



ED-HMI3010-215C

Datasheet

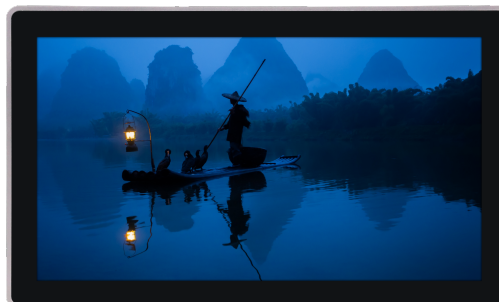
by EDA Technology Co., Ltd

built: 2025-12-09

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, support 12V power input.

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%

Touch Screen	
Surface Hardness	≥7H

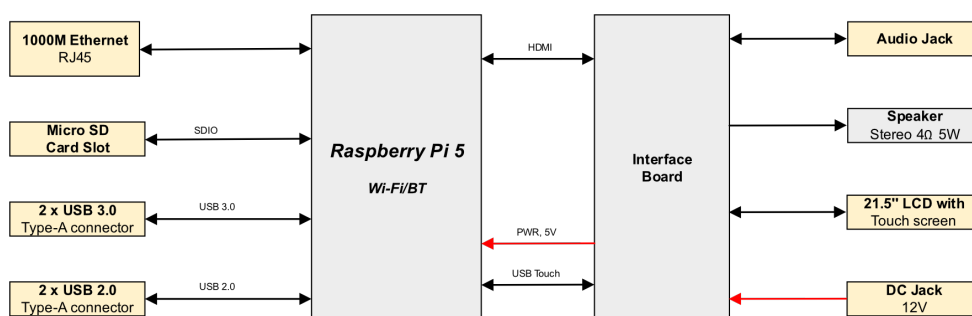
Electrical Characteristics	
Input Voltage	12V DC (±10%)
Power Consumption	41.2W (Max)

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)

System Diagram



Dimensions

Unit: mm

- 1 x Mounting Kit (including 6 x buckles, 6 x M4*10 screws and 6 x M4*16 screws)