

ABSTRACT

The feature of the present invention consists in: a processor main circuit for executing program instruction strings on a processor chip; a substrate bias switching unit for switching voltages of substrate biases applied to a substrate of the processor main circuit; and an operation mode control unit for controlling, in response to the execution of an instruction to proceed to a stand-by mode in the processor main circuit, the substrate bias switching unit in such a way that the biases are switched over to voltages for the stand-by mode, and for controlling, in response to an interruption of the stand-by release from the outside, the substrate bias switching unit in such a way that the biases are switched over to voltages for a normal mode, and also for releasing, after the bias voltages switched thereto have been stabilized, the stand-by of the processor main circuit to restart the operation.