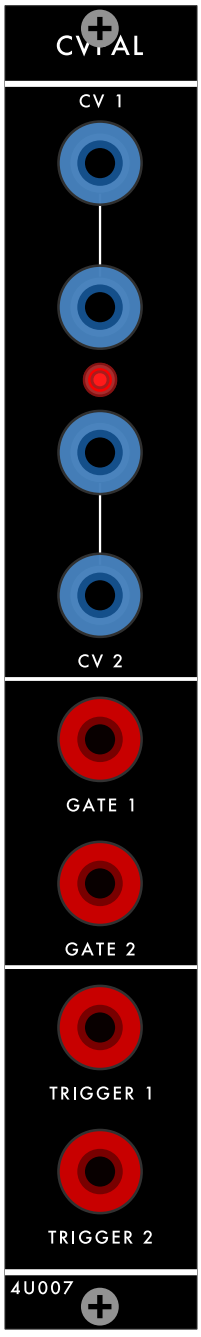
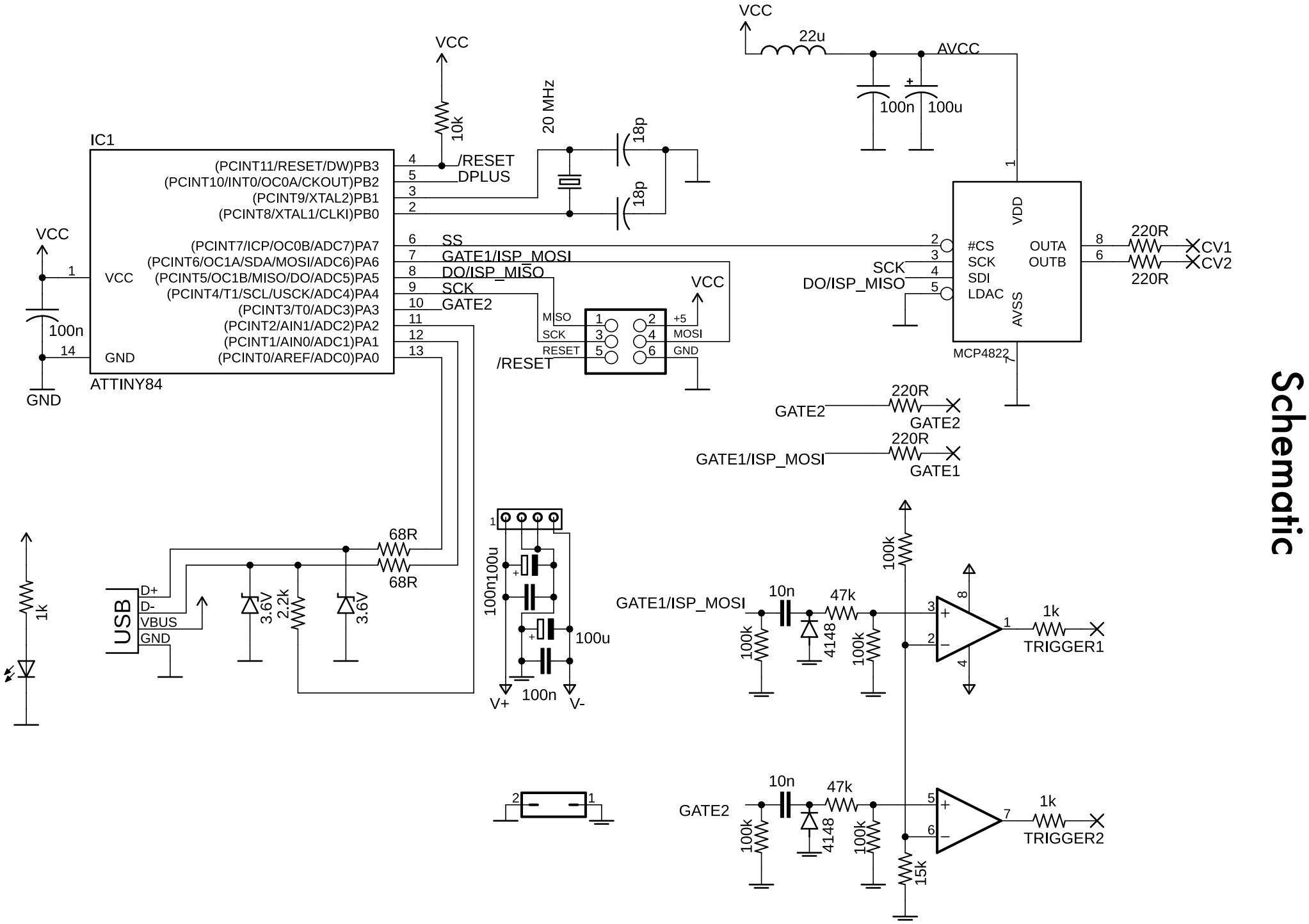
4U007 - CVPAL




Schematic
IC1
ATTINY84
(PCINT11/RESET/DW)PB3
(PCINT10/INT0/OC0A/CKOUT)PB2
(PCINT9/XTAL2)PB1
(PCINT8/XTAL1/CLKI)PB0
(PCINT7/ICP/OC0B/ADC7)PA7
(PCINT6/OC1A/SDA/MOSI/ADC6)PA6
(PCINT5/OC1B/MISO/DO/ADC5)PA5
(PCINT4/T1/SCL/USCK/ADC4)PA4
(PCINT3/T0/ADC3)PA3
(PCINT2/AIN1/ADC2)PA2
(PCINT1/AIN0/ADC1)PA1
(PCINT0/AREF/ADC0)PA0
VCC
GND
/RESET
DPLUS
SS
GATE1/ISP_MOSI
DO/ISP_MISO
SCK
GATE2
10k
20 MHz
18p
18p
100n
MISO
SCK
RESET
+5
MOSI
GND
/RESET
22u
AVCC
100n
100u
MCP4822
VDD
#CS
SCK
SDI
LDAC
OUTA
OUTB
AVSS
220R
CV1
CV2
GATE2
GATE1/ISP_MOSI
1k
USB
D+
D-
VBUS
GND
68R
68R
3.6V
2.2k
3.6V
100n100u
100u
V+
100n
V-
100k
10n
47k
4148
100k
1k
TRIGGER1
GATE2
15k
TRIGGER2

BOM

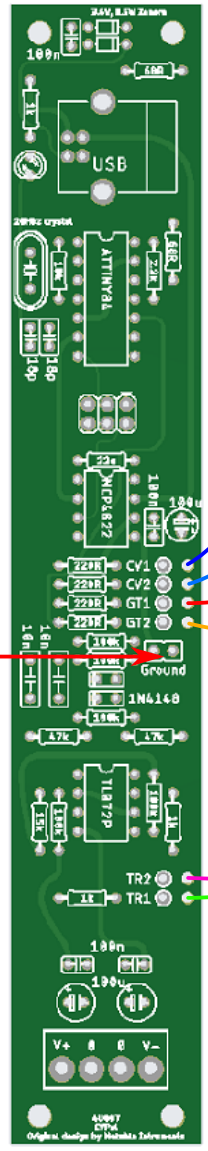
4U007 - CVPal

USB MIDI to CV converter with additional Gate to Trigger converters; original design by Mutable Instruments

Value, name	Quantity	Remark
Capacitors		
100nF	4	ceramic (or film)
18pF	2	ceramic
100uF	3	electrolytic, 35V
10nF	2	ceramic
Resistors		
68R	2	
220R	4	
1k	3	
2k2	1	
10k	1	
15k	1	
47k	2	
100k	5	
Semiconductors		
3,6V zener 0,5W	2	0,5W is important!
1N4148	2	
MCP4822	1	
TL072	1	
CVPal chip	1	included
20Mhz chrystal	1	
Misc		
header for AVR prog.		optional
22uH	1	
LED	1	USB status LED
banana jack - BLUE	2	or 4, depends on the build
banana jack - RED	4	
PCB mount USB port	1	90 degree angled

Recommended cable for the USB port

Wiring



USB port
with
status LED

CV 1 Out

CV 2 Out

Gate 1 Out

Gate 2 Out

Trigger 1 Out

Trigger 2 Out

This link/jumper connects the
USB ground with the PSU ground.

I had some problems with programming
the Attiny's when these are connected.
...maybe my programmer does not like
this...

Since you have the programmed chip
with the PCB, just connect these
together.