

STEP/DIR SIGNAL TO CW/CWW SIGNAL CONVERTER FOR CNC & MOTION CONTROL SYSTEMS

Simple Circuit converts Step/Dir. signal into to double drive CW/CWW Pulse, Mach3 and few Hobby CNC software's provides Step/Direction pulse output to drive stepper motor drivers.

Various AC servo works with double CW/CCW pulse. This circuit is solution to interface such AC CW/CCW pulse based driver with Mach3 or other CNC software's. Circuit designed around 7408 and 7404 IC, board support 5V or 24V supply. Open Collector output can be interface with 24V system by changing output resistors.

Features

- Supply 7V 24V DC
- On Board Power LED
- Inputs and Outputs Header Connector
- On Board EARTH (Earth) Signal Provided for chassis ground to avoid any noise

Note : Output Transistor can drive Stepper Drive or Servo driver Opto-couplers directly , choose appropriate collector resistor value for 5V or 24V

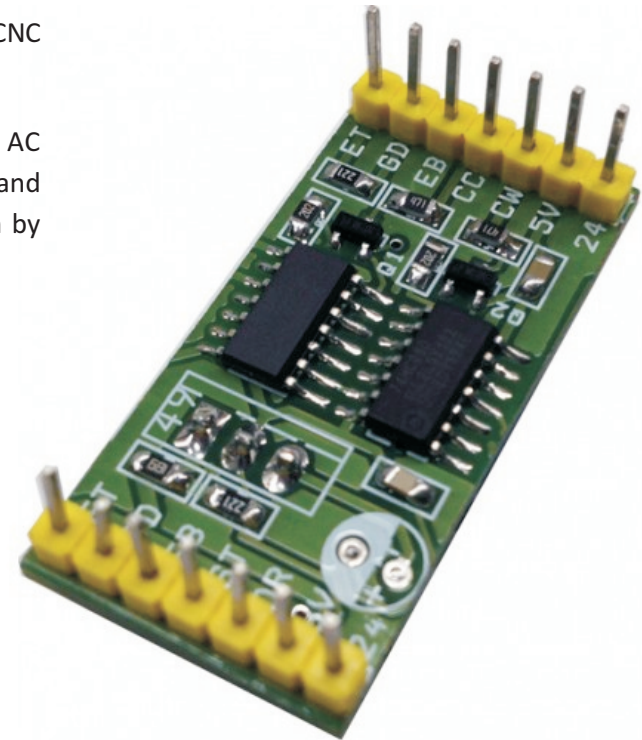
- R3,R5,R9 470 Ohms for 5V DC Open Collector Output
- R3,R5,R9 2K2 Ohms for 24V DC Open Collector Output

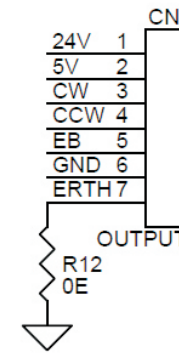
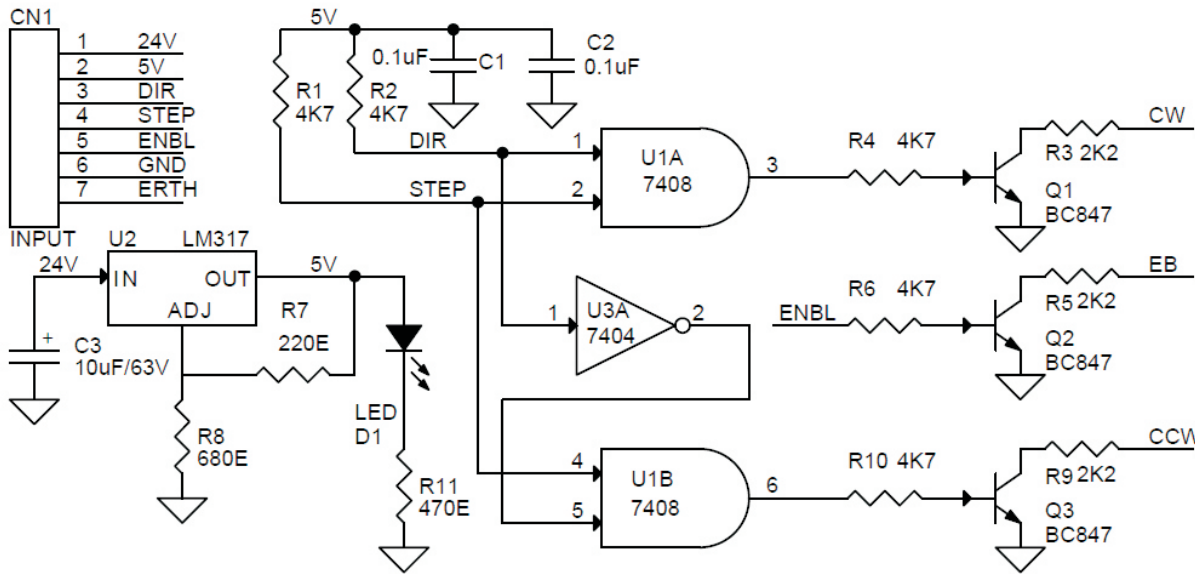
Inputs:

1. Step Pulse (TTL 5V)
2. Direction Pulse (TTL 5V)
3. Enable Signal (TTL 5V)

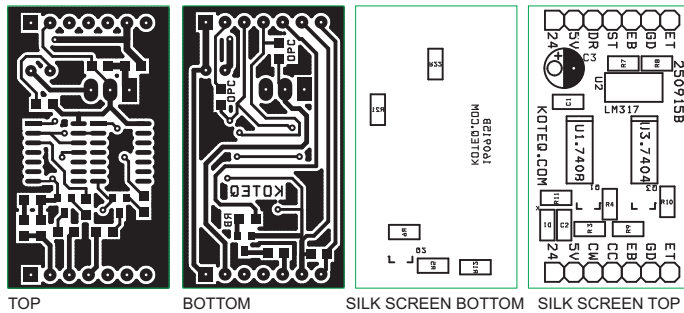
Outputs:

- 1 CW (5V Or 24V Open Collector)
2. CWW (5V Or 24V Open Collector)
3. Enable (5V Or 24V Open Collector)





BOM			
SR.	QNTY.	REF.	DESC.
1	1	CN1	7 PIN HEADER
2	1	CN2	7 PIN HEADER
3	2	C1,C2	0.1uF 0805
4	1	C3	10uF/63V
5	1	D1	LED 0805
6	3	Q1,Q2,Q3	BC847
7	5	R1,R2,R4,R6,R10	4K7 SMD 0805
8	3	R3,R5,R9	2K2 SMD 0805
9	1	R7	220E SMD 0805
10	1	R8	680E SMD 0805
11	1	R11	470E SMD 0805
12	1	R12	0E SMD 0805
13	1	U1	7408 SO14
14	1	U2	LM317 TO220
15	1	U3	7404 SO14



Step/Dir Signal

CWW

CW

