

Intel LGA-1151 ATX motherboard with Aura Sync, DDR4 3866MHz, dual M.2, Intel Optane memory ready, HDMI, SATA 6Gb/s, USB 3.1 Type-C

- 5-Way Optimization – One-click system-wide tuning that now also senses GPU temperatures to ensure cooler gaming
- ASUS Aura Sync – World's 1st synced RGB lighting with easy controls to orchestrate Aura Sync-capable hardware
- 3D Printing Friendly – 1st motherboard brand to support 3D-printed parts, with dedicated 3D mounts for easy installation
- Refined Audio – Realtek S1220A codec provides pristine and powerful audio quality
- 5X Protection III: Multiple hardware safeguards to protect components from damage by power or electrical surges

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"Asus Prime Z270-A is one fine motherboard who're looking to get the top grade chipset with a few recommended bells and whistles at a not-so-heavy price point."

"Prime Z270-A is one of the excellent choices loaded with the latest technology and ready for the future as well. It comes with the good Overclocking feature as well as overall performance is excellent."



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Similar List



CPU

Intel® for 7th/6th Generation Socket 1151 Celeron®/Core™ i7/Core™ i3/Pentium®/Core™ i5 Processors
 * The Intel® Turbo Boost Technology 2.0 support depends on the CPU types.
 Supports Intel® Turbo Boost Technology 2.0
 * Refer to www.asus.com for CPU support list
 Supports Intel® 14 nm CPU

Chipset

Intel® Z270

Memory

Dual Channel Memory Architecture
 Supports Intel® Extreme Memory Profile (XMP)

	<p>* Refer to www.asus.com for the Memory QVL (Qualified Vendors Lists).</p> <p>* The maximum memory frequency supported varies by processor.</p> <p>4 x DIMM, Max. 64GB, DDR4 3200(O.C.)/2666(O.C.)/3733(O.C.)/3466(O.C.)/2133/3866(O.C.)/3300(O.C.)/2800(O.C.)/3000(O.C.)/2400(O.C.)/3600(O.C.)/3400(O.C.)/3333(O.C.) MHz Un-buffered, Non-ECC Memory</p>
Graphic	<p>Integrated Graphics Processor- Intel® HD Graphics support</p> <p>Supports up to 3 displays simultaneously</p> <p>Maximum shared memory of 1024 MB</p> <p>DP 1.2 Multi-Stream Transport compliant, supports DP 1.2 monitor daisy chain up to 3 displays</p> <ul style="list-style-type: none"> - Supports HDMI 1.4b with max. resolution 4096 x 2160 @ 24 Hz / 2560 x 1600 @ 60 Hz <p>Multi-VGA output support : HDMI/DVI-D/DisplayPort ports</p> <ul style="list-style-type: none"> - Supports DVI-D with max. resolution 1920 x 1200 @ 60 Hz - Supports DisplayPort with max. resolution 4096 x 2304 @ 24 Hz
Multi-GPU Support	<p>Supports NVIDIA® 2-Way SLI™ Technology</p> <p>Supports AMD 3-Way CrossFireX™ Technology</p>
Expansion Slots	<p>4 x PCIe 3.0/2.0 x1</p> <p>1 x PCIe 3.0/2.0 x16 (max at x4 mode)</p> <p>1 x PCIe 3.0/2.0 x16 (x16 or dual x8)</p>
Storage	<p>Intel® Optane™ Memory Ready *4</p> <p>Supports Intel® Smart Response Technology*3</p> <p>gray, 6 x SATA 6Gb/s port(s)</p> <p>Intel® Rapid Storage Technology 15 support</p> <p>, 1 x M.2 Socket 3, with M Key, type 2242/2260/2280 storage devices support (PCIe mode only)*2</p> <p>Support Raid 1, 5, 10, 0</p> <p>1 x M.2 Socket 3, , with M Key, type 2242/2260/2280/22110 storage devices support (SATA mode & X4 PCIe mode)*1</p>
LAN	<p>ASUS LAN Guard</p> <p>ASUS Turbo LAN Utility</p> <p>Intel® I219V, 1 x Gigabit LAN Controller(s)</p>
Audio	<ul style="list-style-type: none"> - Impedance sense for front and rear headphone outputs - Internal audio Amplifier to enhance the highest quality sound for headphone and speakers <p>Separate layer for left and right track, ensuring both sound deliver equal quality</p> <ul style="list-style-type: none"> - Front panel audio connector (AAFP) <p>Audio Feature :</p> <ul style="list-style-type: none"> - Premium Japanese-made audio capacitors: Provide warm, natural and immersive sound with exceptional clarity and fidelity - Audio Shielding: Ensures precision analog/digital separation and greatly reduced multi-lateral interference - Dedicated audio PCB layers: Separate layers for left and right channels to guard the quality of the sensitive audio signals - DTS Connect - Unique de-pop circuit: Reduces start-up popping noise to audio outputs - DTS Headphone:X - Power pre-regulator: Reduces power input noise to ensure consistent performance - EMI protection cover to prevent electrical noise to affect the amplifier quality - Supports : Front Panel MIC Jack-retasking, Jack-detection, Multi-streaming 120 dB SNR recording input SNR stereo playback output and - High quality 113 dB (Line-in)

8-Channel High Definition Audio CODEC featuring Crystal Sound 3 Realtek® S1220A

- Supports up to 32-Bit/192kHz playback *5

USB Ports

Intel® Z270 Chipset :

6 x USB 3.0 port(s) (2 at mid-board, 4 at back panel,)

ASMedia® USB 3.1 Gen 2 controller :

1 x USB 3.1 port(s) (1 at back panel, , Support 3A power output, USB Type-C™)

ASMedia® USB 3.1 Gen 2 controller :

1 x USB 3.1 port(s) (Support 3A power output, Type-A, 1 at back panel, teal blue)

Intel® Z270 Chipset :

6 x USB 2.0 port(s) (6 at back panel,)

Special Features

Turbo APP

ASUS EPU :

- EPU

AURA :

- Aura RGB Strip Headers

- Aura Lighting Control

- Aura Lighting Effects Synchronization with compatible ASUS ROG devices

ASUS TPU :

- Auto Tuning

- GPU Boost

ASUS Q-Design :

- ASUS Q-Slot

- ASUS Q-DIMM

- ASUS Q-Connector

- ASUS Q-LED (CPU, DRAM, Boot Device LED, VGA)

- ASUS Q-Shield

Overclocking Protection :

- ASUS C.P.R.(CPU Parameter Recall)

OC Design - ASUS PRO Clock Technology

- Full BCLK range for extreme overclocking performance

ASUS 5X Protection III :

- ASUS Overvoltage Protection: World-class circuit-protecting power design

- ASUS SafeSlot Core: Fortified PCIe Slot prevents damage

- ASUS DIGI+ VRM: 8 Phase digital power design

- ASUS LANGuard: Protects against LAN surges, lightning strikes and static-electricity discharges!

- ASUS Stainless-Steel Back I/O: 3X corrosion-resistance for greater durability!

5-Way Optimization by Dual Intelligent Processors 5

- Whole system optimization with a single click! 5-Way Optimization tuning key perfectly consolidates TPU, EPU, DIGI+ Power Control, Fan Xpert 4, and Turbo App together, providing better CPU performance, efficient power saving, precise digital power control, whole system cooling and even tailor your own app usages.

ASUS EZ DIY :

- ASUS O.C. Profile

CPU Installation Tool

- Three-step simplicity and safety

- ASUS EZ Flash 3

- ASUS UEFI BIOS EZ Mode

- Multi-language BIOS

- ASUS CrashFree BIOS 3

- ASUS O.C. Tuner

- Precision Tweaker 2

ASUS Exclusive Features :

- AI Suite 3

- Turbo LAN

File Transfer

- Cloud GO!
- File Transfer
- PC Cleaner
- EZ XMP ASUS Exclusive Features
- Ai Charger
- Crystal Sound 3
- MemOK!

Special Memory O.C. Design

ASUS Quiet Thermal Solution :

- Stylish Fanless Design Heat-sink solution
- ASUS Fan Xpert 4

Back I/O Ports

- 1 x DisplayPort
- 1 x USB 3.1 Gen 2 USB Type-C™
- 5 x Audio jack(s)
- 4 x USB 3.1 Gen 1
- 1 x LAN (RJ45) port(s)
- 1 x USB 3.1 Gen 2 Type-A
- 1 x HDMI
- 1 x DVI-D
- 1 x Optical S/PDIF out
- 1 x PS/2 keyboard/mouse combo port(s)

Internal I/O Ports

- 1 x Thunderbolt header(s)
- 2 x 3D Mount screw port(s)
- 1 x 8-pin ATX 12V Power connector(s)
- 1 x USB 3.1 Gen 1 connector(s) support(s) additional 2 USB 3.1 Gen 1 port(s) (19-pin)
- 1 x 14-1 pin TPM connector
- 1 x CPU Fan connector(s) (1 x 4 -pin)
- 1 x T_Sensor Connector
- 1 x M.2 Socket 3 with M Key, type 2242/2260/2280/22110 storage devices support (SATA mode & X4 PCIE mode)
- 1 x M.2 Socket 3 with M Key, type 2242/2260/2280 storage devices support (PCIE mode only)
- 3 x USB 2.0 connector(s) support(s) additional 6 USB 2.0 port(s)
- 1 x Clear CMOS jumper(s)
- 6 x SATA 6Gb/s connector(s)
- 1 x High AMP Fan header (4-pin)
- 1 x MemOK! button(s)
- 1 x 5-pin EXT_FAN(Extension Fan) connector
- 1 x Front panel audio connector(s) (AAFP)
- 1 x COM port header
- 1 x CPU OPT Fan connector(s) (1 x 4 -pin)
- 1 x AIO PUMP Header
- 1 x 24-pin EATX Power connector(s)
- 2 x Chassis Fan connector(s) (2 x 4 -pin)
- 1 x Power-on button(s)
- 1 x CPU OV
- 1 x EZ XMP switch
- 1 x System panel(s) (Chassis intrusion header is inbuilt) (Q-Connector)

Accessories

- ASUS Q-Shield
- 1 x Q-connector(s) (1 in 1)
- 1 x Supporting DVD
- 1 x SLI HB BRIDGE(2-WAY-M)
- 3 x SATA 6Gb/s cable(s)
- 1 x M.2 Screw Package
- User's manual
- 1 x CPU installation tool

BIOS 128 Mb Flash ROM, UEFI AMI BIOS, PnP, WfM2.0, SM BIOS 3.0, ACPI 6.0, Multi-language BIOS, ASUS EZ Flash 3, CrashFree BIOS 3, F11 EZ Tuning Wizard, F6 Qfan Control, F3 My Favorites, Last Modified log, F12 PrintScreen, and ASUS DRAM SPD (Serial Presence Detect) memory information.

Manageability WfM 2.0, DMI 3.0, WOL by PME, PXE

Operating System *6
Windows® 8.1 64-bit *6
Windows® 7 32-bit *6
Windows® 7 64-bit *6
Windows® 10 64-bit

Form Factor ATX Form Factor
12.0 cm x 9.6 cm (30.5 cm x 24.4 cm)

Note

- *1. The M.2_1 socket shares SATA_1 port when use M.2 SATA mode device. Adjust BIOS settings to use a SATA device.
- *2. The M.2_2 socket shares SATA_56 ports when use M.2 PCIE mode device in X4 mode. Adjust BIOS settings to use M.2 PCIE devices in X4 mode.
- *3. These functions will work depending on the CPU installed.
- *4. Intel® Optane Technology is only supported when using 7th Generation Intel® processors. Before using Intel® Optane memory modules, ensure that you have updated your motherboard drivers and BIOS to the latest version from ASUS support website.
- *5. Due to limitations in HDA bandwidth, 32-Bit/192kHz is not supported for 8-Channel audio. 32-Bit/192kHz is only available under Windows® 10.
- *6. Windows® 8.1 64-bit and Windows® 7 32/64-bit are only supported when using 6th Generation Intel® Processors