LM-1000-CL

Low Magnetic Signature Fanless Industrial Computer With 8th/9th Gen Core i7 With Up To 8 Cores.

Features Include:

- 8th/9th Gen Core i3/i5/i7 CPU
- Up to 64GB RAM Supported
- Two PCI Express Expansion Slots
- 4 x Universal I/O Expansion Slots
- Wide Operating Temperature (**-40°C to 70°C**)
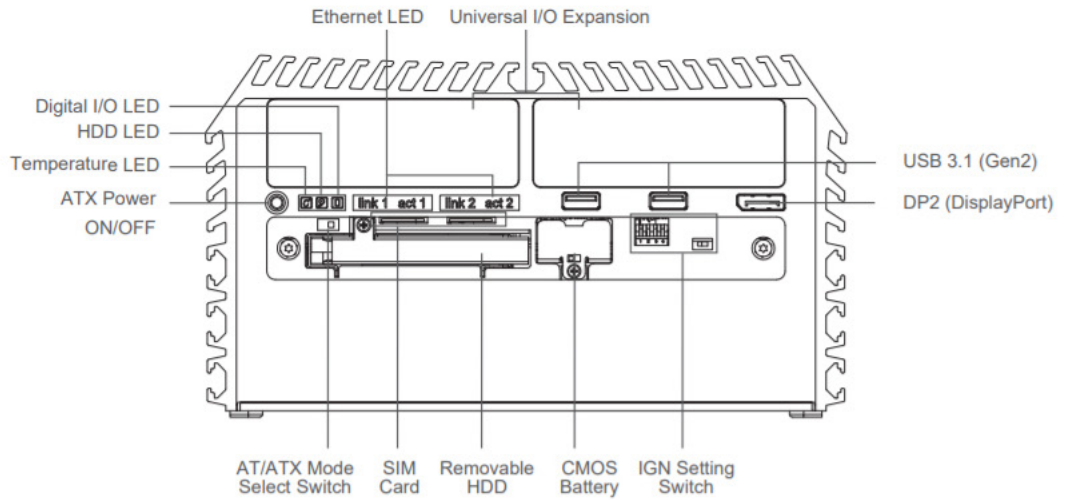
System Overview

The LM-1000-CL is a high performance fanless embedded computer, powered by an 8th/9th gen Core i3/i5/i7 CPU and up to 64GB DDR4 memory capacity for unprecedented performance to fulfil all kinds of high-end computing requirements.

The system also incorporates rich I/O, such as 2 x Intel® GbE ports, 2 x USB 3.1 (**Gen2**), 4 x USB 3.0, 1 x DVI-I, 2 x DisplayPort, and 1 x M.2 Key M 2280 socket for ultra-fast data transfer speed.
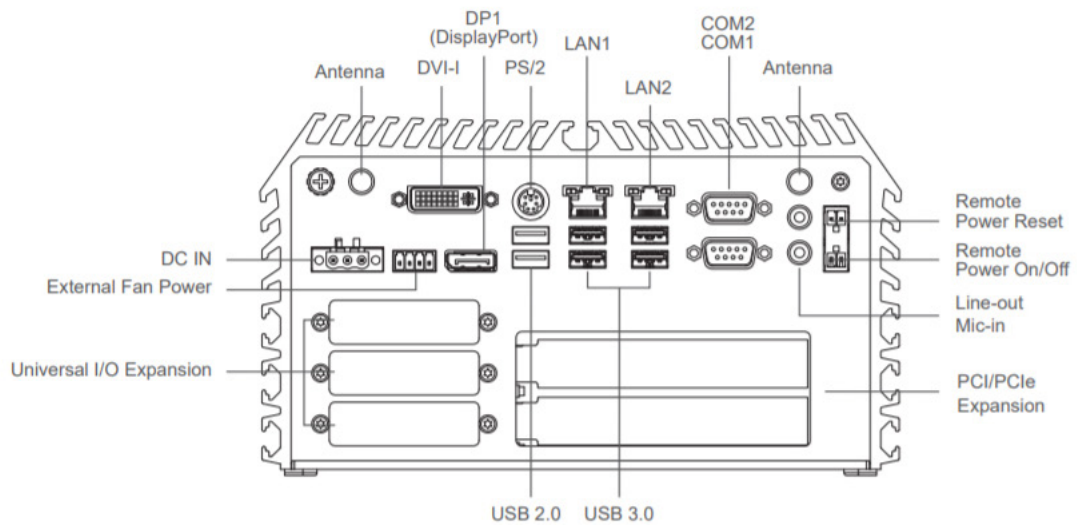
The LM-1000-CL allows users to expand I/O and functionality through ready-to-use modules, such as GbE/PoE ports, serial ports, optically isolated digital I/O and power ignition function.
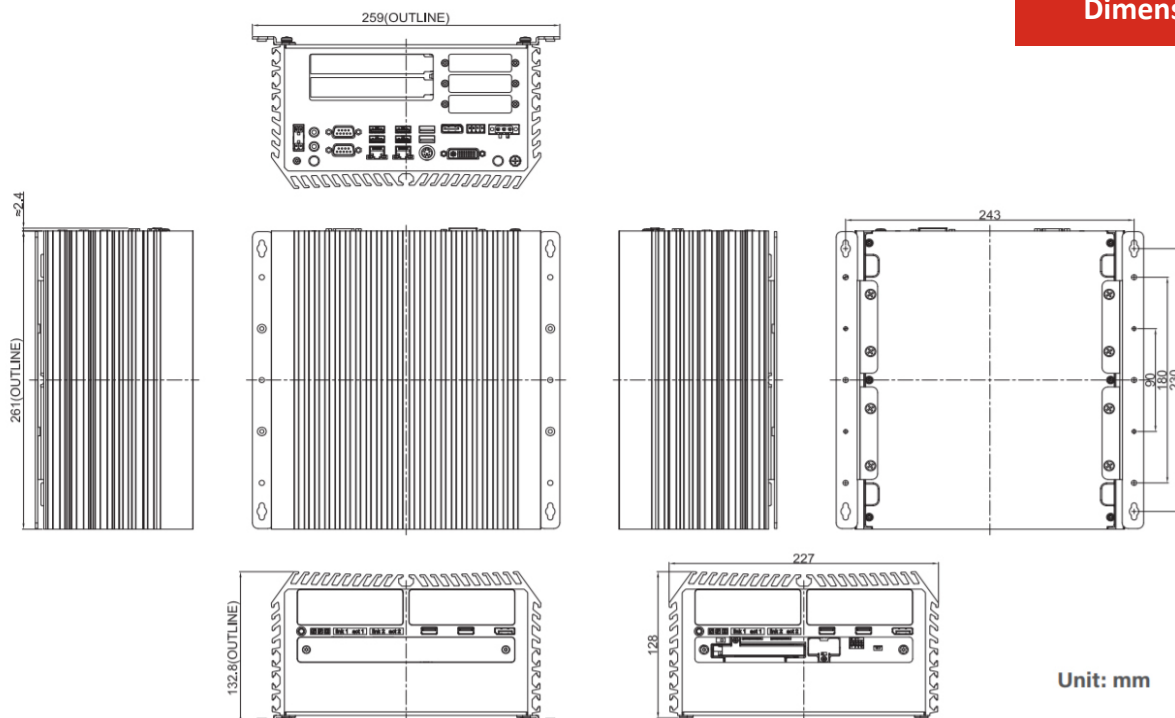
Front I/O

Ethernet LED
Universal I/O Expansion

Digital I/O LED
HDD LED
Temperature LED
ATX Power
ON/OFF

link 1   act 1   link 2   act 2

USB 3.1 (Gen2)
DP2 (DisplayPort)

AT/ATX Mode
Select Switch
SIM
Card
Removable
HDD
CMOS
Battery
IGN Setting
Switch

Rear I/O

DP1
(DisplayPort)
DVI-I
PS/2
LAN1
LAN2
COM2
COM1
Antenna
Antenna

DC IN
External Fan Power

Universal I/O Expansion

Remote
Power Reset
Remote
Power On/Off
Line-out
Mic-in
PCI/PCIe
Expansion

USB 2.0   USB 3.0

259(OUTLINE)

≈2.4

261(OUTLINE)

243

90
180
230

132.8(OUTLINE)

227

128

Unit: mm

CPU Option	Intel® 8th/9th Gen CPU Supported. Core i3 9100TE. Core i5 9500TE. Core i7 9700TE. Others by request.
BIOS	AMI 32MB SPI BIOS.
Chipset	Intel® **Q370.**
Mermory	Up to 64GB DDR4 2666MHz RAM installed.
Graphics	Integrated Intel® UHD Graphics 630: **Core™ i7/i5/i3.** Integrated Intel® UHD Graphics 610: **Pentium® /Celeron®.** Supports Triple Independent Display (**1 x DVI-I, 2 x DisplayPort**).
Audio	Realtek® ALC888. High Definition Audio.
I/O Ports	1 x DVI-I. 2 x DisplayPort. 2 x Gigabit LAN. 2 x USB 3.1 (**Type A**). 4 x USB 3.0 (**Type A**). 2 x USB 2.0 (**Type A**). 2 x Serial RS-232/422/485 With Auto Flow Control (**Supports 5V/12V**). 1 x PS/2. 1 x Audio (**Line-Out & Mic-In**). 1 x ATX Power On/Off Button. 1 x AT/ATX Mode Switch. 1 x Clear CMOS Switch. 1 x Remote Reset Connector. 1 x Remote Power On/Off Connector. 1 x External Fan Connector (**Supports smart fan function**).
Storage	2x 2.5" HDD/SSD Bays (**One removable**). 3 x mSATA (**Shared by Mini-PCIe Socket**). 1 x M.2 Key M 2280 Socket (**Supports PCIe x4 NVMe SSD or SATA SSD**).
Expansion	2 x PCI Express Expansion Slots. 3 x Full-size Mini-PCIe Socket. 2 x SIM Socket. 1 x CFM (**Control Function Module**) Interface. 2 x CMI (**Combined Multiple I/O**) High Speed Interface. 2 x CMI (**Combined Multiple I/O**) Low Speed Interface. 2 x Antenna Hole.
Other Functions	Supports Instant Reboot Technology (**0.2 sec**). SuperCap Integrated for CMOS Battery Maintenance-free Operation.

Watchdog Timer	Software Programmable Supports 1~255 sec. System Reset.
Power	Supports AT/ATX Power Type. Power Input Voltage 9~48VDC. 1 x 3-Pin Terminal Block. Power Adapter AC/DC 24V/5A 120W or 24V/9.2A 220W (**Optional**).
Physical	Extruded Aluminium With Heavy Duty Metal Construction. Unibody Chassis. Fanless Design. Jumper-less Design.
Protection	Reverse Power Input Protection. 58V Over Voltage Protection. 15A Over Current Protection. +/-15kV (**air**), +/-8kV (**contact**) ESD Protection. 3.84 kV Surge Protection (**impedance 12 ohm 1.2/50us waveform**).
Environmental	**Shock:** Operating, 50 Grms, Half-sine 11 ms Duration * w/ SSD, according to IEC60068-2-27. **Vibration:** Operating, 5 Grms, 5-500 Hz, 3 Axes * w/ SSD, according to IEC60068-2-64. (Testing performed without PCI Express expansion cards fitted.).
O/S Support	Windows® 10. Linux.
Mounting	Wall Mount.
Dimensions (W x D x H)	227mm x 261mm x 128mm.
Weight	~6 kg.
Certification	EMC: **CE, FCC Class A.** Safety: **LVD, EN60950-1.** (**Testing performed without PCI Express expansion cards fitted**).

Ordering Information

LM-1000-CL	Low Magnetic Signature Fanless Industrial Computer With 8th/9th Gen Core i7 With Up To 8 Cores, 64GB RAM, 2 x PCI Express Expansion Slots, No O/S.

LM-1000-CL_Datasheet_10_2019.pdf
Technical specifications are subject to change without notice.
E & OE Issue A.