User Manual

FP50 Motherboard/MTN-FP50 Mini PC

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FP50 User Manual

(Version 1.0)

Content

Chapter 1 Product Introduction

1.1 Brief Introduction

The FP50 motherboard is based on AMD Ryzen embedded/mobile processors.

1.2 Parameters

Ryzen Mobile Processors:

- Ryzen 5 2500U—Quad-Core, Base Freq. 2GHz, Max Freq. 3.6GHz, TDP 15W
- Ryzen 5 3500U—Quad-Core, Base Freq. 2.1GHz, Max Freq. 3.7GHz, TDP 15W
- 3020E—Dual-Core, Base Freq. 1.2GHz, Max Freq. 2.6GHz, TDP 6W
- R1305G—Dual-Core, Base Freq. 1.5GHz, Max Freq. 2.8GHz, TPD8-10W

Memory: Dual Channel SO-DIMM DDR4 up to 64GB, Maximum Frequency 2400MHz.

GPU: Integrated graphics based on CPU, supports dual display via 2x HDMI2.0,

Storage: 1 x M.2 Key M for 2280 NVMe SSD (SATA SSD optional), 1x SATA3.0

USB: 3x USB3.2; 2xUSB2.0

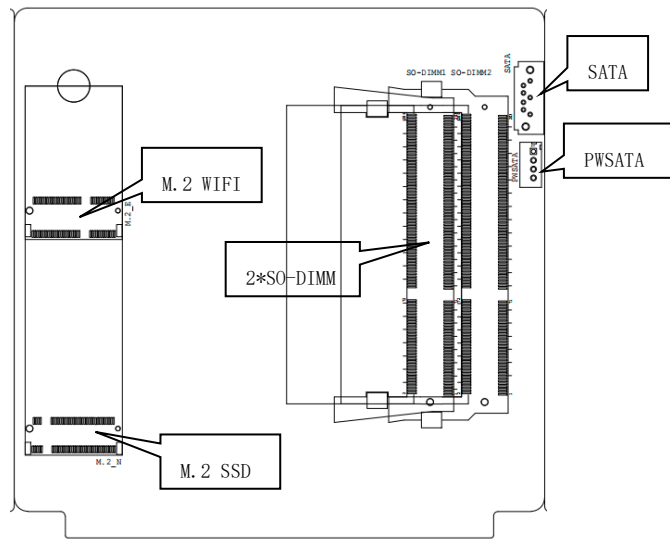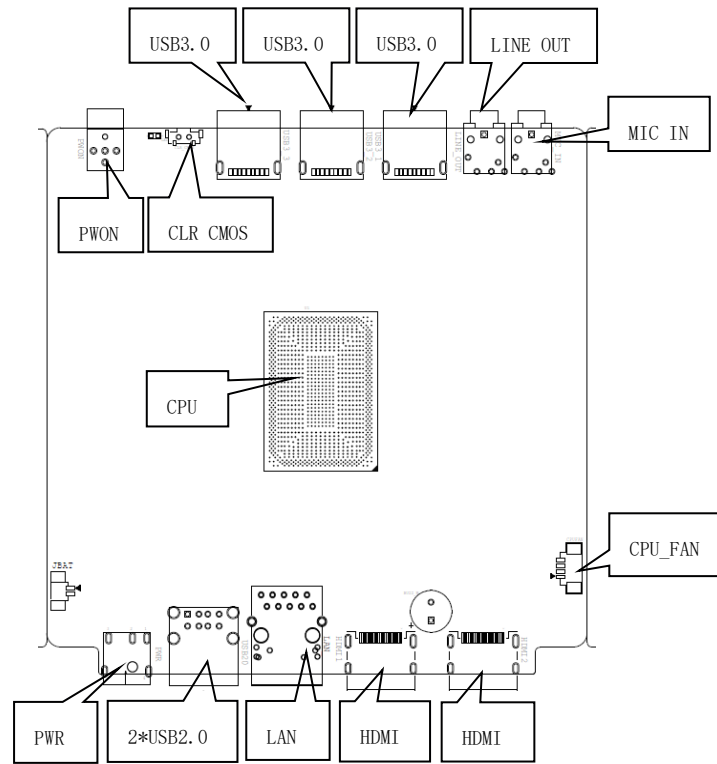**Expansion:** 1 x M.2 Key E 2230 for Wi-Fi & Bluetooth

Ethernet: 1xOnboard Gigabit Network Controller (Realtek RTL8111H)

Audio: High-Definition Audio Codec,1x Line-out, 1x Mic-in
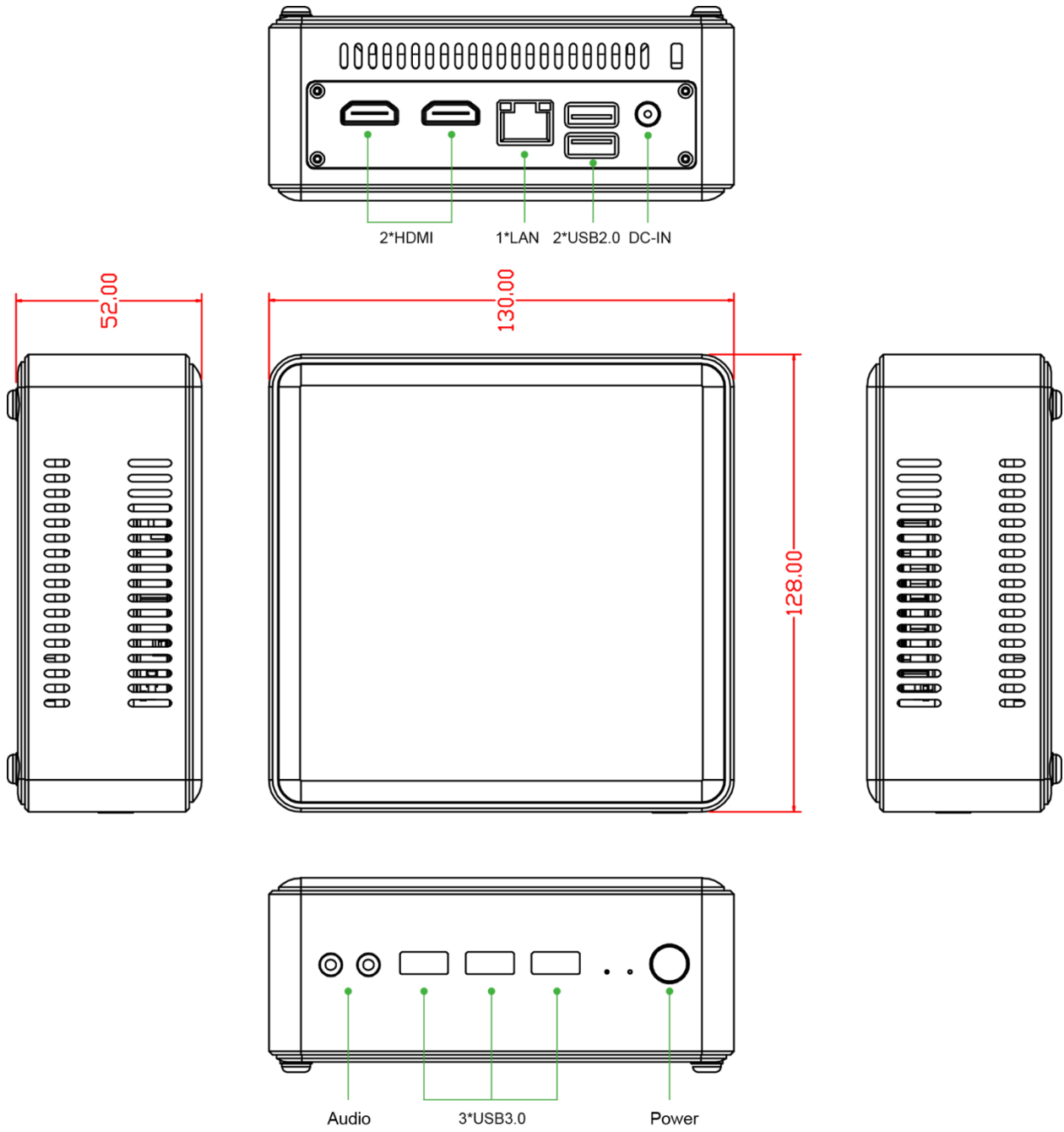
Power: 12V DC-in

Working temperature: 0℃~50℃

1.3 Connector Diagram (Board)

1.4 Connector Diagram (Mini PC)

2*HDMI   1*LAN   2*USB2.0   DC-IN

52.00

130.00

128.00

Audio   3*USB3.0   Power

5

Chapter 2 Hardware

2.1 Jumper Setting

Please configure the jumpers according to your requirements before installing the hardware.

How to identify the first header of jumpers and pins: Observe the mark beside the jumper or pins and find the header marked by "1" or bold line or triangular symbol. Or observe the rear panel and the header with a square solder pad is the first header.

2.2 Memory Slots

2 x SO-DIMM DDR4-2400 MHz, supporting dual channels, maximum capacity 64GB.

2.3 Display

The board is equipped with two standard HDMI2.0 interfaces for display.

2.4 Storage (Screen Printing： SATA, M.2_N, PWSATA)

The board offers 1xM.2 Key M 2280 NVMe (SATA Optional) SSD.

It provides a standard SATA3.0 interface with a 4PIN hard disk power supply interface.

PWSATA (Screen Printing: PWSATA)

Pin	Signal
1	+5V
2	GND
3	GND
4	+5V

2.5 LAN

One RJ45 interface Gigabit Network Controller (RTL8111H) onboard, supports PXE network boot and Magic packet wake-up functions.

LED Status Indicators:

LINK LED(Green)	Function	ACTIVE LED(Orange)	Function
Always on	Network Connected	Blinking	Data transfer

2.6 Audio

The board features High-Definition Audio Codec ALC662, the audio interface colored green is the Line-out, the audio interface colored pink is the Mic-in.

2.7 CPU FAN Socket (Screen Printing: CPUFAN)

The board provides a CPU cooling fan socket for better heat dissipation.

CPUFAN (Screen printing: CPUFAN)

Pin	Signal
1	+5V
2	GND
3	TAC
4	CTL

2.8 CMOS Clearance/Retention (Screen Printing：CLR_CMOS)

Clearing CMOS will permanently erase the previous system settings and set them to the original (factory settings) system settings.

Step 1: Turn off the PC and disconnect the power adapter.

Step 2: Press the CLR_CMOS button for 10 seconds.

Step 3: Restart the device, press the <DEL> button to enter the BIOS setting, load the optimal default value.

Step 4: Save and exit the settings.

⚠ **Please do not clear COMS when the PC is connected to power in case board damages.**