

ASUS TUF Z390-Plus Gaming (Wi-Fi)

ASUS TUF Z390-Plus Gaming (Wi-Fi) Motherboard Instruction Manual

Brand: ASUS

PRODUCT OVERVIEW

The ASUS TUF Z390-Plus Gaming (Wi-Fi) motherboard is engineered for 8th and 9th Generation Intel Core processors, providing robust performance and durability for gaming systems. It integrates advanced features to ensure system stability and connectivity.

Key Features:

- Designed for 9th and 8th generation Intel Core processors to maximize connectivity and speed with dual M.2, Gigabit LAN, USB 3.1 Gen2.
- Military-Grade TUF Components like TUF LANGuard, TUF Chokes, TUF Capacitors, and TUF MOSFETs maximize system durability.
- Gamer's Guardian with Safe Slot and FanXpert 4 provides hardware-level safeguards for maximum performance with dynamic system cooling.
- 8-channel HD Gaming Audio with TUF Gaming Headphone featuring Realtek S1200A high definition audio codec driven by Japanese capacitors for warm, immersive sound.
- ASUS Optimum II improves memory stability and performance by improving trace isolation between PCB layers to maintain signal integrity even at higher frequencies.



Figure 1: Overview of the ASUS TUF Z390-Plus Gaming (Wi-Fi) Motherboard.

PACKAGE CONTENTS

Verify that all items listed below are present in your product package:

- TUF Z390-PLUS GAMING (Wi-Fi) motherboard
- SATA 6Gb/s cables (2)
- IO Shield
- M.2 Screw Package
- ASUS 2T2R dual band Wi-Fi moving antennas (Wi-Fi 802.11a/b/g/n/ac compliant)
- Support DVD

- User's Manual
- TUF Certification Card(s)
- TUF GAMING Sticker

SETUP AND INSTALLATION

This section provides instructions for installing the ASUS TUF Z390-Plus Gaming (Wi-Fi) motherboard into your computer chassis and connecting essential components.

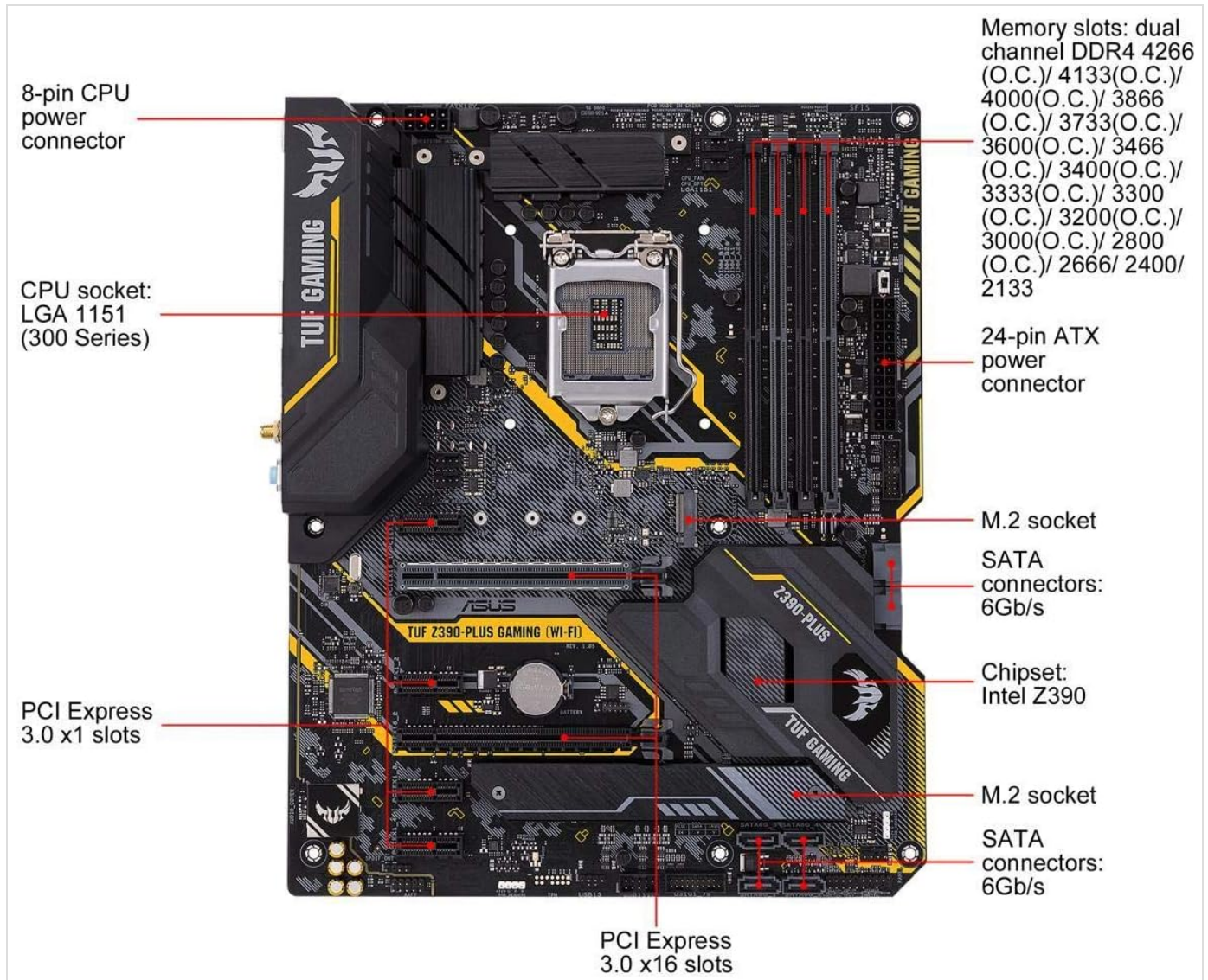


Figure 2: Key components and connectors on the ASUS TUF Z390-Plus Gaming (Wi-Fi) Motherboard.

1. Preparing the Chassis

1. Ensure your computer chassis is compatible with ATX motherboards.
2. Install the I/O shield provided with the motherboard into the chassis's rear panel opening.
3. Install standoffs in the chassis according to the ATX motherboard mounting points.

2. CPU Installation (LGA 1151 Socket)

1. Locate the LGA 1151 CPU socket on the motherboard (refer to Figure 2).
2. Open the CPU socket lever and remove the protective cap.
3. Carefully align the notches on your Intel 8th or 9th Gen Core processor with the socket and gently place the CPU

into the socket. Do not force it.

4. Close the socket lever to secure the CPU.
5. Install your CPU cooler according to its manufacturer's instructions.

3. RAM Installation (DDR4)

1. Identify the DDR4 memory slots (refer to Figure 2). This motherboard supports dual-channel DDR4 memory.
2. Open the clips at both ends of the memory slot.
3. Align the notch on the DDR4 memory module with the key in the memory slot.
4. Press down firmly on both ends of the memory module until the clips snap into place.

4. M.2 SSD Installation

1. Locate the M.2 sockets on the motherboard (refer to Figure 2). This motherboard features dual M.2 sockets.
2. Insert your M.2 SSD into the slot at an angle.
3. Gently push down the M.2 SSD and secure it with the M.2 screw provided in the package.

5. Connecting Power Supplies

1. Connect the 24-pin ATX power connector from your power supply to the corresponding port on the motherboard (refer to Figure 2).
2. Connect the 8-pin CPU power connector to the motherboard (refer to Figure 2).

6. Connecting Storage Devices (SATA)

1. Connect your SATA storage devices (HDDs, SSDs) to the SATA 6Gb/s connectors on the motherboard using the provided SATA cables (refer to Figure 2).

7. Installing Expansion Cards (PCI Express)

1. Insert your graphics card into the primary PCI Express 3.0 x16 slot (refer to Figure 2).
2. Install any other PCI Express expansion cards (e.g., sound cards, network cards) into the available PCI Express 3.0 x1 slots.

8. Connecting Front Panel Connectors

1. Connect the front panel cables from your chassis (power button, reset button, USB ports, audio jacks, LED indicators) to the corresponding headers on the motherboard. Refer to the motherboard's detailed manual for exact pin layouts.

9. Wi-Fi Antenna Installation

1. Screw the ASUS 2T2R dual band Wi-Fi moving antennas onto the antenna connectors at the rear I/O panel of the motherboard.

OPERATING INSTRUCTIONS

1. Initial Boot and BIOS Setup

- After assembling your system, connect a monitor, keyboard, and mouse.

- Power on your system. Press the **DEL** key during the Power-On Self-Test (POST) to enter the BIOS setup utility.
- In the BIOS, you can configure system settings, boot order, and enable features like XMP for memory optimization.
- Save changes and exit the BIOS to proceed with operating system installation.

2. Driver Installation

- After installing your operating system (e.g., Windows 10), install the necessary drivers for the motherboard components.
- Use the provided Support DVD or download the latest drivers from the official ASUS support website.
- The ASUS Q-Installer utility can simplify the process of updating and installing chipset, utility, and Ethernet drivers.

3. Network Connectivity

- For wired connectivity, connect an Ethernet cable to the Gigabit LAN port.
- For wireless connectivity, ensure the Wi-Fi antennas are properly installed. Windows will detect the Wi-Fi adapter, and you can connect to available networks.

4. Overclocking (Advanced Users)

- The BIOS offers extensive options for overclocking your CPU and memory.
- *Caution:* Overclocking can increase system performance but may also increase heat generation and potentially reduce component lifespan if not done correctly. It is recommended to perform manual overclocking rather than relying solely on auto-overclocking wizards.
- Monitor temperatures and stability carefully when overclocking.

MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your motherboard and system.

- **Dust Cleaning:** Periodically clean dust from inside your computer case, especially from heatsinks and fans, to prevent overheating. Use compressed air for this purpose.
- **BIOS Updates:** Check the official ASUS support website for the latest BIOS updates. BIOS updates can improve compatibility, stability, and performance. Follow the update instructions carefully. *Note:* Only update the BIOS if necessary, as improper updates can lead to system instability.
- **Driver Updates:** Keep your drivers updated to ensure optimal performance and compatibility with new software and hardware.

TROUBLESHOOTING

This section addresses common issues you might encounter with your motherboard.

- **No Power/No Boot:**
 - Ensure all power cables (24-pin ATX, 8-pin CPU) are securely connected to the motherboard and power supply.
 - Verify that the power supply is switched on and functioning correctly.
 - Check front panel power button connections to the motherboard.
- **No Display Output:**
 - Ensure your graphics card is properly seated in the PCI Express slot and its power connectors are attached.

- Verify that your monitor cable is connected to the graphics card (or motherboard if using integrated graphics).
- Try reseating RAM modules.

- **Component Not Detected (e.g., SSD, RAM):**

- Reseat the component to ensure it is properly installed.
- Check BIOS settings to ensure the component is enabled or detected.
- For SATA devices, ensure cables are securely connected. *Note:* Some users have reported issues with specific SATA ports (e.g., two angled ports on the right side) not functioning. If you encounter this, try using different SATA ports.

- **System Instability/Crashes:**

- Check CPU and GPU temperatures to ensure they are within safe operating limits.
- Verify that all drivers are correctly installed and up to date.
- If overclocking, revert to default settings to check for stability.

For more detailed troubleshooting steps, refer to the comprehensive user manual provided on the ASUS support website or the included Support DVD.

SPECIFICATIONS

Feature	Detail
Brand	ASUS
Series	TUF Z390-Plus Gaming (Wi-Fi)
Model Name	TUF Z390-Plus Gaming (Wi-Fi)
CPU Socket	LGA 1151
Compatible Processors	8th and 9th Generation Intel Core
Chipset Type	Intel Z390
RAM Memory Technology	DDR4 SDRAM
Memory Speed	1000 MHz (up to 4266 MHz O.C.)
Memory Storage Capacity	64 GB (Max)
Wireless Type	802.11a/g/n/ac Wi-Fi
USB Ports	USB 3.1 Gen2, USB 2.0
Product Dimensions (LxWxH)	12.91 x 2.09 x 10.34 inches
Item Weight	2.8 pounds
Platform	Windows 10



WARRANTY AND SUPPORT

ASUS products are manufactured to the highest quality standards. For warranty information, please refer to the warranty card included in your product package or visit the official ASUS support website.

For technical support, driver downloads, and further documentation, please visit the [ASUS Support Website](#). You can also find frequently asked questions and troubleshooting guides there.

Related Documents - TUF Z390-Plus Gaming (Wi-Fi)

<div><div>TUF Z390-PLUS (Wi-Fi) بازی</div><div>ASUS</div></div>	<p>ASUS TUF Z390-PLUS GAMING (Wi-Fi) راهنمای مادربرد</p> <p>شامل مشخصات فنی، راهنمای نصب و ASUS TUF Z390-PLUS GAMING (Wi-Fi) راهنمای جامع مادربرد برای ساخت سیستم‌های قدرتمند BIOS پیکربندی، و جزئیات.</p>
<div><div>PRIME Z390-A</div><div>Motherboard</div><div>ASUS</div></div>	<p>ASUS PRIME Z390-A Motherboard User Manual</p> <p>Comprehensive user manual for the ASUS PRIME Z390-A motherboard, detailing product introduction, installation, BIOS setup, RAID support, safety information, and technical specifications. Includes guidance on system building and configuration.</p>
<div><div>TUF Z390M-PRO (Wi-Fi) بازی</div><div>ASUS</div></div>	<p>ASUS TUF Z390M-PRO GAMING (Wi-Fi) راهنمای مادربرد</p> <p>با چیپست ASUS TUF Z390M-PRO GAMING (Wi-Fi) مشخصات فنی، راهنمای نصب و ویژگی‌های مادربرد Intel Z390 و پشتیبانی از پردازنده‌های نسل نهم اینتل.</p>
<div><div>TUF Z390-PLUS GAMING (Wi-Fi)</div><div>Carte mère</div><div>ASUS</div></div>	<p>Manuel de la carte mère ASUS TUF Z390-PLUS GAMING (Wi-Fi)</p> <p>Ce manuel fournit des informations détaillées sur la carte mère ASUS TUF Z390-PLUS GAMING (Wi-Fi), y compris les procédures d'installation, les paramètres du BIOS et les spécifications techniques.</p>

<div data-bbox="140 181 226 203" data-label="Text"><p>TUF Z390-PLUS GAMING</p></div> <div data-bbox="234 91 311 378" data-label="Image">The logo for ASUS Motherboard, featuring the ASUS logo at the top and the word "Motherboard" in a large, bold, white font on a blue background.</div>	<div data-bbox="341 250 1027 277" data-label="Section-Header"><p>ASUS TUF Z390-PLUS GAMING Motherboard User Manual</p></div> <div data-bbox="341 291 1428 398" data-label="Text"><p>This user manual provides comprehensive information for the ASUS TUF Z390-PLUS GAMING motherboard, covering product introduction, basic installation, BIOS setup, and RAID support. Essential guide for system builders and users.</p></div>
<div data-bbox="140 678 234 743" data-label="Text"><p>ROG MAXIMUS XI HERO (WI-FI)</p></div> <div data-bbox="234 595 311 882" data-label="Image">The logo for ASUS Motherboard, featuring the ASUS logo at the top and the word "Motherboard" in a large, bold, white font on a blue background.</div>	<div data-bbox="341 689 1110 716" data-label="Section-Header"><p>ASUS ROG MAXIMUS XI HERO (WI-FI) Motherboard User Manual</p></div> <div data-bbox="341 730 1465 797" data-label="Text"><p>Comprehensive user guide for the ASUS ROG MAXIMUS XI HERO (WI-FI) motherboard, covering installation, BIOS setup, specifications, and support resources.</p></div>