

ABSTRACT

Provided is a voltage regulation method, comprising: obtaining a target demand voltage corresponding to an integrated chip at a target operating frequency, and recording a mapping relationship therebetween; obtaining a target supply voltage required by the integrated chip when the number of cores is N; setting the voltage regulation error of an external voltage regulation circuit when supplying power to the integrated chip, and using the external supply voltage and actual supply voltage of the integrated chip to determine a target voltage difference between the internal and external voltages of the integrated chip; adjusting the mapping relationship according to the target supply voltage, the voltage regulation error, and the target voltage difference to obtain a preset voltage regulation relationship, and using the preset voltage regulation relationship to adjust the supply voltage of the integrated chip. Clearly, the method takes into account the differences in the manufacturing process of the integrated chip, the voltage regulation error of an external voltage regulation circuit, and the effect of the variation of the number of internal running cores on the supply voltage of the integrated chip, therefore the method can significantly improve the accuracy and reliability when regulating the power supply to an integrated chip.