

emVIEW-7/RPI3

7" Panel PC System based on Raspberry Pi 3



PRODUCT DESCRIPTION

With emVIEW-7/RPI3 Janz Tec AG provides an HMI which uses an original Raspberry Pi 3 model B ¹⁾ module inside. This module is mounted on a self-developed mainboard providing a 24 V_{DC} power supply, additional serial interfaces, a real-time clock and digital inputs and outputs. With a 7.0" touch display, this system is ideally suited for low cost applications such as maintenance and easy controlling of machines.

FEATURES

Processor

- Based on Raspberry Pi 3, Model B
- Quad-Core CPU based on ARM Cortex-A53 with 4 x 1.2 GHz ^{1) 2)}
- Real-time clock, battery buffered

Display

- 7" WVGA display size
- LED backlight technology
- Aspect ratio: 15:9 (Landscape)
- Resolution: 800 x 480
- Luminance: 350 cd/m² (typ.)

Touchscreen

- Projected capacitive touch screen (PCAP) with multi-touch capabilities
- Glass surface

Memory

- 1 GB DDR2 RAM

Storage

- External accessible µSD card slot

Internal Interfaces

- CYW43438 WiFi/WLAN on Board
- 1 x I/O connector, providing:
 - 1 x CAN (ISO/DIS 11989-2, opto-isolated, term. settings via jumper, SocketCAN supported)
 - 1 x RS232 (Rx, Tx, RTS, CTS) or switchable to RS485 (half-duplex, term. settings via jumper)
 - 4 x digital inputs (24 V_{DC})
 - 4 x digital outputs (24 V_{DC})

¹ Also available with a RPI3 model B+, with 4 x 1.4 GHz and 1 x 10/100/1000 Mbit/s Ethernet.

² CPU performance will be reduced by software in our standard OS image to 4 x 600 MHz for protecting the system against overheating. Using only 1 core with full 1.2 GHz is also possible, please see hardware manual for more detailed information

FEATURES

External Interfaces

- 1 x 10/100 Mbit/s Ethernet
- 4 x USB (V2.0)
- 1 x 9-pin D-SUB connector for serial debug console (RS232 only with RxD and TxD)
- 1 x HDMI graphic interface

Environment

- Ambient operating temperature: 0 °C ... 35/45 °C ²⁾
- Non-operating temperature: -20 °C ... 75 °C
- Humidity 5 % ~ 95 %, non-condensing
- Dimension (w x h x d): 203 x 121 x 55 mm
- Weight approx. 0.6 kg
- DIN rail mounting

Power Supply

- Input 9 ... 32 V_{DC}
- Power consumption: 7 W

Software

- Raspbian JESSIE light operating system
- CODESYS V3 runtime environment
- CANopen protocol stack and tools

¹ Temperature range depends on mounting situation of the device. Please see hardware manual for more detailed information.