Sheet: PressureTransducer

File: PressureTransducer.sch

Sheet: Thermocouple

File: Thermocouple.sch

Sheet: RTD

File: RTD.sch

Sheet: HallEffect

File: HallEffect.sch

Sheet: /
File: SensorExtentionBoard.sch

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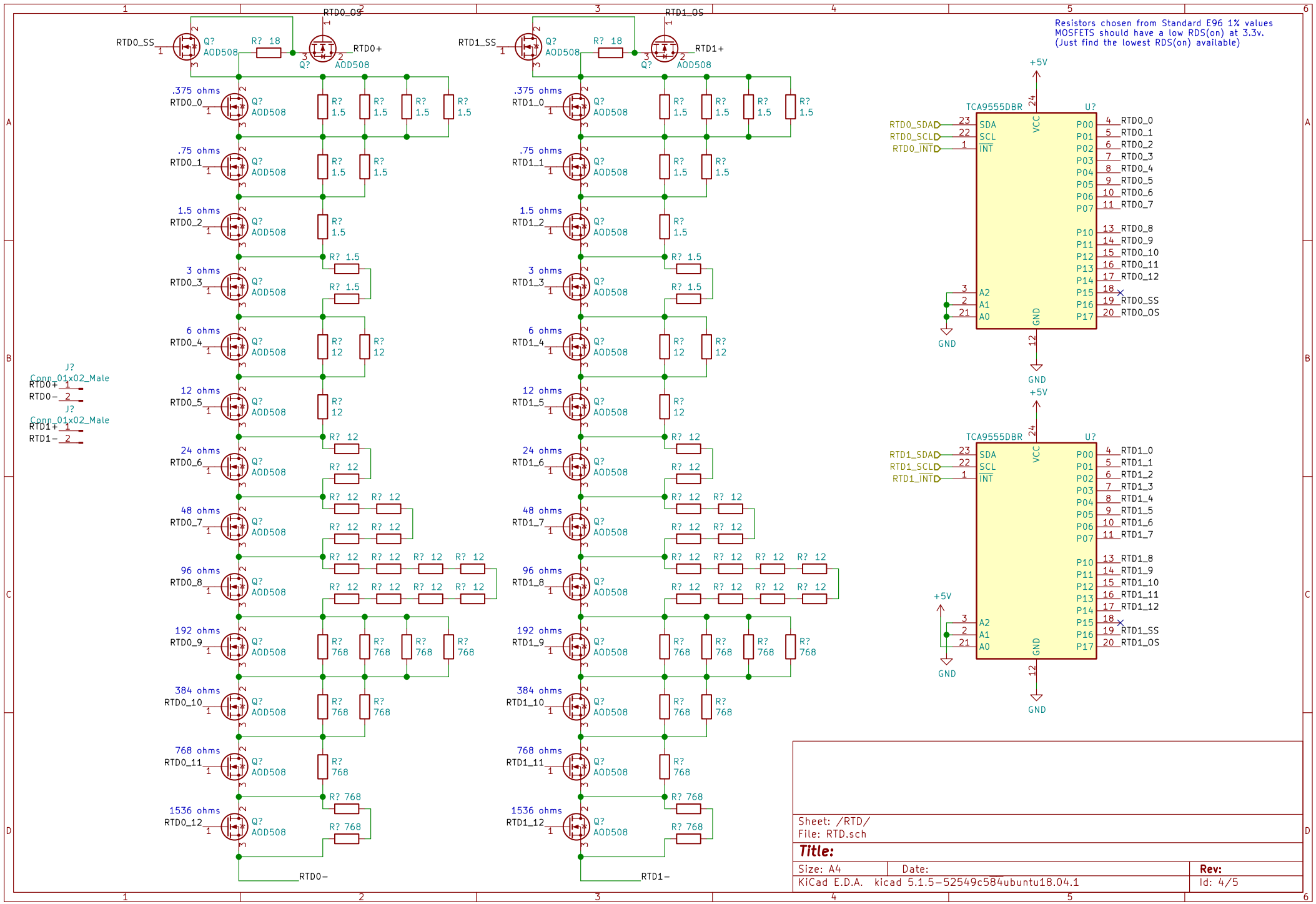
Resistors chosen from Standard E96 1% values
MOSFETS should have a low RDS(on) at 3.3v.
(Just find the lowest RDS(on) available)
RTD0_SS
RTD0_OS
RTD0+
RTD0-
RTD1_SS
RTD1_OS
RTD1+
RTD1-
Q? AOD508
R? 18
.375 ohms RTD0_0
.75 ohms RTD0_1
1.5 ohms RTD0_2
3 ohms RTD0_3
6 ohms RTD0_4
12 ohms RTD0_5
24 ohms RTD0_6
48 ohms RTD0_7
96 ohms RTD0_8
192 ohms RTD0_9
384 ohms RTD0_10
768 ohms RTD0_11
1536 ohms RTD0_12
.375 ohms RTD1_0
.75 ohms RTD1_1
1.5 ohms RTD1_2
3 ohms RTD1_3
6 ohms RTD1_4
12 ohms RTD1_5
24 ohms RTD1_6
48 ohms RTD1_7
96 ohms RTD1_8
192 ohms RTD1_9
384 ohms RTD1_10
768 ohms RTD1_11
1536 ohms RTD1_12
R? 1.5
R? 12
R? 768
J? Conn_01x02_Male
RTD0+
RTD0-
RTD1+
RTD1-
+5V
TCA9555DBR
U?
RTD0_SDA
RTD0_SCL
RTD0_INT
RTD1_SDA
RTD1_SCL
RTD1_INT
SDA
SCL
INT
VCC
GND
A2
A1
A0
P00 RTD0_0
P01 RTD0_1
P02 RTD0_2
P03 RTD0_3
P04 RTD0_4
P05 RTD0_5
P06 RTD0_6
P07 RTD0_7
P10 RTD0_8
P11 RTD0_9
P12 RTD0_10
P13 RTD0_11
P14 RTD0_12
P15
P16 RTD0_SS
P17 RTD0_OS
P00 RTD1_0
P01 RTD1_1
P02 RTD1_2
P03 RTD1_3
P04 RTD1_4
P05 RTD1_5
P06 RTD1_6
P07 RTD1_7
P10 RTD1_8
P11 RTD1_9
P12 RTD1_10
P13 RTD1_11
P14 RTD1_12
P15
P16 RTD1_SS
P17 RTD1_OS
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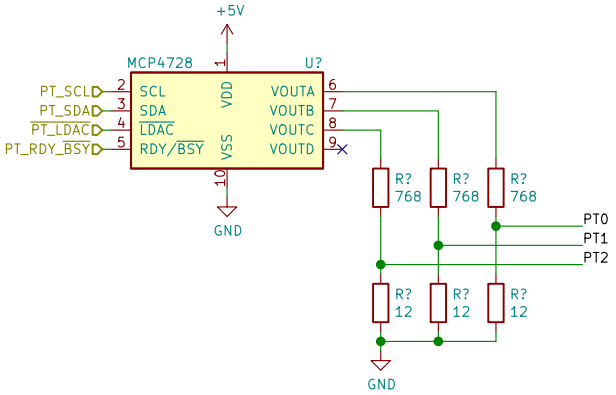
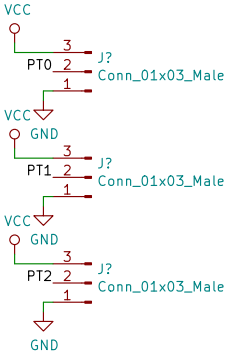
Each pair of resistors in voltage divider must have a similar temperature coefficient (like from the same resistor family)





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