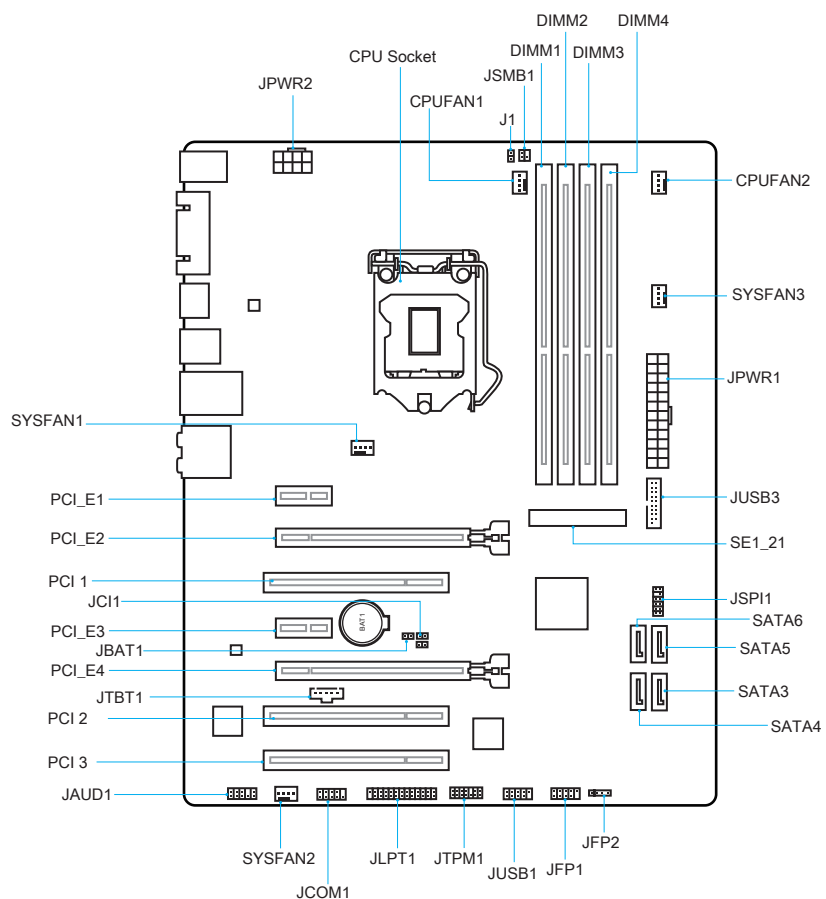


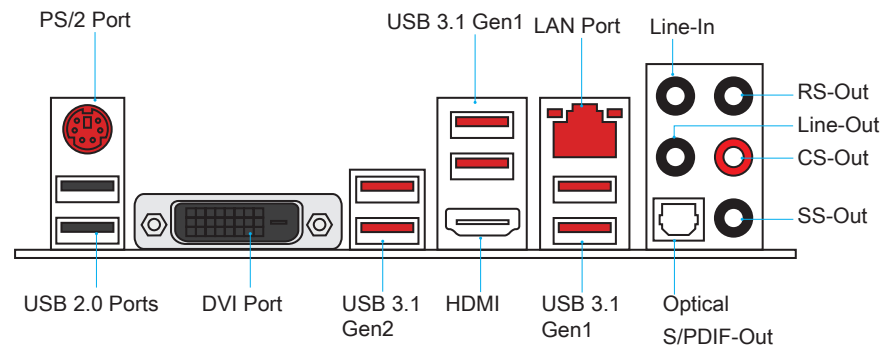
# H170A GAMING PRO

(MS-7978v1.1)  
ATX 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® H170 Express Chipset

### Memory Support

- 4x DDR3 memory slots supporting up to 64GB
- ▶ Supports DDR4 2133 MHz
- Dual channel memory architecture
- Supports ECC memory, un-buffered memory
- Supports Intel® Extreme Memory Profile (XMP)

### Expansion Slots

- 2x PCIe 3.0 x16 slots (support x16, x4/x4 modes)
- 2x PCIe 3.0 x1 slots
- 3 PCI Slot

### Onboard Graphics

- 1x HDMI port, supporting a maximum resolution of 4096x2160@24Hz, 2560x1600@60Hz
- 1xDVI 1920x1200@60Hz

### Multi-GPU Support

- Supports 2-Way AMD® CrossFire™ Technology<sup>1</sup>

### Storage

- Intel H170 Express Chipset
- 6x SATA 6Gb/s ports ( 2ports reserve for SATA Express )
- 1x SATA Express port (PCIe 3.0 x2)<sup>2</sup>
- Supports RAID 0, RAID1, RAID 5 and RAID 10
- Supports Intel Smart Response Technology, Intel® Rapid Start Technology and Intel Smart Connect Technology<sup>3</sup>

<sup>1</sup> Supports Windows 7 and Windows 8/ 8.1  
<sup>2</sup> SATA Express port is backward compatible with SATA.  
<sup>3</sup> Supports Intel Core processors on Windows 7 and Windows 8/ 8.1.

# Motherboard Specification

## USB

- Intel H170 Express Chipset
- 6x USB 3.1 Gen1 (5GT/s) ports available through the internal USB connectors (4 ports on the back panel, 2 ports available through the internal USB connectors)
- 4x USB 2.0 ports (2 ports on the back panel, 2 ports available through the internal USB connectors)
- ASMedia ASM1142AE Chipset
- 2x USB 3.1 Gen 2 (10GT/s) ports

## Audio

- Realtek® ALC1150 Codec
- 7.1-Channel High Definition Audio
- Supports S/PDIF output

## LAN

- 1x Intel I219-V Gigabit LAN controller

## Back Panel Connectors

- 1x PS/2 keyboard/ mouse port
- 2x USB 2.0 ports
- 4x USB 3.1 Gen1 (5GT/s) ports
- 2x USB 3.1 Gen 2 (10GT/s) ports
- 1x Optical S/PDIF OUT connector+5 OFC audio jack
- 1x HDMI port
- 1x DVI Port
- 1x LAN (RJ45) port

## Internal Connectors

- 1x 24-pin ATX main power connector
- 1x 8-pin ATX 12V power connector
- 6x SATA 6Gb/s connectors
- 1x USB 2.0 connector (supports additional 2 USB 2.0 ports)
- 2 USB 3.1 Gen1 (5GT/s) ports
- 2x 4-pin CPU fan connectors
- 3x 4-pin system fan connectors
- 1x Clear CMOS jumper
- 1x Front panel audio connector

- 1x System panel connectors
- 1x TPM module connector
- 1x Chassis Intrusion connector
- 1x Thould bolt connector

## I/O Controller

- NUVOTON NCT6793 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 2.7, DMI 2.0
- Multi-language

## Special Features

- DDR4 Boost Support
- PCI Express 3.0 Support
- USB 3.1 Gen2 (10 Gb/s) Ready
- SATA Express Support
- NVMe / AHCI Driver Support
- Debug LED
- RGB LED
- Smart Fan Control
- SBA
- OBS

## Enthusiast GAMING features

- Audio Boost 3
- GAMING APP
- Optimized Thermal Design
- Gaming LAN Manager (Powered By cFosSpeed)

## MSI Exclusive features

- Click BIOS 5
- Military Class 5

- Command Center
- RAM Disk
- Live Update 6
- M-Cloud
- ECO Center
- USB Audio Power
- Super Charger
- Fast Boot

## Form Factor

- ATX Form Factor
- 30.4 cm x 24.4 cm