ABSTRACT

A storage device may include: a memory device for extracting bits having a first logic value among bits included in data received from outside the memory device, generating a plurality of compressed data chunks including the bits comprising the first logic value and position information representing positions of the bits having the first logic value in the data, and outputting the plurality of compressed data chunks in response to a data output command; and a memory controller for receiving the plurality of compressed data chunks from the memory device, and recovering the data, based on the bits having the first logic value, which are included in the plurality of compressed data, and the position information.

FIG. 1