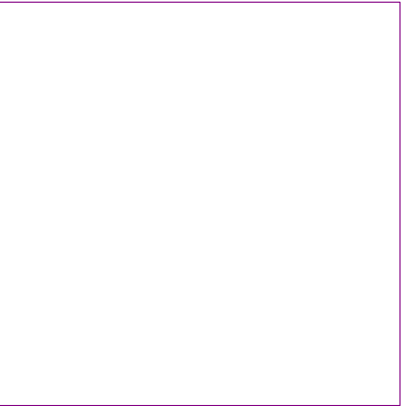


1	2	3	4	5	6	7	8
A							
B							
C							
D							
E							
F							

Clocks Buttons – lights



File: Clocks_Buttons.kicad_sch

Memory



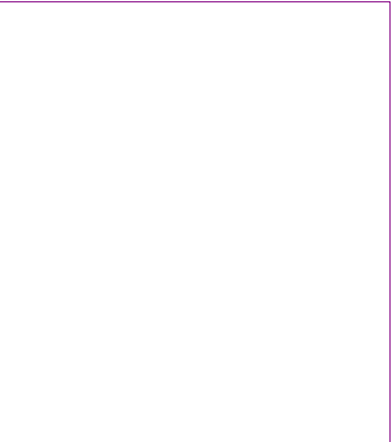
File: Memory.kicad_sch

Audio Video



File: Audio_Video.kicad_sch

STM32



File: STM32.kicad_sch

Connections



File: Connections.kicad_sch

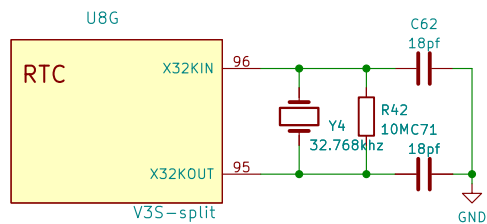
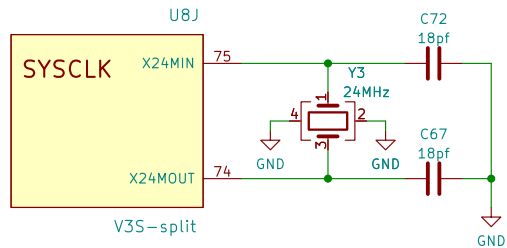
Power



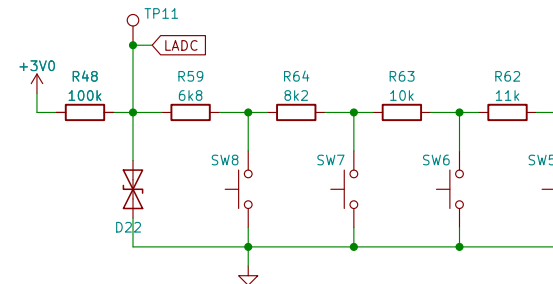
File: Power.kicad_sch

Sheet: /		
File: lb_mp1.kicad_sch		
Title: OzzyBoard		
Size: A3	Date: 2023-03-10	Rev: 0.91
KiCad E.D.A. kicad (6.0.8)		Id: 1/7

V3s Clocks



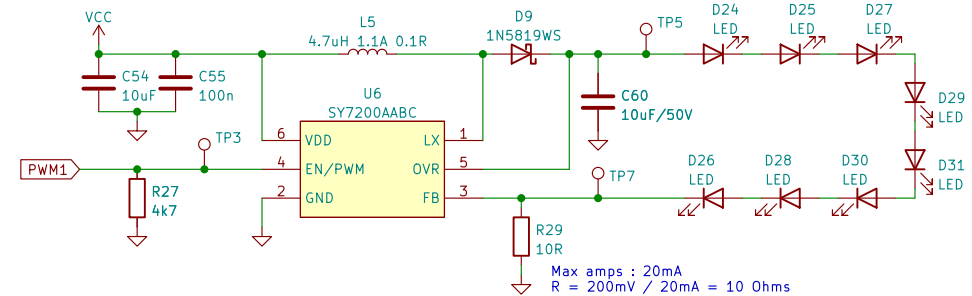
Buttons



Mounting holes

- H1
MountingHole
- H2
MountingHole
- H3
MountingHole
- H4
MountingHole

Backleds



Sheet: /Clocks Buttons - lights/
File: Clocks_Buttons.kicad_sch

Title: OzzyBoard

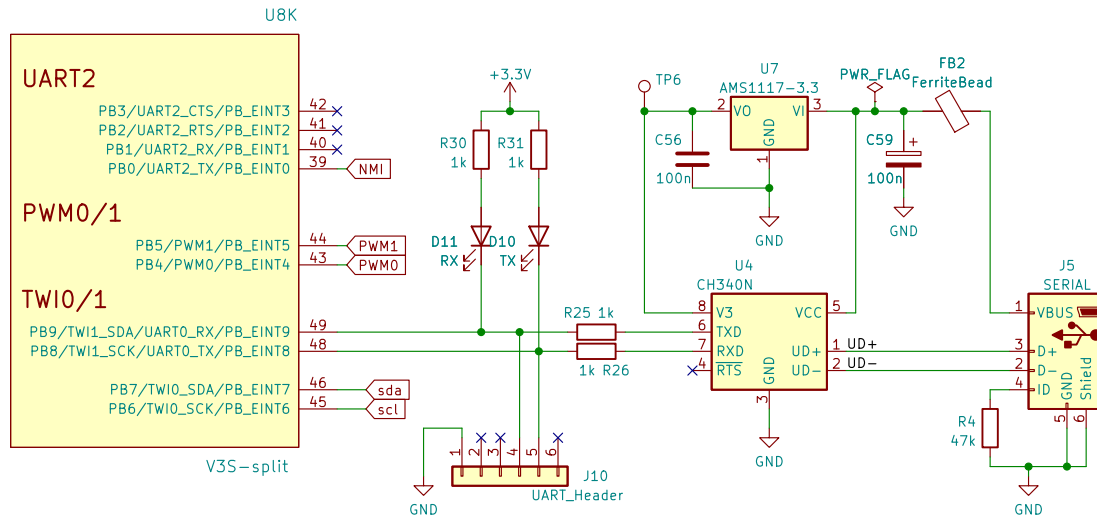
Size: A4 Date: 2023-03-10

KiCad E.D.A. kicad (6.0.8)

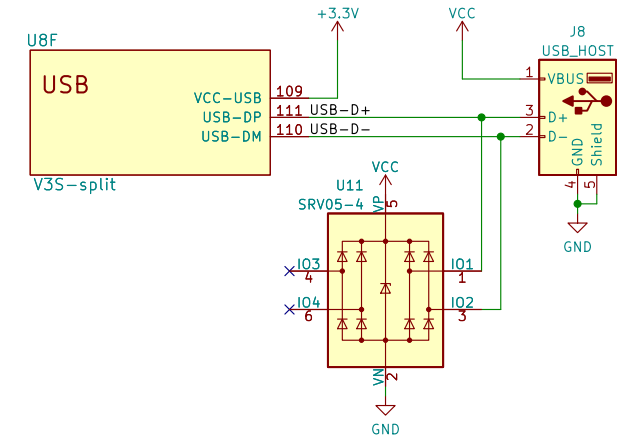
Rev: 0.91

Id: 2/7

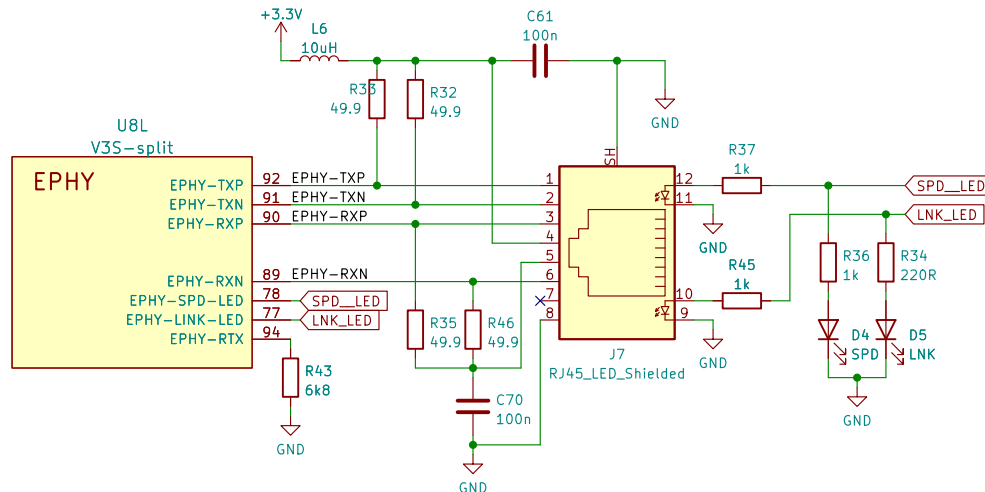
I2C/PWM/Serial



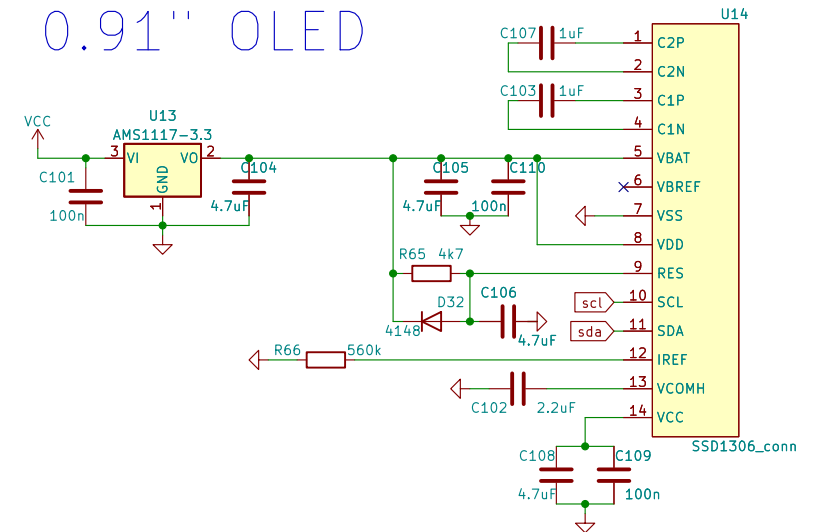
USB Host



Eth PHY



0.91" OLED



Sheet: /Connections/
File: Connections.kicad_sch

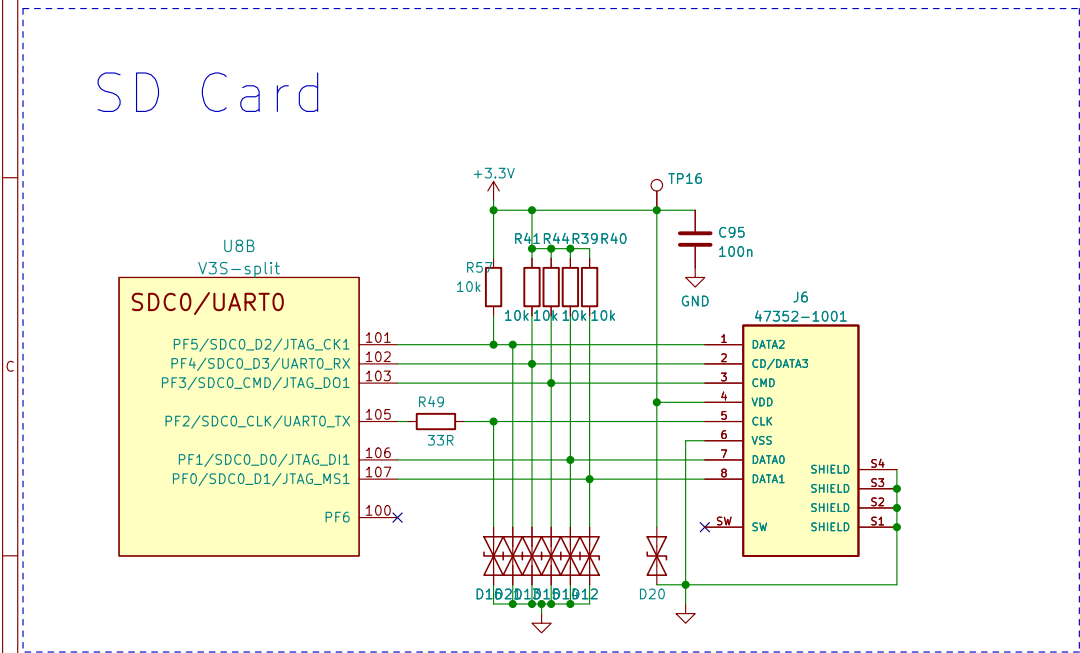
Title: OzzyBoard

Size: A4 Date: 2023-03-10

KiCad E.D.A. kicad (6.0.8)

Rev: 0.91

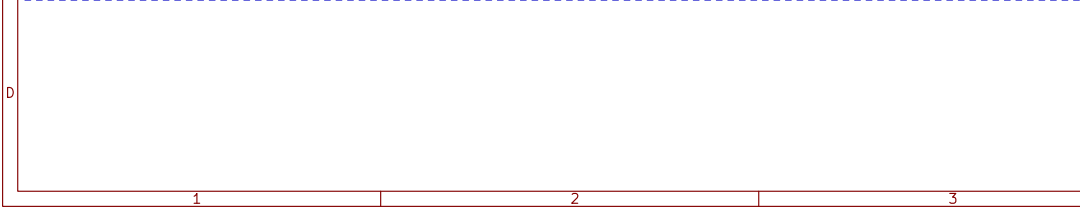
Id: 3/7

[illegible]

SD Card

The diagram illustrates the electrical connections for an SD Card interface. Key components and connections include:

- Power Supply:** A +3.3V supply is connected to the circuit. A 100nF capacitor (C95) is connected to ground (GND) for decoupling.
- Resistors:** Several resistors are used for pull-up and signal conditioning:
 - R5 (10k) is connected to +3.3V and the SDC0/UART0 module.
 - R41, R44, R39, and R40 (all 10k) are connected to +3.3V and the SDC0/UART0 module.
 - R49 (33R) is connected to the SDC0/UART0 module and the SD card.
- SD Card Connector (J6):** The SD card is connected to the circuit via a 47352-1001 connector. The connections are:
 - DATA2 (Pin 1) to SDC0/UART0 Pin 101.
 - CD/DATA3 (Pin 2) to SDC0/UART0 Pin 102.
 - CMD (Pin 3) to SDC0/UART0 Pin 103.
 - VDD (Pin 4) to +3.3V.
 - CLK (Pin 5) to SDC0/UART0 Pin 105.
 - VSS (Pin 6) to GND.
 - DATA0 (Pin 7) to SDC0/UART0 Pin 106.
 - DATA1 (Pin 8) to SDC0/UART0 Pin 107.
 - SHIELD (Pin 9) to SDC0/UART0 Pin 100.
 - SHIELD (Pin 10) to SDC0/UART0 Pin 100.
 - SHIELD (Pin 11) to SDC0/UART0 Pin 100.
 - SHIELD (Pin 12) to SDC0/UART0 Pin 100.
- SD Card Pins:** The SD card has a 16-bit data bus (D16-D12) and a 20-bit address bus (D20-D12). The pins are labeled D16, D20, D11, D10, D12, and D20.
- Other Components:** A TP16 test point is connected to the +3.3V supply. A SW (switch) is connected to the SD card's SW pin.



The diagram illustrates the electrical connection between a processor (U9) and an eMMC 8GB storage device through a controller (U8C). The controller (U8C) is configured as a V3S-split, managing the PG/SDC1 interface. The processor (U9) provides the necessary power and control signals to the eMMC.

Controller (U8C) Connections:

- PG/SDC1_CMD/PG_EINT1:** Connected to pin 4 of the eMMC.
- PG2/SDC1_D0/PG_EINT2:** Connected to pin 3 of the eMMC.
- PG3/SDC1_D1/PG_EINT3:** Connected to pin 2 of the eMMC.
- PG4/SDC1_D2/PG_EINT4:** Connected to pin 1 of the eMMC.
- PG5/SDC1_D3/PG_EINT5:** Connected to pin 128 of the eMMC.
- PG0/SDC1_CLK/PG_EINT0:** Connected to pin 5 of the eMMC.

Processor (U9) Connections:

- VCCQ:** Connected to pins P5, P3, N4, M4, and C6.
- VCC:** Connected to pins J10, K9, E6, and F5.
- RSTN:** Connected to pin K5.
- VDDI:** Connected to pin C2.
- VSSQ:** Connected to pins N5, N2, C4, P4, P6, A6, E7, K8, J5, H10, and G5.

eMMC 8GB Connections:

- CMD:** Connected to pin M5.
- DAT0:** Connected to pin A3.
- DAT1:** Connected to pin A4.
- DAT2:** Connected to pin A5.
- DAT3:** Connected to pin B2.
- DAT4:** Connected to pin B3.
- DAT5:** Connected to pin B4.
- DAT6:** Connected to pin B5.
- DAT7:** Connected to pin B6.
- CLK:** Connected to pin M6.
- DS:** Connected to pin H5.
- RFU:** Pins A7, G3, E5, K7, and K6 are marked as Reserved For Use (RFU).
- VSF:** Pins P10, K10, E8, E9, E10, G10, and F10 are marked as Reserved For Use (VSF).

Power and Grounding:

- +3.3V:** Provided to the eMMC via pins 4, 3, 2, 1, 128, and 5.
- GND:** Connected to pins M6, H5, and G5.
- TP13:** Test point for VCCQ.
- TP10:** Test point for VCC.
- C92, C97:** 100nF capacitors connected to TP13 and TP10.
- C85, C94:** 100nF capacitors connected to VCC and VSSQ.
- C98:** 1uF capacitor connected to VDDI.

Title: OzyBoard		
Size: A4	Date: 2023-03-10	Rev: 0.91
KiCad E.D.A. kicad (6.0.8)		Id: 4/7
4	5	6

Size: A4	Date: 2023-03-10	Rev: 0.91
----------	------------------	-----------

KiCad E.D.A. kicad (6.0.8)	Id: 4/7
----------------------------	---------

Id: 4/7

6

Audio jack

U8D
V3S-split

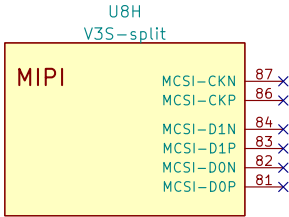
CODEC

HPCOM 125
HPCOMFB 124
HPVCCBP 123
HPVCCIN 122
HPOUTL 121
HPOUTR 120
HBIAS 119
VRA2 118
VRA1 117
MICIN1N 114
MICIN1P 113
LRADC0 112

R52 0R
C96 100n
R58 22R
R50 33R
R47 33R
C97 100n
D18
D19
D17
LADC

J9
AudioJack4_SwitchTR1

Camera



The diagram shows a yellow box labeled 'MIPI' representing the camera module. Above the box, the text 'U8H' and 'V3S-split' is shown in green. To the right of the box, a list of connections is shown, each with a red line and an 'X' at the end, indicating a connection point. The connections are: MCSI-CKN (87), MCSI-CKP (86), MCSI-D1N (84), MCSI-D1P (83), MCSI-D0N (82), and MCSI-D0P (81).

U8H
V3S-split

MIPI

MCSI-CKN 87 X
MCSI-CKP 86 X
MCSI-D1N 84 X
MCSI-D1P 83 X
MCSI-D0N 82 X
MCSI-D0P 81 X

Diagram illustrating the V3S-split board connections. The V3S module (left) is connected to the FPC_40 module (right) via a ribbon cable. The V3S module pins are labeled: PE20/CSI_FIELD/CSI_MIPI_MCLK (pin 10), PE21/CSI_SCK/TWI1_SCK/UART1_TX (pin 9), and PE22/CSI_SDA/TWI1_SDA/UART1_RX (pin 8). The FPC_40 module pins are labeled: XR (pin 37), YD (pin 38), XL (pin 39), and YU (pin 40). The connection is labeled V3S-split.

