

MF13 Series

4* 2.5GbE LAN Ports Networking Appliance Motherboard with Intel® Elkhart Lake SoC Processor

Features

1. Intel® Elkhart Lake J6412 Soc Processor
2. 1* DDR4 3200MHz SODIMM memory up to 32GB
3. 2* COM (RS232/422/485)
4. 1 * External USB3.1 Gen.2, 1* External USB2.0, 2* Internal USB2.0
5. 4* Intel® i225V 2.5GbE
6. 1* SATAIII (6Gb/s), 1* M.2 M-key, 2242/2280 (SATA/PCIe Gen.3 x2) support NVMe, 1*M.2 E-key, 2230 (USB2.0/PCIe Gen.3 x1), 1 * M.2 B-key, 3042/3052 (USB3.1), 1* SIM card slot
7. Lockable +12V DC-in PWR jack



intel. FC CE RoHS COMPLIANT

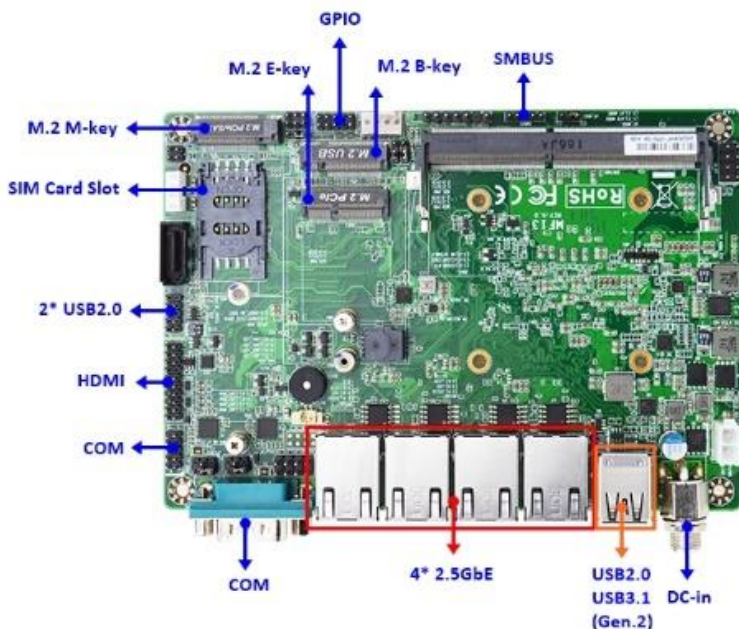
Overview

The JETWAY MF13 Series adopts the Intel® Elkhart Lake SoC processor. The system memory features one DDR4 3200MHz SODIMM up to 32GB. It equipped with four 2.5 Gigabit Ethernet LAN ports and suitable for networking environment. In addition, it offers flexible expansion with network products and features one M.2 M-key (2242/2280, SATA/PCIe Gen.3x2 interface) support NVMe, one USB 3.1 Gen.2 port, three USB 2.0 port and two RS232/422/485 port. Expansion opportunities are available with one M.2 E-key (2230, USB2.0/PCIe Gen.3x1), one M.2 B-key (3042/3052, USB3.1 interface) and one SIM card holder enabling the addition of Wi-Fi, 3G, 4G, 5G LTE for multiple connectivity. In addition, an internal SATAIII connector for a 2.5" device provides storage selection. All of these designs provide for a more user-friendly solution.

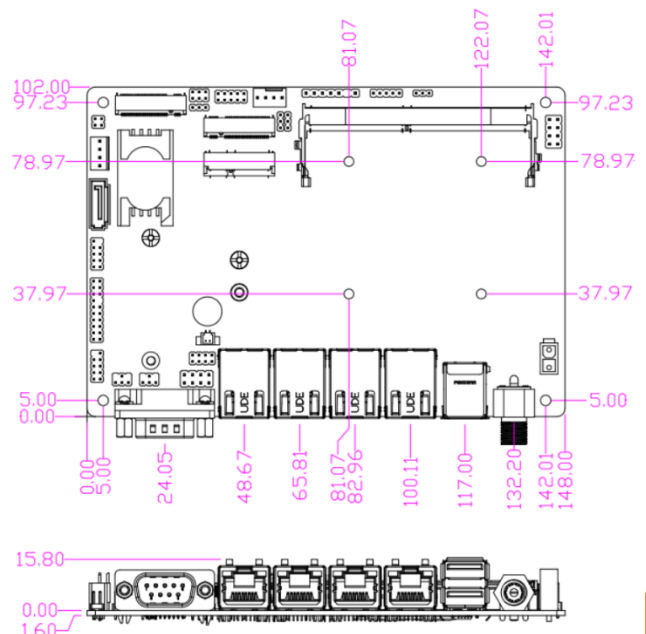
Application

Firewall / Load Balancing / Bandwidth Manager / Network Access Control

I/O Diagram



Mechanical Drawings (Unit=mm)



Specifications

Model <ul style="list-style-type: none">MF13-00 (J6412)MF13-04 (J6412, 64GB eMMC)MF13-08 (J6412, 64GB eMMC, W/TPM2.0)	Form Factor <p>3.5" (5.8-in * 4.0-in, 148 * 102mm)</p>
Processor System <ul style="list-style-type: none">Intel® Elkhart Lake SoC ProcessorAMI Flash ROM BIOS	Memory <p>1* DDR4 3200MHz SO-DIMM up to 32GB</p>
Storage <ul style="list-style-type: none">1* SATAIII (6 Gb/s)1* M.2 M-key (2242/2280, SATA/PCIe Gen.3x2 interface) support NVMe64GB eMMC on board optional (MF13-04 & MF13-08)	Expansion <ul style="list-style-type: none">1* M.2 E-key (2230, USB2.0/PCIe Gen.3x1 interface)1* M.2 B-key (3042/3052, USB3.1 interface)1* SIM card holder
Ethernet <p>4* Intel i225V 2.5GbE</p>	Graphics <ul style="list-style-type: none">Intel® HD Graphics, shared memory1* HDMI (Max Resolution: 1920x1080@60Hz)Support Single Display
Internal I/O <ul style="list-style-type: none">2* USB2.01* SATAIII1* COM support RS232/422/4851* HDMI header1* 64GB eMMC (MF13-04 & MF13-08) (If use Win 10 OS, we recommend the eMMC is use for OS boot up purpose.)1* GPIO1* PS/21* Chassis intrusion1* SMBUS1* AT mode1* TPM2.0 onboard (MF13-07)	External I/O <ul style="list-style-type: none">1* USB3.1 Gen.21* USB2.01* COM support RS232/422/4854* RJ4512V lockable DC-in
Power <p>12V DC-in PWR</p> <p>- AT: Directly PWR on as Power input ready</p> <p>- ATX: Press Button to PWR on after Power input ready</p>	Watchdog Timer <ul style="list-style-type: none">From Super I/O to drag RESETCON#256 segments (10sec ~ 255min)
Temperature <ul style="list-style-type: none">Operating Temperature: 0° C ~ 60° CStorage Temperature: -20° C ~ 85° CHumidity: 10% ~ 90% RH @40°C (non-condensing)	Compliance <p>CE, FCC, LVD, RoHS, REACH</p>
Warranty <ul style="list-style-type: none">2 Years limited warranty	OS Support <p>UEFI Win10 64-bit, Win 10 IoT Enterprise 64-bit LTSC 2019, CentOS (Version 9), Debian (Version 11.3), Fedora-LXDE (Version 36-1.5), Fedora Workstation (Version 36-1.5), Fedora Server (Version 36-1.5), Open SUSE (Version 15.4), Ubuntu Standard / LTS (Version 22.04), Ubuntu Server (Version 22.04), pfSense (Version 2.6.0), TrueNAS (FreeNAS) (Version 13.0), RedHat Enterprise (Version 9.0), OPNSense (Version 22.1.2)</p>

* Specifications subject to change without notice, not responsible for typographical errors. Does not include HDD or OS.

Standard Accessories

Part Number	Description
MF13 Series	MF13 Series M/B
1* J2NF533FPPIOR10 2* G01-2X4-18K0-F 1* G01-USB2X5A-28-F	LAN LED card module
G01-COM-H2M22-1F	1* COM cable
G01-SATA-BK-B-2F	1* SATA cable
G01-PW4PS-2S-323F	1* SATA Power cable
G01-2X10A-HDMIBF	1* HDMI cable
HCS3XXMHT03S-1F	1* Flat type Heatsink