

ABSTRACT

A memory device, a memory system, and/or a method of operating a memory system includes measuring, using processing circuitry, an erase program interval (EPI) of a memory group included in a non-volatile memory (NVM), the EPI being a time period from an erase time point to a program time point of the memory group, determining, using the processing circuitry, a plurality of program modes based on a number of data bits stored in each memory cell of the memory group, selecting, using the processing circuitry, a program mode for the memory group from the plurality of program modes, based on the measured EPI of the memory group, and performing, using the processing circuitry, a program operation on the memory group corresponding to the selected program mode.

FIG. 3