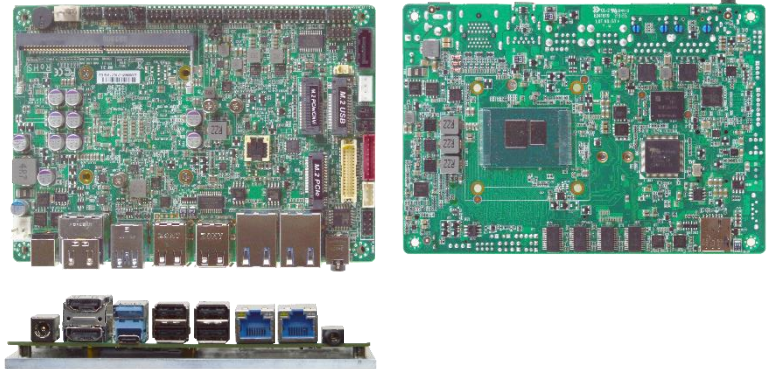


MF31 Series (Preliminary)

Intel® Alder Lake-N SoC Processor with DDR5 up to 16GB, provide optional 64GB eMMC onboard, Support three M.2 slots, two 2.5GbE ports, triple displays, ten USB ports, 12~28V wide-voltage DC-in

Features

1. Intel® Alder Lake-N SoC Processor (TDP 6~15W)
2. 1* DDR5 4800MHz SO-DIMM up to 16GB
3. 2* Intel i225V 2.5GbE
4. 2* HDMI 2.0b, 1* eDP (co-layout LVDS), 1* LVDS w/Inverter
5. 1* SATAIII (6Gb/s), 6* COM, 1* USB3.2 (Gen.2) Type-A, 8* USB2.0, 1* USB Type-C (ALT mode)
6. 1*M.2 M-key(2280) support NVMe, 1*M.2 E-key(2230) support CNVi, 1*M.2 B-key(3042/3052) support 4G/5G module
7. Support 12~28V DC-in
8. Support Onboard TPM2.0 (optional)

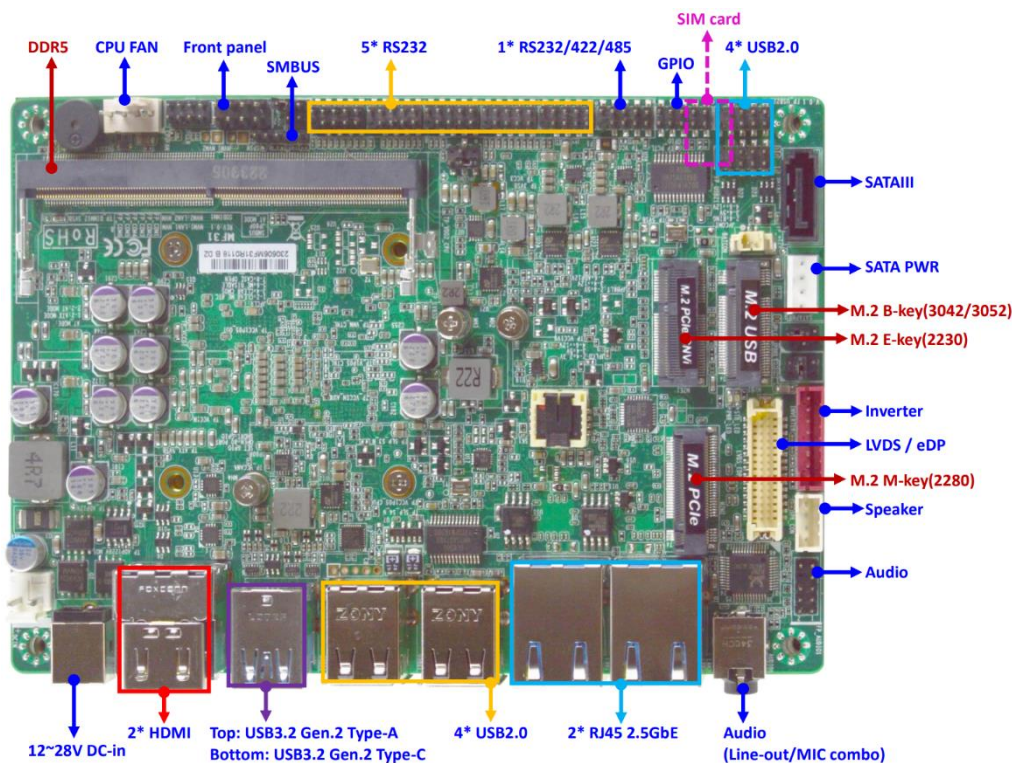


intel. FC CE RoHS COMPLIANT

Overview

The JETWAY MF31 Series is 3.5" form factor board adopts the Intel® Alder Lake-N SoC Processor with 6 to 15W TDPs. The board supports one SO-DIMM DDR5 4800MHz memory up to 16GB, one SATAIII (6 Gb/s) interface, one M.2 M-key and 64GB onboard eMMC (optional) for storage devices. Featuring the integrated Intel® 2.5 Gigabit Ethernet controller, the MF31 Series offers two 10/100/1000/2500 Base-TX Ethernet device for network transmission. Two USB3.2 Gen.2 ports, eight USB2.0 ports and six COM ports provide versatile expansion. The board also support one M.2 E-key (2230) slot and one M.2 B-key (3042/3052) slot. The MF31 Series offers two HDMI2.0b ports and one LVDS (co-layout eDP) with triple independent displays. Because of the above features, MF31 Series is suitable for Panel PC, IOT Solution, Edge computing and Industrial PCs applications.

I/O Diagram



Specifications

Model	<ul style="list-style-type: none"> • MF31-N9700 (CPU: N97, Default) • MF31-N9702 (CPU: N97, W/TPM2.0) • MF31-N9704 (CPU: N97, W/onboard 64GB eMMC) • MF31-N9708 (CPU: N97, W/TPM2.0, onboard 64GB eMMC) • MF31-N2000 (CPU: N200, Default) • MF31-N2002 (CPU: N200, W/TPM2.0) • MF31-N2004 (CPU: N200, W/onboard 64GB eMMC) • MF31-N2008 (CPU: N200, W/TPM2.0, onboard 64GB eMMC)
Form Factor	<ul style="list-style-type: none"> • 3.5" (5.8-in * 4.0-in, 148 * 102mm)
Processor System	<ul style="list-style-type: none"> • Intel® Alder Lake-N N97 SoC Processor (TDP 12W) • Intel® Alder Lake-N N200 SoC Processor (TDP 6W) • AMI 256Mb Flash ROM BIOS <p><i>*Support recover crashed BIOS data tool by a USB flash pen driver:</i></p> <ol style="list-style-type: none"> 1. Using JetBIOS SW back up tool with any external USB ports
Memory	<ul style="list-style-type: none"> • 1* DDR5 4800MHz SO-DIMM up to 16GB
Storage	<ul style="list-style-type: none"> • 1* SATAIII (6 Gb/s) (W/SATA PWR) • 1* M.2 M-key (2280, PCIe Gen.3 x2 interface) support NVMe • 64GB eMMC onboard (MF31-N9704/ MF31-N9708/ MF31-N2004/ MF31-N2008 only)
Expansion	<ul style="list-style-type: none"> • 1* M.2 E-key (2230, USB2.0/PCIe Gen.3 x1 interface) support CNVi • 1*M.2 B-key (3042/3052, USB3.1/USB2.0 interface) support 4G/5G Module
Ethernet	<ul style="list-style-type: none"> • 2* Intel® i225-V 2.5GbE
Graphics	<ul style="list-style-type: none"> • Intel® UHD Graphics, shared memory • 2* HDMI 2.0b (Max Resolution: 4096x2160@60Hz) • 1* LVDS/eDP (Max Resolution: 1920x1200@60Hz) • 1* DP 1.4a (Max Resolution: 4096x2304@60Hz) from external USB Type-C • Support Triple Displays
Audio	<ul style="list-style-type: none"> • HD audio: Realtek ALC897
Watchdog Timer	<ul style="list-style-type: none"> • From Super I/O to drag RESETCON# • 256 segments (10sec ~ 255min)
Internal I/O	<ul style="list-style-type: none"> • 4* USB2.0 • 1* LVDS/eDP • 1* SATAIII • 5* RS232 • 1* RS232/422/485 (COM1) • 1* M.2 M-Key (2280, PCIe Gen.3 x2 interface) support NVMe • 1* M.2 E-Key (2230, USB2.0/PCIe Gen.3 x1 interface) support CNVi • 1* M.2 B-key (3042/3052, USB3.1/USB2.0 interface) support 4G/5G Module • 1* Nano SIM slot (along with M.2 B-key) • 1* GPIO (8 bit) • 1* Chassis intrusion • 1* Audio Header • 1* SMBUS • 1* AT mode • Support onboard TPM2.0 (MF31-N9702/ MF31-N9708/ MF31-N2002/ MF31-N2008 only)
External I/O	<ul style="list-style-type: none"> • 2* HDMI • 1* USB3.2 (Gen.2) Type-C support DP1.4a display output • 1* USB3.2 (Gen.2) Type-A • 4* USB2.0 • 2* RJ45 2.5 GbE Ethernet • Audio (Line-out/MIC combo) • DC-in (12-28V)
Power	<p>12~28V DC-in PRW</p> <ul style="list-style-type: none"> - AT: Directly PWR on as Power input ready - ATX: Press Button to PWR on after Power input ready
Compliance	CE, FCC, LVD, RoHS, REACH
Temperature	<ul style="list-style-type: none"> • Operating Temperature: 0 ~ 60° C • Storage Temperature: -20 ~ 85° C • Humidity: 10% ~ 90% RH @40°C (non-condensing)
OS Support	<ul style="list-style-type: none"> • Windows 10, Windows 11 • Linux
Warranty	<ul style="list-style-type: none"> • 2 Years limited warranty

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

Standard Accessories

Part Number	Description
-----	MF31 Series M/B
1* HCS3XXMHT03S-5F 1* HCS376MHT01S-F	Flat type Heatsink
G01-SATA3-BL-1F	1* SATA cable
G01-PW4PS2S-322-1F	1* SATA Power Y cable
G01-COM-H2M22-1F	1* COM cable

Mechanical Drawings (Unit=mm)

Coming Soon

