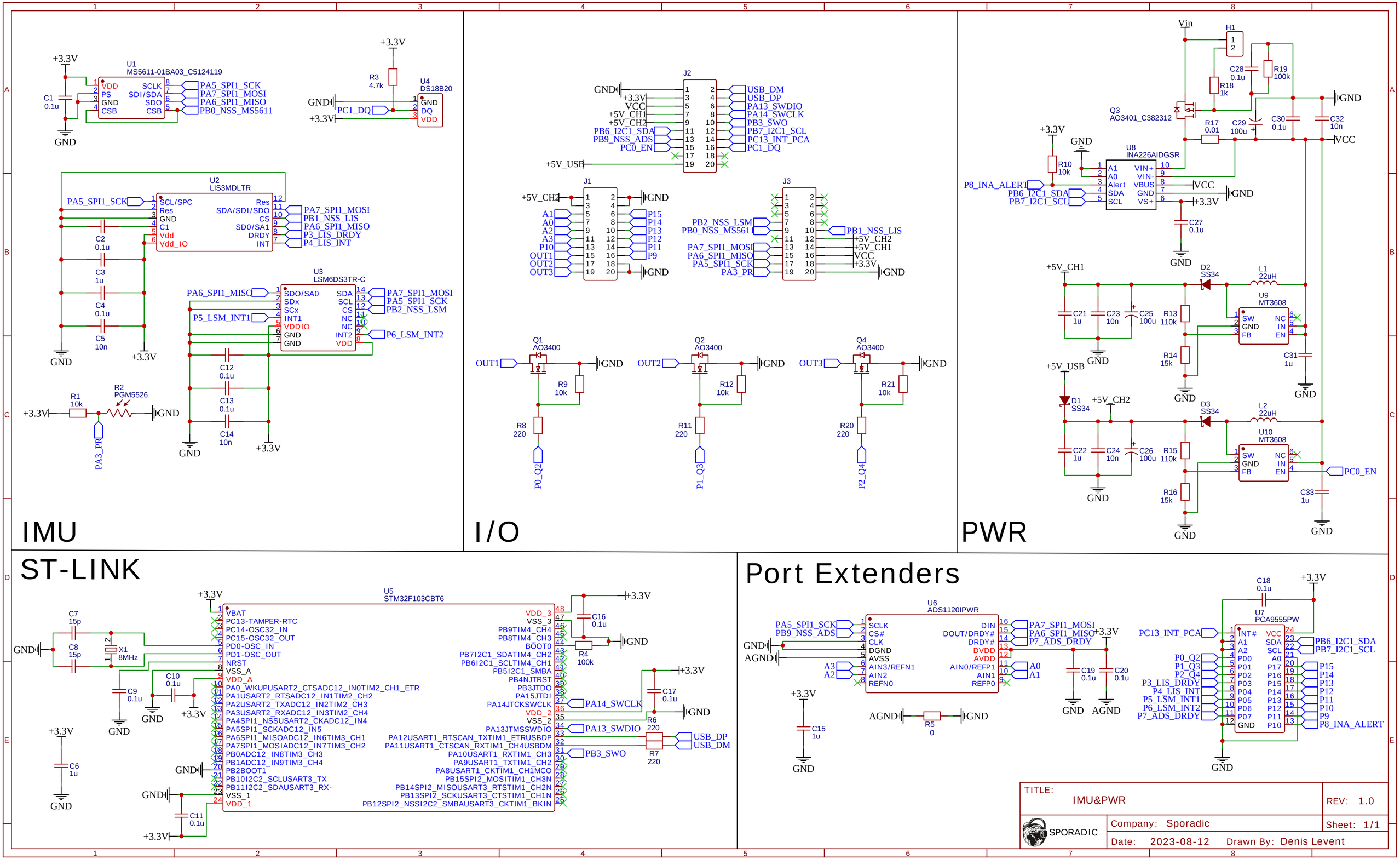
IMU
U1
MS5611-01BA03_C5124119
VDD
PS
GND
CSB
SCLK
SDI/SDA
SDO
CSB
PA5_SPI1_SCK
PA7_SPI1_MOSI
PA6_SPI1_MISO
PB0_NSS_MS5611
C1
0.1u
+3.3V
GND
U4
DS18B20
GND
DQ
VDD
R3
4.7k
PC1_DQ
U2
LIS3MDLTR
SCL/SPC
Res
GND
C1
Vdd
Vdd_IO
SDA/SDI/SDO
CS
SDO/SA1
DRDY
INT
PA7_SPI1_MOSI
PB1_NSS_LIS
PA6_SPI1_MISO
P3_LIS_DRDY
P4_LIS_INT
C2
0.1u
C3
1u
C4
0.1u
C5
10n
U3
LSM6DS3TR-C
SDO/SA0
SDx
SCx
INT1
VDDIO
GND
INT2
SDA
SCL
NC
PA7_SPI1_MOSI
PA5_SPI1_SCK
PB2_NSS_LSM
P5_LSM_INT1
P6_LSM_INT2
C12
0.1u
C13
0.1u
C14
10n
R1
10k
R2
PGM5526
PA3_PR
I/O
J2
USB_DM
USB_DP
PA13_SWDIO
PA14_SWCLK
PB3_SWO
PB7_I2C1_SCL
PC13_INT_PCA
PC1_DQ
VCC
+5V_CH1
+5V_CH2
PB6_I2C1_SDA
PB9_NSS_ADS
PC0_EN
+5V_USB
J1
A1
A0
A2
A3
P10
OUT1
OUT2
OUT3
P15
P14
P13
P12
P11
P9
J3
PB2_NSS_LSM
PB0_NSS_MS5611
PA7_SPI1_MOSI
PA6_SPI1_MISO
PA5_SPI1_SCK
PA3_PR
PB1_NSS_LIS
Q1
AO3400
Q2
AO3400
Q4
AO3400
R9
10k
R12
10k
R21
10k
R8
220
R11
220
R20
220
P0_Q2
P1_Q3
P2_Q4
PWR
Vin
H1
C28
0.1u
R19
100k
R18
1k
Q3
AO3401_C382312
R17
0.01
C29
100u
C30
0.1u
C32
10n
VCC
U8
INA226AIDGSR
A1
A0
Alert
SDA
SCL
VIN+
VIN-
VBUS
GND
VS+
R10
10k
P8_INA_ALERT
PB6_I2C1_SDA
PB7_I2C1_SCL
C27
0.1u
D2
SS34
L1
22uH
U9
MT3608
SW
GND
FB
NC
IN
EN
C21
1u
C23
10n
C25
100u
R13
110k
R14
15k
C31
1u
D1
SS34
D3
SS34
L2
22uH
U10
MT3608
C22
1u
C24
10n
C26
100u
R15
110k
R16
15k
C33
1u
PC0_EN
ST-LINK
U5
STM32F103CBT6
VBAT
PC13-TAMPER-RTC
PC14-OSC32_IN
PC15-OSC32_OUT
PD0-OSC_IN
PD1-OSC_OUT
NRST
VSS_A
VDD_A
PA0_WKUPUSART2_CTSADC12_IN0TIM2_CH1_ETR
PA1USART2_RTSADC12_IN1TIM2_CH2
PA2USART2_TXADC12_IN2TIM2_CH3
PA3USART2_RXADC12_IN3TIM2_CH4
PA4SPI1_NSSUSART2_CKADC12_IN4
PA5SPI1_SCKADC12_IN5
PA6SPI1_MISOADC12_IN6TIM3_CH1
PA7SPI1_MOSIADC12_IN7TIM3_CH2
PB0ADC12_IN8TIM3_CH3
PB1ADC12_IN9TIM3_CH4
PB2BOOT1
PB10I2C2_SCLUSART3_TX
PB11I2C2_SDAUSART3_RX-
VSS_1
VDD_1
VDD_3
VSS_3
PB9TIM4_CH4
PB8TIM4_CH3
BOOT0
PB7I2C1_SDATIM4_CH2
PB6I2C1_SCLTIM4_CH1
PB5I2C1_SMBA
PB4NJTRST
PB3JTDO
PA15JTDI
PA14JTCKSWCLK
VDD_2
VSS_2
PA13JTMSSWDIO
PA12USART1_RTSCAN_TXTIM1_ETRUSBDP
PA11USART1_CTSCAN_RXTIM1_CH4USBDM
PA10USART1_RXTIM1_CH3
PA9USART1_TXTIM1_CH2
PA8USART1_CKTIM1_CH1MCO
PB15SPI2_MOSITIM1_CH3N
PB14SPI2_MISOUSART3_RTSTIM1_CH2N
PB13SPI2_SCKUSART3_CTSTIM1_CH1N
PB12SPI2_NSSI2C2_SMBAUSART3_CKTIM1_BKIN
C7
15p
C8
15p
X1
8MHz
C9
0.1u
C10
0.1u
C6
1u
C11
0.1u
C16
0.1u
R4
100k
C17
0.1u
R6
220
R7
220
PA14_SWCLK
PA13_SWDIO
PB3_SWO
USB_DP
USB_DM
Port Extenders
U6
ADS1120IPWR
SCLK
CS#
CLK
DGND
AVSS
AIN3/REFN1
AIN2
REFN0
DIN
DOUT/DRDY#
DRDY#
DVDD
AVDD
AIN0/REFP1
AIN1
REFP0
PA5_SPI1_SCK
PB9_NSS_ADS
PA7_SPI1_MOSI
PA6_SPI1_MISO
P7_ADS_DRDY
A3
A2
A0
A1
C15
1u
C19
0.1u
C20
0.1u
R5
0
AGND
U7
PCA9555PW
INT#
A1
A2
P00
P01
P02
P03
P04
P05
P06
P07
GND
VCC
SDA
SCL
A0
P17
P16
P15
P14
P13
P12
P11
P10
C18
0.1u
PC13_INT_PCA
PB6_I2C1_SDA
PB7_I2C1_SCL
P0_Q2
P1_Q3
P2_Q4
P3_LIS_DRDY
P4_LIS_INT
P5_LSM_INT1
P6_LSM_INT2
P7_ADS_DRDY
P15
P14
P13
P12
P11
P10
P9
P8_INA_ALERT
TITLE:
IMU&PWR
REV: 1.0
SPORADIC
Company: Sporadic
Sheet: 1/1
Date: 2023-08-12
Drawn By: Denis Levent