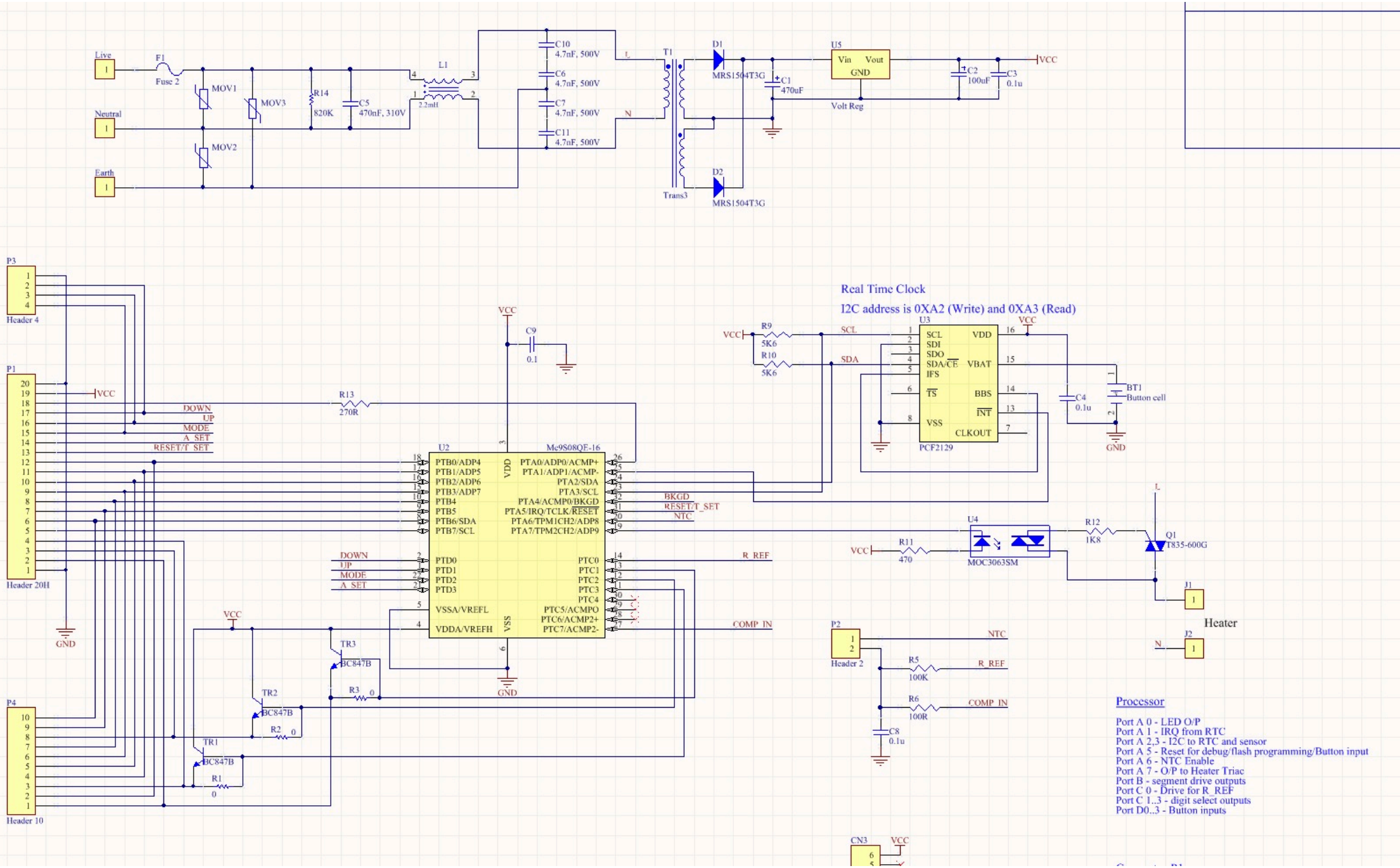
Live
Neutral
Earth
F1
Fuse 2
MOV1
MOV2
MOV3
R14
820K
C5
470nF, 310V
L1
2.2mH
C10
4.7nF, 500V
C6
4.7nF, 500V
C7
4.7nF, 500V
C11
4.7nF, 500V
L
N
T1
Trans3
D1
MRS1504T3G
D2
MRS1504T3G
C1
470uF
U5
Vin
Vout
GND
Volt Reg
C2
100uF
C3
0.1u
VCC
P3
Header 4
P1
Header 20H
P4
Header 10
GND
VCC
DOWN
UP
MODE
A_SET
RESET/T_SET
R13
270R
C9
0.1
U2
Mc9S08QE-16
PTB0/ADP4
PTB1/ADP5
PTB2/ADP6
PTB3/ADP7
PTB4
PTB5
PTB6/SDA
PTB7/SCL
PTD0
PTD1
PTD2
PTD3
VSSA/VREFL
VDDA/VREFH
VDD
VSS
PTA0/ADP0/ACMP+
PTA1/ADP1/ACMP-
PTA2/SDA
PTA3/SCL
PTA4/ACMP0/BKGD
PTA5/IRQ/TCLK/RESET
PTA6/TPM1CH2/ADP8
PTA7/TPM2CH2/ADP9
PTC0
PTC1
PTC2
PTC3
PTC4
PTC5/ACMPO
PTC6/ACMP2+
PTC7/ACMP2-
BKGD
RESET/T_SET
NTC
R_REF
COMP_IN
TR1
TR2
TR3
BC847B
R1
R2
R3
0
Real Time Clock
I2C address is 0XA2 (Write) and 0XA3 (Read)
R9
5K6
R10
5K6
SCL
SDA
U3
SCL
SDI
SDO
SDA/CE
IFS
TS
VSS
VDD
VBAT
BBS
INT
CLKOUT
PCF2129
C4
0.1u
BT1
Button cell
U4
MOC3063SM
R11
470
R12
1K8
Q1
T835-600G
J1
Heater
J2
N
P2
Header 2
R5
100K
R6
100R
C8
0.1u
CN3
Processor
Port A 0 - LED O/P
Port A 1 - IRQ from RTC
Port A 2,3 - I2C to RTC and sensor
Port A 5 - Reset for debug/flash programming/Button input
Port A 6 - NTC Enable
Port A 7 - O/P to Heater Triac
Port B - segment drive outputs
Port C 0 - Drive for R_REF
Port C 1..3 - digit select outputs
Port D0..3 - Button inputs