ABSTRACT

MEMORY DEVICE FOR SUPPORTING CACHE READ OPERATION, OPERATING METHOD THEREOF, AND MEMORY SYSTEM INCLUDING THE SAME

A memory device comprising: a page buffer including a first and second latch, a control circuit configured to perform a operation of reading data of a selected word line and storing the data in the first latch, then perform a operation of discharging the selected word line, then perform a operation of moving the data of the first latch to the second latch, and then perform an operation of outputting the data of the second latch to an exterior, and a control logic configured to control the control circuit such that an execution section of the discharge and moving for a first word line at least partially overlap each other when a second or third cache read command is inputted in a section in which the storage or discharge for the first word line is performed in response to input of a first cache read command for the first word line.

FIG. 1