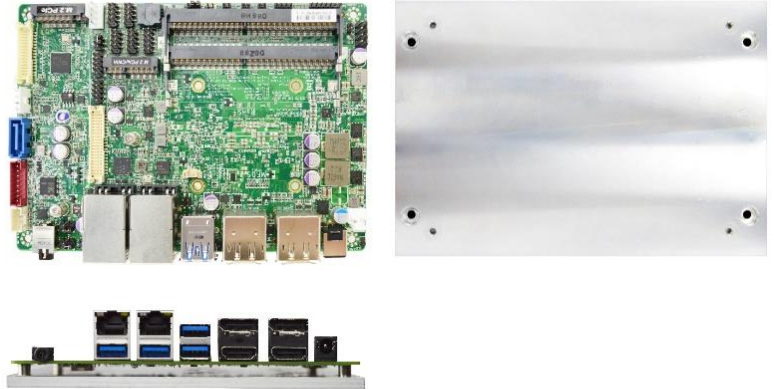


MF05V Series

11th Gen. Intel® Tiger Lake-UP3 SoC Processors, support up to 4* independent 4K HDR Displays or 1* 8K SDR Displays, M.2 PCIe 4.0 x4 supports NVME, 4* COM, 4* USB3.2 (Gen2), 1* 2.5GbE, 1* GbE

Features

1. Intel® Tiger Lake-UP3 SoC Processor (TDP 12~28W)
2. 2* DDR4-3200MHz SO-DIMM up to 64GB
3. 1* Intel i219-LM 1.0GbE, 1* Intel i225-V 2.5GbE
4. 2* HDMI, 2* DisplayPort, 1* eDP, 1* 24-bits LVDS
5. 4* COM (COM1/COM2 support RS232/422/485), 4* USB3.2 (Gen.2), 4* USB2.0
6. 1* M.2 M-key 2242/2280, PCIe 4.0 x4 interface support NVME
7. 1* M.2 E-key 2230, USB2.0/PCIe x1 interface support CNVi
8. 1* SATAIII (6Gb/s)
9. MF05V-22: Onboard TPM 2.0 (option)



intel. FC CE RoHS COMPLIANT

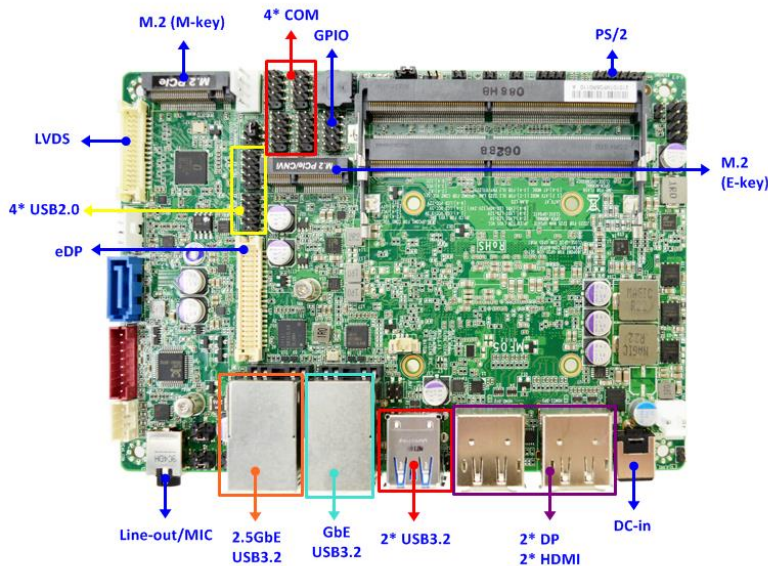
Overview

The JETWAY MF05V Series is a 3.5" form factor motherboard based on the Intel® 11th Gen. Intel Tiger Lake-UP3 SoC Processors. The board supports two SO-DIMM DDR4 memory up to 64GB. Having dual integrated Intel® i219-LM GbE & i225-V 2.5GbE controllers, the MF05V Series offers one gigabit and one 2.5 gigabit ethernet. The MF05V is Jetway's first Intel board to support the latest PCI Express 4.0 interface on the M.2 PCIe 4.0 x4 slot for NVME solid state drive. The MF05V is also Jetway's first Intel board to support up to four independent 4K HDR displays or one 8K SDR displays. In addition, the MF05V has internal LVDS or eDP ports for customers integrating LCD panels. The JETWAY MF05V Series is suitable for Digital Signage, Industrial PCs, Edge Computing, Factory Automation, AI and IOT Solution applications. The MF05V includes a flat aluminum heatsink for thermal dissipation allowing for easy integration into fanless systems.

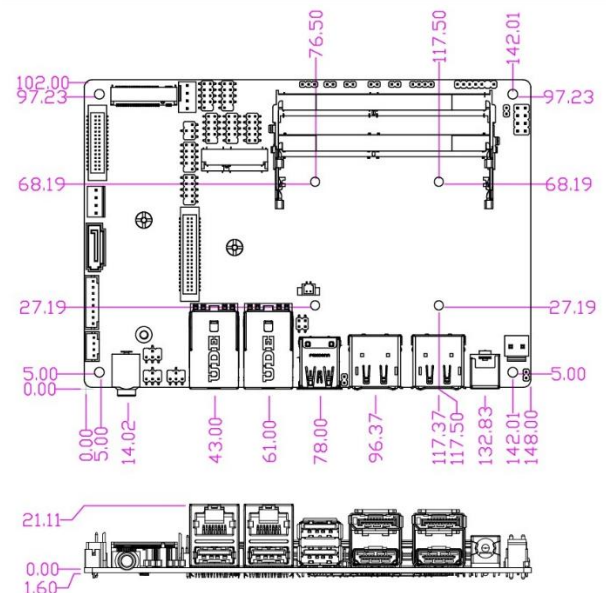
Application

Digital Signage / Industrial PCs / Edge Computing / Factory Automation / AI Inference / Retail Solution

I/O Diagram



Mechanical Drawings (Unit=mm)



Specifications

Model

- MF05V20 (i5-1145G7E Default)
- MF05V22 (i5-1145G7E, TPM2.0)
- MF05V90 (i5-1135G7)
- MF05V92 (i5-1135G7, TPM2.0)

Processor System

- Intel® Tiger Lake i5-1145G7E SoC Processor (TDP 12~28W) (Default)
- Intel® Tiger Lake i5-1135G7 SoC Processor (TDP 12~28W)
- AMI Flash ROM BIOS

Storage

- 1* SATAIII
- 1* M.2 M-key 2242/2280, PCIe 4.0 x4 interface, support NVME

Ethernet

- 1* Intel i219-LM 1.0GbE
- 1* Intel i225-V 2.5GbE

Audio

- HD audio: Realtek ALC888S-VD2
- 3W AMP speaker

Internal I/O

- 4* USB 2.0
- 1* PS/2
- 1* LVDS / Inverter
- 1* eDP
- 4* COM (2* RS232/422/485, 2* RS232)
- 1* SATAIII
- 1* GPIO (8 bit)
- 1* Chassis intrusion
- 1* Speaker header (4pin)
- 1* SMBUS
- 1* AT/ATX mode jumper
- Optional onboard TPM2.0 (MF05V-22)

Power

DC-in 12-24V

- AT: Directly PWR on as Power input ready
- ATX: Press Button to PWR on after Power input ready
- 90W adaptor is Recommended

Temperature

- Operating: 0°C ~ 60°C
- Storage: -20°C ~ 85°C
- Humidity: 10% ~ 90% RH @40°C (non-condensing)

Warranty

2 Years limited warranty

Form Factor

3.5" (5.8-in * 4.0-in, 148 * 102mm)

Memory

2* DDR4-3200 Dual Channel SO-DIMM up to 64GB total

Expansion

1* M.2 E-key (2230) USB2.0/PCIex1 interface support CNVi

Graphics

Intel® HD Graphics, shared memory

- 1* eDP (Max Resolution: 4096x2304@60Hz)
- 1* LVDS (Max Resolution: 1920x1200@60Hz)
- 2* HDMI 2.0b (Max Resolution: 4096x2160@60Hz)
- 2* DP1.4 (Max Resolution: 4096x2304@60Hz)
- Support Four independent 4K HDR Displays or one 8K SDR Displays (DP)

Watchdog Timer

- From Super I/O to drag RESETCON#
- 256 segments (10sec ~ 255min)

External I/O

- 4* USB3.2 (Gen. 2)
- 2* DP
- 2* HDMI
- 2* RJ45
- Line-out/MIC Combo
- DC-in (12-24V)

Compliance

CE, FCC, LVD, RoHS, REACH

OS Support

UEFI Win10 64-bit (Version: Build 10.0.19042.631), Win 10 IoT Enterprise 64-bit LTSC 2019 (Version: Build 17763.107), UEFI Win 11 64-bit (Version: Build 22000.65), UEFI Win 11 IoT Enterprise (Version: Build 22000.65), CentOS (Version: 8.2.2004), Fedora-LXDE (Version: 33.1.2), Fedora Workstation (Version: 33.1.2), Fedora Server (Version: 33.1.2), OpenSUSE (Version: 15.2), Ubuntu Standard / LTS (Version: 20.04.1)

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

Ordering Info

Part Number	Description
	MF05V M/B
G01-COM-H2M22-1F	2* COM cable
G01-SATA3-BL-1F	1* SATA cable
G01-PW4PS2S-322-1F	1* SATA Power cable
HCS3XXMHT03S-1F	1* Flat type Heatsink

Tel: +886-2-89132711 E-mail: sales@jetway.com.tw Web: www.jetwayipc.com

Support: technic@jetway.com.tw or support_team@jetway.com.tw