

ABSTRACT

A storage device is provided. The storage device includes: a nonvolatile memory device including a memory cell array, the memory cell array having a user area and a power loss protection (PLP) area; and a storage controller configured to, based on sudden power-off being detected, write first PLP data in a first memory cell connected to a first word line of the PLP area and write second PLP data in a second memory cell connected to a second word line of the PLP area. A first write energy of the first memory cell is less than a second write energy of the second memory cell.

FIG. 7