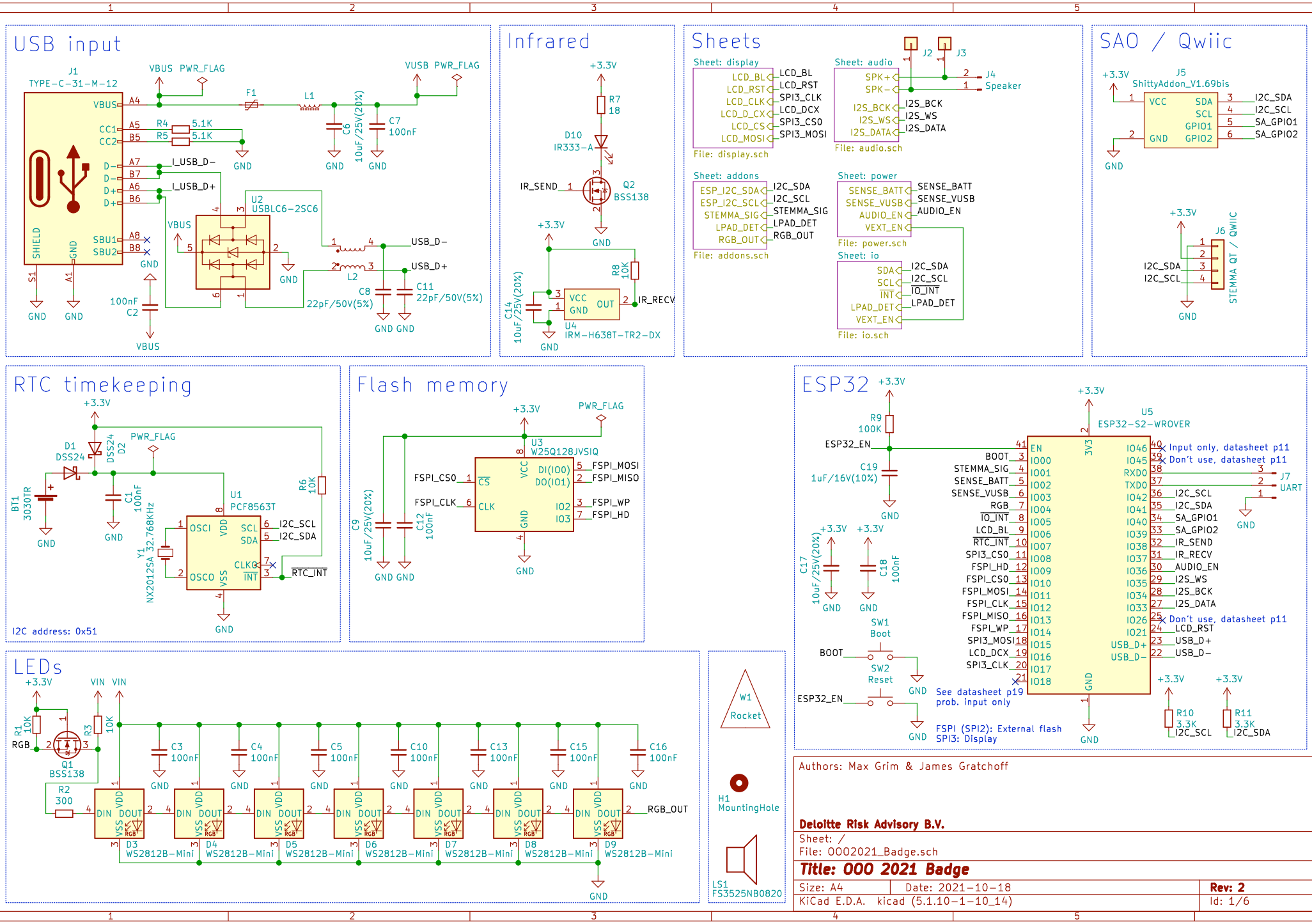
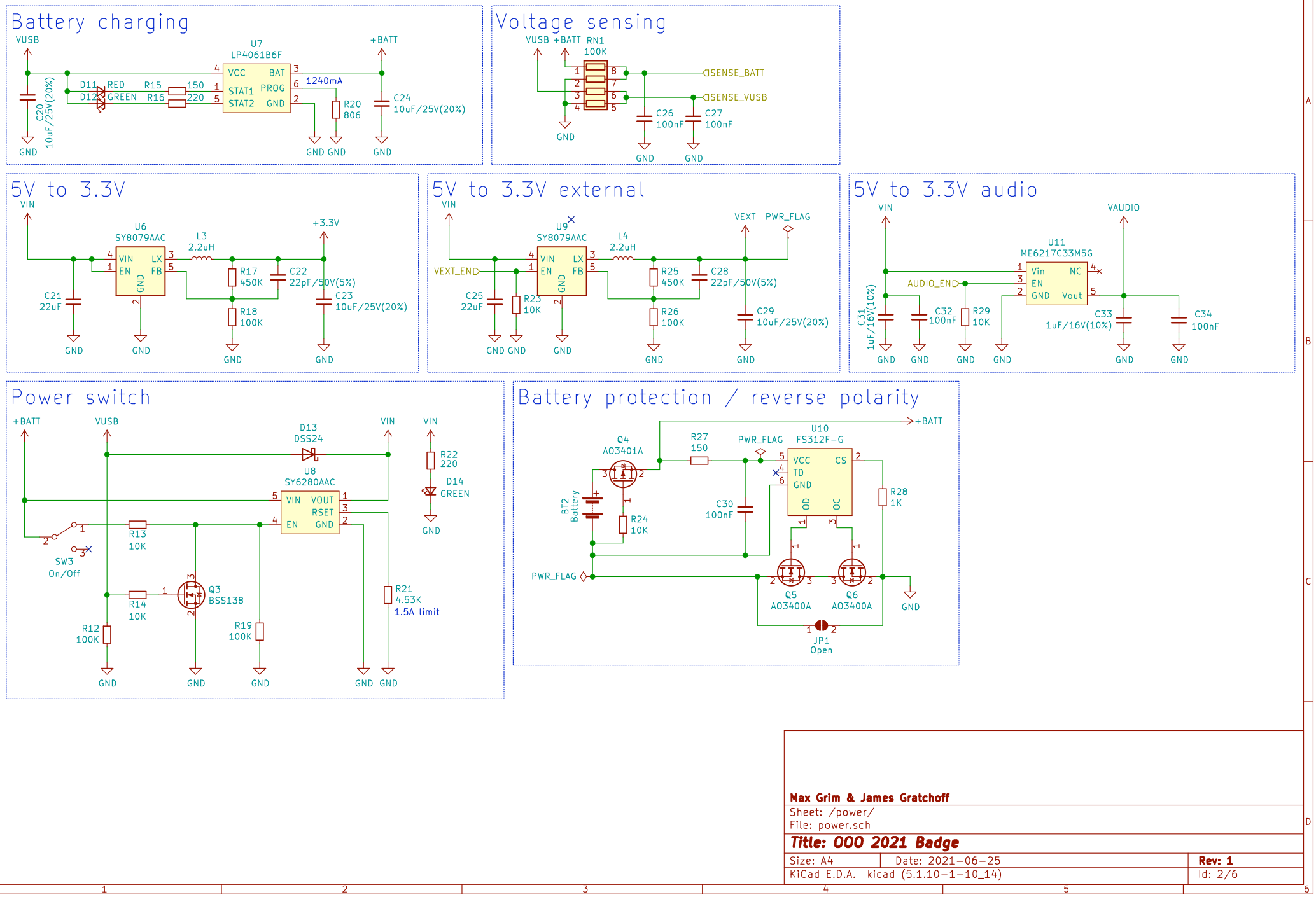
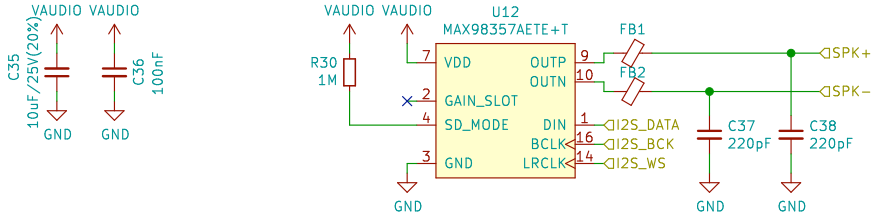
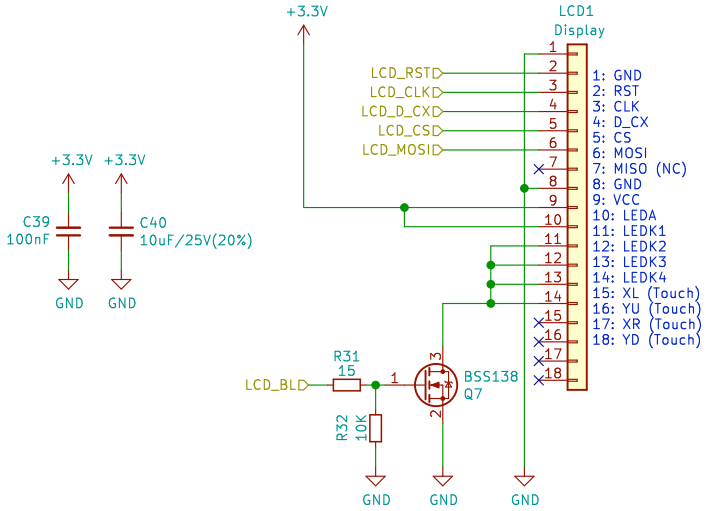

USB input
J1
TYPE-C-31-M-12
VBUS PWR_FLAG
VUSB PWR_FLAG
F1
L1
C6
10uF/25V(20%)
C7
100nF
R4
5.1K
R5
5.1K
I_USB_D-
I_USB_D+
U2
USBLC6-2SC6
USB_D-
USB_D+
L2
C8
22pF/50V(5%)
C11
22pF/50V(5%)
C2
100nF
SHIELD
GND
S1
A1
Infrared
+3.3V
R7
18
D10
IR333-A
IR_SEND
Q2
BSS138
R8
10K
C14
10uF/25V(20%)
VCC
GND
OUT
IR_RECV
U4
IRM-H638T-TR2-DX
Sheets
Sheet: display
LCD_BL
LCD_RST
LCD_CLK
LCD_D_CX
LCD_CS
LCD_MOSI
SPI3_CLK
SPI3_CS0
SPI3_MOSI
File: display.sch
Sheet: audio
SPK+
SPK-
I2S_BCK
I2S_WS
I2S_DATA
J2
J3
J4
Speaker
File: audio.sch
Sheet: addons
ESP_I2C_SDA
ESP_I2C_SCL
STEMMA_SIG
LPAD_DET
RGB_OUT
I2C_SDA
I2C_SCL
STEMMA_SIG
LPAD_DET
RGB_OUT
File: addons.sch
Sheet: power
SENSE_BATT
SENSE_VUSB
AUDIO_EN
VEXT_EN
File: power.sch
Sheet: io
SDA
SCL
INT
LPAD_DET
VEXT_EN
I2C_SDA
I2C_SCL
IO_INT
LPAD_DET
File: io.sch
SAO / Qwiic
J5
ShittyAddon_V1.69bis
VCC
GND
SDA
SCL
GPIO1
GPIO2
I2C_SDA
I2C_SCL
SA_GPIO1
SA_GPIO2
J6
STEMMA QT / QWIIC
RTC timekeeping
D1
DSS24
PWR_FLAG
BT1
3030TR
C1
100nF
U1
PCF8563T
OSCI
OSCO
VDD
VSS
SCL
SDA
CLKO
INT
Y1
NX2012SA 32.768KHz
R6
10K
RTC_INT
I2C address: 0x51
Flash memory
U3
W25Q128JVSIQ
CS
CLK
DI(IO0)
DO(IO1)
IO2
IO3
VCC
GND
FSPI_CS0
FSPI_CLK
FSPI_MOSI
FSPI_MISO
FSPI_WP
FSPI_HD
C9
10uF/25V(20%)
C12
100nF
ESP32
U5
ESP32-S2-WROVER
R9
100K
ESP32_EN
C19
1uF/16V(10%)
C17
10uF/25V(20%)
C18
100nF
SW1
Boot
SW2
Reset
BOOT
3V3
EN
GND
IO0
IO1
IO2
IO3
IO4
IO5
IO6
IO7
IO8
IO9
IO10
IO11
IO12
IO13
IO14
IO15
IO16
IO17
IO18
IO21
IO26
IO33
IO34
IO35
IO36
IO37
IO38
IO39
IO40
IO41
IO42
RXD0
TXD0
IO45
IO46
STEMMA_SIG
SENSE_BATT
SENSE_VUSB
RGB
IO_INT
LCD_BL
RTC_INT
SPI3_CS0
FSPI_HD
FSPI_CS0
FSPI_MOSI
FSPI_CLK
FSPI_MISO
FSPI_WP
SPI3_MOSI
LCD_DCX
SPI3_CLK
USB_D+
USB_D-
I2C_SCL
I2C_SDA
SA_GPIO1
SA_GPIO2
IR_SEND
IR_RECV
AUDIO_EN
I2S_WS
I2S_BCK
I2S_DATA
LCD_RST
Input only, datasheet p11
Don't use, datasheet p11
Don't use, datasheet p11
See datasheet p19
prob. input only
FSPI (SPI2): External flash
SPI3: Display
J7
UART
R10
3.3K
R11
3.3K
LEDs
VIN
R1
10K
R3
10K
RGB
Q1
BSS138
R2
300
C3
C4
C5
C10
C13
C15
C16
100nF
DIN
DOUT
VDD
VSS
RGB_OUT
D3
D4
D5
D6
D7
D8
D9
WS2812B-Mini
W1
Rocket
H1
MountingHole
LS1
FS3525NB0820
Authors: Max Grim & James Gratchoff
Deloitte Risk Advisory B.V.
Sheet: /
File: 0002021_Badge.sch
Title: 000 2021 Badge
Size: A4
Date: 2021-10-18
Rev: 2
KiCad E.D.A. kicad (5.1.10-1-10_14)
Id: 1/6


Battery charging
VUSB
U7
LP4061B6F
+BATT
D11 RED
D12 GREEN
R15 150
R16 220
VCC
BAT
STAT1
PROG
STAT2
GND
1240mA
R20 806
C24 10uF/25V(20%)
C20 10uF/25V(20%)
GND
Voltage sensing
VUSB +BATT
RN1 100K
SENSE_BATT
SENSE_VUSB
C26 100nF
C27 100nF
5V to 3.3V
VIN
U6
SY8079AAC
L3 2.2uH
+3.3V
VIN
EN
GND
LX
FB
C21 22uF
R17 450K
R18 100K
C22 22pF/50V(5%)
C23 10uF/25V(20%)
5V to 3.3V external
U9
SY8079AAC
L4 2.2uH
VEXT
PWR_FLAG
VEXT_END
C25 22uF
R23 10K
R25 450K
R26 100K
C28 22pF/50V(5%)
C29 10uF/25V(20%)
5V to 3.3V audio
VAUDIO
U11
ME6217C33M5G
Vin
NC
EN
GND
Vout
AUDIO_END
C31 1uF/16V(10%)
C32 100nF
R29 10K
C33 1uF/16V(10%)
C34 100nF
Power switch
+BATT
VUSB
D13 DSS24
VIN
R22 220
D14 GREEN
U8
SY6280AAC
VIN
VOUT
RSET
EN
GND
SW3 On/Off
R13 10K
R14 10K
Q3 BSS138
R12 100K
R19 100K
R21 4.53K 1.5A limit
Battery protection / reverse polarity
+BATT
Q4 AO3401A
R27 150
PWR_FLAG
U10
FS312F-G
VCC
TD
GND
OD
OC
CS
BT2 Battery
R24 10K
C30 100nF
R28 1K
Q5 AO3400A
Q6 AO3400A
JP1 Open
Max Grim & James Gratchoff
Sheet: /power/
File: power.sch
Title: OOO 2021 Badge
Size: A4
Date: 2021-06-25
Rev: 1
KiCad E.D.A. kicad (5.1.10-1-10_14)
Id: 2/6



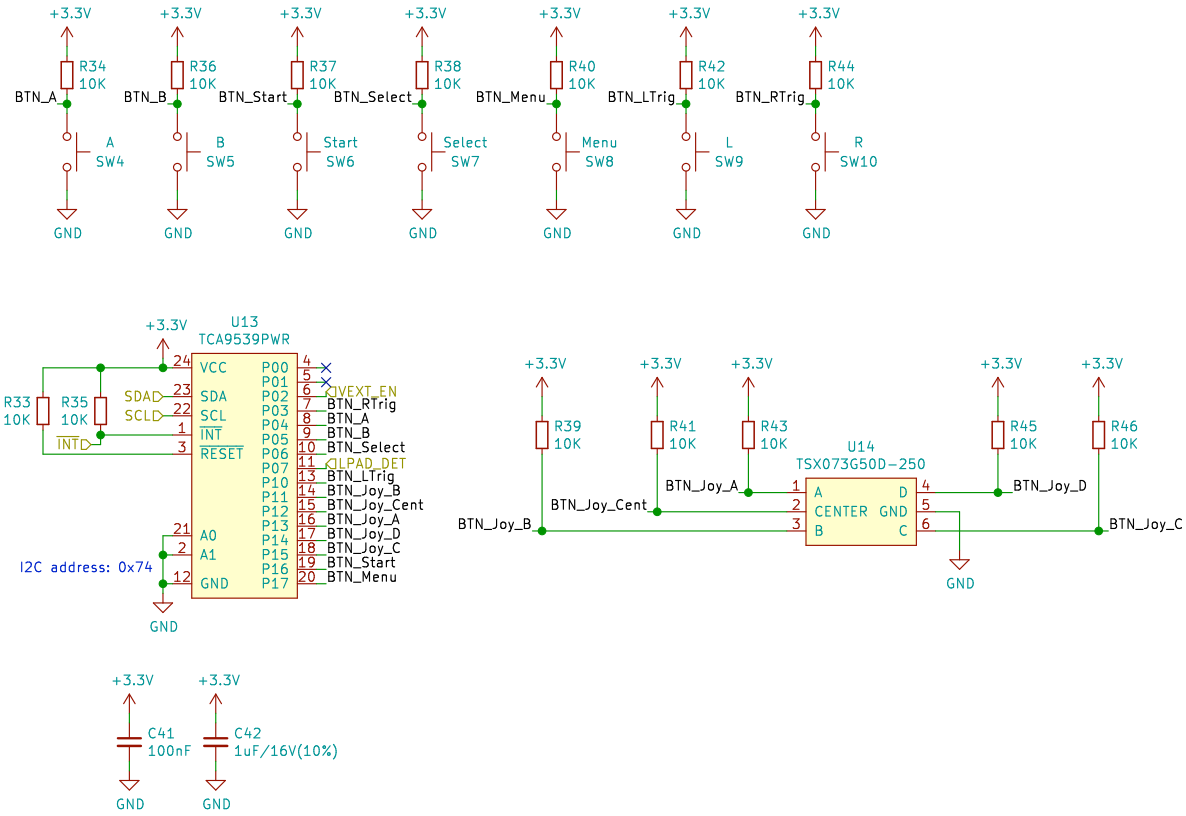
Sheet: /audio/		
File: audio.sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (5.1.10-1-10_14)		Id: 3/6



Sheet: /display/
File: display.sch

Title:

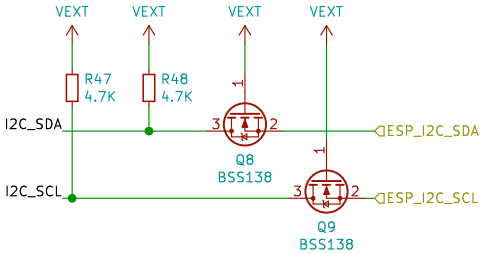
Size: A4 | Date: | **Rev:**
KiCad E.D.A. kicad (5.1.10-1-10_14) | Id: 4/6

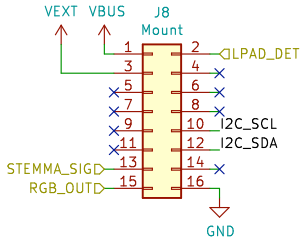


Sheet: /io/
File: io.sch

Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (5.1.10-1-10_14)		Id: 5/6





Sheet: /addons/ File: addons.sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (5.1.10-1-10_14)		Id: 6/6