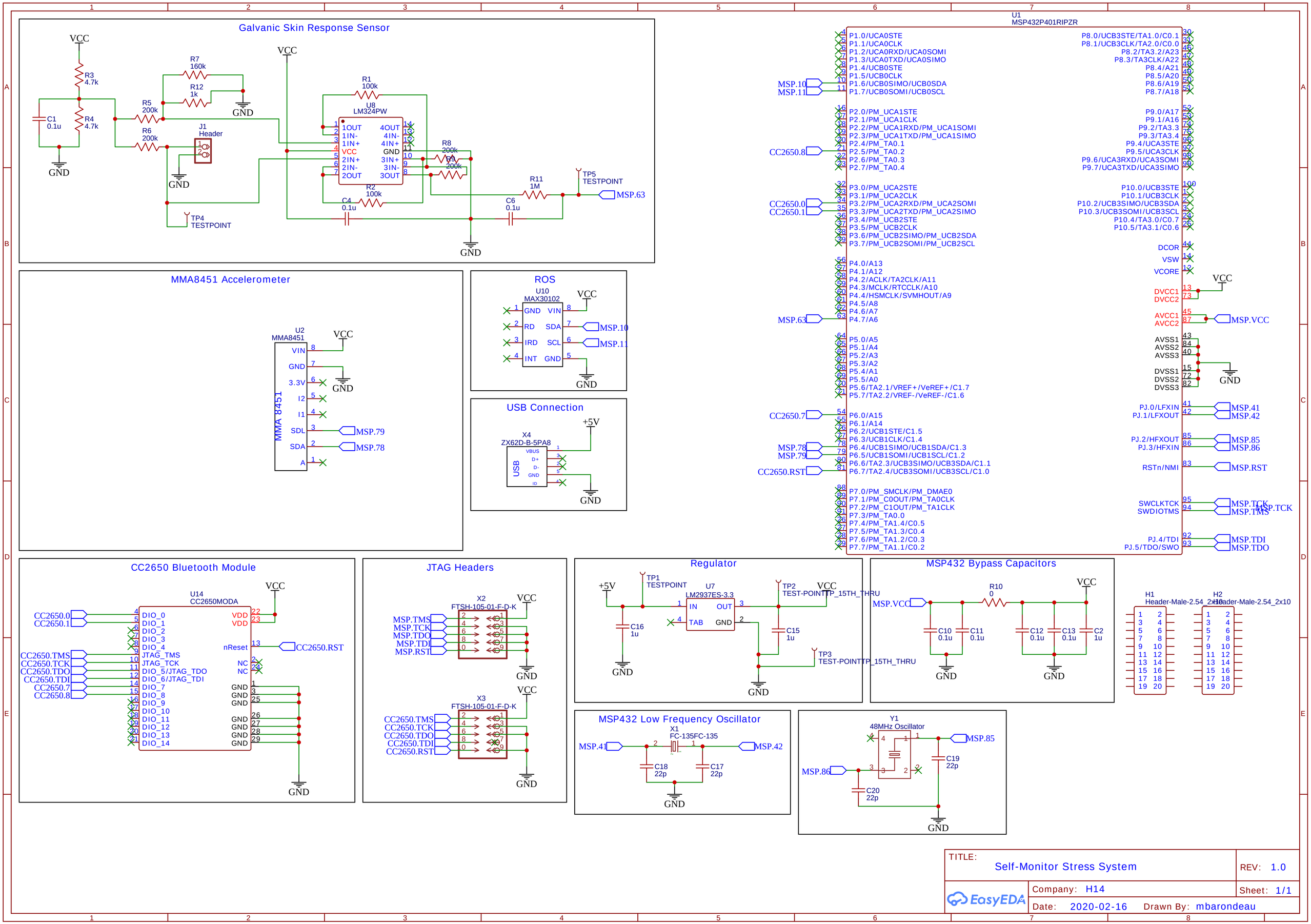
Galvanic Skin Response Sensor
VCC
R3 4.7k
R4 4.7k
C1 0.1u
GND
R5 200k
R6 200k
R7 160k
R12 1k
J1 Header
TP4 TESTPOINT
U8 LM324PW
1OUT 1IN- 1IN+ VCC 2IN+ 2IN- 2OUT
4OUT 4IN- 4IN+ GND 3IN+ 3IN- 3OUT
R1 100k
R2 100k
C4 0.1u
R8 200k
R9 200k
R11 1M
C6 0.1u
TP5 TESTPOINT
MSP.63
MMA8451 Accelerometer
U2 MMA8451
VIN GND 3.3V I2 I1 SDL SDA A
MSP.79
MSP.78
ROS
U10 MAX30102
GND VIN RD SDA IRD SCL INT GND
MSP.10
MSP.11
USB Connection
X4 ZX62D-B-5PA8
VBUS D+ D- GND ID
+5V
U1 MSP432P401RIPZR
P1.0/UCA0STE
P1.1/UCA0CLK
P1.2/UCA0RXD/UCA0SOMI
P1.3/UCA0TXD/UCA0SIMO
P1.4/UCB0STE
P1.5/UCB0CLK
P1.6/UCB0SIMO/UCB0SDA
P1.7/UCB0SOMI/UCB0SCL
P2.0/PM_UCA1STE
P2.1/PM_UCA1CLK
P2.2/PM_UCA1RXD/PM_UCA1SOMI
P2.3/PM_UCA1TXD/PM_UCA1SIMO
P2.4/PM_TA0.1
P2.5/PM_TA0.2
P2.6/PM_TA0.3
P2.7/PM_TA0.4
P3.0/PM_UCA2STE
P3.1/PM_UCA2CLK
P3.2/PM_UCA2RXD/PM_UCA2SOMI
P3.3/PM_UCA2TXD/PM_UCA2SIMO
P3.4/PM_UCB2STE
P3.5/PM_UCB2CLK
P3.6/PM_UCB2SIMO/PM_UCB2SDA
P3.7/PM_UCB2SOMI/PM_UCB2SCL
P4.0/A13
P4.1/A12
P4.2/ACLK/TA2CLK/A11
P4.3/MCLK/RTCCLK/A10
P4.4/HSMCLK/SVMHOUT/A9
P4.5/A8
P4.6/A7
P4.7/A6
P5.0/A5
P5.1/A4
P5.2/A3
P5.3/A2
P5.4/A1
P5.5/A0
P5.6/TA2.1/VREF+/VeREF+/C1.7
P5.7/TA2.2/VREF-/VeREF-/C1.6
P6.0/A15
P6.1/A14
P6.2/UCB1STE/C1.5
P6.3/UCB1CLK/C1.4
P6.4/UCB1SIMO/UCB1SDA/C1.3
P6.5/UCB1SOMI/UCB1SCL/C1.2
P6.6/TA2.3/UCB3SIMO/UCB3SDA/C1.1
P6.7/TA2.4/UCB3SOMI/UCB3SCL/C1.0
P7.0/PM_SMCLK/PM_DMAE0
P7.1/PM_C0OUT/PM_TA0CLK
P7.2/PM_C1OUT/PM_TA1CLK
P7.3/PM_TA0.0
P7.4/PM_TA1.4/C0.5
P7.5/PM_TA1.3/C0.4
P7.6/PM_TA1.2/C0.3
P7.7/PM_TA1.1/C0.2
P8.0/UCB3STE/TA1.0/C0.1
P8.1/UCB3CLK/TA2.0/C0.0
P8.2/TA3.2/A23
P8.3/TA3CLK/A22
P8.4/A21
P8.5/A20
P8.6/A19
P8.7/A18
P9.0/A17
P9.1/A16
P9.2/TA3.3
P9.3/TA3.4
P9.4/UCA3STE
P9.5/UCA3CLK
P9.6/UCA3RXD/UCA3SOMI
P9.7/UCA3TXD/UCA3SIMO
P10.0/UCB3STE
P10.1/UCB3CLK
P10.2/UCB3SIMO/UCB3SDA
P10.3/UCB3SOMI/UCB3SCL
P10.4/TA3.0/C0.7
P10.5/TA3.1/C0.6
DCOR
VSW
VCORE
DVCC1 DVCC2
AVCC1 AVCC2
AVSS1 AVSS2 AVSS3
DVSS1 DVSS2 DVSS3
PJ.0/LFXIN PJ.1/LFXOUT
PJ.2/HFXOUT PJ.3/HFXIN
RSTn/NMI
SWCLKTCK SWDIOTMS
PJ.4/TDI PJ.5/TDO/SWO
MSP.VCC
MSP.41
MSP.42
MSP.85
MSP.86
MSP.RST
MSP.TCK
MSP.TMS
MSP.TDI
MSP.TDO
CC2650.0
CC2650.1
CC2650.7
CC2650.8
CC2650.RST
CC2650 Bluetooth Module
U14 CC2650MODA
DIO_0 DIO_1 DIO_2 DIO_3 DIO_4 JTAG_TMS JTAG_TCK DIO_5/JTAG_TDO DIO_6/JTAG_TDI DIO_7 DIO_8 DIO_9 DIO_10 DIO_11 DIO_12 DIO_13 DIO_14
VDD VDD nReset NC NC GND GND GND GND GND GND GND
CC2650.TMS
CC2650.TCK
CC2650.TDO
CC2650.TDI
JTAG Headers
X2 FTSH-105-01-F-D-K
X3 FTSH-105-01-F-D-K
Regulator
TP1 TESTPOINT
U7 LM2937ES-3.3
IN OUT TAB GND
C16 1u
C15 1u
TP2 TEST-POINTTP_15TH_THRU
TP3 TEST-POINTTP_15TH_THRU
MSP432 Bypass Capacitors
R10 0
C10 0.1u
C11 0.1u
C12 0.1u
C13 0.1u
C2 1u
H1 Header-Male-2.54_2x10
H2 Header-Male-2.54_2x10
MSP432 Low Frequency Oscillator
X1 FC-135FC-135
C18 22p
C17 22p
Y1 48MHz Oscillator
C19 22p
C20 22p
TITLE:
Self-Monitor Stress System
REV: 1.0
Company: H14
Sheet: 1/1
Date: 2020-02-16
Drawn By: mbarondeau
EasyEDA