Low Side NMOS Switching TP18

DEVICE_PWR

Q1
BSS138

DEVICE_SW — G

R1
10k

GND

Header Breakout Pins
Mechanical/Electrical Connections Between Energy Harvester Board And System Board
J5: ICSP Programmer

J7
61000418221
- PC4 1
- PC5 2
- PD0 3
- PD1 4

J5
61000418221
- MOSI0 1
- MISO0 2
- SCK0   3
- RESET 4

J3
61000418221
- MOSI0 1
- MISO0 2
- SCK0   3
- RESET 4

J2
61000418221
- PD2 1
- PD3 2
- PD4 3
- GND 4

J8
61000418221
- +3V3 1
- 2
- 3
- 4

J4
61000418221
- ADC0 1
- ADC0 2
- ADC1 3
- ADC1 4

J6
61000418221
- 1
- 2
- 3
- 4
- GND

J9
61000418221
- +3V3 1
- 2
- AREF 3
- AREF 4

MCU

NOTES:
ADC0: Measure Voltage Across Super Capacitor (Energy Harvester Board)
ADC1: Measure Magnetic Field (Energy Harvester Board)

+3V3 TP21   TP11

TP20

C1 10uF   C3 10uF   TP19
C2 10nF   C4 10nF

GND   GND

U1
ATMEGA328PB-AU

- VCC
- AVCC 18
- AREF 20
- PB0   12   PC1 24   SCK1   TP1
- PB1   13   PC0 23   MISO1 TP2
- PB6   7   PE3 22   MOSI1 TP3
-             PE2 19   SS1   TP4
- PB5   17   SCK0   TP5
- PB4   16   MISO0 TP6
- PB3   15   MOSI0 TP7
- PB2   14   SS0   TP8
- PB7   8
- PC2   25   ADC0
- PC3   26   ADC1
- PC4   27
- PC5   28
- PC6   29   RESET
- PD5   9   D3
- PD6   10   D4
- PD7   11   D0
- PD0   30
- PD1   31
- PD2   32
- PD3   1
- PD4   2
- PE0   3   DEVICE_SW TP9
- PE1   6   D5
- GND   21   TP10
- GND   5   GND

AREF
D1
D2

C5 30pF
Y1 ECS
C6 30pF

+3V3
R5 10k
C13 10nF
GND

Accelerometer
INT1: Unsure if needed
INT2: Unsure if needed

+3V3   +3V3

TP24
C9 10uF   C11 10uF
C10 10nF   C12 10nF

GND   GND

U3
ADXL362BCCZ-RL7

- VS   14
- SCLK 4   SCK1
- MOSI 6   MOSI1
- MISO 7   MISO1
- CS   8   SS1
- VDD_I/O 1
- INT1 11   R2 0
- INT2 9   R3 0
- NC   15
- NC   2   GND
- GND   12   RES 10
- GND   13   RES 5
- GND   16   RES 3

DEVICE_PWR
TP23

GND

LoRa Transceiver
A Power-On Reset Is Triggered At Power Up

+3V3

TP25
C7 10uF
C8 10nF

GND

U2
RFM95W-915S2

- 3.3V   13
- SCK   4   SCK0
- MOSI   3   MOSI0
- MISO   2   MISO0
- NSS   5   SS0
- ANT   9
- RESET 6
- DIO0   14   D0 TP12
- DIO1   15   D1 TP13
- DIO2   16   D2 TP14
- DIO3   11   D3 TP15
- DIO4   12   D4 TP16
- DIO5   7   D5 TP17
- GND   1
- GND   8
- GND   10

DEVICE_PWR
TP22

J1
U_FL-R-SMT_10_
R4 0
GND