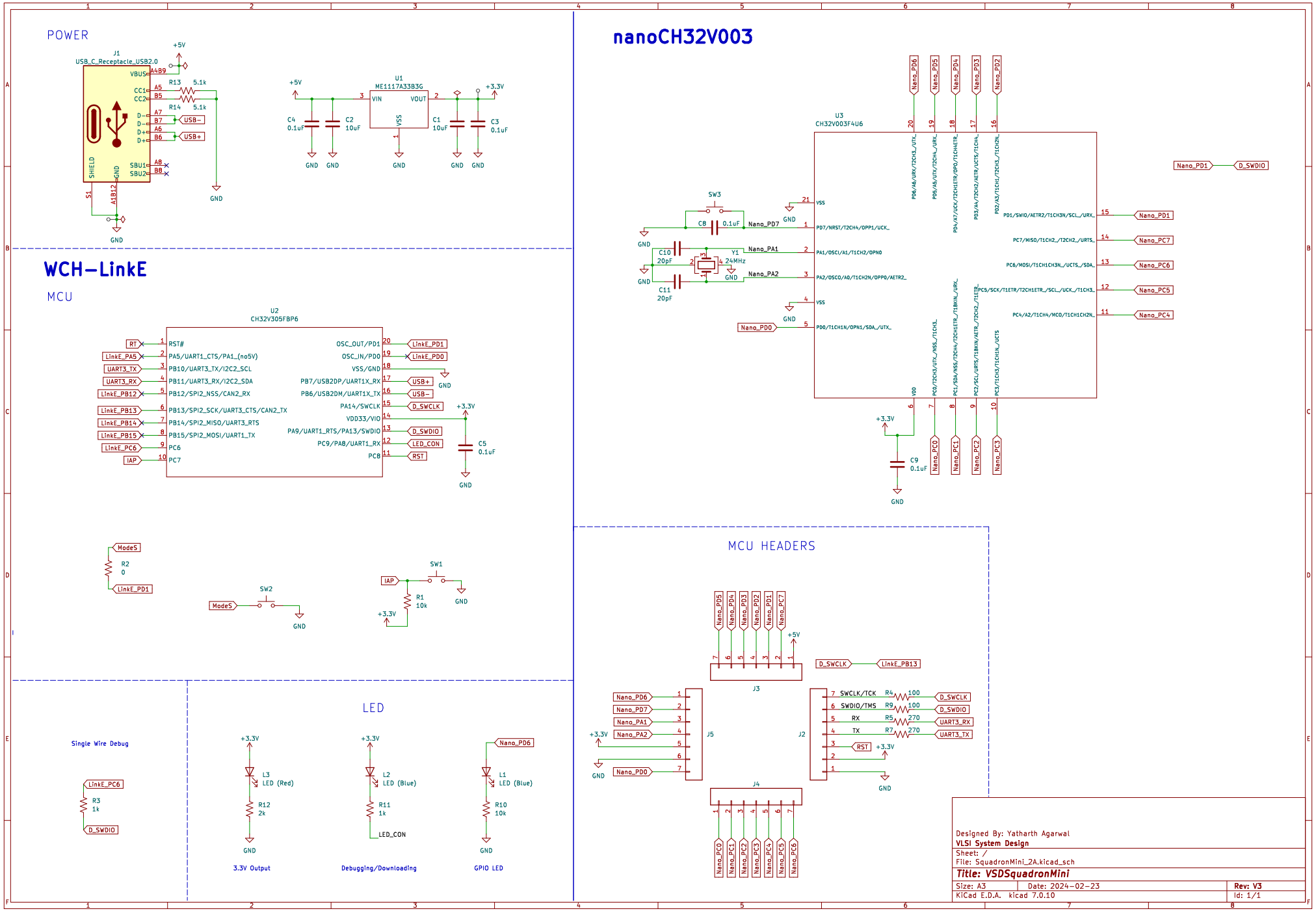
POWER
J1
USB_C_Receptacle_USB2.0
VBUS
CC1
CC2
D-
D+
SHIELD
GND
SBU1
SBU2
A4B9
A5
B5
A7
B7
A6
B6
A8
B8
R13 5.1k
R14 5.1k
USB-
USB+
S1
A1B12
+5V
GND
U1
ME1117A33B3G
VIN
VOUT
VSS
C4 0.1uF
C2 10uF
C1 10uF
C3 0.1uF
+3.3V
nanoCH32V003
U3
CH32V003F4U6
Nano_PD6
Nano_PD5
Nano_PD4
Nano_PD3
Nano_PD2
Nano_PD1
D_SWDIO
Nano_PC7
Nano_PC6
Nano_PC5
Nano_PC4
Nano_PC0
Nano_PC1
Nano_PC2
Nano_PC3
Nano_PD7
Nano_PA1
Nano_PA2
Nano_PD0
SW3
C8 0.1uF
C10 20pF
C11 20pF
Y1 24MHz
C9 0.1uF
WCH-LinkE
MCU
U2
CH32V305FBP6
RST#
PA5/UART1_CTS/PA1_(no5V)
PB10/UART3_TX/I2C2_SCL
PB11/UART3_RX/I2C2_SDA
PB12/SPI2_NSS/CAN2_RX
PB13/SPI2_SCK/UART3_CTS/CAN2_TX
PB14/SPI2_MISO/UART3_RTS
PB15/SPI2_MOSI/UART1_TX
PC6
PC7
OSC_OUT/PD1
OSC_IN/PD0
VSS/GND
PB7/USB2DP/UART1X_RX
PB6/USB2DM/UART1X_TX
PA14/SWCLK
VDD33/VIO
PA9/UART1_RTS/PA13/SWDIO
PC9/PA8/UART1_RX
PC8
RT
LinkE_PA5
UART3_TX
UART3_RX
LinkE_PB12
LinkE_PB13
LinkE_PB14
LinkE_PB15
LinkE_PC6
IAP
LinkE_PD1
LinkE_PD0
USB+
USB-
D_SWCLK
D_SWDIO
LED_CON
RST
C5 0.1uF
ModeS
R2 0
SW2
SW1
R1 10k
MCU HEADERS
J3
J4
J5
J2
D_SWCLK
LinkE_PB13
SWCLK/TCK
SWDIO/TMS
RX
TX
R4 100
R9 100
R5 270
R7 270
UART3_RX
UART3_TX
Single Wire Debug
R3 1k
LED
L3 LED (Red)
R12 2k
3.3V Output
L2 LED (Blue)
R11 1k
Debugging/Downloading
L1 LED (Blue)
R10 10k
GPIO LED
Designed By: Yatharth Agarwal
VLSI System Design
Sheet: /
File: SquadronMini_2A.kicad_sch
Title: VSDSquadronMini
Size: A3
Date: 2024-02-23
Rev: V3
KiCad E.D.A. kicad 7.0.10
Id: 1/1