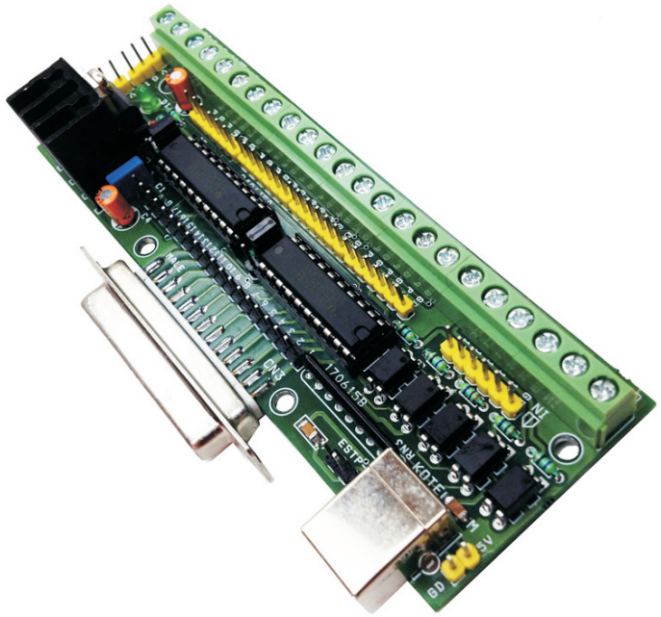
PARALLEL PORT BREAKOUT BOARD WITH BUFFER OUTPUT FOR CNC & ROUTERS

Parallel port I/O break out board designed for Hobby CNC, Routers and Motion controller , This Board is an easy solution to driver stepper Motor driver, AC Servo (with Step-DIR Driver) and DC servo (with Step-DIR Driver), The Board is compatible with various CNC software specially made for LPT port data out. The board has been tested with MACH3 CNC software. All outputs are buffered, all inputs are optical isolated and can be used as emergency switch, limit switch and home switch.

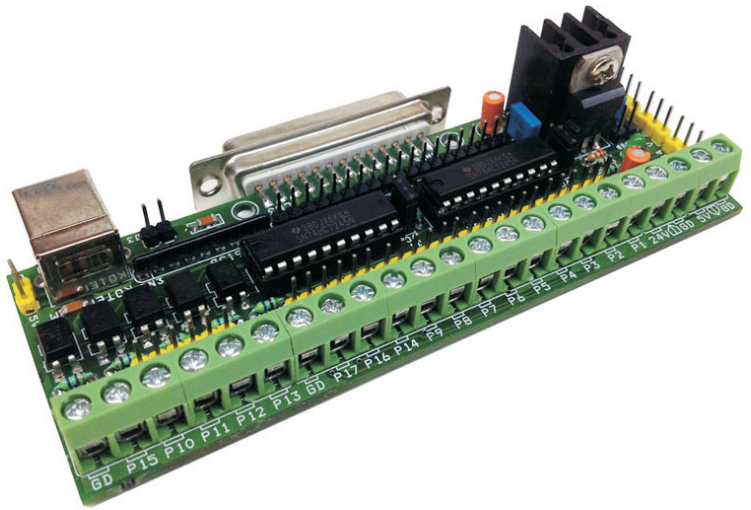


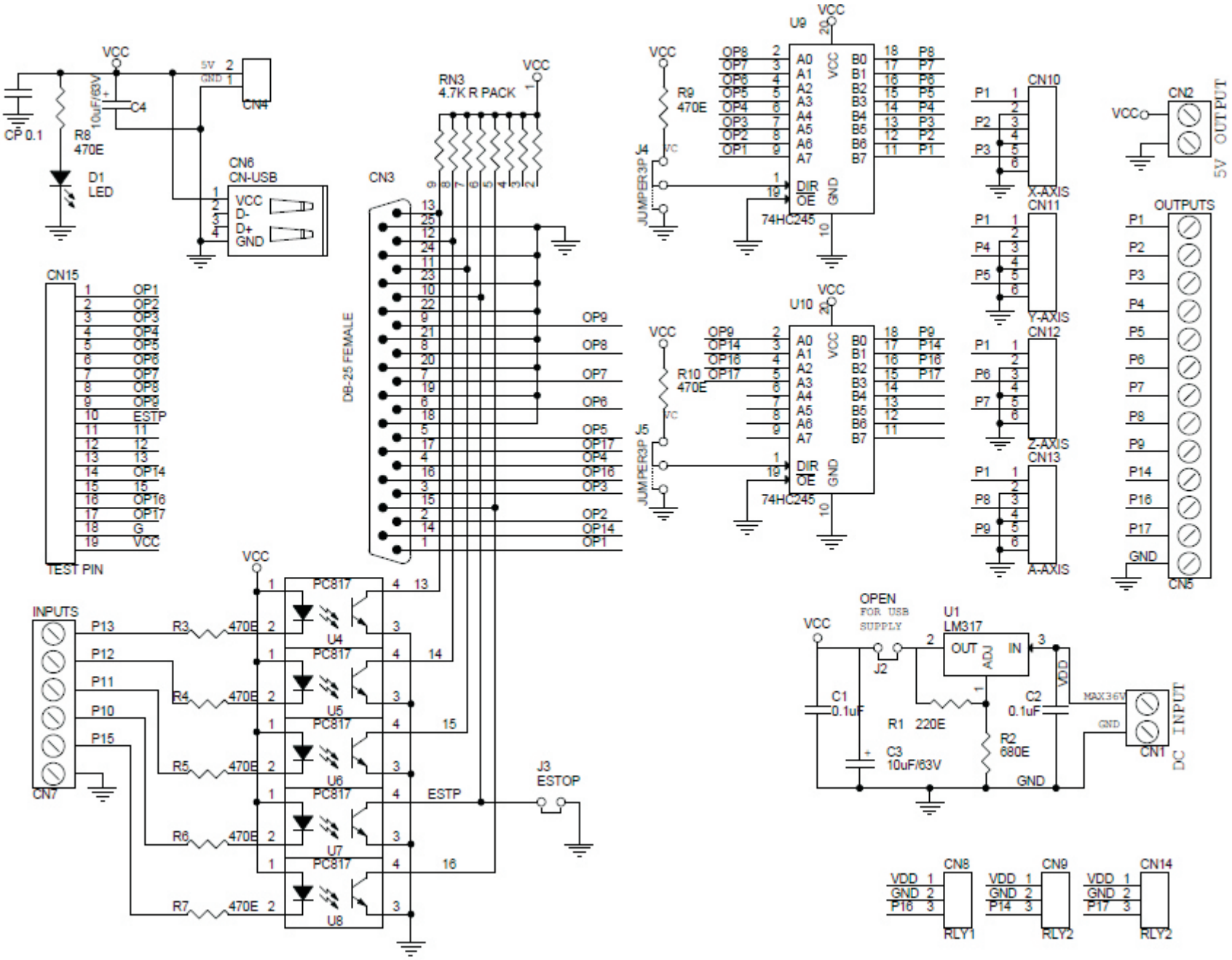
The board has 12 output pins that can control various devices such as stepping motor drivers, AC Servo Driver, DC Servo Driver, Plasma Torch, Pump for coolant, spindle, 5 Input pins are provided for limit or home switches, feedbacks, Emergency switch. All inputs has 470E for current controlled and TTL Voltage input required driving the inputs. This board can be powered with USB input or DC input supply 7V to 36V, keep jumper J2 open in case of USB supply input. Board has Screw Terminals for Inputs and out connections and also provided with 4X6Pin header connecters for outputs. J15 is connected directly to parallel port pins for testing purpose.

Note: Change the value of R3, R4, R5, R6, and R7 to 2K2 Ohms for 24V signal input.

Features

- Supply 7V to 36V DC
- 25 D SUB Female Connecter for PC LPT Port Interface
- On Board Power LED
- On Board USB Connector for Supply from PC or other USB source
- Jumper Selection for USB Supply Input or External Supply
- All Outputs are buffered
- All inputs are optically isolated
- Two Options for Outputs, Screw Terminals and Header Connectors
- 4X6Pin Header for easy motor driver interface
- On Board L317 Regulator for 5V DC
- Heat sink for regulator
- 5V DC Output for External Circuits
- 3X3 Header Connector for Relay Driver for Spindle, Plasma, Laser, Pump ON/OFF

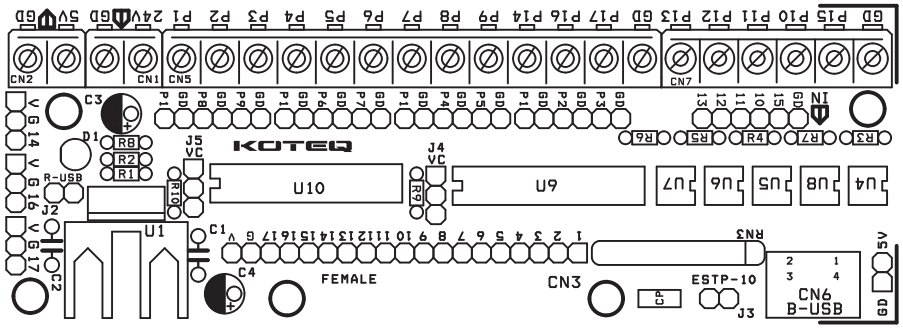


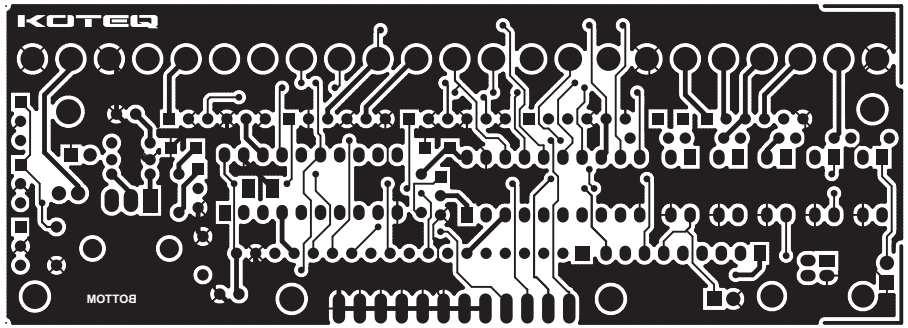


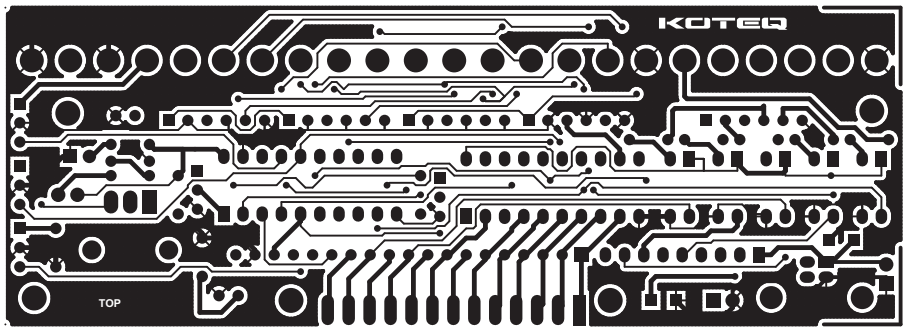
Connectors and Connections

- CN15 : LPT Port Test Pins
- CN7 : Inputs , Limit Switch, Feedback, Home Switch, Emergency Switch
- CN1 : DC Supply Input 7V to 36V
- CN2 : DC 5V Output
- CN10, CN11, CN12, CN13 : Header Connector for Stepper driver Interface
- CN8, CN9, CN14 : 3X3Pin Header Connector to driver Relay for Outputs
- CN5 : Outputs
- J3 : E Stop Optional Jumper for Test Purpose
- J4, J5 : I/O Direction Control (Jumper Close to VCC for Normal Operation)
- CN6 : USB Connecter for VCC Supply input (Keep Jumper J1 Open for USB Supply Input)
- D1: Power LED

LPT PORT I/O		
PIN NO	I/O FUNCTION	DESCRIPTION
1	Output	Control (Enable, Relay, Spindle, Pump)
2	Output	Step, Dir, Control
3	Output	Step, Dir, Control
4	Output	Step, Dir, Control
5	Output	Step, Dir, Control
6	Output	Step, Dir, Control
7	Output	Step, Dir, Control
8	Output	Step, Dir, Control
9	Output	Step, Dir, Control
10	Input	E-Stop, Home Switch, Limit Switch
11	Input	E-Stop, Home Switch, Limit Switch
12	Input	E-Stop, Home Switch, Limit Switch
13	Input	E-Stop, Home Switch, Limit Switch
14	Output	Control (Enable, Relay, Spindle, Pump)
15	Input	E-Stop, Home Switch, Limit Switch
16	Output	Control (Enable, Relay, Spindle, Pump)
17	Output	Control (Enable, Relay, Spindle, Pump)







BOM			
SR.	QNTY.	REF.	DESC.
1	2	CN1,CN2	2 PIN SCREW TERMINAL
2	1	CN3	DB-25 FEMALE
3	1	CN4	2 PIN HEADER CONNECTOR
4	1	CN5	13 PIN SCREW TERMINAL
5	1	CN6	USB CONNECTOR B TYPE
6	1	CN7	6 PIN SCREW TERMINAL
7	1	CN8	3 PIN HEADER CONNECTOR
8	2	CN9,CN14	3 PIN HEADER CONNECTOR
9	1	CN10	6 PIN HEADER CONNECTOR
10	1	CN11	6 PIN HEADER CONNECTOR
11	1	CN12	6 PIN HEADER CONNECTOR
12	1	CN13	6 PIN HEADER CONNECTOR
13	2	C1,C2	0.1uF
14	2	C3,C4	10uF/63V
15	1	D1	LED GREEN 3MM
16	1	J2	2 PIN HEADER & JUMPER CLOSURE
17	1	J3	2 PIN HEADER CONNECTOR
18	2	J4,J5	3 PIN JUMPER WITH CLOSURE
19	1	RN3	4.7K 8-R PACK
20	1	R1	220E
21	1	R2	680E
22	8	R3,R4,R5,R6,R7,R8,R9,R10	470E
23	1	U1	LM317
24	5	U4,U5,U6,U7,U8	PC817
25	2	U9,U10	74HC245
26	1	CP	0.1UF SMD 1206
27	2	2 SC	20 PIN DIP IC SOCKET
28	1	CN15	19 PIN HEADER CONNECTOR