ComX Computers
Product Specification Sheet

GA-A520-AORUS-ELITE

Gigabyte A520 AORUS ELITE A520 Chipset AMD Ryzen AM4 Socket Motherboard

Product Overview

Gigabyte A520 AORUS ELITE A520 Chipset AMD Ryzen AM4 Socket Motherboard, Support for DDR4 4733(O.C.)/ 4600(O.C.)/ 4400(O.C.)/ 4000(O.C.)/ 3600(O.C.)/ 3333(O.C.)/ 3200/ 2933/ 2667/ 2400/ 2133 MHz memory modules, 1 x 24-pin ATX main power connector, 1 x 8-pin ATX 12V power connector, 1 x CPU fan header, 1 x water cooling CPU fan header, 3 x system fan headers, 2 x addressable LED strip headers, 2 x RGB LED strip headers, 1 x M.2 Socket 3 connector, 4 x SATA 6Gb/s connectors, 1 x front panel header, 1 x front panel audio header, 1 x USB 3.2 Gen 1 header, 2 x USB 2.0/1.1 headers, 1 x Trusted Platform Module (TPM) header (2x6 pin, for the GC-TPM2.0_S module only), 1 x serial port header, 1 x Clear CMOS jumper, 1 x Q-Flash Plus button, 1 x PS/2 keyboard/mouse port, 1 x DVI-D port, 1 x HDMI port, 1 x USB 3.2 Gen 2 Type-A port (red), 3 x USB 3.2 Gen 1 ports, 4 x USB 2.0/1.1 ports, 1 x RJ-45 port, 1 x optical S/PDIF Out connector, 5 x audio jacks, ATX Form Factor, 30.5cm x 24.4cm



Specifications

Features:

Ferocious Talons
The AORUS Core is inspired by the falcon's aggressive nature and hunting prowess. The falcon uses its razor sharp talons to swiftly strike down its prey with exceptional efficiency and precision, qualities that are exemplified in the fine details of AORUS design.

5+3 Phases Pure Digital VRM Solution with Low RDS(on) MOSFETs
GIGABYTE AORUS series motherboards use a 5+3 phases pure digital PWM + Low RDS(on) MOSFETs design to support the 3rd Gen AMD Ryzen™ CPUs by offering incredible precision in delivering power to the motherboard's most power-hungry and energy-sensitive components as well as delivering enhanced system performance and ultimate hardware scalability.

Benefits of Lower RDS(on) MOSFETs

- Optimized gate charge to minimize switching losses.
- Lower temperature, smaller size, better thermal characteristics.

NVMe PCIe 3.0 x4 M.2 Connector (Up to 32 GB/s)
AORUS Gaming Motherboards are focused on delivering M.2 technology to enthusiasts who want to maximize their system's potential.

The Industry's Leading LAN Static-Electricity & Surge Protection

GIGABYTE motherboards use ICs with up to 3 times the ESD resistance levels compared to traditional ICs. This helps to better protect the motherboard and its components against potential damage caused by static electricity. GIGABYTE motherboards also feature special anti-surge ICs that protect your motherboard and your PC from any surge in power delivery that may occur, ensuring that your PC is equipped to deal with any potentially irregular and inconsistent power delivery.

High Speed Gigabit LAN with Automatic Bandwidth Allocation
Realtek 8118 LAN is a high performance and friendly network chip for gaming players with automatic bandwidth allocation to ensure the highest network priority of the game or application. It can provide users the most comprehensive features and the fastest and smoothest Internet experience.

HDMI 2.1 for 4K / 60P / 21:9 / HDCP 2.3 Support
HDMI 2.1, which is backwards compatible with HDMI 2.0/ 1.4 and offering 48 Gb/s of bandwidth - twice times more than previous generation. This unlocks the potential for users to transfer multiple video streams, as well as a native cinematic 21:9 ratio (which most movies are shot in), Full HDR and HDCP 2.3 support, to offer the best visual experience for viewers.

Native USB 3.2 Gen2
AMD A520 chipset provides native USB 3.2 Gen2 ports with speeds up to 10Gbps. Available over the USB Type-A connector, the USB3.2 Gen2 is much improved with twice the bandwidth compared to its previous generation as well as backwards compatibility with USB2.0 and USB3.2 Gen1.

Smart Fan 5
With Smart Fan 5 users can ensure that their gaming PC can maintain its performance while staying cool. Smart Fan 5 allows users to interchange their fan headers to reflect different thermal sensors at different locations on the motherboard. Not only that, with Smart Fan 5 more hybrid fan headers that support both PWM and Voltage mode fans have been introduced to make the motherboard more liquid cooling friendly.

Fan Stop
Achieve fan silence. With Fan Stop, map any fan to stop completely when temperatures drop below a specified threshold. Which fan stops, based on readings from which sensor, and at what temperature-all of it can be customized to your liking.

Hybrid Fan Pin Headers
Assume complete control over your liquid cooling setup! Smart Fan 5 receives up-to-the-second information on flow-rate through the Hybrid Fan Pin Headers-giving you absolute mastery over your PC. All Hybrid Fan Headers can automatically detect the type of cooling device whether it be fan or pump with different PWM or Voltage mode.

New Smart Fan 5 Software
Choose from different modes, Quiet to Full Speed, to match your system usage preferences. For each fan or pump, you can use the intuitive fan curve to define trigger thresholds and corresponding fan speeds.

Multi-Zone Light Show Design
Now offering more LED customizations than ever, users can truly adapt their PC to represent their lifestyle. With full RGB support and a redesigned RGB Fusion 2.0 application, the user has complete control over the LEDs which surround the motherboard.

RGB Fusion 2.0 Software
With an integrated intuitive user interface, the RGB Fusion 2.0 provides you a better solution for customizing the lighting effects across all supported devices. From motherboards, graphics cards to the peripheral products, you can personalize your gaming rig with your own style and show off your build by sharing the profiles. In addition, the new gaming mode makes the lighting effects interactive with selected games to bring you the most immersive gaming experience.

GIGABYTE RGB Fusion APP
Don't just make your PC shine, make it a work of art that friends will envy. With the GIGABYTE RGB Fusion mobile app users

can watch as they control the lighting within their gaming PC. This gives users ease of access as they try and adjust colors and speeds for different modes, all this can be achieved away from the keyboard and monitor of their PC.

High-End Audio Capacitors
GIGABYTE motherboards use high-end audio capacitors. These high quality capacitors help deliver high resolution and high fidelity audio to provide the most realistic sound effects for gamers.

Audio Noise Guard
GIGABYTE motherboards feature an audio noise guard that essentially separates the board's sensitive analog audio components from potential noise pollution at the PCB level.

Update the BIOS easily without installing the CPU, memory and graphics card.
With GIGABYTE Q-Flash Plus, you don't need to install the CPU, memory and graphics card nor enter the BIOS menu to flash the BIOS. Just download and save a new BIOS file (rename to gigabyte.bin) on the USB flash drive, then press the dedicated Q-Flash Plus button and you're good to go!

Industry Leading Ultra Durable™ PCIe Armor
The innovative one piece stainless steel shielding design from GIGABYTE reinforces the PCIe connectors to provide the extra strength required to support heavy graphics cards.

Solid Pin Power Connectors
A520 AORUS motherboards feature solid plated ATX 12V 8pin power connectors to offer a stable power supply during CPU overloading.

Solid Pin Power connector advantages

- Larger contact area for electricity
- More metal quantity to sustain higher power and generated heat
- Ultra durable and longer lifespan

START SULFURIZATION PROTECTION
Sulfur compounds in the air can penetrate tiny onboard resistors creating chemical change and causing these resistors to open or short. If either of these occurs the motherboard will fail to function. By equipping resistors with an Anti-Sulfur Design GIGABYTE gives Ultra Durable Motherboards a whole new meaning.

New User Interface
All new EASY MODE shows important hardware information in one page including CPU clock, Memory, Storage, Fan.

My Favorites
Add constantly used items into the favorite menu for quick access.

Storage Information
Show all kinds of storage information including SATA, PCIE and M.2 interface.

Changelog
List all changes before saving and exiting bios. Quickly review overall settings modification.

Intuitive Load Line Curve
Clearly show each loadline calibration setting in an intuitive curve graph.

APP CENTER
GIGABYTE APP CENTER is a useful portal of all GIGABYTE MB utilities and drivers, you can choose any utility you want to install from APP CENTER and keep updated with the latest utilities and drivers version.

EasyTune™
GIGABYTE's EasyTune™ is a simple and easy-to-use interface that allows users to fine-tune their system settings or adjust system and memory clocks and voltages in a Windows environment. With Smart Quick Boost, one click is all it takes to automatically overclock your system, giving an added performance boost when you need it the most.

@BIOS
The GIGABYTE @BIOS app allows you to update your system's BIOS from within Windows using a simple and slick graphical user interface. @BIOS can automatically download the latest version from the GIGABYTE servers or you can update your BIOS from a file on your computer. @BIOS also allows you to save your current BIOS to a file, recover your previous BIOS from an image and backup your BIOS to an image.

System Information Viewer
GIGABYTE System Information Viewer is a central location that gives you access to your current system status. Monitor components such as the clocks and processor, set your preferred fan speed profile, create alerts when temperatures get too high or record your system's behavior; these are the possibilities of the System Information Viewer.

Specifications:

© 2021 Respective owners and brand holders. This table has been carefully researched and generated by ComXpert International CC (http://www.comx.co.za), however, errors and omissions may occur. Only references to South Africa apply. All products are sourced in South Africa from the official suppliers and the warranty is that of the local supplier. E&OE. This table and our site's content may be used on condition that this notice and link remains intact and unaltered.

Specifications	
Product Code	GA-A520-AORUS-ELITE
CPU	1. AMD Socket AM4, support for: 3rd Generation AMD Ryzen processors/ 3rd Generation AMD Ryzen with Radeon Graphics processors
Chipset	1. AMD A520
Memory	1. 4 x DDR4 DIMM sockets supporting up to 128 GB (32 GB single DIMM capacity) of system memory
	2. 3rd Gen AMD Ryzen Processors:
	Support for DDR4 4400(O.C.) / 4000(O.C.) / 3600(O.C.) / 3333(O.C.) / 3200 / 2933 / 2667 / 2400 / 2133 MHz memory modules
	3. 3rd Gen AMD Ryzen with Radeon Graphics processors:
	Support for DDR4 4733(O.C.) / 4600(O.C.) / 4400(O.C.) / 4000(O.C.) / 3600(O.C.) / 3333(O.C.) / 3200 / 2933 / 2667 / 2400 / 2133 MHz memory modules
	4. Dual channel memory architecture
	5. Support for ECC Un-buffered DIMM 1Rx8/2Rx8 memory modules
	6. Support for non-ECC Un-buffered DIMM 1Rx8/2Rx8/1Rx16 memory modules
	7. Support for Extreme Memory Profile (XMP) memory modules
Onboard Graphics	Integrated in the 3rd Generation AMD Ryzen with Radeon Graphics processors:
	1. 1 x DVI-D port, supporting a maximum resolution of 1920x1200@60 Hz
	* The DVI-D port does not support D-Sub connection by adapter.
	2. 1 x HDMI port, supporting a maximum resolution of 4096x2160@60 Hz
	* Support for HDMI 2.1 version, HDCP 2.3, and HDR.
	Maximum shared memory of 16 GB

Audio	1. Realtek ALC1200 codec
	2. High Definition Audio
	3. 2/4/5.1/7.1-channel
	4. Support for S/PDIF Out
LAN	1. Realtek GbE LAN chip (1000 Mbit/100 Mbit)
Expansion Slots	CPU:
	1. 1 x PCI Express x16 slot, supporting PCIe 3.0 and running at x16 (PCIEX16)
	* For optimum performance, if only one PCI Express graphics card is to be installed, be sure to install it in the PCIEX16 slot.
	Chipset:
	1. 1 x PCI Express x16 slot, supporting PCIe 3.0 and running at x2 (PCIEX2)
	2. 3 x PCI Express x1 slots, supporting PCIe 3.0 (PCIEX1_1, PCIEX1_2, PCIEX1_3)
	* The PCIEX1_2 and PCIEX1_3 slots share bandwidth with the PCIEX2 slot. The PCIEX2 slot becomes unavailable when a device is installed in the PCIEX1_2 or PCIEX1_3 slot.
Storage Interface	CPU:
	1. 1 x M.2 connector (Socket 3, M key, type 2242/2260/2280/22110 SATA and PCIe 3.0 x4/x2 SSD support)
	Chipset:
	1. 4 x SATA 6Gb/s connectors
	2. Support for RAID 0, RAID 1, and RAID 10
USB	CPU:
	1. 1 x USB 3.2 Gen 2 Type-A port (red) on the back panel
	2. 3 x USB 3.2 Gen 1 ports on the back panel
	Chipset:
	1. 2 x USB 3.2 Gen 1 ports available through the internal USB header
	2. 4 x USB 2.0/1.1 ports available through the internal USB headers
	Chipset+USB 2.0 Hub:
	1. 4 x USB 2.0/1.1 ports on the back panel

Internal I/O Connectors	1. 1 x 24-pin ATX main power connector
	2. 1 x 8-pin ATX 12V power connector
	3. 1 x CPU fan header
	4. 1 x water cooling CPU fan header
	5. 3 x system fan headers
	6. 2 x addressable LED strip headers
	7. 2 x RGB LED strip headers
	8. 1 x M.2 Socket 3 connector
	9. 4 x SATA 6Gb/s connectors
	10. 1 x front panel header
	11. 1 x front panel audio header
	12. 1 x USB 3.2 Gen 1 header
	13. 2 x USB 2.0/1.1 headers
	14. 1 x Trusted Platform Module (TPM) header (2x6 pin, for the GC-TPM2.0_S module only)
	15. 1 x serial port header
	16. 1 x Clear CMOS jumper
	17. 1 x Q-Flash Plus button
Back Panel Connectors	1. 1 x PS/2 keyboard/mouse port
	2. 1 x DVI-D port
	3. 1 x HDMI port
	4. 1 x USB 3.2 Gen 2 Type-A port (red)
	5. 3 x USB 3.2 Gen 1 ports
	6. 4 x USB 2.0/1.1 ports
	7. 1 x RJ-45 port
	8. 1 x optical S/PDIF Out connector
	9. 5 x audio jacks
I/O Controller	1. iTE I/O Controller Chip
H/W Monitoring	1. Voltage detection
	2. Temperature detection
	3. Fan speed detection
	4. Water cooling flow rate detection
	5. Overheating warning
	6. Fan fail warning
	7. Fan speed control
	* Whether the fan speed control function is supported will depend on the cooler you install.

BIOS	1. 1 x 128 Mbit flash
	2. Use of licensed AMI UEFI BIOS
	3. PnP 1.0a, DMI 2.7, WfM 2.0, SM BIOS 2.7, ACPI 5.0
Unique Features	1. Support for APP Center
	* Available applications in APP Center may vary by motherboard model. Supported functions of each application may also vary depending on motherboard specifications.
	@BIOS
	EasyTune
	Fast Boot
	Game Boost
	ON/OFF Charge
	RGB Fusion
	Smart Backup
	System Information Viewer
	2. Support for Q-Flash Plus
	3. Support for Q-Flash
	4. Support for Xpress Install
Bundled Software	1. Norton Internet Security (OEM version)
	2. Realtek 8118 Gaming LAN Bandwidth Control Utility
Operating System	1. Support for Windows 10 64-bit
Form Factor	1. ATX Form Factor; 30.5cm x 24.4cm
Remark	1. Due to different Linux support condition provided by chipset vendors, please download Linux driver from chipset vendors' website or 3rd party website.
	2. Most hardware/software vendors may no longer offer drivers to support Win9X/ME/2000/XP. If drivers are available from the vendors, we will update them on the GIGABYTE website.

Product Information Online

For the latest product information, availability and purchasing details, please visit the product page:

Product page:
https://www.comx-computers.co.za/GA-A520-AORUS-ELITE-Gigabyte-A520-AORUS-ELITE-A520-Chipset-AMD-Ryzen-AM4-Socket-Motherboard-p-250358.php

Images and specifications are provided for reference and are subject to change without notice. E&OE.

Terms of Use: https://www.comx-computers.co.za/terms-of-use.php
Terms of Sale: https://www.comx-computers.co.za/terms-of-sale.php

PDF generated: 2026-11-15 20:24:33.

This PDF was generated automatically and may include content prepared or assisted by automated or AI-based systems. While reasonable care is taken to ensure accuracy, errors or omissions may occur.

For the most current and accurate product information, please refer to the product information available on our website. If any specification or other

information differs from information published elsewhere, please confirm the details with us before relying on the information or making a purchasing decision.

If you identify an error or discrepancy, please report it to us so that we may investigate and correct it where necessary.