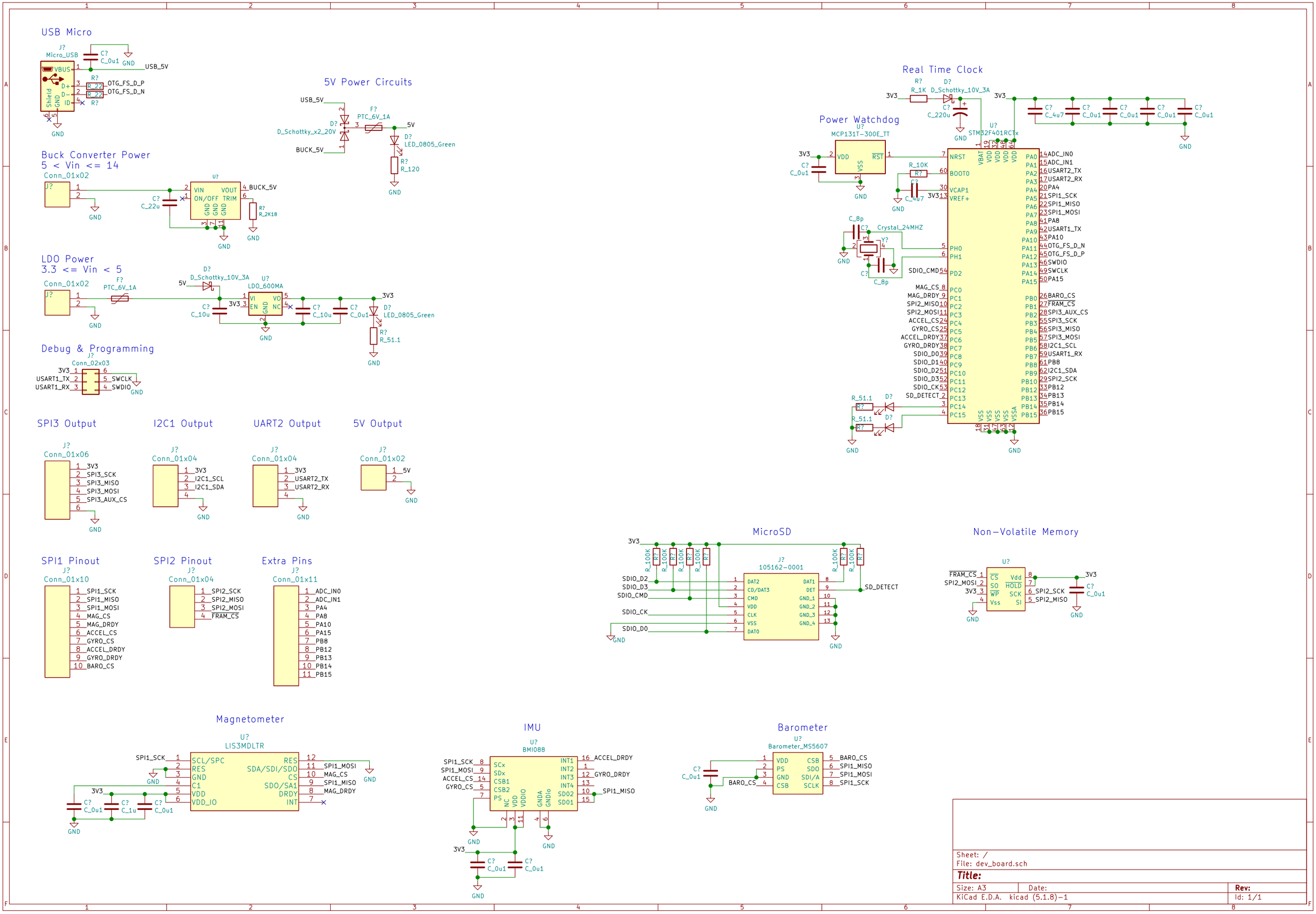
USB Micro
J?
Micro_USB
VBUS
D+
D-
ID
Shield
GND
C?
C_0u1
USB_5V
R?
R_22
OTG_FS_D_P
OTG_FS_D_N
5V Power Circuits
USB_5V
D?
D_Schottky_x2_20V
BUCK_5V
F?
PTC_6V_1A
5V
D?
LED_0805_Green
R?
R_120
Buck Converter Power
5 < Vin <= 14
Conn_01x02
J?
U?
VIN
ON/OFF
VOUT
TRIM
BUCK_5V
C?
C_22u
R?
R_2K18
LDO Power
3.3 <= Vin < 5
Conn_01x02
J?
F?
PTC_6V_1A
D?
D_Schottky_10V_3A
5V
U?
LDO_600MA
VI
EN
VO
NC
3V3
C?
C_10u
C?
C_10u
C?
C_0u1
D?
LED_0805_Green
R?
R_51.1
Debug & Programming
J?
Conn_02x03
3V3
USART1_TX
USART1_RX
SWCLK
SWDIO
SPI3 Output
J?
Conn_01x06
3V3
SPI3_SCK
SPI3_MISO
SPI3_MOSI
SPI3_AUX_CS
I2C1 Output
J?
Conn_01x04
3V3
I2C1_SCL
I2C1_SDA
UART2 Output
J?
Conn_01x04
3V3
USART2_TX
USART2_RX
5V Output
J?
Conn_01x02
5V
SPI1 Pinout
J?
Conn_01x10
SPI1_SCK
SPI1_MISO
SPI1_MOSI
MAG_CS
MAG_DRDY
ACCEL_CS
GYRO_CS
ACCEL_DRDY
GYRO_DRDY
BARO_CS
SPI2 Pinout
J?
Conn_01x04
SPI2_SCK
SPI2_MISO
SPI2_MOSI
FRAM_CS
Extra Pins
J?
Conn_01x11
ADC_IN0
ADC_IN1
PA4
PA8
PA10
PA15
PB8
PB12
PB13
PB14
PB15
Real Time Clock
R?
R_1K
D?
D_Schottky_10V_3A
3V3
C?
C_220u
C?
C_4u7
C?
C_0u1
C?
C_0u1
C?
C_0u1
C?
C_0u1
Power Watchdog
U?
MCP131T-300E_TT
VDD
VSS
RST
3V3
C?
C_0u1
R?
R_10K
C?
C_4u7
U?
STM32F401RCTx
NRST
BOOT0
VCAP1
VREF+
VBAT
VDD
VSS
VSSA
PH0
PH1
PD2
PC0
PC1
PC2
PC3
PC4
PC5
PC6
PC7
PC8
PC9
PC10
PC11
PC12
PC13
PC14
PC15
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13
PA14
PA15
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB12
PB13
PB14
PB15
ADC_IN0
ADC_IN1
USART2_TX
USART2_RX
PA4
SPI1_SCK
SPI1_MISO
SPI1_MOSI
PA8
USART1_TX
PA10
OTG_FS_D_N
OTG_FS_D_P
SWDIO
SWCLK
PA15
BARO_CS
FRAM_CS
SPI3_AUX_CS
SPI3_SCK
SPI3_MISO
SPI3_MOSI
I2C1_SCL
USART1_RX
PB8
I2C1_SDA
SPI2_SCK
PB12
PB13
PB14
PB15
C_8p
C?
Crystal_24MHZ
Y?
C?
C_8p
SDIO_CMD
MAG_CS
MAG_DRDY
SPI2_MISO
SPI2_MOSI
ACCEL_CS
GYRO_CS
ACCEL_DRDY
GYRO_DRDY
SDIO_D0
SDIO_D1
SDIO_D2
SDIO_D3
SDIO_CK
SD_DETECT
R_51.1
D?
R_51.1
D?
MicroSD
3V3
R_100K
R?
J?
105162-0001
DAT2
CD/DAT3
CMD
VDD
CLK
VSS
DAT0
DAT1
DET
GND_1
GND_2
GND_3
GND_4
SDIO_D2
SDIO_D3
SDIO_CMD
SDIO_CK
SDIO_D0
SD_DETECT
Non-Volatile Memory
U?
FRAM_CS
SPI2_MOSI
3V3
CS
SO
WP
Vss
Vdd
HOLD
SCK
SI
SPI2_SCK
SPI2_MISO
C?
C_0u1
Magnetometer
U?
LIS3MDLTR
SCL/SPC
RES
GND
C1
VDD
VDD_IO
RES
SDA/SDI/SDO
CS
SDO/SA1
DRDY
INT
SPI1_SCK
3V3
SPI1_MOSI
MAG_CS
SPI1_MISO
MAG_DRDY
C?
C_0u1
C?
C_1u
C?
C_0u1
IMU
U?
BMI088
SCx
SDx
CSB1
CSB2
PS
NC
VDD
VDDIO
GNDA
GNDIo
INT1
INT2
INT3
INT4
SDO2
SDO1
SPI1_SCK
SPI1_MOSI
ACCEL_CS
GYRO_CS
ACCEL_DRDY
GYRO_DRDY
SPI1_MISO
3V3
C?
C_0u1
C?
C_0u1
Barometer
U?
Barometer_MS5607
VDD
PS
GND
CSB
CSB
SDO
SDI/A
SCLK
BARO_CS
SPI1_MISO
SPI1_MOSI
SPI1_SCK
C?
C_0u1
Sheet: /
File: dev_board.sch
Title:
Size: A3
Date:
Rev:
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Id: 1/1