

DT-PROTO

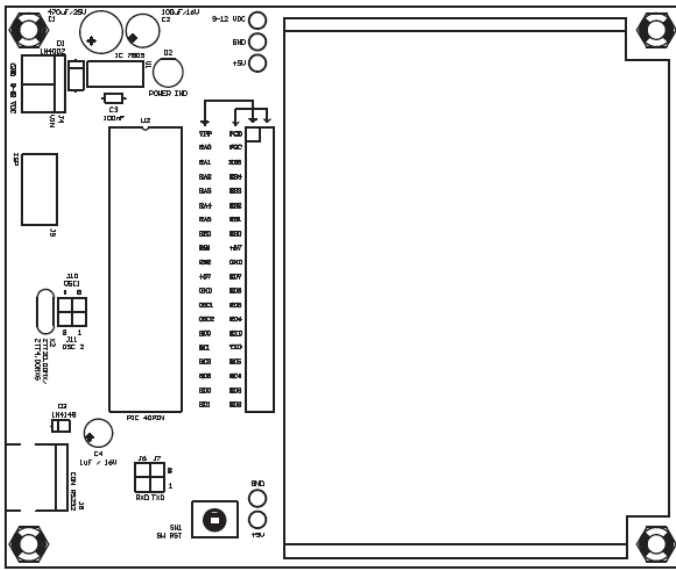
40 Pin PIC[®]

DT-PROTO 40 Pin PIC[®] is a single chip module with PIC16F877A microcontroller and In-Circuit Serial Programming[™] (ICSP[™]). This Module is equipped with pad arrays which can be used as a place for additional circuit. This Module is suitable for users who want to explore, to make a prototype or a simple application. Examples applications : LED display controller, motor driver controller, robot movement controller, and digital sensor reader.

Hardware specifications

1. PIC16F877A microcontroller with 8K bytes Program memory, 256 bytes EEPROM data, 368 bytes RAM data, 8 bit Timer.
2. Support PIC[®] 40 pins variants: PIC16C874(A), and PIC16F877.
3. Up to 33 pins of input/output line is available with capability to drive current (sink/source) 25mA each.
4. 1008 pad arrays are available, non through-hole.
5. Ceramic Resonator 4 Mhz is available.
6. ICSP[™]'s programming port is available.
7. UART RS-232 serial communication line is available with RJ11 connector.
8. Input voltage 9 – 12 VDC at VIN and has output voltage +5V (VCC).

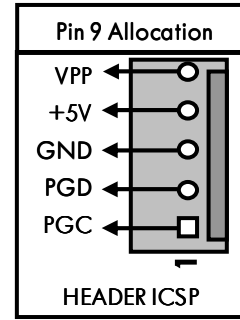
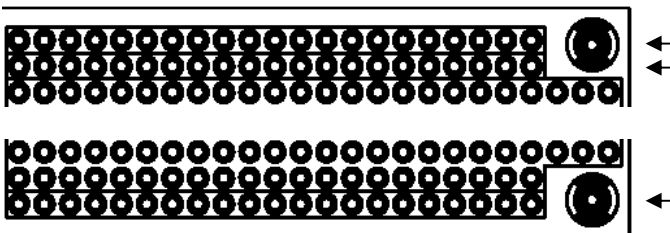
Layout and Jumper setting



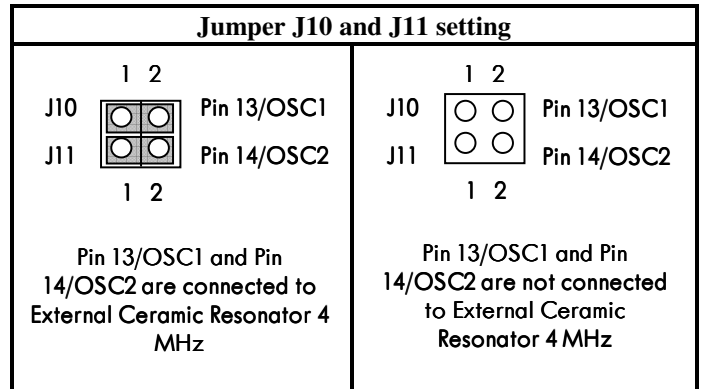
Pad for VIN, GND, +5V, and Pin I / O has a label on the left side according to the arrows.

○ Label or Label ○

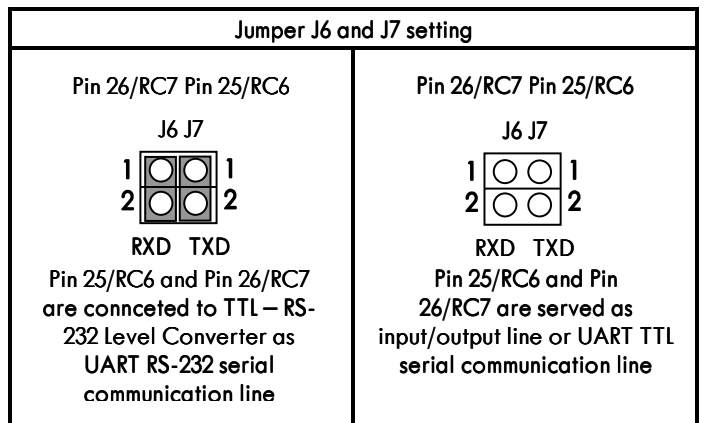
Two rows of pad array on top and one row of pad array on bottom are connected by line and can be used as a line for VIN, GND, +5V, or other line.



Please refer to J10 and J11 jumper setting below to choose system clock frequency source.

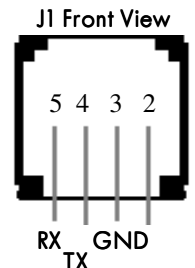


Please refer to J6 and J7 jumper setting below to connect DT-PROTO 40 Pin PIC[®] with computer through UART RS-232.



Computer is connected to DT-PROTO 40 Pin PIC[®] with a "Straight", here is the configuration:

Computer's COM port DB9	DT-PROTO 40 Pin PIC [®] J5
RX (pin 2)	RX (pin 5)
TX (pin 3)	TX (pin 4)
GND (pin 5)	GND (pin 3)



CD contents

1. MPLAB IDE.
2. I/O Testing software in assembly language.
3. Microcontroller Datasheet.
4. DT-PROTO 40 Pin PIC[®] manual.
5. Innovative Electronics website.

Testing Software

The software which has been written to PIC16F877A (test16F877A.asm) can be used as preliminary testing program. This software will test the RC6 and RC7 as serial communication lines and produce square wave to all I/O pins.

