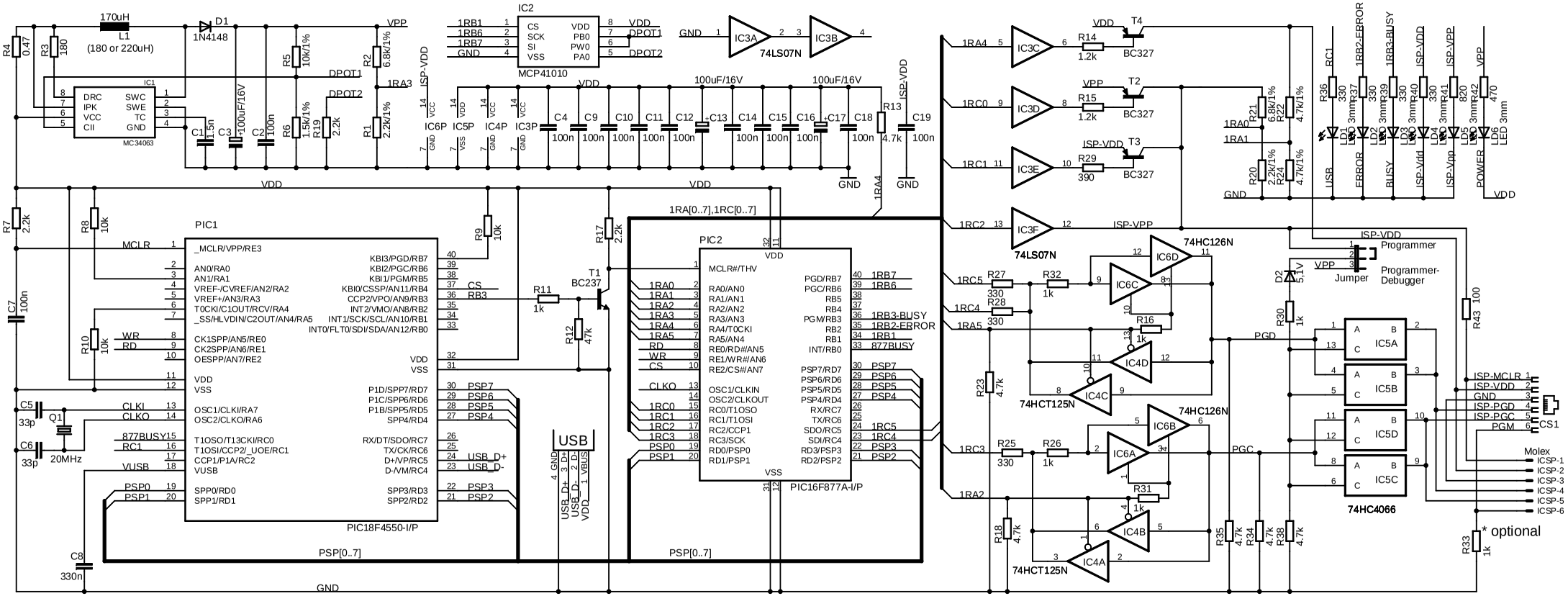
170uH
L1
(180 or 220uH)
D1
1N4148
VPP
R4 0.47
R3 180
R5 10k/1%
R2 6.8k/1%
R6 1.5k/1%
R19 2.2k
R1 2.2k/1%
DPOT1
DPOT2
1RA3
ISP-VDD
IC1
DRC SWC
IPK SWE
VCC TC
CII GND
MC34063
C1 1.5n
C3 100uF/16V
C2 100n
IC2
CS VDD
SCK PB0
SI PW0
VSS PA0
MCP41010
1RB1
1RB6
1RB7
GND
IC3A
IC3B
74LS07N
IC6P IC5P IC4P IC3P
C4 C9 C10 C11 C12 C13 C14 C15 C16 C17 C18
100n
100uF/16V
R13 4.7k
C19 100n
VDD
GND
1RA4
R7 2.2k
R8 10k
R9 10k
R17 2.2k
PIC1
MCLR
_MCLR/VPP/RE3
AN0/RA0
AN1/RA1
VREF-/CVREF/AN2/RA2
VREF+/AN3/RA3
T0CKI/C1OUT/RCV/RA4
_SS/HLVDIN/C2OUT/AN4/RA5
CK1SPP/AN5/RE0
CK2SPP/AN6/RE1
OESPP/AN7/RE2
VDD
VSS
OSC1/CLKI/RA7
OSC2/CLKO/RA6
T1OSO/T13CKI/RC0
T1OSI/CCP2/_UOE/RC1
CCP1/P1A/RC2
VUSB
SPP0/RD0
SPP1/RD1
KBI3/PGD/RB7
KBI2/PGC/RB6
KBI1/PGM/RB5
KBI0/CSSP/AN11/RB4
CCP2/VPO/AN9/RB3
INT2/VMO/AN8/RB2
INT1/SCK/SCL/AN10/RB1
INT0/FLT0/SDI/SDA/AN12/RB0
P1D/SPP7/RD7
P1C/SPP6/RD6
P1B/SPP5/RD5
SPP4/RD4
RX/DT/SDO/RC7
TX/CK/RC6
D+/VP/RC5
D-/VM/RC4
SPP3/RD3
SPP2/RD2
PIC18F4550-I/P
WR
RD
CS
877BUSY
RC1
PSP0
PSP1
PSP2
PSP3
PSP4
PSP5
PSP6
PSP7
USB_D+
USB_D-
C5 33p
C6 33p
Q1
20MHz
C7 100n
C8 330n
R10 10k
T1 BC237
R11 1k
R12 47k
PSP[0..7]
USB
4 GND
3 D+
2 D-
1 VBUS
USB_D+
USB_D-
VDD
PIC2
MCLR#/THV
RA0/AN0
RA1/AN1
RA2/AN2
RA3/AN3
RA4/T0CKI
RA5/AN4
RE0/RD#/AN5
RE1/WR#/AN6
RE2/CS#/AN7
OSC1/CLKIN
OSC2/CLKOUT
RC0/T1OSO
RC1/T1OSI
RC2/CCP1
RC3/SCK
RD0/PSP0
RD1/PSP1
PGD/RB7
PGC/RB6
RB5
RB4
PGM/RB3
RB2
RB1
INT/RB0
PSP7/RD7
PSP6/RD6
PSP5/RD5
PSP4/RD4
RX/RC7
TX/RC6
SDO/RC5
SDI/RC4
RD3/PSP3
RD2/PSP2
PIC16F877A-I/P
1RB3-BUSY
1RB2-ERROR
877BUSY
1RA[0..7],1RC[0..7]
IC3C IC3D IC3E IC3F
R14 R15 R29
1.2k 1.2k 390
T4 T2 T3
BC327
R21 6.8k/1%
R22 4.7k/1%
R20 2.2k/1%
R24 4.7k/1%
R36 R37 R39 R40 R41 R42
330 330 330 330 820 470
LD1 LD2 LD3 LD4 LD5 LD6
RC1 1RB2-ERROR 1RB3-BUSY ISP-VDD ISP-VPP VPP
USB ERROR BUSY ISP-Vdd ISP-Vpp POWER
LED 3mm
74LS07N
IC6C IC6D
74HC126N
R27 R28 R32
330 330 1k
R16 1k
IC4C IC4D
74HCT125N
R23 4.7k
IC6A IC6B
R25 R26
330 1k
R31 1k
IC4A IC4B
74HCT125N
R18 4.7k
R35 R34 R38
4.7k
D2 5.1V
R30 1k
R43 100
ISP-VDD
Programmer
VPP
Jumper
Programmer-
Debugger
IC5A IC5B IC5C IC5D
74HC4066
PGD
PGC
ISP-MCLR
ISP-VDD
GND
ISP-PGD
ISP-PGC
PGM
CS1
Molex
ICSP-1
ICSP-2
ICSP-3
ICSP-4
ICSP-5
ICSP-6
R33 1k
* optional