

772629281442

# Generic Q45T-CM Main Board User Manual

Model: 772629281442

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the Generic Q45T-CM Main Board. This motherboard is designed to support LGA 775 socket processors, DDR3 memory, and features integrated DVI and VGA graphics outputs, suitable for quad-core CPU configurations.

Please read this manual thoroughly before proceeding with installation to ensure proper setup and to prevent damage to the components.

## 2. SAFETY INFORMATION

- Always disconnect the power supply from the wall outlet before installing or removing any components.
- Wear an anti-static wrist strap or frequently touch a grounded metal object to discharge static electricity, which can damage sensitive electronic components.
- Handle the motherboard by its edges to avoid touching components or circuits.
- Ensure proper ventilation within the computer case to prevent overheating.
- Keep the motherboard away from moisture and extreme temperatures.

## 3. PRODUCT OVERVIEW

The Generic Q45T-CM Main Board features a standard layout for desktop computers. Below is an image illustrating the main components and their locations.



**Figure 3.1:** Generic Q45T-CM Main Board Layout. This image displays the motherboard from a top-down perspective, highlighting key components such as the LGA 775 CPU socket at the top-center, two blue and two black DDR3 RAM slots to its right, and various expansion slots (PCIe x16, PCI) towards the bottom. The rear I/O panel with DVI, VGA, and USB ports is visible on the left edge, while multiple orange SATA ports are arranged along the right edge. The main 24-pin ATX power connector is located on the upper right, and the 4-pin CPU power connector is near the top left.

### Key Components:

- **LGA 775 CPU Socket:** Supports Intel Core 2 Quad, Core 2 Duo, Pentium, and Celeron processors.
- **DDR3 DIMM Slots:** Four slots supporting DDR3 memory modules.
- **PCI Express x16 Slot:** For high-performance graphics cards.
- **PCI Slots:** For legacy expansion cards.
- **SATA Ports:** Multiple ports for connecting storage devices like HDDs and SSDs.
- **Rear I/O Panel:** Includes DVI, VGA, USB 2.0, LAN, and audio ports.
- **24-pin ATX Power Connector:** Main power input from the power supply.
- **4-pin ATX 12V Power Connector:** Provides additional power to the CPU.

## 4. SETUP AND INSTALLATION

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### 4.1 CPU Installation

1. Locate the LGA 775 CPU socket.
2. Gently push down the load lever and pull it to the side to open the socket retention frame.
3. Carefully align the CPU with the socket, ensuring the notches on the CPU match the keys on the socket. Do not force the CPU into the socket.
4. Lower the CPU into the socket.
5. Close the retention frame and push the load lever back into its locked position.
6. Apply a thin, even layer of thermal paste to the top of the CPU.
7. Install the CPU cooler according to its manufacturer's instructions, ensuring it is securely fastened and its fan is connected to the CPU\_FAN header on the motherboard.

### 4.2 RAM Installation

1. Open the clips at both ends of the DDR3 DIMM slots.
2. Align the memory module with the slot, ensuring the notch on the module matches the key in the slot.
3. Press down firmly on both ends of the memory module until the clips snap into place.

### 4.3 Expansion Card Installation

1. Remove the metal bracket cover from the desired expansion slot on your computer case.
2. Align the expansion card with the slot (PCIe x16 or PCI).
3. Press down firmly until the card is fully seated in the slot.
4. Secure the card with a screw or retention clip to the computer case.

### 4.4 Connecting Storage Devices

1. Connect one end of a SATA data cable to a SATA port on the motherboard.
2. Connect the other end of the SATA data cable to your HDD or SSD.
3. Connect a SATA power cable from your power supply to the HDD or SSD.

### 4.5 Power Supply Connections

1. Connect the 24-pin ATX power connector from your power supply to the corresponding header on the motherboard.
2. Connect the 4-pin ATX 12V power connector from your power supply to the corresponding header near the CPU socket.

### 4.6 Front Panel and I/O Connections

- Connect the front panel connectors (Power SW, Reset SW, HDD LED, Power LED) to the F\_PANEL header according to the pin assignments. Refer to your computer case manual for specific pinouts.
- Connect front panel USB ports to the USB headers on the motherboard.
- Connect front panel audio ports to the F\_AUDIO header.
- Connect peripherals (monitor, keyboard, mouse, etc.) to the rear I/O panel ports.

## 5. OPERATING INSTRUCTIONS

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## 5.1 First Boot

1. After all components are installed and connected, ensure the power supply is switched on.
2. Press the power button on your computer case.
3. The system should power on, and you should see a display on your monitor.
4. If no display appears, refer to the Troubleshooting section.

## 5.2 BIOS/UEFI Setup

To enter the BIOS/UEFI setup utility, press the **DEL** or **F2** key repeatedly during the initial boot sequence (POST). The exact key may vary; observe the on-screen prompts.

- **Boot Order:** Configure the boot order to install your operating system from a USB drive or optical drive.
- **System Time/Date:** Set the correct system time and date.
- **SATA Mode:** Ensure the SATA controller mode (e.g., AHCI) is correctly set for your operating system and storage devices.
- **Save and Exit:** Always save your changes before exiting the BIOS/UEFI setup.

## 5.3 Driver Installation

After installing your operating system, install the necessary drivers for the motherboard's components. These typically include chipset drivers, integrated graphics drivers, LAN drivers, and audio drivers. Drivers are usually provided on a support CD or can be downloaded from the chipset manufacturer's website.

## 6. MAINTENANCE

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- **Dust Removal:** Regularly clean dust from inside your computer case, especially from CPU coolers, case fans, and heatsinks, using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS Updates:** Check the manufacturer's website periodically for BIOS updates. BIOS updates can improve system stability, compatibility, and performance. Follow the update instructions carefully to avoid damaging the motherboard.
- **Cable Management:** Ensure internal cables are neatly routed to improve airflow and prevent interference.

## 7. TROUBLESHOOTING

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### Common Issues and Solutions:

- **No Power:**
  - Check if the power supply is connected and switched on.
  - Ensure the 24-pin and 4-pin ATX power connectors are securely seated on the motherboard.
  - Verify the front panel power button cable is correctly connected to the F\_PANEL header.
- **No Display:**
  - Ensure the monitor is connected to the correct video output (VGA or DVI) on the motherboard or graphics card.
  - Reseat the RAM modules. Try booting with only one RAM module installed.
  - Reseat the CPU and check for bent pins in the socket (if applicable).
  - If using a dedicated graphics card, ensure it is properly seated and powered.
- **System Instability/Crashes:**

- Check CPU and GPU temperatures. Overheating can cause instability.
- Run memory diagnostic tools to check for faulty RAM.
- Ensure all drivers are up to date.
- Check for loose power or data cables.

- **Operating System Not Booting:**

- Verify the boot order in BIOS/UEFI.
- Check SATA cable connections to storage devices.
- Run a disk check on your storage drive.

## 8. SPECIFICATIONS

Feature	Specification
Model	Q45T-CM
CPU Socket	LGA 775
Chipset	Intel Q45
Memory	4 x DDR3 DIMM slots
Expansion Slots	1 x PCI Express x16, 2 x PCI
Storage	Multiple SATA ports
Video Output	1 x DVI, 1 x VGA
USB Ports	USB 2.0 (rear and internal headers)
LAN	Integrated Gigabit Ethernet
Audio	Integrated HD Audio
Form Factor	Micro-ATX (estimated based on image)

## 9. WARRANTY INFORMATION

For specific warranty terms and conditions, please refer to the documentation provided by your retailer or contact the seller directly. Warranty coverage typically includes defects in materials and workmanship under normal use.

## 10. SUPPORT

If you encounter issues that cannot be resolved using the troubleshooting steps in this manual, please contact your point of purchase or the seller for technical assistance. Provide your product model number (772629281442) and a detailed description of the problem.

