

Note: The specifications are subject to change without notice.
CPU
Chipset
Memory
Expansion Slots
Storage
Ethernet
USB
Audio

Back Panel I/O Ports

Internal I/O Connecto

Special Features

Software Features

BIOS

Manageability

Accessories

Operating System

Form Factor

Product (mm)_ L*W*H
Color Box (mm)_ L*W*H
Motherboard only
Full package

Pro WS W790-ACE

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Intel® Socket LGA4677 for Xeon® W-3400 and W-2400 Series Processors*

Supports Intel® Turbo Boost Max Technology 3.0

* Refer to www.asus.com for CPU support list.

Intel® W790 Chipset

8 x DIMM slots, Max. 204GB,

6800/OC/6600/OC/6400/OC/6200/OC/6000/OC/5800/OC/5600/OC/5400/OC/5200/OC/5000/OC/4800

Quad Channel Memory Architecture

Supports Intel® Extreme Memory Profile (XMP)

* Supported memory types, data rate (speed), and number of DRAM modules vary depending on the CPU and memory configuration, for more information please refer to CPU/Memory Support under the Support tab or

Intel® Xeon™ W-3400 and W-2400 Series Processors

5 x PCIe 5.0 x16 slot(s) (supports x16, x16, x16, x0/x8, x16/x8 modes)

* Please check the PCIe bifurcation table on the support site (<https://www.asus.com/support/FAQ/1037507/>).

- To ensure compatibility of the device installed, please refer to <https://www.asus.com/support/> for the list of supported peripherals.

Total supports 2 x M.2 slots, 4 x SATA 6Gb/s ports and 3 x SlimSAS ports*

Intel® W790 Chipset**

M.2_1 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 4.0 x4 mode)

M.2_2 slot (Key M), type 2280 (supports PCIe 4.0 x4 mode)

SlimSAS_1 slot supports PCIe 3.0 x4 mode NVMe device

SlimSAS_2 slot supports PCIe 4.0 x4 mode or up to 4 SATA devices via a transfer cable. The cable is purchased separately.

SlimSAS_3 slot supports PCIe 4.0 x4 mode NVMe device

4 x SATA 6Gb/s ports*

* Supports Intel® Virtual RAID on CPU (Intel® VROC) and Intel Volume Management Device (Intel® VMD)

** Intel® VROC Technology supports PCIe RAID 0/1/5/10, SATA RAID 0/1/5/10. VROC HW_Key is purchased separately.

1 x Marvell® AQtion 10Gb Ethernet

1 x Intel® 2.5Gb Ethernet

ASUS LANGuard

Rear USB (Total 13 ports)

1 x USB 3.2 Gen 2x2 port(s) (1 x USB Type-C®)

4 x USB 3.2 Gen 2 port(s) (4 x Type-A)

8 x USB 2.0 port(s) (8 x Type-A)

Front USB (Total 7 ports)

1 x USB 3.2 Gen 2x2 (supports USB Type-C®)

1 x USB 3.2 Gen 1 header(s) support(s) 2 additional USB 3.2 Gen 1 ports

2 x USB 2.0 header(s) support(s) 4 additional USB 2.0 ports

Realtek S1220A 7.1 Surround Sound High Definition Audio CODEC*

- Impedance sense for front and rear headphone outputs

- Internal audio Amplifier to enhance the highest quality sound for headphone and speakers

- Supports: Jack-detection, Multi-streaming, Front Panel Jack-retasking

- High quality 120 dB SNR stereo playback output and 113 dB SNR recording input (Line-in)

- Supports up to 32-Bit/192 kHz playback*

Audio Features

- Power pre-regulator reduces power input noise to ensure consistent performance

- Rear optical S/PDIF out port

- Premium audio capacitors

- Dedicated audio PCB layers

- Unique de-pop circuit

* Due to limitations in HDA bandwidth, 32-Bit/192 kHz is not supported for 7.1 Surround Sound audio.

1 x USB 3.2 Gen 2x2 port(s) (1 x USB Type-C®)

4 x USB 3.2 Gen 2 port(s) (4 x Type-A)
8 x USB 2.0 port(s) (8 x Type-A)
1 x Marvell® AQtion 10Gb Ethernet port
1 x Intel® 2.5Gb Ethernet port
5 x Audio jacks
1 x Optical S/PDIF out port
1 x BIOS FlashBack™ button
1 x Clear CMOS button

Fan and Cooling related

1 x 4-pin CPU Fan header(s)
1 x 4-pin CPU OPT Fan header(s)
5 x 4-pin Chassis Fan header(s)
1 x W_PUMP+ header(s)

Power related

2 x 24-pin Main Power connector
4 x 8-pin +12V Power connector
1 x 8-pin PCIe Power connector

Storage related

2 x M.2 slots (Key M)
3 x SlimSAS slots
4 x SATA 6Gb/s ports

USB

1 x USB 3.2 Gen 2x2 connector (support(s) USB Type-C®)
1 x USB 3.2 Gen 1 header(s) support(s) 2 additional USB 3.2 Gen 1 ports
2 x USB 2.0 header(s) support(s) 4 additional USB 2.0 ports

Miscellaneous

1 x BMC header
1 x COM Port header
1 x FlexKey button
1 x Front Panel Audio header (AAFP)
1 x LN2 Mode jumper
1 x ReTry button
1 x Start button
1 x SPI TPM header (14-1pin)
1 x 20-3 pin System Panel header with Chassis intrude function
1 x Thermal Sensor header
1 x VROC Key header

Extreme OC Kit

- FlexKey button
- ReTry button
- Start button

ASUS 5X PROTECTION III

- DIGI+ VRM (- Digital power design with DrMOS)
- ESD Guards
- LANGuard
- Overvoltage Protection
- Safeslot
- Stainless-Steel Back I/O

ASUS Q-Design

- M.2 Q-Latch
- Q-Code
- Q-Connector

- Q-DIMM
- Q-LED (CPU [red], DRAM [yellow], VGA [white], Boot Device [yellow green])
- Q-Slot

ASUS Thermal Solution

- M.2 heatsink backplate
- M.2 heatsink
- VRM heatsink design

ASUS EZ DIY

- BIOS FlashBack™ button
- BIOS FlashBack™ LED
- Clear CMOS button
- ProCool II
- Pre-mounted I/O shield
- SafeSlot
- SafeDIMM

Bespoke Motherboard Design & Business Focused Features

- 24/7 Reliability
- Overcurrent Protection

ASUS Exclusive Software

Armoury Crate

- FAN Xpert 4

AI Suite 3

- TPU
- DIGI+ VRM
- Turbo app
- PC Cleaner

ASUS CPU-Z

IT Management software supported

- ASUS Control Center Express(ACCE)
 Adobe Creative Cloud (Free Trial)
 Norton 360 Deluxe (60 Days Free Trial)
 WinRAR

UEFI BIOS

ASUS EZ DIY

- ASUS CrashFree BIOS 3
- Start ASUS EzFlash

FlexKey

512 Mb Flash ROM, UEFI AMI BIOS

WOL by PME, PXE (UEFI mode)

Cables

2 x SATA 6Gb/s cables

Miscellaneous

- 1 x Q-connector
- 1 x M.2 Rubber Package(s)
- 1 x M.2 backplate Rubber Package(s)

Documentation

- 1 x ACC Express Activation Key Card
- 1 x User guide

Windows® 11, Windows® 10 64-bit

CEB Form Factor

12 inch x 10.5 inch (30.5 cm x 26.67 cm)

Dimension
305mm*277mm*50mm
370mm*312mm*108mm
Weight
1.814 KG
3.515 Kg

