

VIETNAM NATIONAL UNIVERSITY HO CHI MINH CITY
HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY
FACULTY OF COMPUTER SCIENCE AND ENGINEERING



Electrical Electronic Circuits

Lab Report

Lab 4

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1 Introduction

Altium Designer is an electronic design automation software package for printed circuit board (PCB), FPGA and embedded software design, and associated library and release management automation. A Printed Circuit Board (PCB) mechanically supports and electrically connects electric components using conductive tracks, pads and other features etched from copper sheets laminated onto a non-conductive substrate.

2 Voltage Regulator using 7805

Voltage regulator like IC7805 belongs to the 78xx series ICs. In the 78xx series, xx represents the fixed output voltage value and 7805 is a fixed linear voltage regulator. Batteries provide a voltage of 1.2V, 3.7V, 9V, and 12V. This voltage is good for the circuits which voltage requirements are in that range. The regulated power supply in this regulator is +5V DC.

2.1 Schematic design

Students are proposed to capture the schematic design in Altium Designer and place the image in this part.

Your image goes here

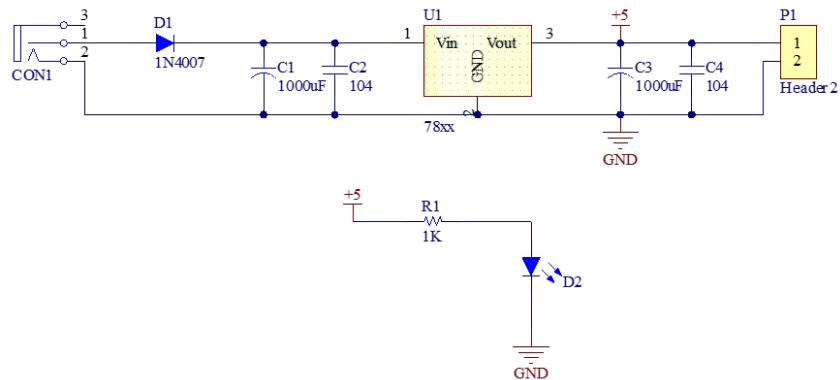


Figure 2.1: Schematic design

2.2 PCB layout

Similarly to the schematic, some snap shorts of for the TOP, BOTTOM layers are required in this report. Moreover, several 3D images of your schematic are also required.

Your images go here

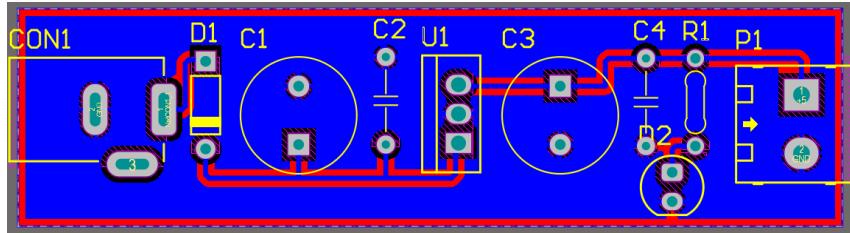


Figure 2.2: PCB 2D layout - BOTTOM layer

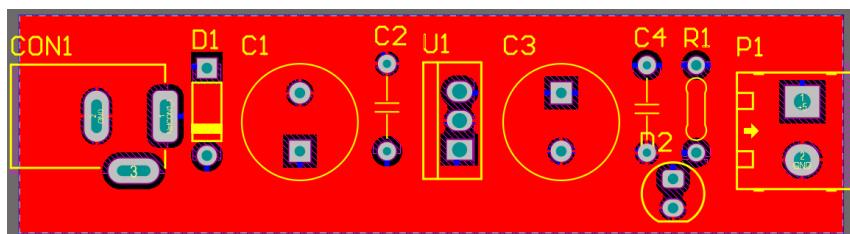


Figure 2.3: PCB 2D layout - TOP layer

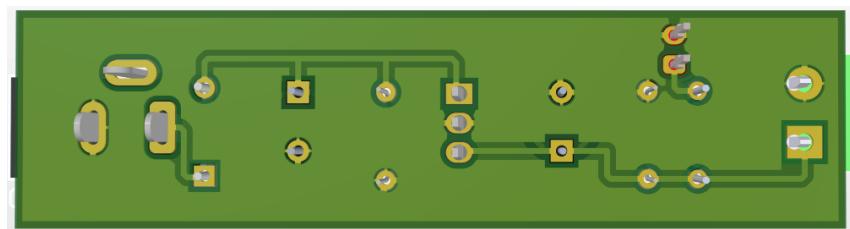


Figure 2.4: PCB 3D layout - BOTTOM layer



Figure 2.5: PCB 3D layout - TOP layer

3 Voltage Regulator using LM2596