Method for an integrated dual-slot DDR memory connector

Disclosed is a method for an integrated dual-slot double data rate (DDR) memory connector. Benefits include improved functionality, improved throughput, and improved cost effectiveness.

Background

Connectors for double data rate (DDR) memory are standardized by the following specifications:

- "DOUBLE DATA RATE (DDR) SDRAM SPECIFICATION", JESD 79D, dated Feb. 2004, by Joint Electronic Devices Engineering Council (JEDEC)
- "DDR2 SDRAM SPECIFICATION", JESD79-2B, dated Jan. 2005, by JEDEC

Conventional DDR connectors contain one memory connector with a pair of latches for one memory module (see Figure 1).

Some end users require a pair of memory connectors with different colors. Although the critical-to-function parameters are the same for the connectors, visual cosmetic differences can be a big concern to users.

Description

The disclosed method integrates two conventional single DDR memory connectors into an integrated design with dual DDR memory slots in a single component. It contains two memory slots with a pair of latches for two memory modules. The disclosed method could be extended to include additional slots and pairs of latches for additional memory modules (see Figure 2).

The key elements of the disclosed method include:

- DDR memory connector with dual slots for the memory cards
- Integrated pair of latches

The method incorporates a single pair of latches to provide ease of use during the mounting of the memory card and reduce the cost of molding. This single latch design makes card installation more ergonomic by increasing the surface area of the latch.

Advantages

The disclosed method provides advantages, including:

- Improved functionality due to providing an integrated dual-slot DDR memory connector
- Improved functionality due to eliminating empty space between the components
- Improved throughput due to improving the mounting time during the board assembly process because the operator mounts one component instead of two

- Improved cost effectiveness due to using less plastic material
- Improved cost effectiveness due to decreasing the molding cost by molding multiple packages as one

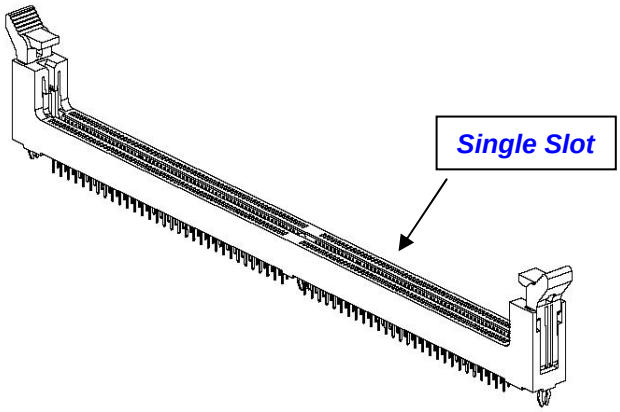

Fig. 1

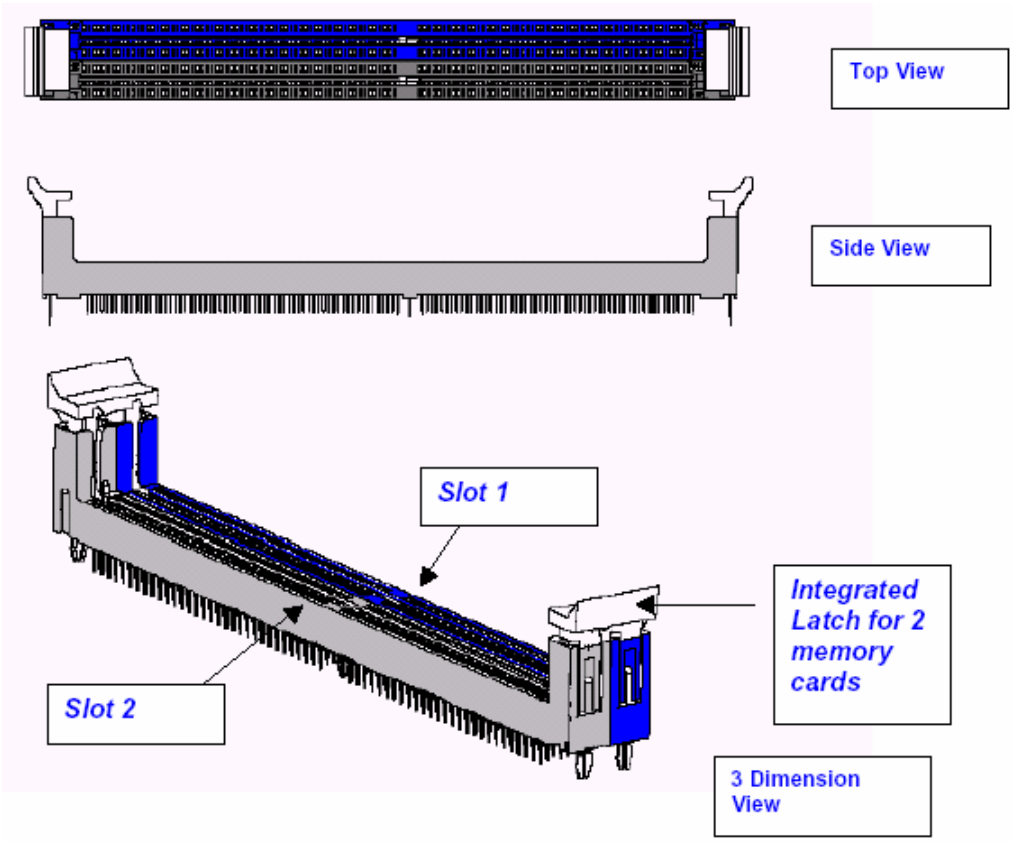

Fig. 2

Disclosed anonymously