# Gigabyte B450M K (rev. 1.0)



Artikel Herstellernummer EAN Gigabyte 133321 B450M K 4719331849801

#### NVMe PCle Gen 3x4 22110 M.2 Connector

GIGABYTE Motherboards are focused on delivering M.2 technology to enthusiasts who want to maximize their system's potential.

## **GbE LAN with Bandwidth Management**

GbE LAN features a network bandwidth management application which helps to improve network latency and maintain low ping times to deliver better responsiveness in crowded LAN environments.

#### **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.

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 and water-temperature through the Hybrid Fan Pin Headers or external thermistor sensors—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.

# **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.

# 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.

## The Industry's Leading Surge Protection

GIGABYTE motherboards also feature special anti-surge IC that protect your motherboard, helping to ensure that your PC is equipped to deal with any potentially irregular electrical spikes.

#### **Humidity Protection Glass Fabric PCB**

There is nothing more harmful to the longevity of your PC than moisture, and most parts of the world experience moisture in the air as humidity at some point during the year. GIGABYTE motherboards have been designed to make sure that humidity is never an issue, incorporating a new Glass Fabric PCB technology that repels moisture caused by humid and damp conditions. Glass Fabric PCB technology uses a new PCB material which reduces the amount of space between the fiber weave, making it much more difficult for moisture to penetrate compared to traditional motherboard PCBs. This offers much better protection from short circuit and system malfunction caused by humid and damp conditions.

# High Temperature Protection Lower RDS(on) MOSFETs Design

GIGABYTE motherboards use Low RDS(on) MOSFETs which reduce energy wastage through unnecessary residual heat dissipation. This all amounts to tangible energy savings which are beneficial for both end-users and the environment without impacting system performance.

#### **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 an useful portal of all GIGABYTE MB utilities and drivers, you can choose any utility you want to install from APP CENTER and keep you updated with 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.

4K resolution is the next technological milestone in high-definition content delivery, utilizing approximately 4,000 pixels on the horizontal axis, more than four times today's standard HD pixel density. GIGABYTE motherboards provide native 4K support with integrated AMD Radeon® Graphics via HDMI.

HDMI<sup>TM</sup> is a High-Definition Multimedia Interface which provides up to 5Gb/s video transmitting bandwidth and 8-channel high quality audio all through a single cable. Able to transmit superior, uncompressed digital video and audio, HDMI<sup>TM</sup> ensures the crispest rendering of digital content up to 1080p without the quality losses associated with analog interfaces and their digital-to-analog conversion. In addition, HDMI<sup>TM</sup> is compatible with HDCP (High-bandwidth Digital Content Protection), allowing the playback of Bluray/HD DVD and other protected media content.

# Zusammenfassung

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Gigabyte B450M K (rev. 1.0), AMD, Socket AM4, AMD Athlon, AMD Ryzen™ 3, 2nd Generation AMD Ryzen™ 3, 3rd Generation AMD Ryzen™ 3, AMD..., DDR4-SDRAM, 64 GB, DIMM

Gigabyte B450M K (rev. 1.0). Processor manufacturer: AMD, Processor socket: Socket AM4, Compatible processor series: AMD Athlon, AMD Ryzen<sup>TM</sup> 3, 2nd Generation AMD Ryzen<sup>TM</sup> 3, 3rd Generation AMD Ryzen<sup>TM</sup> 3, AMD.... Supported memory types: DDR4-SDRAM, Maximum internal memory: 64 GB, Memory slots type: DIMM. Supported storage drive interfaces: SATA III, RAID levels: 0, 1, 10. Maximum graphics card memory: 16000 MB, Maximum resolution: 4096 x 2160 pixels. Ethernet interface type: Gigabit Ethernet

# Merkmale

**Expansion slots** 

		1 1000001	
Storage controllers		Processor manufacturer	AMD
		Processor socket	Socket AM4
Supported storage drive interfaces	SATA III	Compatible processor series	AMD Athlon, AMD Ryzen™ 3, 2nd Generation AMD Ryzen™ 3, 3rd
RAID levels	0, 1, 10		Generation AMD Ryzen™ 3, AMD
			Ryzen™ 5, 2nd Generation AMD
			Ryzen™ 5, 3rd Generation AMD
Weight & dimensions			Ryzen 5, AMD Ryzen™ 7, 2nd
worght a amionorono			Generation AMD Ryzen™ 7, 3rd
Width	244 mm		Generation AMD Ryzen™ 7, 3rd
Depth 195 mm		Generation AMD Ryzen™ 9	
		Maximum number of SMP processors	1

Processor

PCI Express x1 (Gen 2.x)	2
slots	
PCI Express x16 (Gen 3.x)	1
slots	
Number of M.2 (M) slots	1

# Network

Ethernet LAN	Yes
Ethernet interface type	Gigabit Ethernet
Wi-Fi	No

# **Packaging content**

Cables included	SATA
Drivers included	Yes
Bundled software	Norton Internet Security (OEM version) LAN bandwidth
	management software

# Graphics

Maximum graphics card	16000 MB
memory	
Parallel processing technology support	Not supported
Maximum resolution	4096 x 2160 pixels
HDCP	Yes

# **BIOS**

BIOS type	UEFI AMI
BIOS memory size	128 Mbit
ACPI version	5.0
Clear CMOS jumper	Yes
Desktop Management Interface (DMI) version	2.7
System Management BIOS (SMBIOS) version	2.7

# **Features**

Motherboard chipset	AMD B450
Audio output channels	7.1 channels
PC health monitoring	Fan, Temperature, Voltage
Component for	PC
Motherboard form factor	micro ATX
Motherboard chipset family	AMD

# Rear panel I/O ports

2
-4
1
2
1
2.0

# Memory

Supported memory types	DDR4-SDRAM
Number of memory slots	2
Memory slots type	DIMM
Memory channels	Dual-channel
ECC	Yes
Non-ECC	Yes
Supported memory clock speeds	2133,2400,2667,2933,3466,3600 MHz
Maximum internal memory	64 GB
Unbuffered memory	Yes

# Internal I/O

USB 2.0 connectors	2
USB 3.2 Gen 1 (3.1 Gen 1)	1
connectors	
Number of SATA III connectors	4
S/PDIF out connector	Yes
Audio connector	Yes
Front panel audio connector	Yes
Front panel connector	Yes
ATX Power connector (24-pin)	Yes
CPU fan connector	Yes
Number of chassis fan	1
connectors	
Chassis intrusion connector	Yes
TPM connector	Yes
12V power connector	Yes
RGB LED pin header	Yes

Preisänderungen und Irrtümer vorbehalten. Alle Produkte solange der Vorrat reicht.