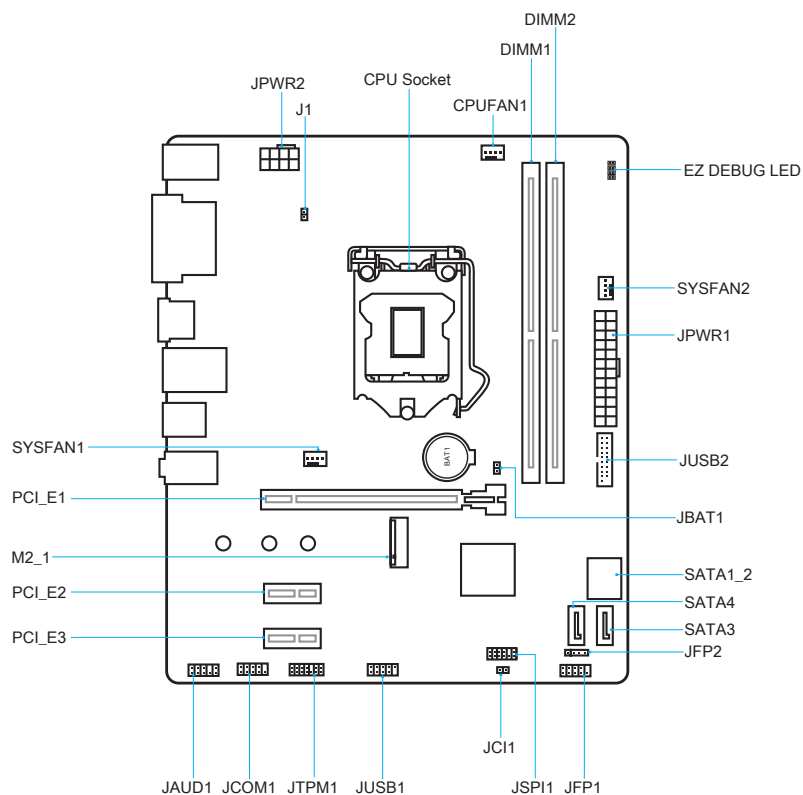


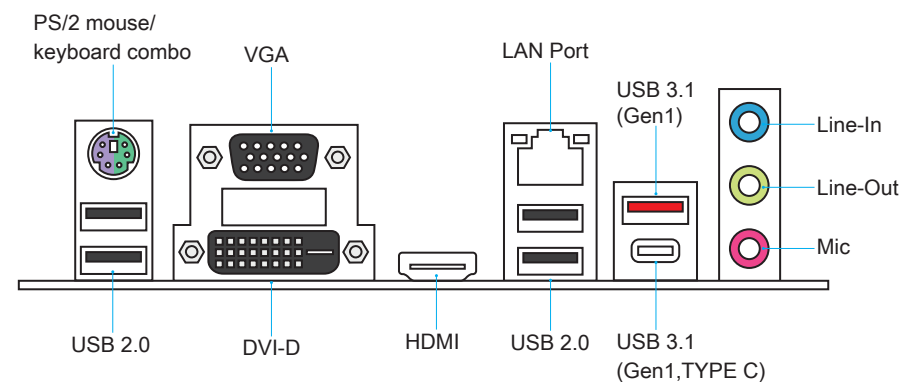
B150M GRENADE

(MS-7A82v1.0)
mATX Motherboard

Motherboard Components Overview



Rear I/O Panel



Motherboard Specification

CPU Support

- Supports 6th Gen Intel® Core™ i3/i5/i7 processors, and Intel® Pentium® and Celeron® processors for Socket LGA1151

Chipset

- Intel® B150 Express Chipset

Memory Support

- 2x DDR4 memory slots support up to 32GB
- Supports DDR4 2133 MHz
- Dual channel memory architecture
- Supports non-ECC, un-buffered memory
- Supports Intel® Extreme Memory Profile (XMP)

Expansion Slots

- 1x PCIe 3.0 x16 slot (support x16 mode)
- 2x PCIe 3.0 x1 slots

Onboard Graphics

- 1x HDMI port, supporting a maximum

resolution of 4096x2160@24Hz, 2560x1600@60Hz

- 1x DVI-D port, supporting a maximum resolution of 1920x1200@60Hz
- 1x VGA port, supporting a maximum resolution of 2048x1536@50Hz, 2048x1280@60Hz, 1920x1200@60Hz

Storage

- Intel® B150 Express Chipset
- 4x SATA 6Gb/s ports
- 1x M.2 port supports PCIe 3.0 x4 and SATA 6Gb/s standards
- M.2 port supports 4.2cm/ 6cm/ 8cm length module
- SATA4 port will be unavailable when installing the M.2 module in M.2 slot.

USB

- Intel® B150 Express Chipset
- 4x USB 3.1 Gen1 ports (2 ports on the back panel, 2 ports available through the internal USB connector)

Motherboard Specification

- 6x USB 2.0 ports (4 ports on the back panel, 2 ports available through the internal USB connector)

Audio

- Realtek® ALC887 Codec
- 7.1-Channel High Definition Audio

LAN

- 1x Intel® I219-V Gigabit LAN controller

Back Panel Connectors

- 1x PS/2 mouse/ keyboard combo port
- 4x USB 2.0 ports
- 2x USB 3.1 Gen1 (5GT/s, TYPE A+TYPE C) ports
- 1x HDMI port
- 1x DVI-D port
- 1x VGA port
- 1x LAN (RJ45) port
- 3x audio jacks

Internal Connectors

- 1x 24-pin ATX main power connector
- 1x 8-pin ATX 12V power connector
- 4x SATA 6Gb/s connectors
- 1x USB 2.0 connector (supports additional 2 USB 2.0 ports)
- 1x USB 3.1 Gen1 connector (supports additional 2 USB 3.1 Gen1 (5GT/s) Ports)
- 1x 4-pin CPU fan connector
- 2x 4-pin system fan connectors
- 1x Clear CMOS jumper
- 1x Front panel audio connector
- 2x System panel connectors
- 1x TPM module connector
- 1x Chassis Intrusion connector
- 1x Serial port connector

I/O Controller

- NUVOTON NCT6793D Controller Chip

Hardware Monitor

- CPU/System temperature detection
- CPU/System fan speed detection
- CPU/System fan speed control

BIOS Features

- 1x 128 Mb flash
- UEFI AMI BIOS
- ACPI 5.0, PnP 1.0a, SM BIOS 2.8
- Multi-language

Special Features

- DDR4 Boost Support
- M.2 Ready
- Debug LED(for CPU,DRAM,VGA,BOOT)
- Smart Fan Control

MSI Exclusive features

- COMMAND CENTER
- LIVE UPDATE 6
- FAST BOOT
- SUPER CHARGER
- GAMING APP
- M-CLOUD
- RAMDISK
- Intel® Small Business Advantage
- GAMING LAN MANAGER
- SteelSeriesEngine 3
- Open Broadcaster Software
- Intel® Extreme Tuning Utility
- Norton™ Security
- Google Chrome™,Google Toolbar, Google Drive
- CPU-Z MSI GAMING
- Dragon eye
- WTFast

Form Factor

- mATX Form Factor
- 24.38 cm x 20.5 cm