

# **Design and Simulation stabilizer with low ion loss and low power losses in DC-DC converters Psargvlatvr after**

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**Abstract** Design and simulation of the low power, low dropout regulator as a post-regulator after the DC-DC Converters Nowadays, power consumption is one of the most important parameters in the electronics systems. Power management circuit is a block which is responsible for energy management of the device, and it can be found in any electronic circuits. Basically, these circuits have different elements such as DC-DC converters. Among them, switching mode converters and linear regulators are the most popular. According to the load and input conditions, different types of them are utilized. However, the hybrid and two-stage structures of them are the most common. The first stage of these structures is the switching mode converters (buck converter in this thesis) and the second stage is the low dropout regulator (LDO). This structure not only is capable of keeping the efficiency, but also is capable of reducing the output voltage ripple compared to buck converters. In series systems, the design of the LDO regulators has an important role especially in power consumption and stability. In this thesis, we have concentrated on the design of Flipped Voltage Follower based LDO regulators, which has low power consumption and high level of stability due to its structure.

**Keywords :** Key words: LDO Regulator, Buck Converter, FVF based LDO Regulator, Flipped Voltage Follower, Two-stage System, Power Management Unit.

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