

ABSTRACT

A memory device having a plurality of voltage regions and a method of operating the same are provided. The memory device includes a memory cell array, a data path region including data processing blocks transmitting read/write data from/to the memory cell array during read/write operations, and a control signal path region including control blocks controlling the data processing blocks during the read/write operations. The data path region selectively receives a first high power voltage or a first low power voltage in accordance with an operating mode of the memory device. The control signal path region receives the first high power voltage regardless of the operating mode.

FIG. 1