

Universal Op-Amp Board for SMD MSOP8 Package

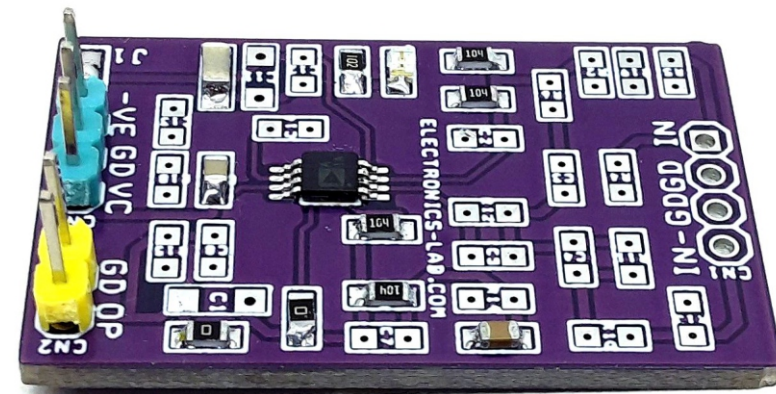
This is easy to build and very useful project for hobbyists and students to learn and create OPAMP-based projects. The project accommodates a single OPAMP in the MSOP8 package. The project provides the user with multiple choices and extensive flexibility for different applications circuits and configurations. It provides the user with many combinations for various circuit types including active filters, differential amplifiers, and external frequency compensation circuits. A few examples of application circuits are given below. OP777 op-amp is the right choice to use or any other MSOP8 op-amp with the same pin configuration as OP777 can be used. It supports dual supply or single supply, Jumper J1 is provided to use this board with a single supply, D1 is the power LED.

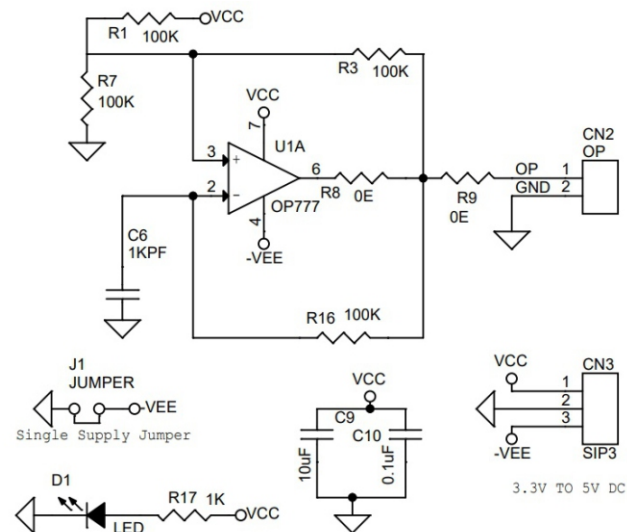
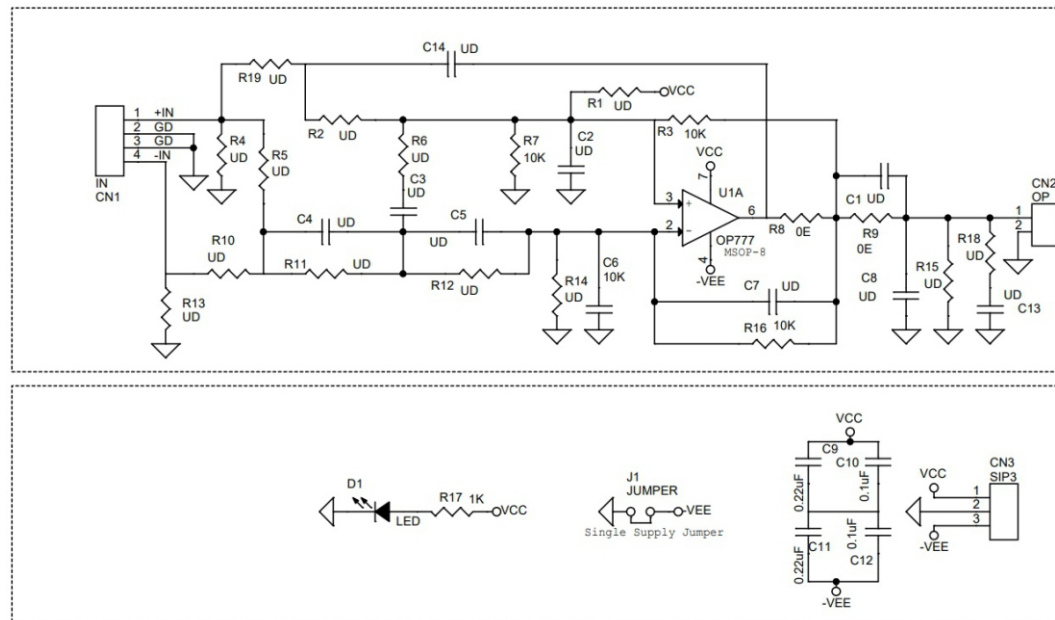
Note: Refer to example circuit to test the board, it is a bistable multivibrator, with a single supply and Jumper J1 closed.

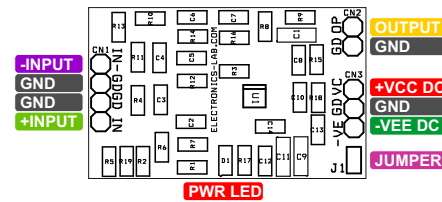
Credits: All example schematics are from Analog Devices application note.

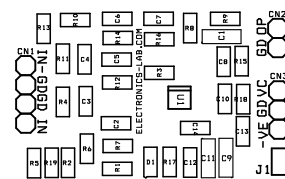
Features

- Single or Dual Supply User defined (Jumper)
- 4 Pin Male Header Connector for inputs
- 3 Pin Male Header for Supply input (Single or Dual)
- Jumper J1 Close for single Supply, Open for Dual Supply
- LED D1 Power LED
- Any MSOP8 Op-Amp Can be used (Pin configuration compatible with Op777 op-amp)
- PCB Dimensions 37.31MM X 23.50MM

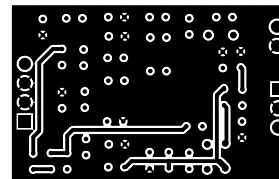




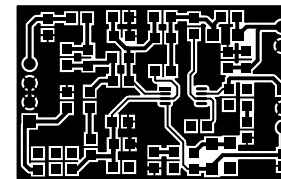




SILK SCREEN TOP



BOTTOM LAYER



TOP LAYER

PCB DIMENSIONS 37.31MM X 23.50MM



BOM			
NO.	QNTY	REF.	DESC
1	1	CN1	4 PIN MALE HEADER PITCH 2.54MM
2	1	CN2	2 PIN MALE HEADER PITCH 2.54MM
3	1	CN3	3 PIN MALE HEADER PITCH 2.54MM
4	26	R1,C1,R2,C2,R3,C3,R4,C4,C5,R6,C6,R7,R8,C8,R9,R10,R11,R12,R13,C13,R14,R15,R16,R18,R5,C7,C14,R19	USER DEFINED
5	2	C9,C11	CAPACITOR SMD SIZE 1206
6	2	C10,C12	CAPACITOR SMD SIZE 0805
7	1	D1	LED RED SMD SIZE 0805
8	1	J1	PCB SOLDER JUMPER
9	1	R17	ALL RESISTORS SIZE 0805
10	1	U1	OP-AMP MSOP8 (OP777)
ALL RESISTORS SMD SIZE 0805, OP-AMP PCKGE MSOP8 EXAMPLE OP777			

BOM-EXAMPLE SCHEMATIC BISTABLE MULTIVIBRATOR						
NO.	QNTY.	REF.	DESC.	MANUFACTURER	SUPPLIER	SUPPLIER PART NO
1	1	CN2	2 PIN MALE HEADER PITCH 2.54MM	WURTH	DIGIKEY	732-5315-ND
2	1	CN3	3 PIN MALE HEADER PITCH 2.54MM	WURTH	DIGIKEY	732-5316-ND
3	1	C6	1K PF /50V SMD SIZE 0805	MURATA/YAGEO		
4	1	C9	10uF/25V SMD SIZE 1206	MURATA/YAGEO		
5	1	C10	0.1uF/50V SMD SIZE 0805	MURATA/YAGEO		
6	1	D1	LED RED SMD SIZE 0805	OSRAM	DIGIKEY	475-1278-1-ND
7	1	J1	CLOSED(PCB JUMPER)			PCB SOLDER JUMPER
8	4	R1,R3,R7,R16	100K 5% SMD SIZE 0805	MURATA/YAGEO		
9	2	R8,R9	0E SMD SIZE 0805	MURATA/YAGEO		
10	1	R17	1K 5% SMD SIZE 0805	MURATA/YAGEO		
11	1	U1	OP777	ANALOG	DIGIKEY	OP777ARMZ-REELCT-ND

