

Abstract of the Disclosure

A storage device includes a first non-volatile memory comprising a plurality of first banks having a plurality of first addresses and a second non-volatile memory comprising a plurality of second banks having a plurality of second addresses assigned to each according to different assignment policies, and a controller. The plurality of second addresses corresponds to the plurality of first addresses. The second non-volatile memory mirrors data items stored in the first addresses to store them in the second addresses. The controller is configured to receive a command from a host to control the first non-volatile memory and the second non-volatile memory. The controller provides a read command received from the host simultaneously to first and second non-volatile memories, and outputs to the host an earlier one between data provided from the first non-volatile memory and data provided from the second non-volatile memory based on the read command.

FIG. 1