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Intel BOXD425KT

Intel D425KT Innovation Series Motherboard User Manual

Model: BOXD425KT

Introduction

This manual provides comprehensive instructions for the installation, operation, maintenance, and troubleshooting of your Intel D425KT Innovation Series Motherboard. Designed with an integrated Intel Atom D425 Processor and Intel NM10 Express Chipset, this mini-ITX motherboard offers a compact and energy-efficient computing solution. Please read this manual thoroughly before proceeding with installation or operation.

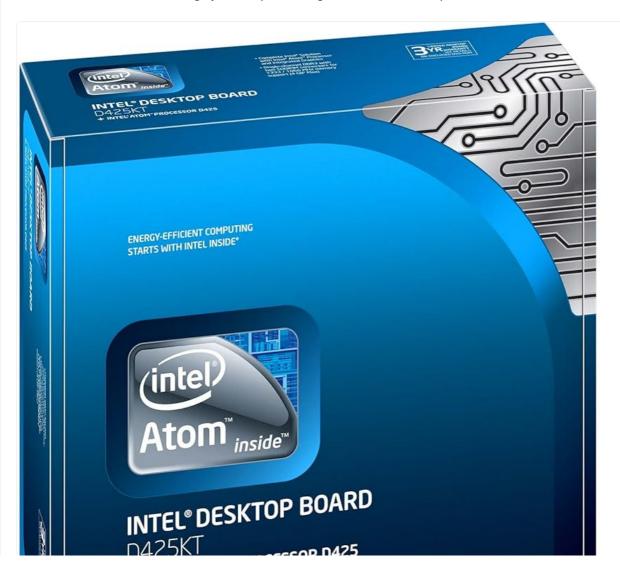




Figure 1: Intel D425KT Motherboard and its retail packaging. The image displays the compact mini-ITX form factor motherboard alongside its blue and black box, highlighting the Intel Atom processor branding.

1. Setup and Installation

Before beginning installation, ensure you have a clean, static-free workspace. It is recommended to wear an antistatic wrist strap to prevent damage to components.

1.1. Package Contents Verification

Verify that all components listed in your product's packing list are present. Typically, this includes the Intel D425KT motherboard, I/O shield, SATA cables, and documentation.

1.2. Component Overview

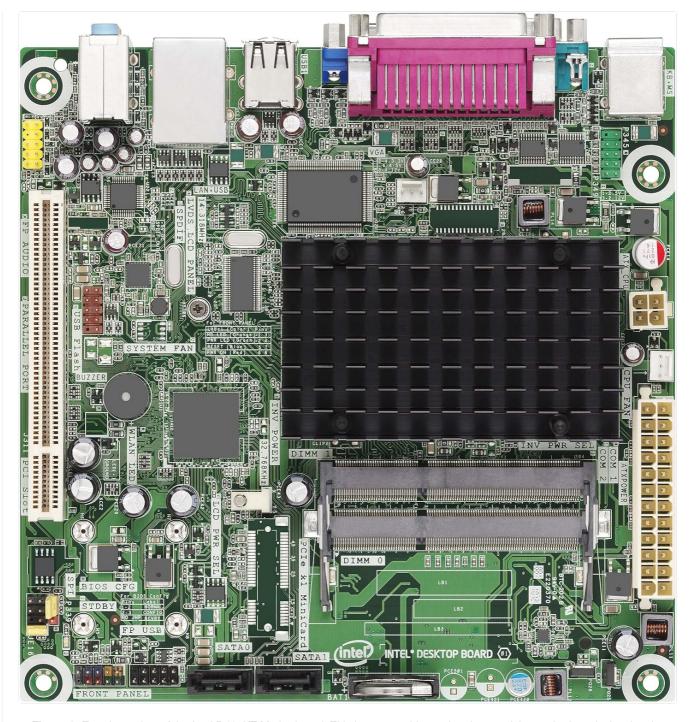


Figure 2: Top-down view of the Intel D425KT Motherboard. This image provides a clear layout of the motherboard, showing the integrated Atom processor heatsink, memory slots, SATA ports, and various headers for system connections.

1.3. Memory Installation

The Intel D425KT uses DDR3 SO-DIMM (notebook) memory. Locate the memory slot(s) on the motherboard. Gently push down the clips at each end of the slot. Align the notch on the memory module with the key in the slot. Insert the module firmly until the clips snap into place, securing the module.

1.4. Power Connections

Connect the 24-pin ATX main power connector from your power supply to the corresponding port on the motherboard. Additionally, connect the 4-pin P4 CPU power cable to the designated connector near the CPU socket.

1.5. Storage Device Connection

Connect your SATA storage devices (hard drives, SSDs) to the SATA ports on the motherboard using SATA data cables. Ensure the power cables from your power supply are also connected to these devices.

1.6. Front Panel Connections

Connect the front panel cables from your computer case (Power LED, HDD LED, Power Switch, Reset Switch, USB ports, Audio ports) to their respective headers on the motherboard. Refer to the motherboard's silkscreen labels for correct pin alignment.

1.7. Rear Panel Connections

Install the I/O shield into your computer case. Connect your peripherals (keyboard, mouse, monitor, network cable, audio devices) to the appropriate ports on the motherboard's rear I/O panel.



Figure 3: Rear I/O ports of the Intel D425KT Motherboard. This image clearly shows the various connectivity options available at the back of the motherboard, including PS/2 ports, serial ports, VGA, USB, Ethernet, and audio jacks.

2. Operating Instructions

2.1. First Boot

After all connections are secure, connect the power cord to your power supply and turn on the system. The system should power on, and you should see the BIOS POST screen on your monitor.

2.2. BIOS/UEFI Setup

During the POST sequence, press the designated key (usually **DEL** or **F2**) to enter the BIOS setup utility. Here you can configure boot order, system time, and other hardware settings. Save and exit the BIOS after making any changes.

2.3. Operating System Installation

Insert your operating system installation media (USB drive or CD/DVD) and follow the on-screen prompts to install your preferred operating system. Ensure the boot order in BIOS is set to prioritize your installation media.

2.4. Driver Installation

After the operating system is installed, install the necessary drivers for the motherboard's components (chipset, audio, LAN, graphics). These drivers are typically provided on a CD/DVD included with the motherboard or can be downloaded from the Intel support website.

3. Maintenance

3.1. Cleaning

Regularly clean the interior of your computer case to prevent dust buildup, which can lead to overheating. Use compressed air to gently remove dust from the motherboard, heatsinks, and fans. Ensure the system is powered off and unplugged before cleaning.

3.2. BIOS Updates

Periodically check the Intel support website for updated BIOS versions. BIOS updates can improve system stability, compatibility, and performance. Follow the instructions provided by Intel carefully when performing a BIOS update.

3.3. Environmental Considerations

Operate the motherboard in a well-ventilated environment with stable temperature and humidity. Avoid exposing the system to extreme temperatures, direct sunlight, or excessive moisture.

4. Troubleshooting

This section provides solutions to common issues you might encounter.

4.1. No Power

- Check all power connections: 24-pin ATX, 4-pin P4, and power supply cable to wall outlet.
- Ensure the power supply switch is in the 'ON' position.
- Test the power supply with another system or a power supply tester.

4.2. No Display

- Verify the monitor is connected to the correct video output port (VGA on this motherboard) and is powered on.
- Reseat the memory modules. Incorrectly seated RAM is a common cause of no display.
- Clear the CMOS by removing the CMOS battery for 30 seconds or using the clear CMOS jumper (refer to motherboard diagram for location).

4.3. System Instability/Crashes

- Ensure all drivers are correctly installed and up to date.
- Check CPU and chipset temperatures using monitoring software. Ensure adequate cooling.
- Run memory diagnostic tools to check for faulty RAM.
- · Verify hard drive health.

5. Specifications

Below are the key technical specifications for the Intel D425KT Motherboard:

Specification

Feature	Specification
Model Name	BOXD425KT
CPU Socket	Integrated Intel Atom D425 Processor
Chipset Type	Intel NM10 Express
RAM Memory Technology	DDR3 SO-DIMM
Memory Clock Speed	1.8 GHz (CPU Base Clock)
Max Memory Storage Capacity	4 GB
Main Power Connector Type	24-Pin ATX
Product Dimensions	7.5 x 7 x 2 inches
Item Weight	1.35 pounds
Manufacturer	Intel Corporation
First Available Date	September 6, 2010

6. Warranty and Support

6.1. Warranty Information

Intel products are typically covered by a limited warranty. For specific warranty terms and conditions applicable to your Intel D425KT motherboard, please refer to the warranty card included with your product or visit the official Intel support website.

6.2. Technical Support

For technical assistance, driver downloads, or further information, please visit the official Intel support website: Intel Support for Motherboards

When contacting support, please have your product model (BOXD425KT) and serial number ready.

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Related Documents - BOXD425KT



Intel Q87 Express Chipset Mini-ITX Motherboard Technical Manual

This technical manual provides detailed specifications, features, hardware installation guides, and BIOS configuration for the Intel Q87 Express Chipset based Mini-ITX motherboard (Model G03-NF9J-F).

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Mobile Intel® 945 Express Chipset Family	Mobile Intel® 945 Express Chipset Family Datasheet Technical datasheet detailing the Mobile Intel® 945 Express Chipset Family, including specifications, features, signals, and register details for various models like 945GM, 945GME, 945PM, 945GT, 945GMS, 940GML, 943GML, and 945GU. Published July 2007.
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