

ABSTRACT

A method of operating a nonvolatile memory device is provided. The method includes: dividing a memory block of a plurality of memory blocks provided in the nonvolatile memory device into a plurality of retention groups; generating time-difference information including a plurality of erase program interval (EPI) values corresponding to the plurality of retention groups; generating offset information including a plurality of offset values corresponding to differences between a plurality of default read voltages and a plurality of corrected read voltages; generating compensated read voltages corresponding to a read address based on the offset information and the time-difference information; and performing a read operation to read data from the nonvolatile memory device based on the read address and the compensated read voltages.

FIG. 1