DC TO DC POWER SUPPLY (COMPUTER)

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ABSTRACT

This project serves to introduce “DC-to-DC Power Supply (computer)”. In short this project is to install a DC-to-DC power supply to utilize the computer inside the car. Hence, we can listen to music, watch movies, play games and use a regular personal computer in our vehicle.

In brief, this project output power is same with the computer ATX power supply, their difference is only the design and the power source. The power source for computer ATX power supply is Alternating current 240Volt but for my project the vehicle’s 12 volt battery is the power source. When the user starts the car engine, a signal will be sent to the power supply to switch the supply to standby mode. Of the use presses the motherboard’s switch ON button then the motherboard will send a signal to the Dc-to-Dc power supply. After that, the power supply will supply necessary voltage to the motherboard this power supply will not function when the vehicle’s engine is off.

This project report contains the description about the construction, the circuit analysis; Circuit diagrams, PCB layout, block diagram and etc. Along with this, all photos of the circuit and its outcome have been added in this report. Moreover, the components list, references and data sheets for some of the electronic components and ICs are provided, in order to let the reader become more aware about the circuit flow, its characteristic and usages.