

U1 Microcontroller, PIC18F2420
U2-5 74HC670 (74HCT670 also OK but more expensive)
U6,7 74LS32
U8 74HCT04 (NOT 74HC04, NOT 74LS04)
ISO1 6N138

C1-9 0.1 uF ceramic capacitor, 0.1" lead spacing
C11,12 22 pF ceramic capacitor, 0.1" lead spacing
C13,14 10uF 16V electrolytic capacitor, small size as height is limited

D1 1N4148 or 1N914 signal diode

J1 Two-pin header for MIDI jack connection

R1 220 ohm 1/4W 5% resistor
R2 1K ohm 1/4W 5% resistor
R3 4.7K ohm 1/4W 5% resistor
R4 10K ohm 1/4W 5% resistor
R5-12 1.5K ohm 1/4W 5% resistor

SW1 Four-position DIP switch

X1 8.00 MHz crystal (must be this exact frequency)
HC49 case size

IC sockets for all IC's
MIDI IN jack