




















1-2 Product Specifications

	CPU	<ul style="list-style-type: none"> ◆ AMD Socket AM4, support for: 3rd Generation AMD Ryzen™ processors/ 3rd Generation AMD Ryzen™ with Radeon™ Graphics processors (Go to GIGABYTE's website for the latest CPU support list.)
	Chipset	<ul style="list-style-type: none"> ◆ AMD A520
	Memory	<ul style="list-style-type: none"> ◆ 4 x DDR4 DIMM sockets supporting up to 128 GB (32 GB single DIMM capacity) of system memory ◆ Support for DDR4 3200/2933/2667/2400/2133 MHz memory modules ◆ Dual channel memory architecture ◆ Support for ECC Un-buffered DIMM 1Rx8/2Rx8 memory modules ◆ Support for non-ECC Un-buffered DIMM 1Rx8/2Rx8/1Rx16 memory modules ◆ Support for Extreme Memory Profile (XMP) memory modules (Go to GIGABYTE's website for the latest supported memory speeds and memory modules.)
	Onboard Graphics	<ul style="list-style-type: none"> ◆ Integrated in the 3rd Generation AMD Ryzen™ with Radeon™ Graphics processors: <ul style="list-style-type: none"> - 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. - 1 x DisplayPort, supporting a maximum resolution of 5120x2880@60 Hz * Support for DisplayPort 1.4 version, HDCP 2.3, and HDR. - 1 x HDMI port, supporting a maximum resolution of 4096x2160@60 Hz * Support for HDMI 2.1 version, HDCP 2.3, and HDR. ◆ Support for up to 3 displays at the same time ◆ Maximum shared memory of 16 GB
	Audio	<ul style="list-style-type: none"> ◆ Realtek® ALC887 codec ◆ High Definition Audio ◆ 2/4/5.1/7.1-channel <ul style="list-style-type: none"> * To configure 7.1-channel audio, you need to open the audio software and select Device advanced settings > Playback Device to change the default setting first. Please visit GIGABYTE's website for details on configuring the audio software.
	LAN	<ul style="list-style-type: none"> ◆ Realtek® GbE LAN chip (1000 Mbit/100 Mbit)
	Wireless Communication Module <small>(Note)</small>	<ul style="list-style-type: none"> ◆ Intel® Wi-Fi 3168 <ul style="list-style-type: none"> - WIFI 802.11a/b/g/n/ac, supporting 2.4/5 GHz Dual-Band - BLUETOOTH 4.2 - Support for 11ac wireless standard and up to 433 Mbps data rate * Actual data rate may vary depending on environment and equipment.
	Expansion Slots	<ul style="list-style-type: none"> ◆ CPU: <ul style="list-style-type: none"> - 1 x PCI Express x16 slot, supporting PCIe 3.0 and running at x16 ◆ Chipset: <ul style="list-style-type: none"> - 2 x PCI Express x1 slots, supporting PCIe 3.0 (PCIEX1_1, PCIEX1_2)
	Storage Interface	<ul style="list-style-type: none"> ◆ CPU: <ul style="list-style-type: none"> - 1 x M.2 connector (Socket 3, M key, type 2242/2260/2280 SATA and PCIe 3.0 x4/x2 SSD support) ◆ Chipset: <ul style="list-style-type: none"> - 4 x SATA 6Gb/s connectors - Support for RAID 0, RAID 1, and RAID 10

(Note) Only for the A520M DS3H AC.

	USB	<ul style="list-style-type: none"> ◆ CPU: <ul style="list-style-type: none"> - 4 x USB 3.2 Gen 1 ports on the back panel ◆ Chipset: <ul style="list-style-type: none"> - 2 x USB 3.2 Gen 1 ports available through the internal USB header - 4 x USB 2.0/1.1 ports (2 ports on the back panel, 2 ports available through the internal USB header)
	Internal Connectors	<ul style="list-style-type: none"> ◆ 1 x 24-pin ATX main power connector ◆ 1 x 8-pin ATX 12V power connector ◆ 1 x CPU fan header ◆ 2 x system fan headers ◆ 1 x addressable LED strip header ◆ 1 x RGB LED strip header ◆ 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 ◆ 1 x USB 2.0/1.1 header ◆ 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
	Back Panel Connectors	<ul style="list-style-type: none"> ◆ 1 x PS/2 keyboard/mouse port ◆ 1 x DVI-D port ◆ 1 x DisplayPort ◆ 1 x HDMI port ◆ 2 x SMA antenna connectors (1T1R) ^(Note) ◆ 4 x USB 3.2 Gen 1 ports ◆ 2 x USB 2.0/1.1 ports ◆ 1 x RJ-45 port ◆ 3 x audio jacks
	I/O Controller	<ul style="list-style-type: none"> ◆ iTE® I/O Controller Chip
	Hardware Monitor	<ul style="list-style-type: none"> ◆ Voltage detection ◆ Temperature detection ◆ Fan speed detection ◆ Overheating warning ◆ Fan fail warning ◆ Fan speed control <p style="margin-left: 40px;">* Whether the fan speed control function is supported will depend on the cooler you install.</p>
	BIOS	<ul style="list-style-type: none"> ◆ 1 x 128 Mbit flash ◆ Use of licensed AMI UEFI BIOS ◆ PnP 1.0a, DMI 2.7, WfM 2.0, SM BIOS 2.7, ACPI 5.0

(Note) Only for the A520M DS3H AC.

	Unique Features	<ul style="list-style-type: none"> ◆ Support for APP Center <ul style="list-style-type: none"> * 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 ◆ Support for Q-Flash Plus ◆ Support for Q-Flash ◆ Support for Xpress Install
	Bundled Software	<ul style="list-style-type: none"> ◆ Norton® Internet Security (OEM version) ◆ Realtek® 8118 Gaming LAN Bandwidth Control Utility
	Operating System	<ul style="list-style-type: none"> ◆ Support for Windows 10 64-bit
	Form Factor	<ul style="list-style-type: none"> ◆ Micro ATX Form Factor; 24.4cm x 24.4cm

* GIGABYTE reserves the right to make any changes to the product specifications and product-related information without prior notice.

A520M DS3H AC



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Please visit GIGABYTE's website for support lists of CPU, memory modules, SSDs, and M.2 devices.



Please visit the **Support Utility List** page on GIGABYTE's website to download the latest version of apps.