

# B350GTX Motherboard



- Support AMD® A-series APU, Ryzen APU / Ryzen CPU
- AMD B350 single chip architecture
- Support 4-DIMM DDR4 1866/2133/2400/2667/2933(OC)/3200(OC)
- Support USB 3.1 Gen2
- Support M.2(32Gb/s)
- Support HDMI® 4K resolution

## Specification

CPU SUPPORT	Supports AMD AM4 Socket for 3 <sup>rd</sup> , 2 <sup>nd</sup> and 1 <sup>st</sup> Gen Ryzen/2 <sup>nd</sup> and 1 <sup>st</sup> Gen Ryzen with Radeon Vega Graphics/Athlon with Radeon Vega Graphics/7 <sup>th</sup> Gen A-Series/Athlon X4 Processors
MEMORY	Supports Dual Channel DDR4 1866/2133/2400/2667/2933(OC)/3200(OC) 4 x DDR4 DIMM Memory Slot, Max. Supports up to 64 GB Memory Each DIMM supports non-ECC 8/16 GB DDR4 module * DDR4 - 2667 only for Ryzen CPU. * Please refer to <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> for Memory support list.
INTEGRATED VIDEO	By CPU model Supports DX12 Supports HDCP
STORAGE	4x SATA III Connector (6Gb/s) : Supports AHCI & RAID 0, 1, 10 1x M.2 (32Gb/s) : Supports PCI-E & SATA SSD * M.2 (32Gb/s) : The bandwidth is depended on CPU, Ryzen is 32Gb/s ; APU is 16Gb/s.
LAN	Realtek RTL 8118AS 10/ 100/ 1000 Mb/s auto negotiation, Half / Full duplex capability Support Super LAN Surge Protection
AUDIO CODEC	ALC887 7.1 Channels, High Definition Audio, Hi-Fi(Front)
USB	2x USB 3.1 Gen2 (10Gb/s) port (2 on rear I/Os) 6x USB 3.1 Gen1 (5Gb/s) port (4 on rear I/Os and 2 via internal headers) 4x USB 2.0 port (4 via internal headers)
EXPANSION SLOT	2x PCIe 2.0 x1 Slot 1x PCIe 2.0 x16 Slot (x4) 1x PCIe 3.0 x16 Slot (When using APU, the bandwidth is x8 speed)

REAR I/O	1x PS/2 Keyboard 1x DVI-D Port 1x HDMI® Port 1x LAN port 2x USB 3.1 Gen2 (10Gb/s) Port 4x USB 3.1 Gen1 (5Gb/s) Port 3x Audio Jack
INTERNAL I/O	4x SATA III 6.0Gb/s Connector 2x USB 2.0 Header (each header supports 2 USB 2.0 ports) 1x USB 3.1 Gen1 (5Gb/s) Header (each header supports 2 USB 3.1 Gen1 ports) 1x 8-Pin Power Connector 1x 24-Pin Power Connector 1x CPU Fan Connector 2x System Fan Connector 1x Front Panel Header 1x Front Audio Header 1x Clear CMOS Header 1x S/PDIF out Connector 1x COM Port Header 2x 5050 LED Header
H/W MONITORING	CPU / System Temperature Monitoring CPU / System Fan Monitoring Smart / Manual CPU / System Fan Control System Voltage Monitoring
DIMENSION	Micro ATX Form Factor Dimension: 24.4cm x 23.8cm ( W x L )
OS SUPPORT	Supports Windows 7(64bit) / 10(64bit) / 11(64bit) * Biostar reserves the right to add or remove support for any OS with or without notice.
BUNDLE SOFTWARE	Racing GT Utility FLY.NET BullGuard
ACCESSORIES	4 x SATA Cable 1 x I/O Shield 1 x DVD Driver 1 x Quick Guide
FEATURES	VIVID LED DJ 5050 LED FUN ZONE Supports PURO Hi-Fi Dual BIOS Supports 100% Solid capacitor BIO-FLASHER Supports BIOS Online Update

## OVERVIEW

 <b>B350</b>	<b>AMD B350 chipset</b> AMD B350 is the mainstream chipset and offers the most value in terms of I/O and functionality.
 <b>RYZEN</b>	<b>AMD AM4 Ryzen CPU support</b> AMD's new AM4 platform will accompany Ryzen. It brings all of the new tech that you'd expect, including DDR4 RAM, PCI-E Gen 3, USB 3.1 Gen 2, NVMe and SATA Express.

	<h2>Hi-Fi</h2> <p>A combination of exclusive hardware &amp; software design including "ground-isolation circuit design", "an independent audio power", and "a built-on-board amplifier", with all these hardware features gives you the best audio quality and performance. As for software, we offer you a free bundle utility "Multi-Channel Calibration" which normally you'll find in high level sound systems; this feature allows you to auto detect your location; with a user friendly interface, you can easily adjust the volume of every speakers to make a well balanced surround sound. And of course, the built-on-board amplifier always gives you a super powerful sound comparing to other motherboards.</p>
	<h2>HD Audio</h2> <p>Provides high quality sound with minimal loss of audio fidelity.</p>
	<h2>Hi-Fi Power</h2> <p>Audio power is an important factor in audio quality. Most AV equipment isolates the power supply for each analog and digital signal to gather high-quality sound reproduction. Equipped with BIOSTAR Hi-Fi Power technology, it will utilize audio components with independent power design for a significant reduction in electronic noise and superb sound quality.</p>
	<h2>Hi-Fi Ground</h2> <p>BIOSTAR Hi-Fi Ground ( Golden Line ) is noise-blocking multi-layer PCB design to isolates analog audio signals from digital sources. Unique PCB layout is ideal for exceptional clarity and high fidelity sound.</p>
	<h2>Hi-Fi AMP</h2> <p>The built-in amplifier can drive major high-end headphones with over 100dB loads and offer wide band-width, low noise, high slew rate and low distortion audio source from front panel I/O. Gaming enthusiasts can enjoy a fuller range of dynamic sound with crisper details and less distortion.</p>
	<h2>Smart Ear</h2> <p>Smart EAR is a windows-based audio utility which allows you to easily adjust system volume. With its user-friendly GUI, you can also increase or decrease impedance setting (Low/High Gain) to optimize your headphone performance. You can easily enjoy high-quality and awesome sound.</p>
	<h2>Hi-Fi Resistor</h2> <p>Metal-oxide film resistors are made of metal oxides such as tin oxide. The electric characteristics are greater stability and reliability than regular metal film resistors when operating in an extremely broad working temperature range. This special component is used in applications with high endurance audio demands.</p>
	<h2>Hi-Fi Cap</h2> <p>BIOSTAR Hi-Fi series motherboards come with high quality 'Non-Polarized Electrolysis Electric audio capacitors' for each audio channel circuit. The customized audio capacitors deliver low noise, low distortion, and wide bandwidth to achieve the highest sound resolution and sound expansion. The critical component will ensure the most realistic sound effects to gaming enthusiasts.</p>

	<h2>HDMI® 4K2K</h2> <p>The new 4K2K resolution enables high-definition image display with four times the resolution of full HD, 4K2K display is faithfully express bright, highly detailed content that fills the entire screen with lifelike images. Connectivity with PCs via a single HDMI® cable for displaying 4K2K data.</p>
	<h2>DVI</h2> <p>DVI is better than VGA for LCD displays since it is digital while VGA is analog. For LCD displays, the picture is digitized pixel per pixel. Through DVI, the panel gets data for each pixel, so the picture generated in the Graphics device matches the pixels on the panel itself.</p>
	<h2>FLY.NET</h2> <p>This exclusive utility will automatically detect the bandwidth of other software and increase the internet speed for online games.</p>
	<h2>USB 3.0</h2> <p>Experience Fastest data transfers at 5 Gbps with USB 3.0--the new latest connectivity standard. Built to connect easily with next-generation components and peripherals, USB 3.0 transfers data 10X faster and backward compatible with previous USB 2.0 components.</p>
	<h2>USB 3.1</h2> <p>USB 3.1 is a new standard known as SuperSpeed +, in order to highlight the improvement from USB3.0 (SuperSpeed) transmission speed. The new standard doubles data transfer rate from 5Gbps to 10Gbps. It is also backward compatible with existing USB3.0 connectors and all the USB 2.0 devices.</p>
	<h2>PCIe M.2 32Gb/s</h2> <p>PCI-e M.2 32Gb/s delivers the highest bandwidth and lower latency. It is 3 times faster compared with PCI-e M.2 10Gb/s.</p>
	<h2>PCIe 3.0</h2> <p>PCIe 3.0 is the ubiquitous and general-purpose PCI Express I/O standard. At 8GT/s bit rate, the interconnect performance bandwidth is doubled over PCIe 2.0, while preserving compatibility with software and mechanical interfaces.</p>
	<h2>Dual DDR4</h2> <p>The primary advantages of DDR4 over DDR3, include higher module density, lower voltage requirements, coupled with higher data transfer rate.</p>
	<h2>Moistureproof of PCB</h2> <p>The popularity of PC usage and working environment is getting deteriorating and moist (rural, coastal, etc.). The PCB will be oxidizing easily by damp or absorbed moisture, and ionic migration or CAF (Conductive Anodic Filament) will be generated. Moisture-proof PCB meets high density and high reliability requirements for moisture proof.</p>
	<h2>Low RdsOn P-Pak MOS</h2> <p>Low resistance design can significantly reduce the current out of energy loss. Low temperature, small size, excellent thermal conductivity.</p>

	<h2>100% Solid Caps</h2> <p>With armor-plated Biostar Technology, all capacitors are placed with 100% solid capacitors that have a lasting life cycle, durability and stability for crucial components.</p>
	<h2>Dual BIOS</h2> <p>Dual BIOS technology offers a backup BIOS chip to take over the failed main BIOS and recover the system automatically without factory repair.</p>
	<h2>Super Anti-Surge Protection</h2> <p>BIOSTAR exclusive Anti-Surge design provides the best protection of board and extends the product life. Having the latest model of "Transient Voltage Suppressor" on- board can effectively protect the board circuit, reducing the shocks caused by ESD as well as other damages arising from overvoltage transients to enhance system durability.</p>
	<h2>Super LAN Surge Protection</h2> <p>Super LAN Surge Protection, providing LAN port with more advanced antistatic protection capabilities by adding an integrated chip to strengthen electrical stability and prevent damage from lightning strikes and electrical surges. SLSP (Super LAN Surge Protection) series motherboard upgrades the existing system protection standards with maximum 4X protection comparing to other board makers.</p>
	<h2>ESD Protection</h2> <p>ESD (Electrostatic Discharge) is the major factor to destroy the PC by electrical overstress (EOS) condition. ESD occurred by PC users when touch any devices connect to a PC, which may result in damage to the motherboard or parts. ESD protection is designed to protect the motherboard and equipment from damage by EOS.</p>
	<h2>USB Polyswitch</h2> <p>On board dedicated power fuse to help prevent USB port failure. It prevents USB Port overcurrent and safe guard your system and device lifespan.</p>
	<h2>BIOS Virus Protection</h2> <p>When enabled, the BIOS will protect the boot sector and partition table by halting the system and flashing a warning message whether there's an attempt to write to these areas.</p>
	<h2>OC / OV / OH Protection</h2> <p>OC / OV / OH Protection design detects overvoltage conditions and prevents voltage surges from spreading in real time. It also actively cuts off the overvoltage supply to protect your system.</p>
	<h2>VIVID LED DJ</h2> <p>Racing Series exclusively features on-board LED design. Via the creative Vivid LED DJ application, you can control and modify the colours of LED on MOS heatsink and on the edge of board. When you play music, it can perform LED light show, following melody. Moreover, Vivid LED DJ features options for designing LED visual effect, including Normal, Eco, and Sports mode on your own. Racing Series with Vivid LED DJ make your PC a coolest gaming base ever.</p>

	<h3>5050 LED Fun ZONE</h3> <p>The brand-new 5050 LED FUN ZONE comes with two 5050 LED headers to bring more colorful lighting options to DIY lovers. They can fully enjoy the DIY fun of modding their PCs with uniquely personal style and LED strip or any kind of LED product to adjust the color of LED and change system color scheme by VIVID LED DJ application. Vivid LED DJ fun, Vivid LED lighting style!</p>
	<h3>UEFI BIOS</h3> <p>Unified Extensible Firmware Interface (UEFI) is a brand new framework that provides a revolutionary interface. It is a modern clear and easy-to-use graphical user interface. The UEFI comes with a colorful easy-understand icons leads users into the setup layer directly.</p>
	<h3>Header Zone</h3> <p>Users can easily assemble their own computer, a simple-swap data discs and other accessories.</p>
	<h3>HDMI®</h3> <p>The terms HDMI® and HDMI® High-Definition Multimedia Interface, and the HDMI® Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.</p>

\*The specification and pictures are subject to change without notice and the package contents may differ by area or your motherboard version!

