MAX30102 Heart Rate and Pulse Oximeter Circuit

U6
MAX30102

TP21
HR_INT
HR_INT
+3V3
R19
1K

13 INT
GND 12
PGND 11
VLED+ 9
VDD 10
SCL 3
SDA 2

TP8
GND_TO_GNDPWR
GND

GNDPWR
TP9
GNDPWR_TO_GND
C48
1uF
GND

C42 100nF
C41 10uF
C40 1uF
C46 4.7uF
C45 100nF
GND
+3V3

GNDPWR

SDA
R18 1K
SCL
R17 1K

+1V8_A
VR2
XC6206P302MR
2 VOUT
VSS 1
1 VIN
C47 1uF
+3V3

C44 1uF
+1V8
GND

VR1
XC6206P302MR
2 VOUT
VSS 1
3 VIN
C43 1uF

U7
TCR2EF33_LMCT
5 VOUT
4 NC
3 CONTROL
1 VIN
GND 2
GNDPWR
C39 0.1uF
+3V3

BMP585 Barometric Pressure Sensor Circuit

U9
BMP585

+3V3
C54 100nF
GND

BAR_INT
TP20
BAR_INT

9 L/M
8 VDD
7 CSB
6 VSS
5 INT

1 SCX
2 SDX
3 SDO
4 VDDIO

SCL
SDA
+3V3
C53 100nF
GND

BHI260 Inertial Measurement Unit Circuit

U8
BHI260AP

R21 10K +3V3
Q2 BSS138
R20 10K
+1V8
R24 4.7K

R23 10K +3V3
Q3 BSS138
R22 10K
+1V8
R25 4.7K

SDA
SCL

IMU_INT
TP22
IMU_INT
+1V8

31 RESV3
40 RESV2
41 RESV1
24 JTAG_DIO
23 JTAG_CLK
8 QSPLD3
20 QSPLD2
15 QSPLD1
4 QSPLD0
5 QSPL_CSN
QSPL_CLK
10 HIRQ
32 HSDO
11 HSDX
33 HSCX
34 HCSB
3 HOSTBOOT
9 RESET

25 GND
17 GNDIO
39 OSDO
21 OCSB
30 ASDX
22 ASCX
19 MCSB4
16 MCSB3
18 MCSB2
38 MCSB1
1 M3SDA
2 M3SCL
37 M2SDI
35 M2SDX
13 M2SCX
43 M1SDI
44 M1SDX
29 M1SCX
6 VREG
7 VDDIO
28 VDD

TP6
GND_TO_GNDIO
GND
GNDIO

TP7
GNDIO_TO_GND
GNDIO

C52 220nF
GND
C51 1uF +1V8_A
C50 100nF
+1V8
GNDIO

C49 100nF
GND