

ABSTRACT OF THE DISCLOSURE

In a method of reading initialization information from a non-volatile memory device, when power-up is detected, the non-volatile memory device divides a source voltage to generate a low read pass voltage which is to be provided to unselected word lines in an initialization information read operation. The low read pass voltage is set as at least one voltage between a ground voltage and the source voltage. The non-volatile memory device allows the source voltage not to be pumped in the initialization information read operation, based on the power-up. In the initialization information read operation, the non-volatile memory device provides the low read pass voltage to the unselected word lines and provides a read voltage to a selected word line to read initialization information stored in the memory cells.

FIG. 3