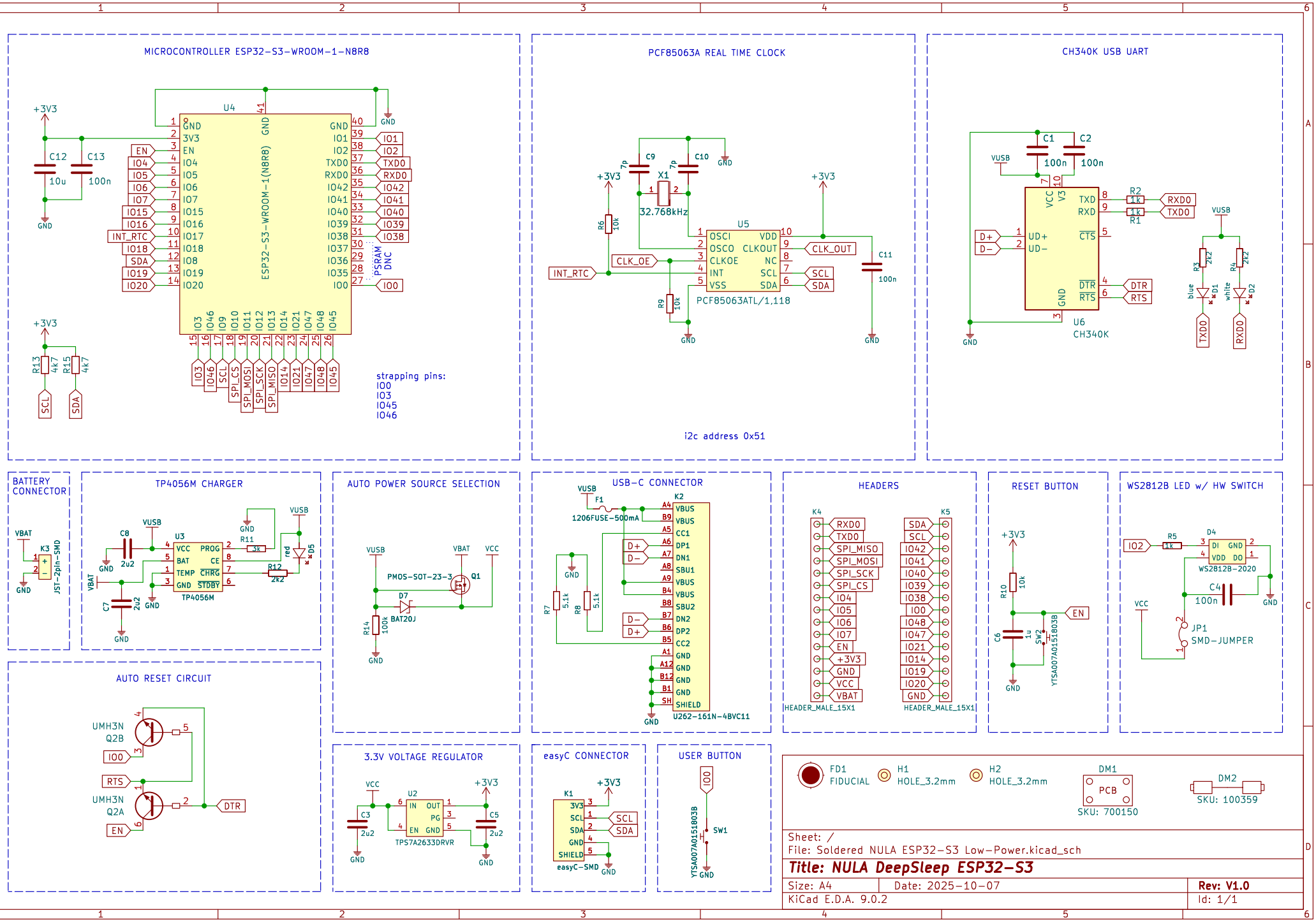
MICROCONTROLLER ESP32-S3-WROOM-1-N8R8
U4
ESP32-S3-WROOM-1(N8R8)
+3V3
C12
10u
C13
100n
GND
EN
IO4
IO5
IO6
IO7
IO15
IO16
INT_RTC
IO18
SDA
IO19
IO20
IO3
IO46
IO9
IO10
IO11
IO12
IO13
IO14
IO21
IO47
IO48
IO45
IO1
IO2
TXD0
RXD0
IO42
IO41
IO40
IO39
IO38
IO37
IO36
IO35
IO0
PSRAM DNC
R13 4k7
R15 4k7
SCL
SDA
strapping pins:
IO0
IO3
IO45
IO46
PCF85063A REAL TIME CLOCK
U5
PCF85063ATL/1,118
X1
32.768kHz
C9 7p
C10 7p
R6 10k
R9 10k
C11 100n
CLK_OE
CLK_OUT
OSCI
OSCO
CLKOE
INT
VSS
VDD
CLKOUT
NC
i2c address 0x51
CH340K USB UART
U6
CH340K
C1 100n
C2 100n
VUSB
R1 1k
R2 1k
RXD0
TXD0
R3 2k2
R4 2k2
D1 blue
D2 white
DTR
RTS
BATTERY CONNECTOR
K3
JST-2pin-SMD
TP4056M CHARGER
U3
TP4056M
C8 2u2
C7 2u2
R11 5k
R12 2k2
D5 red
AUTO POWER SOURCE SELECTION
PMOS-SOT-23-3
Q1
D7
BAT20J
R14 100k
USB-C CONNECTOR
K2
F1
1206FUSE-500mA
R7 5.1k
R8 5.1k
U262-161N-4BVC11
HEADERS
K4
K5
HEADER_MALE_15X1
RESET BUTTON
R10 10k
C6 1u
SW2
YTSA007A0151803B
WS2812B LED w/ HW SWITCH
D4
WS2812B-2020
R5 1k
C4 100n
JP1
SMD-JUMPER
AUTO RESET CIRCUIT
UMH3N Q2B
UMH3N Q2A
RTS
DTR
3.3V VOLTAGE REGULATOR
U2
TPS7A2633DRVR
C3 2u2
C5 2u2
easyC CONNECTOR
K1
easyC-SMD
USER BUTTON
SW1
FD1 FIDUCIAL
H1 HOLE_3.2mm
H2 HOLE_3.2mm
DM1 PCB SKU: 700150
DM2 SKU: 100359
Sheet: /
File: Soldered NULA ESP32-S3 Low-Power.kicad_sch
Title: NULA DeepSleep ESP32-S3
Size: A4
Date: 2025-10-07
Rev: V1.0
KiCad E.D.A. 9.0.2
Id: 1/1