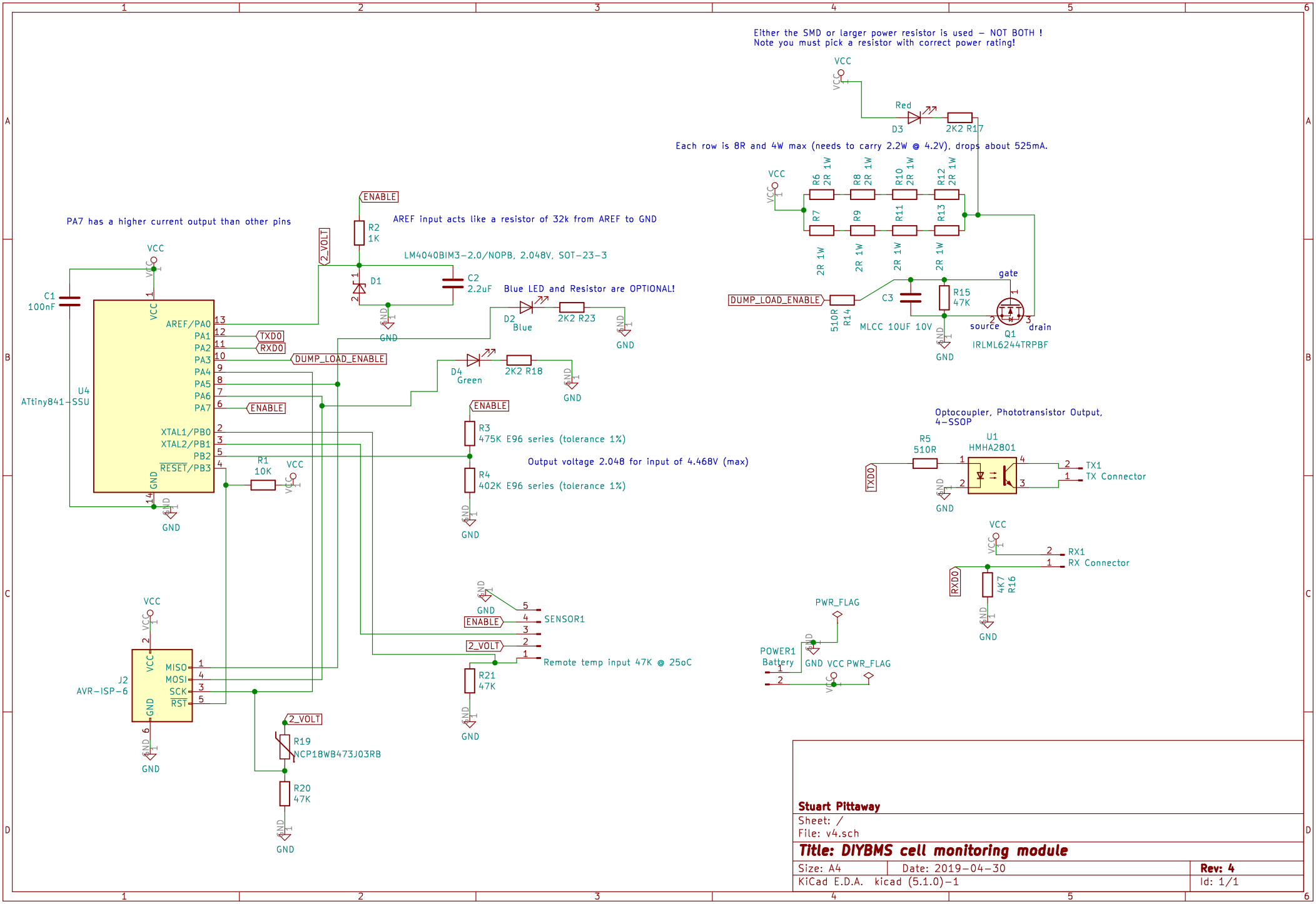
Either the SMD or larger power resistor is used – NOT BOTH !
Note you must pick a resistor with correct power rating!
VCC
Red
D3
2K2 R17
Each row is 8R and 4W max (needs to carry 2.2W @ 4.2V), drops about 525mA.
R6 2R 1W
R8 2R 1W
R10 2R 1W
R12 2R 1W
R7 2R 1W
R9 2R 1W
R11 2R 1W
R13 2R 1W
DUMP_LOAD_ENABLE
510R R14
C3
MLCC 10UF 10V
R15 47K
gate
source
drain
Q1
IRLML6244TRPBF
GND
PA7 has a higher current output than other pins
ENABLE
R2 1K
AREF input acts like a resistor of 32k from AREF to GND
2_VOLT
LM4040BIM3-2.0/NOPB, 2.048V, SOT-23-3
D1
C2 2.2uF
Blue LED and Resistor are OPTIONAL!
D2 Blue
2K2 R23
D4 Green
2K2 R18
C1 100nF
U4
ATtiny841-SSU
AREF/PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
XTAL1/PB0
XTAL2/PB1
PB2
RESET/PB3
TXD0
RXD0
R1 10K
R3 475K E96 series (tolerance 1%)
R4 402K E96 series (tolerance 1%)
Output voltage 2.048 for input of 4.468V (max)
Optocoupler, Phototransistor Output, 4-SSOP
R5 510R
U1 HMHA2801
TX1
TX Connector
RX1
RX Connector
4K7 R16
SENSOR1
Remote temp input 47K @ 25oC
R21 47K
J2 AVR-ISP-6
MISO
MOSI
SCK
RST
R19 NCP18WB473J03RB
R20 47K
PWR_FLAG
POWER1 Battery
Stuart Pittaway
Sheet: /
File: v4.sch
Title: DIYBMS cell monitoring module
Size: A4
Date: 2019-04-30
Rev: 4
KiCad E.D.A. kicad (5.1.0)-1
Id: 1/1