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GIGABYTE GA-B85M-DS3H

GIGABYTE GA-B85M-DS3H Motherboard User Manual

Model: GA-B85M-DS3H | Brand: GIGABYTE

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1. INTRODUCTION

This manual provides detailed instructions for the installation, setup, and operation of your GIGABYTE GA-B85M-DS3H motherboard. Designed for 4th Generation Intel Core processors, this motherboard features GIGABYTE Ultra Durable 4 Plus Technology, GIGABYTE Hybrid digital power engine, and GIGABYTE UEFI DualBIOS for reliable performance. Please read this manual thoroughly before beginning installation to ensure proper setup and to maximize the benefits of your new motherboard.

2. SAFETY INFORMATION

- Always disconnect the power cord from the wall outlet before touching any component.
- Wear an anti-static wrist strap when handling the motherboard or other components to prevent electrostatic discharge (ESD) damage.
- Handle components by their edges to avoid touching sensitive parts.
- Ensure proper ventilation within your PC case to prevent overheating.
- Keep the motherboard away from moisture and extreme temperatures.
- Refer to the CPU and memory manuals for specific installation instructions.

3. PACKAGE CONTENTS

Verify that all items listed below are present in your motherboard package. If any item is missing or damaged, contact your retailer.

- GIGABYTE GA-B85M-DS3H Motherboard
- I/O Shield
- SATA Data Cables
- User Manual / Quick Installation Guide
- Driver CD/DVD

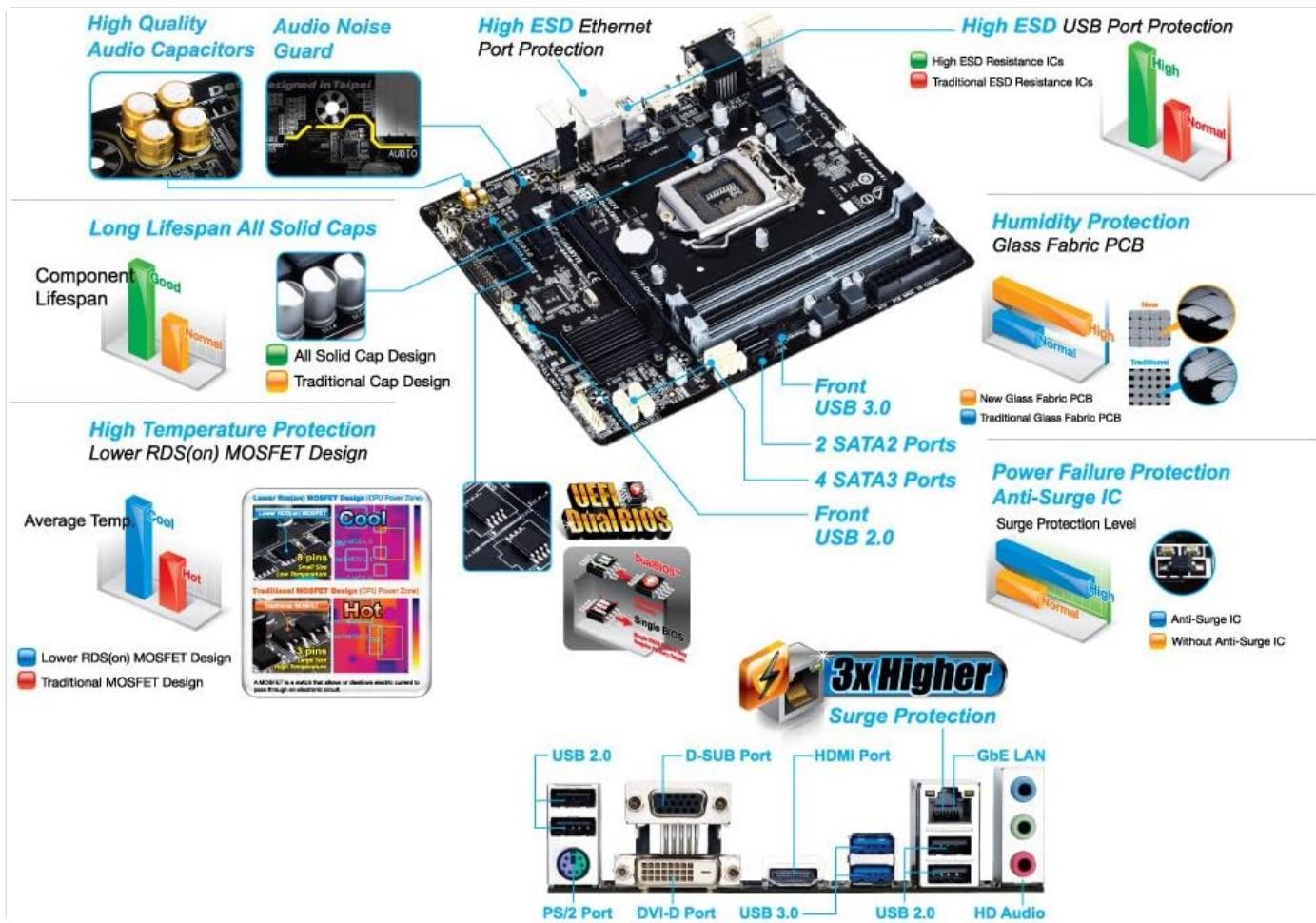


Figure 3.1: Motherboard and included accessories, typically including an I/O shield, SATA cables, and documentation.

4. MOTHERBOARD LAYOUT

Familiarize yourself with the various components and connectors on your motherboard before installation.

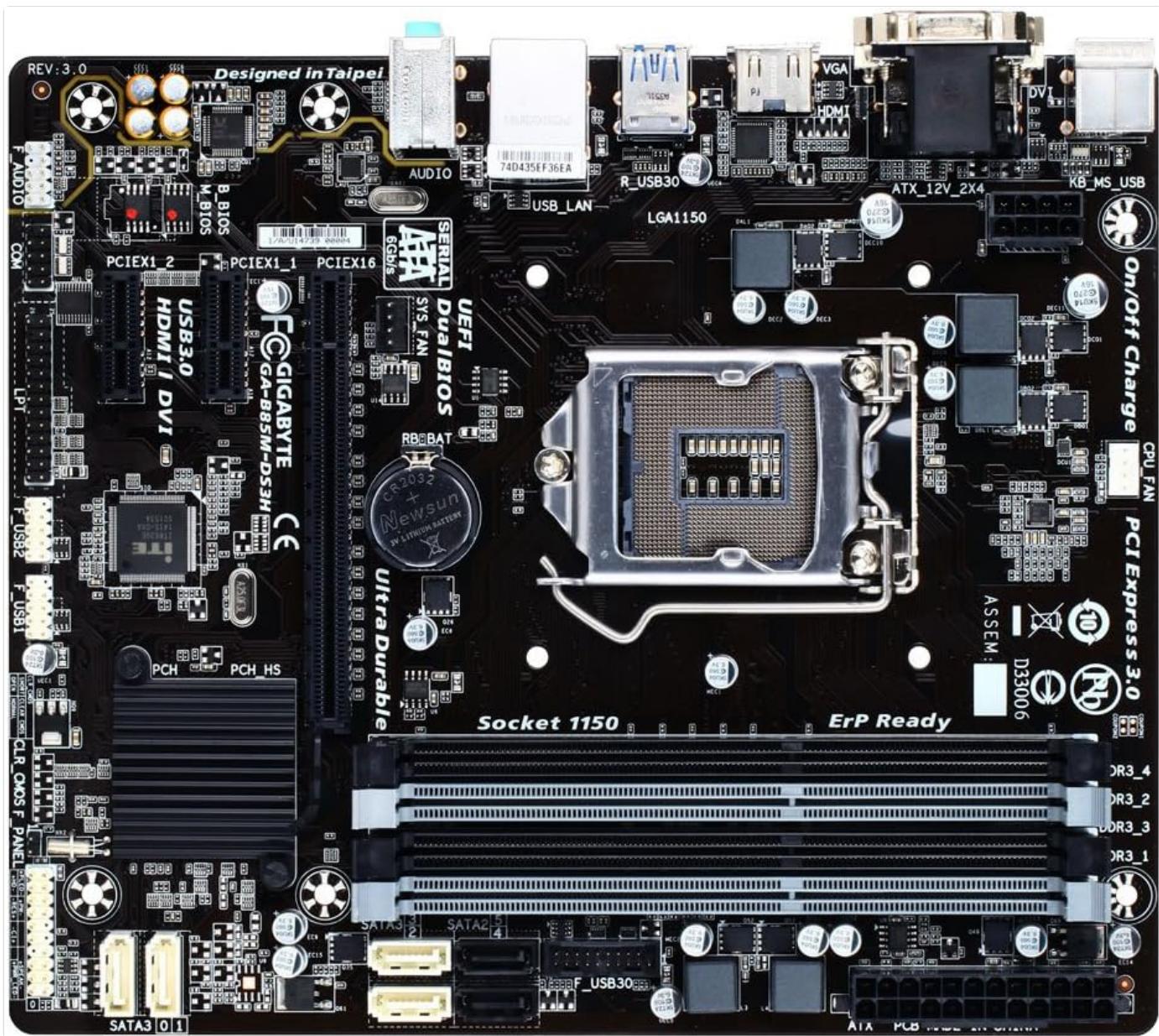


Figure 4.1: Top-down view of the GIGABYTE GA-B85M-DS3H motherboard, showing the CPU socket, RAM slots, and various headers.

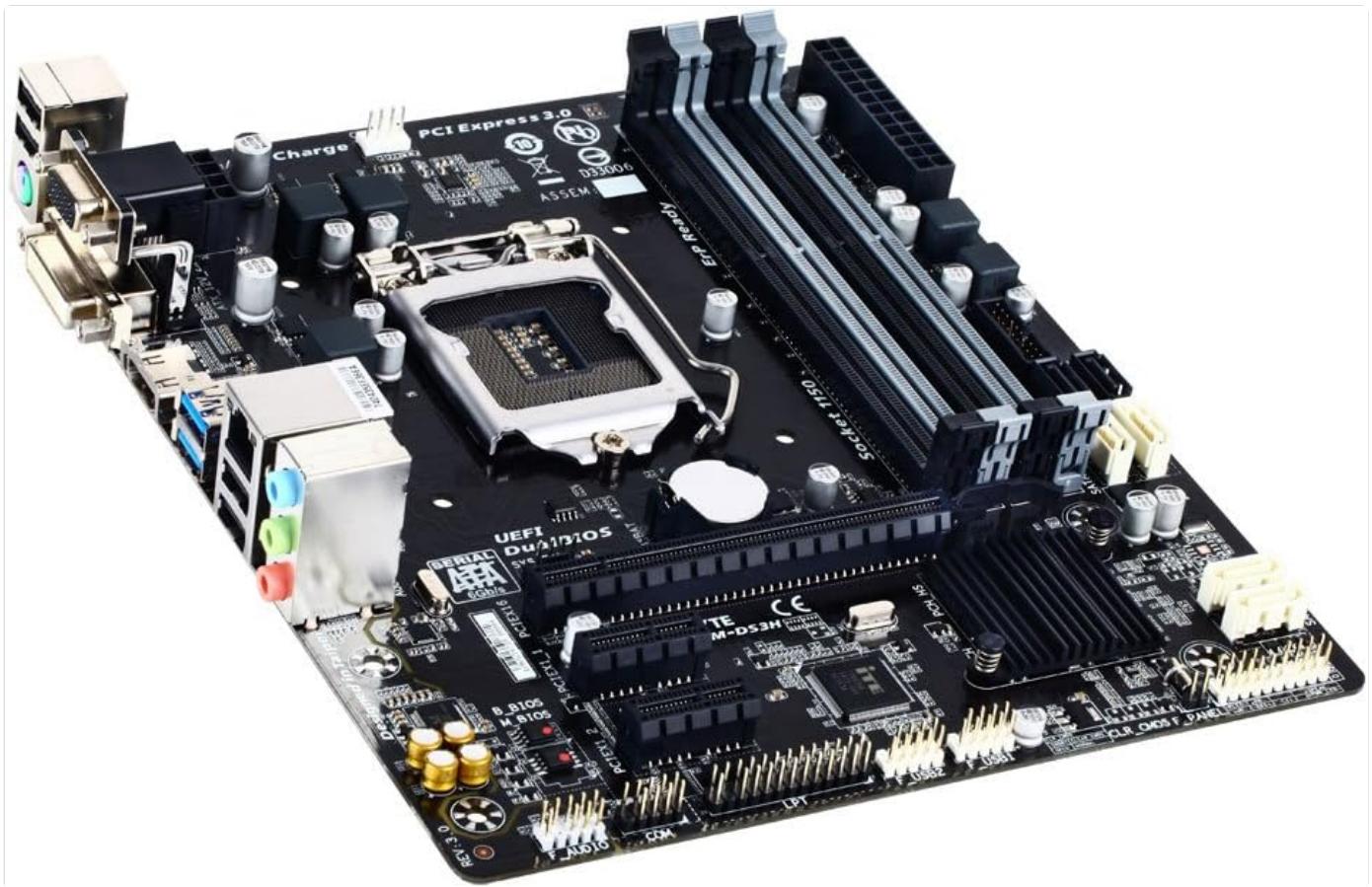


Figure 4.2: Angled view of the GIGABYTE GA-B85M-DS3H motherboard, highlighting the various ports and connectors from a different perspective.



Figure 4.3: The GIGABYTE GA-B85M-DS3H motherboard displayed alongside its retail packaging, emphasizing its Ultra Durable 4 Plus features.



Figure 4.4: Close-up view of the rear I/O panel, showing ports for PS/2, D-SUB, DVI-D, HDMI, USB 3.0/2.0, LAN, and audio jacks.

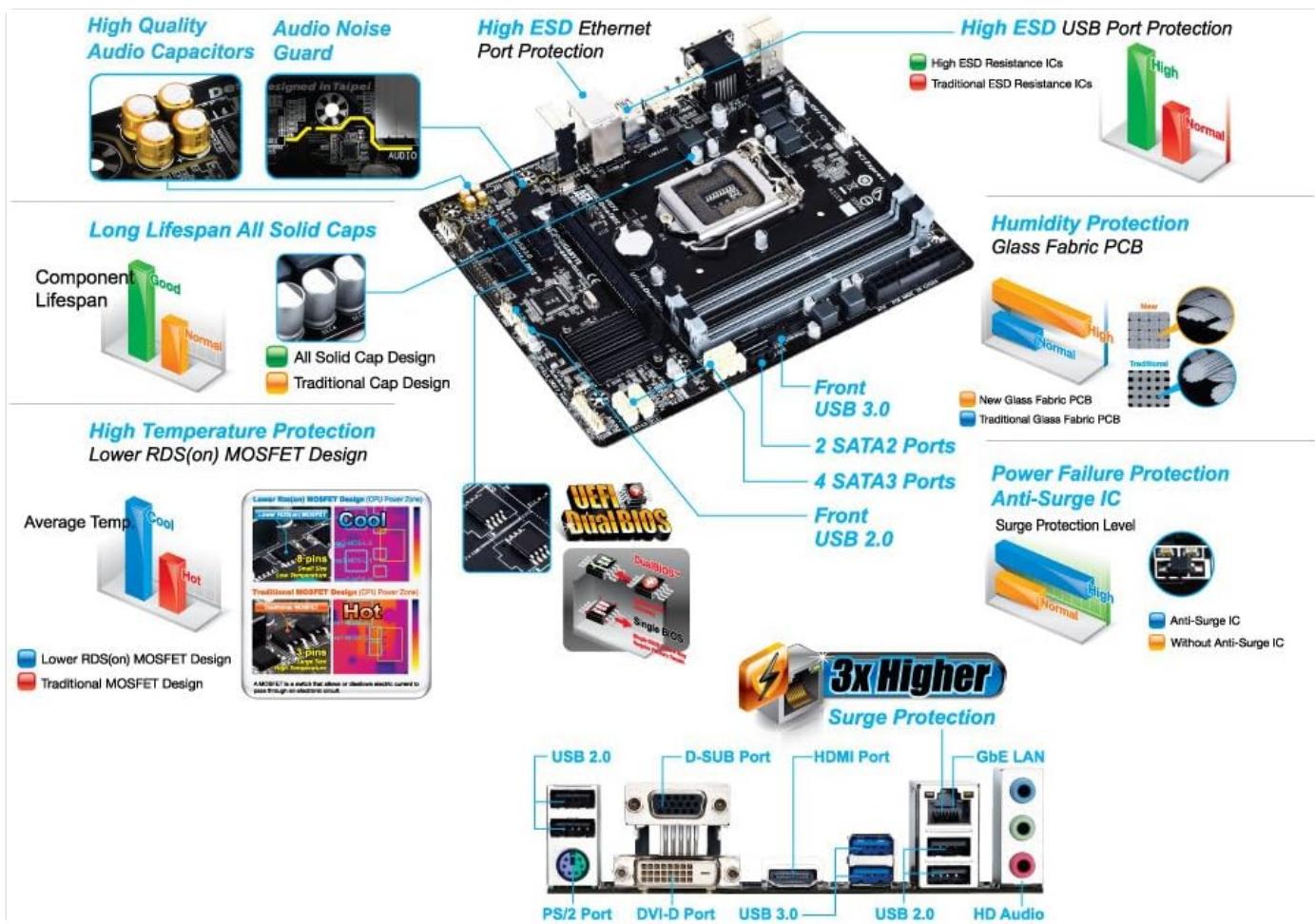


Figure 4.5: Diagram illustrating key features such as High Quality Audio Capacitors, Audio Noise Guard, High ESD Protection, Long Lifespan All Solid Caps, Humidity Protection, High Temperature Protection, Power Failure Protection, and 3x Higher Surge Protection.

5. SETUP & INSTALLATION

5.1. CPU Installation

1. Locate the LGA 1150 CPU socket on the motherboard.
2. Open the CPU socket lever and lift the metal load plate.
3. Carefully align the CPU with the socket, ensuring the golden triangle on the CPU matches the triangle on the socket.
4. Gently place the CPU into the socket without forcing it.
5. Close the load plate and secure it with the lever.
6. Apply thermal paste and install the CPU cooler according to its instructions.

5.2. Memory (RAM) Installation

The motherboard supports up to 32GB of DDR3 1600/1333 MHz memory across four DIMM slots.

1. Open the clips at both ends of the DIMM slot.
2. Align the notch on the DDR3 memory module with the key in the DIMM slot.
3. Insert the memory module firmly into the slot until the clips snap into place.
4. For dual-channel configuration, install memory modules in matching colored slots (e.g., DDR3_1 and DDR3_2).

5.3. Storage Device Connection (SATA)

Connect your SATA 6Gb/s (SATA3) and SATA 3Gb/s (SATA2) devices.

- The motherboard features 4x SATA 6Gb/s ports and 2x SATA 3Gb/s ports.
- Connect one end of the SATA data cable to the SATA port on the motherboard and the other end to your storage device (HDD/SSD).
- Connect the SATA power cable from your power supply to the storage device.

5.4. Expansion Card Installation

The motherboard includes 1x PCI Express 3.0 x16 slot and 2x PCI Express 2.0 x1 slots.

1. Select an appropriate PCI Express slot for your expansion card (e.g., graphics card, network card).
2. Remove the corresponding metal bracket cover from your PC case.
3. Align the card with the slot and press down firmly until it is securely seated.
4. Secure the card to the case with a screw.

5.5. Front Panel Connectors

Connect the cables from your PC case's front panel to the corresponding headers on the motherboard. Refer to the motherboard diagram (Figure 4.1) for header locations.

- **F_PANEL:** Power button, reset button, HDD LED, power LED.
- **F_AUDIO:** Front panel audio jacks.
- **F_USB30:** Front panel USB 3.0 ports.
- **F_USB20:** Front panel USB 2.0 ports.

5.6. Power Connections

Connect the main ATX power connector and the CPU power connector from your power supply to the motherboard.

- **ATX (24-pin):** Main power connector.
- **ATX_12V (8-pin):** CPU power connector.

6. OPERATION

6.1. BIOS/UEFI Setup

The GIGABYTE UEFI DualBIOS provides a user-friendly interface for configuring system settings. To enter BIOS setup, press the **DEL** key during system startup.

- Configure boot order for your operating system installation.
- Adjust system clock and date.
- Monitor system health (temperatures, fan speeds).
- Enable or disable integrated peripherals.

6.2. Driver Installation

After installing your operating system, install the necessary drivers for optimal performance. Drivers can be found on the included driver CD/DVD or downloaded from the official GIGABYTE website.

- Chipset Drivers
- LAN Drivers
- Audio Drivers
- Graphics Drivers (if using integrated graphics)
- USB 3.0 Drivers

7. MAINTENANCE

7.1. Cleaning

Regularly clean your PC to prevent dust buildup, which can lead to overheating and reduced performance. Use compressed air to remove dust from components and ensure proper airflow.

7.2. BIOS Updates

Periodically check the GIGABYTE website for BIOS updates. BIOS updates can improve system stability, add support for new hardware, or fix bugs. Follow the instructions provided by GIGABYTE carefully when updating the BIOS.

8. TROUBLESHOOTING

- No Power:** Ensure all power cables (24-pin ATX, 8-pin CPU) are securely connected. Check power supply functionality.
- No Display:** Verify that the monitor is connected to the correct video output (onboard or discrete graphics card). Reseat the graphics card and RAM modules.
- System Instability/Crashes:** Check RAM modules for proper seating. Ensure CPU cooler is correctly installed and making good contact. Update drivers and BIOS.
- Operating System Not Booting:** Check boot order in BIOS. Verify storage device connections.
- Peripheral Not Detected:** Ensure USB/SATA devices are properly connected. Install necessary drivers.

9. SPECIFICATIONS

Feature	Detail
CPU Socket	LGA 1150
Chipset	Intel B85 Express
Memory Slots	4x DDR3 DIMM, Dual Channel
Max Memory Capacity	32GB
Memory Speed	DDR3 1600/1333 MHz
PCIe Slots	1x PCI Express 3.0 x16, 2x PCI Express 2.0 x1
SATA Ports	4x SATA 6Gb/s, 2x SATA 3Gb/s
USB Ports (Rear)	2x USB 3.0/2.0, 4x USB 2.0/1.1
USB Ports (Internal Headers)	2x USB 3.0/2.0, 4x USB 2.0/1.1
Video Outputs	1x D-Sub, 1x DVI-D, 1x HDMI
LAN	10/100/1000 Mbit
Audio	High Definition Audio
Form Factor	Micro ATX (22.6 x 19.3 cm)

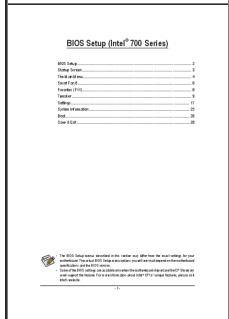
10. WARRANTY & SUPPORT

For warranty information and technical support, please refer to the warranty card included with your product or visit the official GIGABYTE website. GIGABYTE provides comprehensive support resources, including FAQs, driver downloads, and contact information for technical assistance.

GIGABYTE Official Website: www.gigabyte.com

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Related Documents - GA-B85M-DS3H

 <p>A520M DS3H AC A520M DS3H</p> <p>User's Manual Rev. 001</p>  <p>To view the manual on a mobile device, please download the GIGABYTE mobile app and scan the QR code.</p>	<p>GIGABYTE A520M DS3H AC & A520M DS3H User Manual</p> <p>Comprehensive user manual for the GIGABYTE A520M DS3H AC and A520M DS3H motherboards, covering hardware installation, BIOS setup, product specifications, and more.</p>
 <p>BIOS Setup (Intel® 700 Series)</p>  <p>The BIOS Setup interface in this section may differ from the actual interface. For more detailed information, please refer to the GIGABYTE BIOS Setup Guide.</p>	<p>GIGABYTE Intel 700 Series BIOS Setup Guide</p> <p>Comprehensive guide to configuring the BIOS settings for GIGABYTE motherboards featuring Intel 700 Series chipsets. Covers Advanced Mode, Easy Mode, fan control, system settings, boot options, and more.</p>
 <p>B450M DS3H V2</p> <p>User's Manual Rev. 001</p>  <p>To view the manual on a mobile device, please download the GIGABYTE mobile app and scan the QR code.</p>	<p>GIGABYTE B450M DS3H V2 Motherboard User Manual</p> <p>This user manual provides comprehensive details for the GIGABYTE B450M DS3H V2 motherboard, covering hardware installation, BIOS setup, product specifications, driver installation, and regulatory information.</p>
 <p>B550M DS3H AC B550M DS3H</p> <p>User's Manual Rev. 001</p>  <p>To view the manual on a mobile device, please download the GIGABYTE mobile app and scan the QR code.</p>	<p>GIGABYTE B550M DS3H AC & B550M DS3H Motherboard User Manual</p> <p>This user manual provides detailed information and instructions for the GIGABYTE B550M DS3H AC and B550M DS3H motherboards, covering hardware installation, BIOS setup, operating system installation, and driver installation.</p>

<p>B760 DS3H AX B760 DS3H AX V2 B760 DS3H AC B760 DS3H B760 DS3H AX DDR4 B760 DS3H AC DDR4 B760 DS3H DDR4</p> <p>User's Manual Rev. 1.00</p> 	<p>GIGABYTE B760 DS3H Series Motherboard User Manual</p> <p>Comprehensive user manual for GIGABYTE B760 DS3H series motherboards (AX, AX V2, AC, DS3H, AX DDR4, AC DDR4, DS3H DDR4), covering installation, specifications, BIOS setup, and troubleshooting.</p>
<p>B840M DS3H WIFI6 (B840M DS3H WF6) B840M DS3H</p> <p>使用手册 Rev. 1.00</p> 	<p>GIGABYTE B840M DS3H WIFI6 Motherboard User Manual</p> <p>Comprehensive user manual for the GIGABYTE B840M DS3H WIFI6 motherboard, covering installation, specifications, BIOS setup, and driver installation. Includes detailed hardware descriptions, component layouts, and regulatory information.</p>