

DUAL INPUTS AND ADJUSTABLE OUTPUT DC-TO-DC CONVERTER

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ABSTRACT

The title of my project is 'Dual Inputs and Adjustable Output Dc-To-Dc Converter'. It is a converter its convert one direct current input voltage to another output direct current voltage with different voltage level. The DC-to-DC converter consists of two inputs, that means supply by 2 DC sources, and when one of the supply reduce to 60% from its nominal value, then it will automatically switch to the other source take over to power up the converter. Besides that, the output voltage of the converter must can be adjusts by the user at any level within the range to their desired value. The project uses the relay to acts as the switch to control the switching action between two sources. Before the voltage come to the relay, it will be compared by two OR logic gate and one with the inverter in front it. After that, only come to the relay part to choosing whether switch to source 1 or source 2 to allow it to supply voltage to the converter.

Buck boost converter will be choose as DC-to-DC converter part, it will help the user to step up or step down the output voltage level to their desired value. So, with the adjustable output of DC-to-DC converter, the user only can adjust the output either step up or step down to their desired value.

The project report contain the description about the construction, the circuit analysis, circuit diagram, block diagram and etc. before this, this report also included introduction will introduce about data input and adjustable output DC-to-DC converter components list, data sheets for the IC and finally is the conclusion will summarize everything about the project together with references.