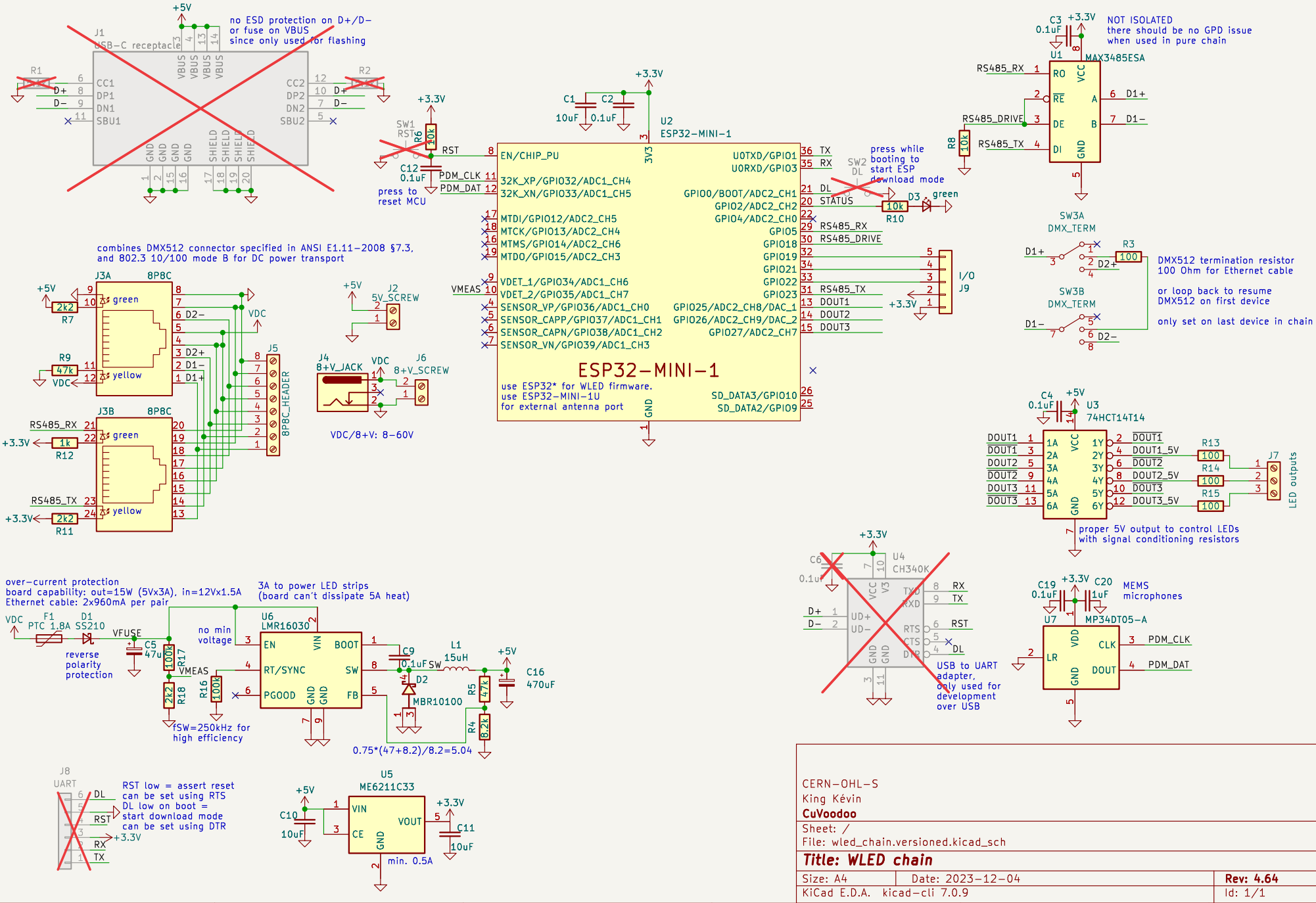
J1
USB-C receptacle
no ESD protection on D+/D-
or fuse on VBUS
since only used for flashing
U2
ESP32-MINI-1
ESP32-MINI-1
use ESP32* for WLED firmware.
use ESP32-MINI-1U
for external antenna port
press to
reset MCU
press while
booting to
start ESP
download mode
U1
MAX3485ESA
NOT ISOLATED
there should be no GPD issue
when used in pure chain
SW3A
DMX_TERM
SW3B
DMX_TERM
DMX512 termination resistor
100 Ohm for Ethernet cable
or loop back to resume
DMX512 on first device
only set on last device in chain
combines DMX512 connector specified in ANSI E1.11-2008 §7.3,
and 802.3 10/100 mode B for DC power transport
J3A
8P8C
J3B
8P8C
J5
8P8C_HEADER
J2
5V_SCREW
J4
8+V_JACK
J6
8+V_SCREW
VDC/8+V: 8-60V
I/O
J9
U3
74HCT14T14
LED outputs
proper 5V output to control LEDs
with signal conditioning resistors
U4
CH340K
USB to UART
adapter,
only used for
development
over USB
over-current protection
board capability: out=15W (5Vx3A), in=12Vx1.5A
Ethernet cable: 2x960mA per pair
reverse
polarity
protection
3A to power LED strips
(board can't dissipate 5A heat)
U6
LMR16030
no min
voltage
fSW=250kHz for
high efficiency
0.75*(47+8.2)/8.2=5.04
U7
MP34DT05-A
MEMS
microphones
J8
UART
RST low = assert reset
can be set using RTS
DL low on boot =
start download mode
can be set using DTR
U5
ME6211C33
min. 0.5A
CERN-OHL-S
King Kévin
CuVoodoo
Sheet: /
File: wled_chain.versioned.kicad_sch
Title: WLED chain
Size: A4
Date: 2023-12-04
Rev: 4.64
KiCad E.D.A. kicad-cli 7.0.9
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