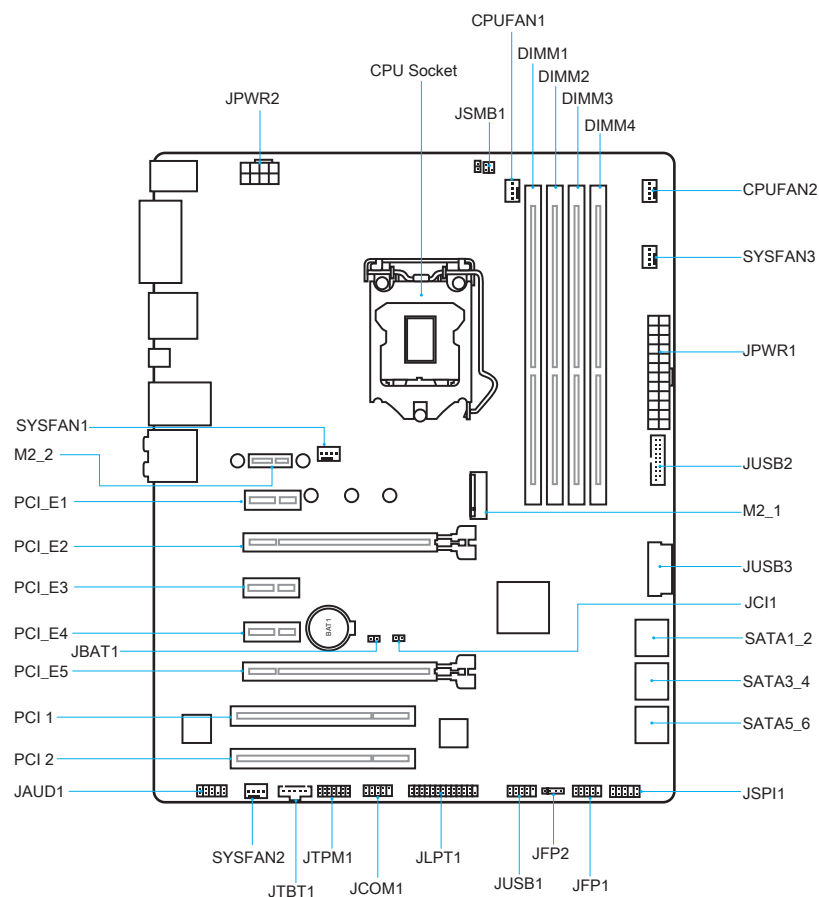


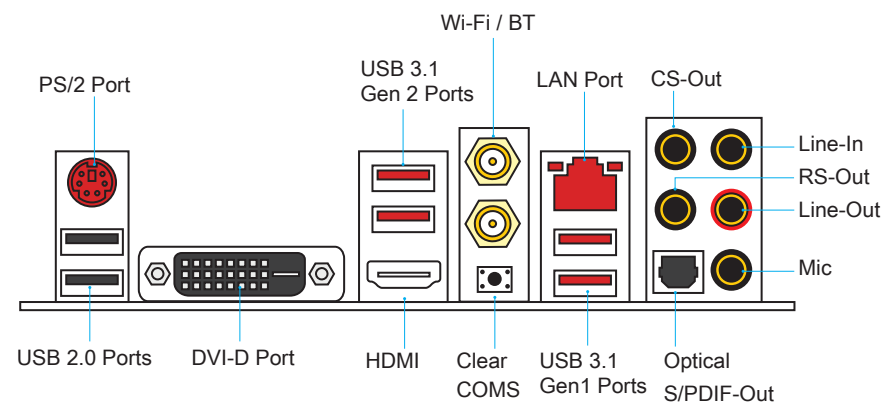
Z170A TOMAHAWK AC

(MS-7970v1.1
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® Z170 Express Chipset

Memory Support

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

Expansion Slots

- 2x PCIe 3.0 x 16 slots (Support x16/x4, x4/x4 modes)
- 3x PCIe x 1 slots
- 2x PCI 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.

Multi-GPU Support

- Supports 2-Way AMD® CrossFire™ Technology

Storage

- Intel Z170 Express Chipset
- 6x SATA 6Gb/s ports
- Supports RAID 0, RAID1, RAID 5 and RAID 10
- Supports Intel Smart Response Technology, Intel® Rapid Start Technology and Intel Smart Connect Technology
- 1x M.2 port, M.2 supports PCIe 3.0 x4 and SATA 6Gb/s standards, 4.2cm/ 6cm/ 8cm length SSD cards*

Motherboard Specification

M.2, SATA ports maximum 1x M.2_PCLE + 4x SATA or 1x M.2_SATA + 4x SATA. Please refer to M.2 slots with examples of various combination possibilities

*** Supports Intel® Core processors on Windows® 7 and Windows® 8/ 8.1 and Windows® 10

USB

- Intel Z170 Express Chipset
- 6x USB 3.1 Gen1 (5GT/s) ports available through the internal USB connectors (2 ports on the back panel, 4 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® ALC892 Codec
- 7.1-Channel High Definition Audio
- Supports S/PDIF output

LAN

- 1x REALTEK RTL8111H Gigabit LAN controller

Wireless LAN / Bluetooth

- Wi-Fi/Bluetooth M.2 expansion slot with Intel Dual Band Wireless-AC 8260 module.

Back Panel Connectors

- 1x PS/2 keyboard/ mouse port
- 2x USB 2.0 ports
- 2x USB 3.1 Gen1 ports
- 2x USB 3.1 Gen 2 (10GT/s) ports
- 1x HDMI™ port
- 1x Clear CMOS button
- 1x Wi-Fi / Bluetooth
- 1x LAN (RJ45) port
- 1x DVI-D port

- 1x Optical S/PDIF OUT connector
- 5x OFC audio jacks

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)
- 2x USB 3.1 Gen1 connector (supports additional 4 USB 3.1 Gen1 ports)
- 2x 4-pin CPU fan connectors
- 3x 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 System panel connector
- 1x TPM module connector
- 1x Chassis Intrusion connector
- 1x thunderbolt (x4) 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

- EZ Debug LED
- 12 Red LEDs indicator
- Smart Fan Control
- OBS
- Game Boost
- SteelSeriesEngine 3

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 4
- Command Center
- Live Update 6
- Fast Boot
- M-Cloud

Form Factor

- ATX Form Factor
- 30.4 cm x 24.4 cm