug and DC Jack plug	

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Model	Description	Picture
ED-PSU1204-US	100~240VAC to 12VDC/4A adapter, equipped with US standard AC plug and DC Jack plug	
ED-PSU1204-AU	100~240VAC to 12VDC/4A adapter, equipped with AU standard AC plug and DC Jack plug	
ED-PSU1204-EU	100~240VAC to 12VDC/4A adapter, equipped with EU standard AC plug and DC Jack plug	
Note: Each model includes only one type of AC plug (UK, US, AU, or EU).		

VESA mounting brackets are available as optional accessories depending on your specific requirements.

Model	Description	Picture
ED-VESA-A	VESA wall mount bracket for ED-MONITOR and ED-HMI series	
ED-VESA-B	Swivel VESA wall mount bracket for ED-MONITOR and ED-HMI series	
ED-VESA-C	VESA desk mount stand for ED-MONITOR and ED-HMI series	

Packing List

- 1 x ED-HMI3010-215C Unit
- 1 x Mounting Kit (including 6 x buckles, 6 x M4*10 screws and 6 x M4*16 screws)

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