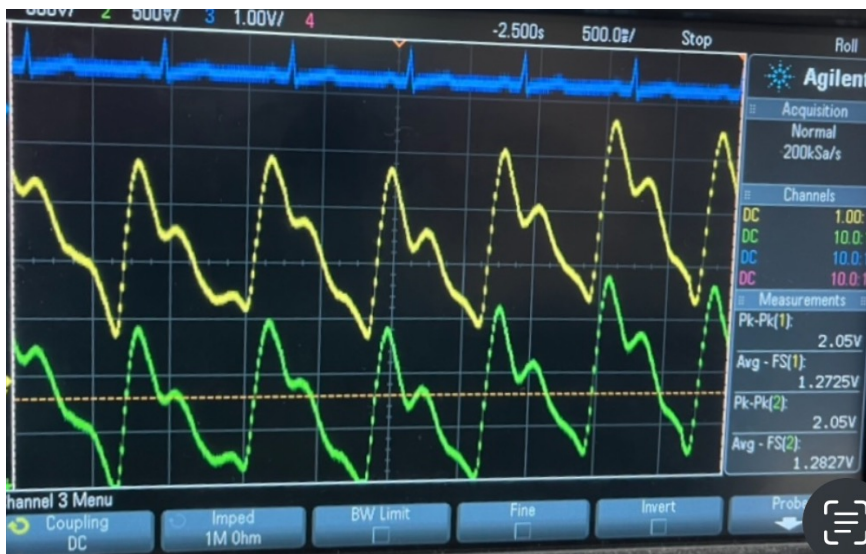PCB with components of ECG

Output from ECG + PulseOx

ECG Schematic - Ido Haber

STM NucleoF303K8

MCU1A
Nucleo F303K8
S7013-ND

D1/TX, D0/TX, RST, GND, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12

VIN, GND, RST, 5v, A7, A6, A5, A4, A3, A2, A1, A0, AREF, 3v3, D13

30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16

GND

L1 FerriteBead
+5
GND
AGND

L2 FerriteBead
3V3   A3V3

A3V3 Output
3.3V
GND
LT1920 Out
L.S Out
Header4x1
NetLabel6 AGND
LT1920 Out

+5
R15 10k
A3V3
In- Vcc+
In+ Vcc-
Out
V. DividerA
A2.5V
R16 10k
-3V3
AGND

TC962 DC-DC Converter
U1
C1 10µF
C+, C-, GND, ZC
Vdd, Vout, Cosc, Freq*2
8, 7, 6
A3V3
-3V3
C2 10µF
TC962
AGND
AGND

100pF
C3
R10
3Meg

A3V3
U5A
In- Vcc+
In+ Vcc-
Out
R11 20k

R12 4.99k

Digital Rheostat
10k
CS, SCK, SDI, VDD
P0W, P0B, SDO, VSS
MCP4132-104E/SN
A3V3
-3V3

U2 LT1920
In- Vcc+
In+ Vcc-
Out
A2.5V
LT1920 Out
AGND
Ins. Amp.

C4 Cap-22uF
R9 15k
BP Filter -3V3

A3V3
R13 20k
In- Vcc+
In+ Vcc-
Out
U5BA
Final Out
R14 4.99k
Level Shifter
AGND

Audio Jack
STX-3000
Red, Blue, Black
Inv., Non. Inv., GND
AGND
STX-3000

Title: ECG Schematic - Ido Haber
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Date: 12/03/2023
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Pulse Ox. Project. Ido Haber

LVR1
GND, Vin, Vout
1, 2, 3
GND
5V
A5V
MCP-1702
C2 10µF
GND

DAC2
DAC1
Out, GND, SCL, SDA, VCC, GND
1, 2, 3, 4, 5, 6
DAC2
SCL
SDA
GND
A5V
GND
DAC1

DAC1
DAC1
Out, GND, SCL, SDA, VCC, GND
1, 2, 3, 4, 5, 6
DAC1
SCL
SDA
GND
A5V
GND
DAC1

GND
5V
TX
RX
GND
DAC1
DAC2
1, 2, 3, 4, 5, 6, 7
Header-7PIN
TX
RX
DAC1
DAC2

MCU1
Nucleo F303K8
S7013-ND
D1/TX, D0/TX, RST, GND, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12
VIN, GND, RST, 5v, A7, A6, A5, A4, A3, A2, A1, A0, AREF, 3v3, D13
30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16
GND
SCL
SDA
5V
TX
RX

GND
PO-Chip
GND, D8, A5, A4, 5V
NC, NC, GND
1, 2, 3, 4
8, 7, 6, 5
PO-Chip
GND
5V

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