

Update to the Intel® Desktop Board D850EMV2 Documentation

This document details the features that are supported by the enclosed Intel® Desktop Board D850EMV2 that have changed or are not described in the Intel Desktop Boards D850EMV2 and D850EMD2 Product Guide and Quick Reference.

Main Memory

The desktop boards have four 2.5 V memory module sockets that support RIMMs containing Direct Rambus* DRAM (RDRAM) devices.

The desktop boards support the following memory features:

- Maximum of 24 PC1066 RDRAM devices per channel (maximum 1.5 GB PC1066 onboard capacity utilizing 256/288 Mbit technology)
- Maximum of 32 PC800 RDRAM devices per channel (maximum 2 GB PC800 onboard capacity utilizing 128/144 Mbit or 256/288 Mbit technology)
- Single or double-sided RIMM modules
- Support for PC1066-32P compliant RDRAM with 533 MHz front side bus (FSB) operation
- Support for PC800-40 compliant RDRAM with 533 MHz FSB operation
- Support for PC800-40 and PC800-45 compliant RDRAM with 400 MHz FSB operation
- Serial Presence Detect (SPD) memory only
- ECC and non-ECC support

CAUTION

Continuity RIMM (CRIMM) modules must be installed in unused memory connectors or the desktop board will not boot.

The desktop board has four memory module sockets arranged as bank 0 and bank 1. The pair of sockets closest to the processor is bank 0.

When installing memory:

- Install a pair of RIMMs in the sockets in bank 0 first. The RIMMs must be the same speed (PC1066-32P, PC800-40, or PC800-45), size (64 MB, 128 MB, 256 MB, or 512 MB), and density (single- or double-sided).
- If the desired memory configuration has been achieved in bank 0, install CRIMMs in the sockets in bank 1.
- If memory is to be installed in bank 1, the RIMM modules to be installed must be the same size and density to each other and match the speed of the RIMM modules in bank 0.

For example, if bank 0 has two 128 MB RIMMs of PC800-40 RDRAM, bank 1 would require PC800-40 RDRAM also, however, any other supported RIMM modules such as 64 MB, 128 MB, 256 MB, or 512 MB could be used.

Intel® 82850E Memory Controller Hub (MCH)

The MCH has these features:

- Integrated dual Direct Rambus technology memory channel
- Support for 128 MB to 1.5 GB PC1066 main system memory
- Support for 128 MB to 2 GB PC800 main system memory
- Auto-detection of RDRAM memory
- Support for a single AGP device

Audio Subsystem

The AC '97 compliant audio subsystem consists of the following:

- Intel® 82801BA I/O Controller Hub (ICH2)
- Analog Devices Inc. AD1981b analog codec
- 1/8" stereo microphone back panel jack

Intel® Precision Cooling Technology for Advanced Fan Speed Control

Intel® Precision Cooling Technology automatically adjusts the chassis fan speeds depending on the system's temperature. This feature reduces system fan noise by lowering the speed of the chassis fans connected to the front, rear, and RIMM chassis fan connectors. This feature does not control the processor fan connector.

The fan speed control feature can be disabled in the BIOS, resulting in the chassis fans always operating at full speed. This feature should be disabled if a self-controlled fan is attached to a chassis fan connector.

Overall system noise reduction will vary based on system configuration and environment.

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