B250M PRO-VDH

(MS-7A70v2.0)
m-ATX Motherboard

Motherboard Components Overview

J1   CPU_PWR1   CPU Socket   CPU_FAN1

SYS_FAN2

ATX_PWR1

SYS_FAN1

JUSB1

PCI_E1

JBAT1

M2_1

SATA1_2

PCI_E2

SATA4

JLED1

SATA3

PCI_E3

JSPI1

JFP1

JCI1

JCOM1   JTPM1   JUSB2   SATA6   JFP2

JAUD1   JLPT1   JUSB3   JTBT1   SATA5

Rear I/O Panel

Mouse Port   VGA Port   LAN Port   USB 3.1 Gen1 Port

USB 3.1 Gen1 Port

RS-Out

CS-Out

SS-Out

Keyboard Port   DVI-D Port   USB 2.0 Port   HDMI port   USB 3.1 Gen1 Type C
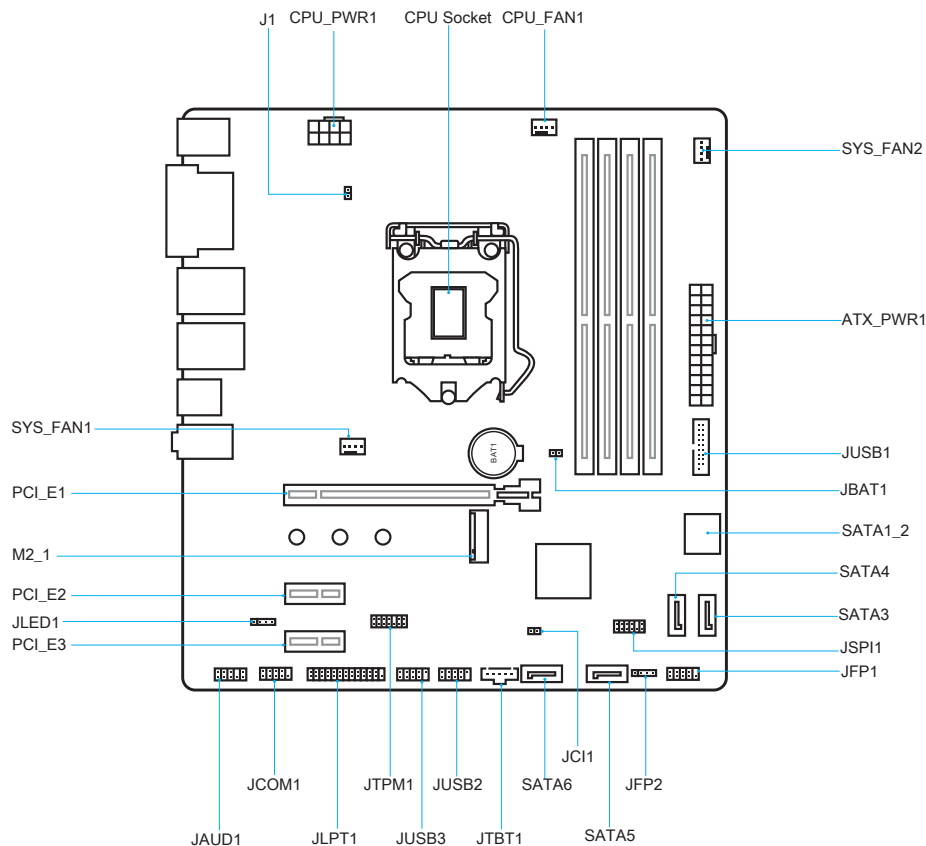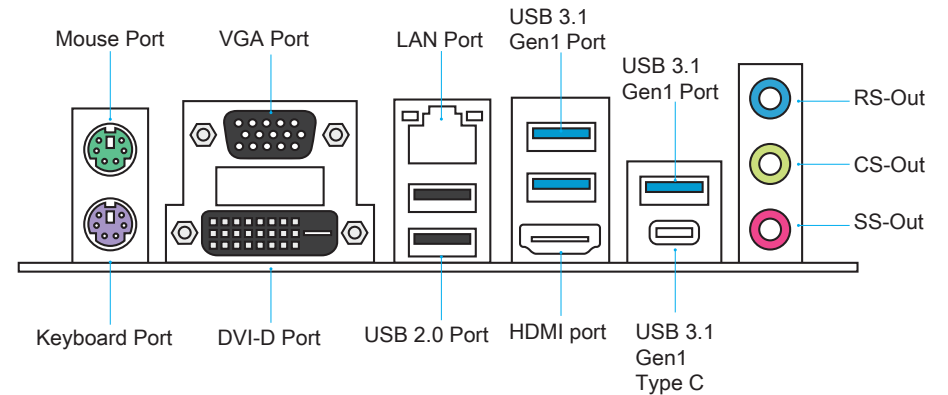
Motherboard Specification

CPU Support
- Supports 6th Generation Intel® Core™ Processors, and Intel® Pentium® and Celeron® Processors for Socket LGA1151

Chipset
- Intel® B250 Express Chipset

Memory Support
- 64GB
  ▸ Supports DDR4 2133 MHz
- Dual channel memory architecture
- Supports un-buffered memory
- Supports Intel® Extreme Memory Profile (XMP)

Expansion Slots
- 1x PCIe 3.0 x16 slot (support x16 modes)
- 2X PCIe 3.0X1 slots

Onboard Graphics
- 1XHDMI port, support a maximum resolution of 4096X2160@24Hz, 2560X1600@60Hz
- 1XVGA port, support maximum resolution of 2048x1536@50Hz
- 1XDVI-D port, support a maximum resolution of 1920X1200@60Hz

Storage
- Intel® B250 Express Chipset
- 6x SATA 6Gb/s ports
- 1XM.2 slot, Supports PCIe3.0X4 and SATA 6Gb/s standards 4.2cm/6cm/8cm length M.2 SSD cards.
- Supports Intel Smart Response Technology, Intel® Rapid Start Technology and Intel Smart Connect Technology5

USB
- Intel® B250 Express Chipset
- 6x USB 3.1 Gen1 ports (4 ports on the back panel (3A+C), 2 ports available through the internal)
- 6x USB 2.0 ports (2 ports on the back panel, 4 ports available through the internal)

Motherboard Specification

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

LAN
- 1x Realtek® 8111H Gigabit LAN controller

Back Panel Connectors
- 1x Mouse port
- 1x Keyboard port
- 1X HDMI port
- 1X VGA port
- 1X DVI-D port
- 2x USB 2.0 ports
- 3x USB 3.1 Gen1 ports
- 1x USB3.1 Gen1 Type-C port
- 1x LAN (RJ45) port
- 3x Audio jacks

Internal Connectors
- 1x 24-pin ATX main power connector
- 1x 8-pin ATX 12V power connector
- 6x SATA 6Gb/s connectors
- 2x USB 2.0 connectors (supports additional 4USB 2.0 ports)
- 1x USB 3.1 Gen1 connector (supports additional2 USB 3.1 Gen1 ports)
- 1x 4-pin CPU fan connectors
- 2x 4-pin system fan connectors
- 1x Clear CMOS jumper
- 1x Front panel audio connector
- 2x System panel connectors
- 1x Chassis Intrusion connector
- 1x TPM module connector
- 1xSerial port connector
- 1x parallel port connector
- 1x TBT connector

I/O Controller
- NUVOTON 6795 Controller Chip

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

BIOS Features
- 1x 64 Mb flash
- ACPI 5.0, PnP 1.0a, SM BIOS 2.8
- Multi-language

Special Features
- Audio Boost
- Military Class 5
- PCI Express 3.0 support
- DDR4 Boost support
- Click BIOS 5
- Smart Fan Control

Software
- Command Center
- RAMDisk
- Live Update 6
- M-CLOUD
- 7-Zip
- Intel Extreme Tuning Utility
- Norton Internet Security Solution

Form Factor
- m-ATX Form Factor
- 24.38 cm x 22.8 cm