

ROG STRIX B650E-F GAMING WIFI



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CPU	AMD Socket AM5 for AMD Ryzen™ 7000 Series Desktop Processors* * Refer to www.asus.com for CPU support list.
Chipset	AMD B650
Memory	4 x DIMM, Max. 128GB, DDR5 6400+(OC)/ 6200(OC)/ 6000(OC)/ 5800(OC)/ 5600(OC)/ 5400(OC)/ 5200/ 5000/ 4800 ECC and Non-ECC, Un-buffered Memory* Dual Channel Memory Architecture Supports AMD EXtended Profiles for Overclocking (EXPO™) OptiMem II * Supported memory types, data rate(Speed), and number of DRAM module vary depending on the CPU and memory configuration, for more information refer to www.asus.com for memory support list.
Graphics	1 x DisplayPort* 1 x HDMI® port** * Supports max. 8K@60Hz as specified in DisplayPort 1.4. **Supports 4K@60Hz as specified in HDMI 2.1.
Expansion Slots	AMD Ryzen™ 7000 Series Desktop Processors 1 x PCIe 5.0 x16 slot AMD B650 Chipset 1 x PCIe 4.0 x16 slot (supports x4 mode)* 2 x PCIe 4.0/3.0 x1 slots * PCIe 4.0 x16 slot (supports x4 mode) from AMD B650 Chipset shares bandwidth with M.2_3.

Storage

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

AMD Ryzen™ 7000 Series Desktop Processors

M.2_1 slot (Key M), type 2242/2260/2280(supports PCIe 5.0 x4 mode)

M.2_2 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 4.0 x4 mode)

AMD B650 Chipset

M.2_3 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 4.0 x4 mode)**

4 x SATA 6Gb/s port

*AMD RAID Xpert Technology supports both NVMe RAID 0/1/10 and SATA RAID 0/1/10.

** M.2_3 slot shares bandwidth with PCIe 4.0 x16 slot (supports x4 mode) When M.2_3 slot is operating in PCIe mode, M.2_3 will be disabled.

Ethernet

1 x Intel® 2.5Gb Ethernet

ASUS LANGuard

Wireless & Bluetooth

Wi-Fi 6E

2x2 Wi-Fi 6E (802.11 a/b/g/n/ac/ax)

Supports 2.4/5GHz frequency band

Bluetooth v5.2

* Wi-Fi 6E 6GHz regulatory may vary between countries, and function will be ready in Windows 11 or later.

USB

Rear USB (Total 12 ports)

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

3 x USB 3.2 Gen 2 ports (2 x Type-A + 1 x USB Type-C®)

4 x USB 3.2 Gen 1 port (4 x Type-A)

4 x USB 2.0 ports (4 x Type-A)

Front USB (Total 7 ports)

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

1 x USB 3.2 Gen 1 header supports additional 2 USB 3.2 Gen 1 ports

2 x USB 2.0 headers supports additional 4 USB 2.0 ports

Audio

ROG SupremeFX 7.1 Surround Sound High Definition Audio CODEC ALC4080

- Impedance sense for front and rear headphone outputs

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

- High quality 120 dB SNR stereo playback output and 113 dB SNR recording input

- Supports up to 32-Bit/384 kHz playback

Audio Features

- SupremeFX Shielding Technology

- Savitech SV3H712 AMP

- Rear optical S/PDIF out port

- Premium audio capacitors

- Audio cover

Back Panel I/O Ports

1 x USB 3.2 Gen 2x2 port (1 x USB Type-C®)
3 x USB 3.2 Gen 2 ports (2 x Type-A + 1 x USB Type-C®)
4 x USB 3.2 Gen 1 ports (4 x Type-A)
4 x USB 2.0 ports (4 x Type-A)
1 x DisplayPort
1 x HDMI® port
1 x Wi-Fi Module
1 x Intel® I225-V 2.5Gb Ethernet port
5 x Audio jacks
1 x BIOS FlashBack™ button

Internal I/O Connectors

Fan and Cooling related

1 x 4-pin CPU Fan header
1 x 4-pin CPU OPT Fan header
1 x 4-pin AIO Pump header
4 x 4-pin Chassis Fan headers

Power related

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

Storage related

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

USB

1 x USB 3.2 Gen 2 connector (supports USB Type-C®)
1 x USB 3.2 Gen 1 header supports additional 2 USB 3.2 Gen 1 ports
2 x USB 2.0 headers supports additional 4 USB 2.0 ports

Miscellaneous

3 x Addressable Gen 2 headers
1 x AURA RGB header
1 x Clear CMOS header
1 x CPU Over Voltage jumper
1 x Front Panel Audio header (AAFP)
1 x S/PDIF Out header
1 x 20-3 pin System Panel header with Chassis intrude function
1 x Thermal Sensor header
1 x Thunderbolt™ header
1 x COM_DEBUGheader

Special Features

Extreme Engine Digi+

- 5K Black Metallic Capacitors

ASUS Q-Design

- M.2 Q-Latch
- PCIe Slot Q-Release
- Q-LED
- Q-DIMM
- Q-Slot

ASUS Thermal Solution

- M.2 heatsink
- VRM heatsink design

ASUS EZ DIY

- BIOS FlashBack™ button
- BIOS FlashBack™ LED
- ProCool
- Pre-mounted I/O shield

Software Features

ROG Exclusive Software

- GameFirst VI
- ROG CPU-Z
- Sonic Studio III + Sonic Studio Virtual Mixer + Sonic Suite Companion
- Sonic Radar III
- DTS® Sound Unbound
- Anti-virus software

ASUS Exclusive Software

Armoury Crate

- AIDA64 Extreme (60 days free trial)
- AURA Creator
- AURA Sync
- Fan Xpert 4
- Power Saving
- Two-Way AI Noise Cancellation

AI Suite 3

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

MyAsus

WinRAR

UEFI BIOS

ASUS EZ DIY

- ASUS CrashFree BIOS 3
- ASUS EZ Flash 3
- ASUS UEFI BIOS EZ Mode

FlexKey

BIOS

256 Mb Flash ROM, UEFI AMI BIOS

Manageability

WOL by PME, PXE

Accessories

Cables

2 x SATA 6Gb/s cables

Additional Cooling Kit

1 x Thermal pad for M.2

Miscellaneous

1 x ASUS Wi-Fi moving antennas

1 x Cable ties pack

1 x M.2 Q-Latch package

1 x ROG key chain

1 x ROG Strix stickers

1 x ROG Strix thank you card

2 x M.2 Rubber Packages

Documentation

1 x User guide

Operating System

Windows® 11 64-bit

Form Factor

ATX Form Factor
12 inch x 9.6 inch (30.5 cm x 24.4 cm)