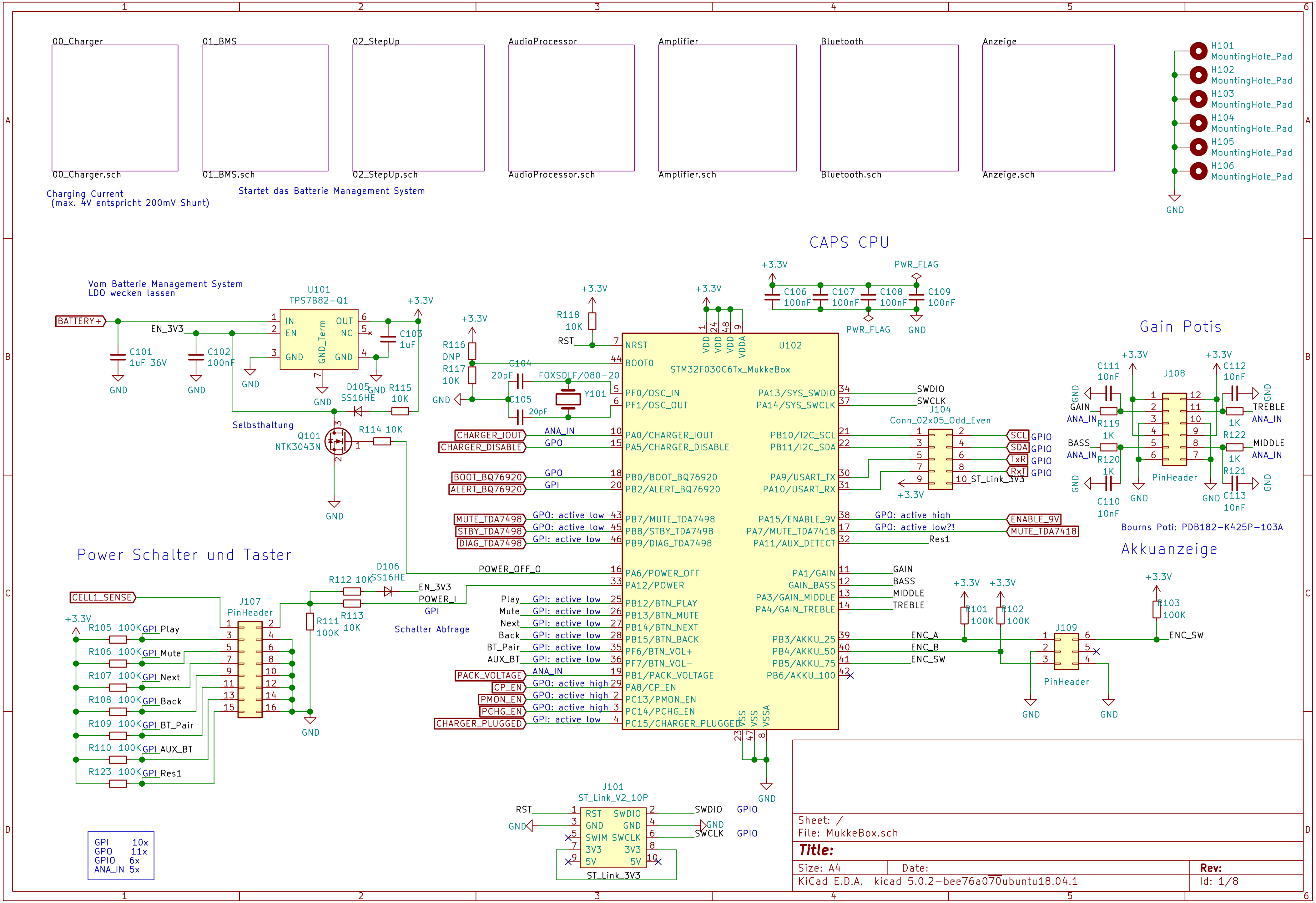
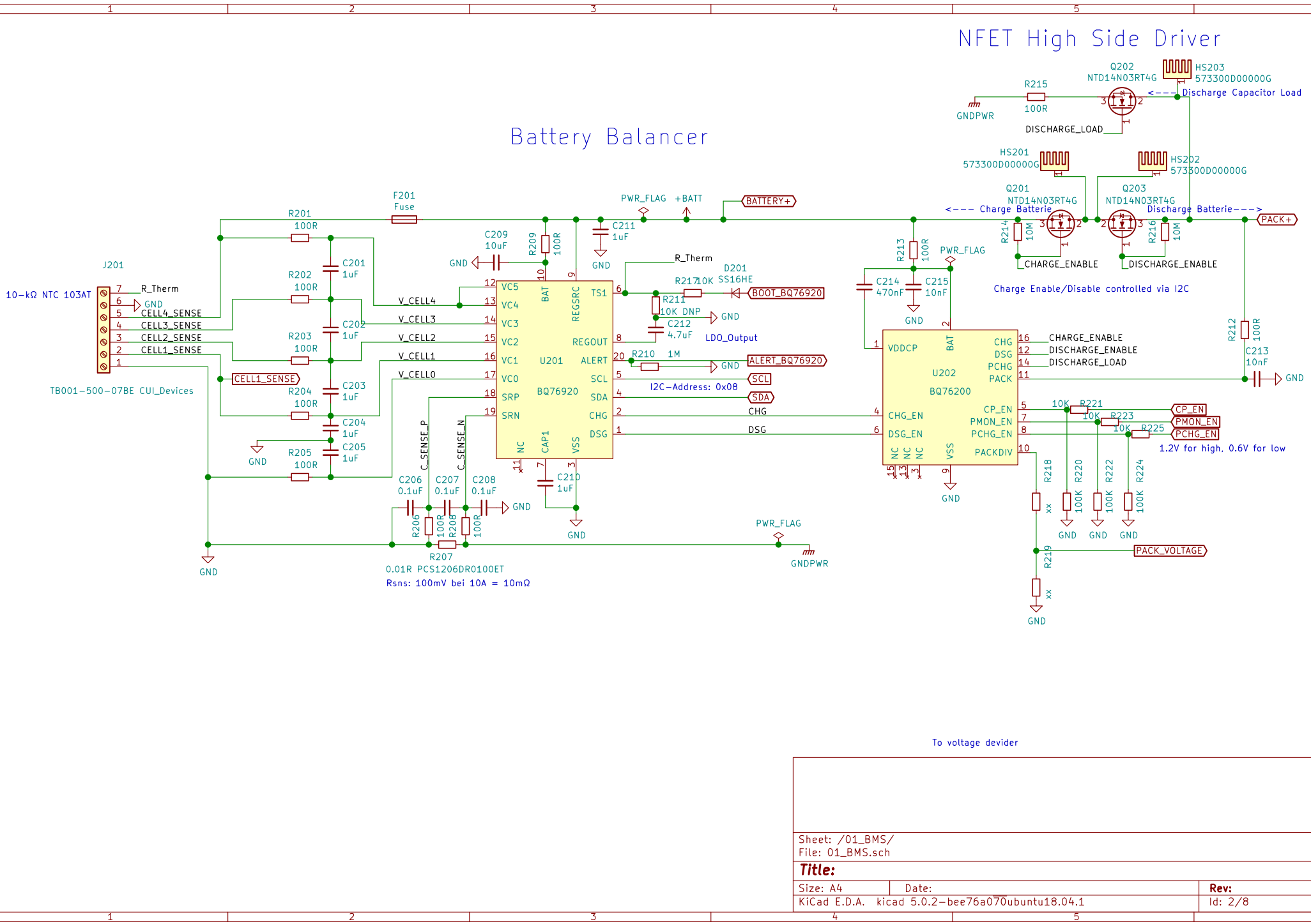
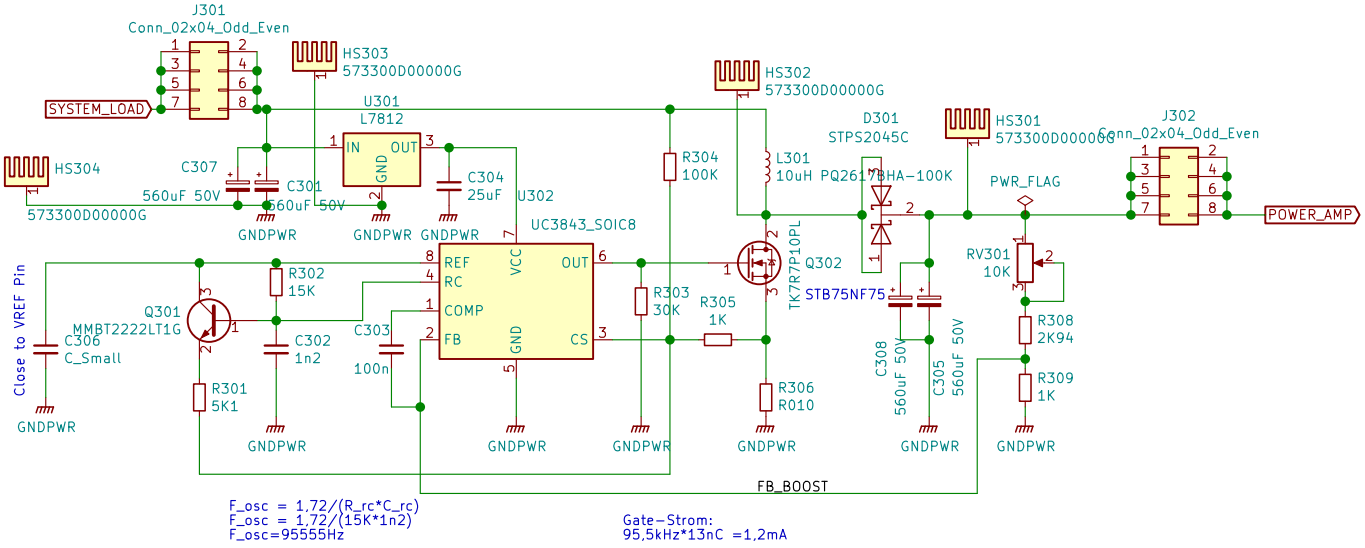
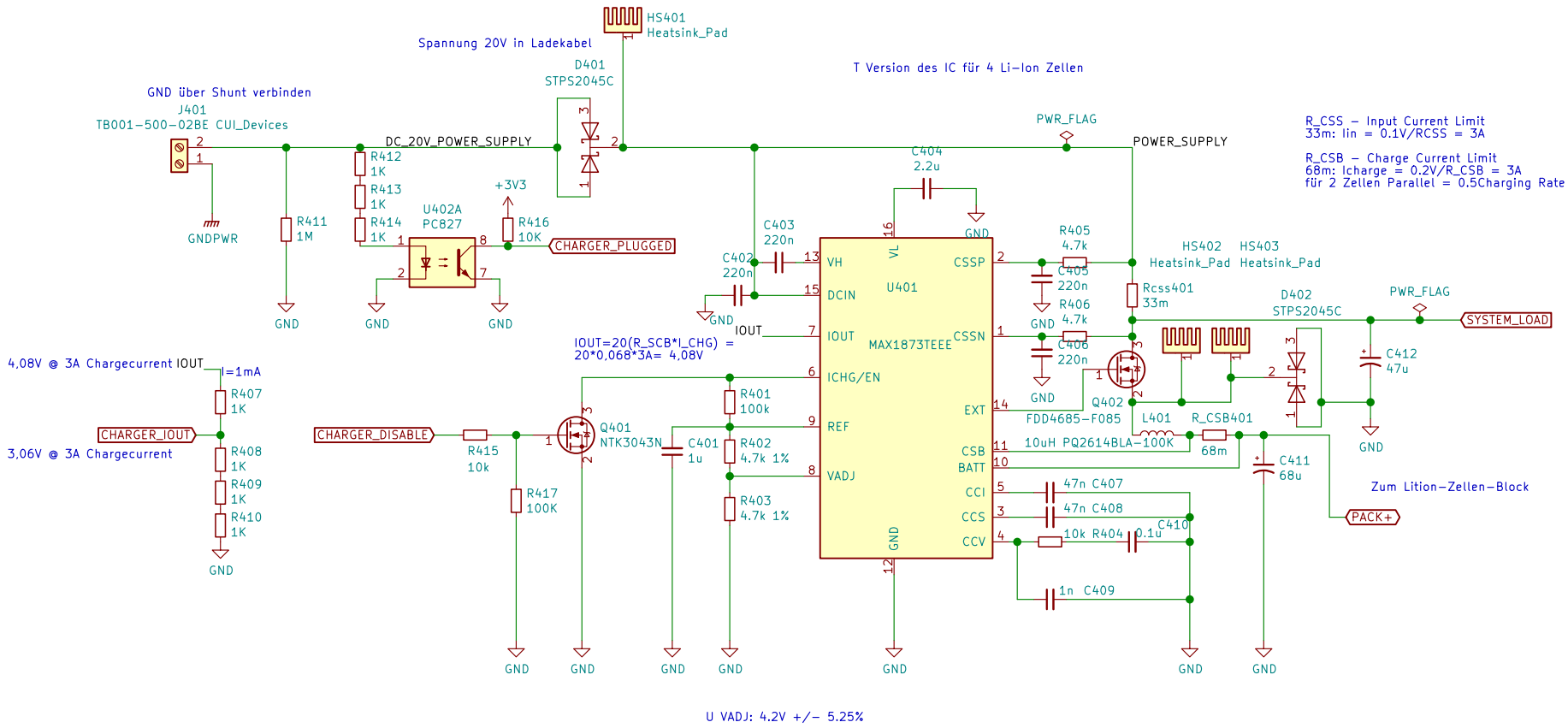

00_Charger
00_Charger.sch
01_BMS
01_BMS.sch
02_StepUp
02_StepUp.sch
AudioProcessor
AudioProcessor.sch
Amplifier
Amplifier.sch
Bluetooth
Bluetooth.sch
Anzeige
Anzeige.sch
Charging Current
(max. 4V entspricht 200mV Shunt)
Startet das Batterie Management System
H101 MountingHole_Pad
H102 MountingHole_Pad
H103 MountingHole_Pad
H104 MountingHole_Pad
H105 MountingHole_Pad
H106 MountingHole_Pad
CAPS CPU
Vom Batterie Management System
LDO wecken lassen
U101
TPS7B82-Q1
BATTERY+
EN_3V3
C101 1uF 36V
C102 100nF
C103 1uF
D105 SS16HE
R115 10K
Selbsthaltung
Q101 NTK3043N
R114 10K
R116 DNP
R117 10K
R118 10K
C104 20pF
C105 20pF
FOXSDLF/080-20
Y101
U102
STM32F030C6Tx_MukkeBox
C106 100nF
C107 100nF
C108 100nF
C109 100nF
PWR_FLAG
Gain Potis
J108
C111 10nF
C112 10nF
C110 10nF
C113 10nF
R119 1K
R120 1K
R121 1K
R122 1K
GAIN
BASS
TREBLE
MIDDLE
ANA_IN
PinHeader
Bourns Poti: PDB182-K425P-103A
J104
Conn_02x05_Odd_Even
SCL
SDA
TxR
RxT
GPIO
ST_Link_3V3
CHARGER_IOUT
CHARGER_DISABLE
BOOT_BQ76920
ALERT_BQ76920
MUTE_TDA7498
STBY_TDA7498
DIAG_TDA7498
ENABLE_9V
MUTE_TDA7418
GPO: active low
GPI: active low
GPO: active high
GPO: active low?!
Res1
Power Schalter und Taster
Akkuanzeige
CELL1_SENSE
J107
PinHeader
D106 SS16HE
R112 10K
R111 100K
R113 10K
POWER_OFF_O
POWER_I
Schalter Abfrage
R105 100K GPI Play
R106 100K GPI Mute
R107 100K GPI Next
R108 100K GPI Back
R109 100K GPI BT_Pair
R110 100K GPI AUX_BT
R123 100K GPI Res1
PACK_VOLTAGE
CP_EN
PMON_EN
PCHG_EN
CHARGER_PLUGGED
R101 100K
R102 100K
R103 100K
J109
ENC_A
ENC_B
ENC_SW
J101
ST_Link_V2_10P
RST SWDIO
GND GND
SWIM SWCLK
3V3 3V3
5V 5V
GPI 10x
GPO 11x
GPIO 6x
ANA_IN 5x
Sheet: /
File: MukkeBox.sch
Title:
Size: A4
Date:
Rev:
KiCad E.D.A. kicad 5.0.2-bee76a070ubuntu18.04.1
Id: 1/8


NFET High Side Driver
Battery Balancer
J201
10-kΩ NTC 103AT
TB001-500-07BE CUI_Devices
R_Therm
GND
CELL4_SENSE
CELL3_SENSE
CELL2_SENSE
CELL1_SENSE
CELL1_SENSE
F201
Fuse
R201 100R
R202 100R
R203 100R
R204 100R
R205 100R
C201 1uF
C202 1uF
C203 1uF
C204 1uF
C205 1uF
V_CELL4
V_CELL3
V_CELL2
V_CELL1
V_CELL0
C_SENSE_P
C_SENSE_N
C206 0.1uF
C207 0.1uF
C208 0.1uF
R206 100R
R208 100R
R207
0.01R PCS1206DR0100ET
Rsns: 100mV bei 10A = 10mΩ
C209 10uF
R209 100R
C210 1uF
C211 1uF
PWR_FLAG
+BATT
BATTERY+
U201
BQ76920
VC5
VC4
VC3
VC2
VC1
VC0
SRP
SRN
BAT
REGSRC
TS1
REGOUT
ALERT
SCL
SDA
CHG
DSG
NC
CAP1
VSS
R_Therm
R217 10K
D201 SS16HE
BOOT_BQ76920
R211 10K DNP
C212 4.7uF
LDO_Output
R210 1M
ALERT_BQ76920
I2C-Address: 0x08
SCL
SDA
CHG
DSG
PWR_FLAG
GNDPWR
R213 100R
C214 470nF
C215 10nF
U202
BQ76200
VDDCP
BAT
CHG_EN
DSG_EN
NC
NC
NC
VSS
CHG
DSG
PCHG
PACK
CP_EN
PMON_EN
PCHG_EN
PACKDIV
CHARGE_ENABLE
DISCHARGE_ENABLE
DISCHARGE_LOAD
Charge Enable/Disable controlled via I2C
R212 100R
C213 10nF
PACK+
Q201 NTD14N03RT4G
Q202 NTD14N03RT4G
Q203 NTD14N03RT4G
<--- Charge Batterie
Discharge Batterie--->
R214 10M
R216 10M
HS201 573300D00000G
HS202 573300D00000G
HS203 573300D00000G
<--- Discharge Capacitor Load
R215 100R
DISCHARGE_LOAD
R218 xx
R219 xx
R220 100K
R222 100K
R224 100K
R221 10K
R223 10K
R225 10K
1.2V for high, 0.6V for low
PACK_VOLTAGE
To voltage devider
Sheet: /01_BMS/
File: 01_BMS.sch
Title:
Size: A4
Date:
Rev:
KiCad E.D.A. kicad 5.0.2-bee76a070ubuntu18.04.1
Id: 2/8

UC1842 Step Up von aliexpress yo
https://www.360customs.de/2014/05/103050100w-led-applikation-treiber/?cookie-state-change=1586628857397

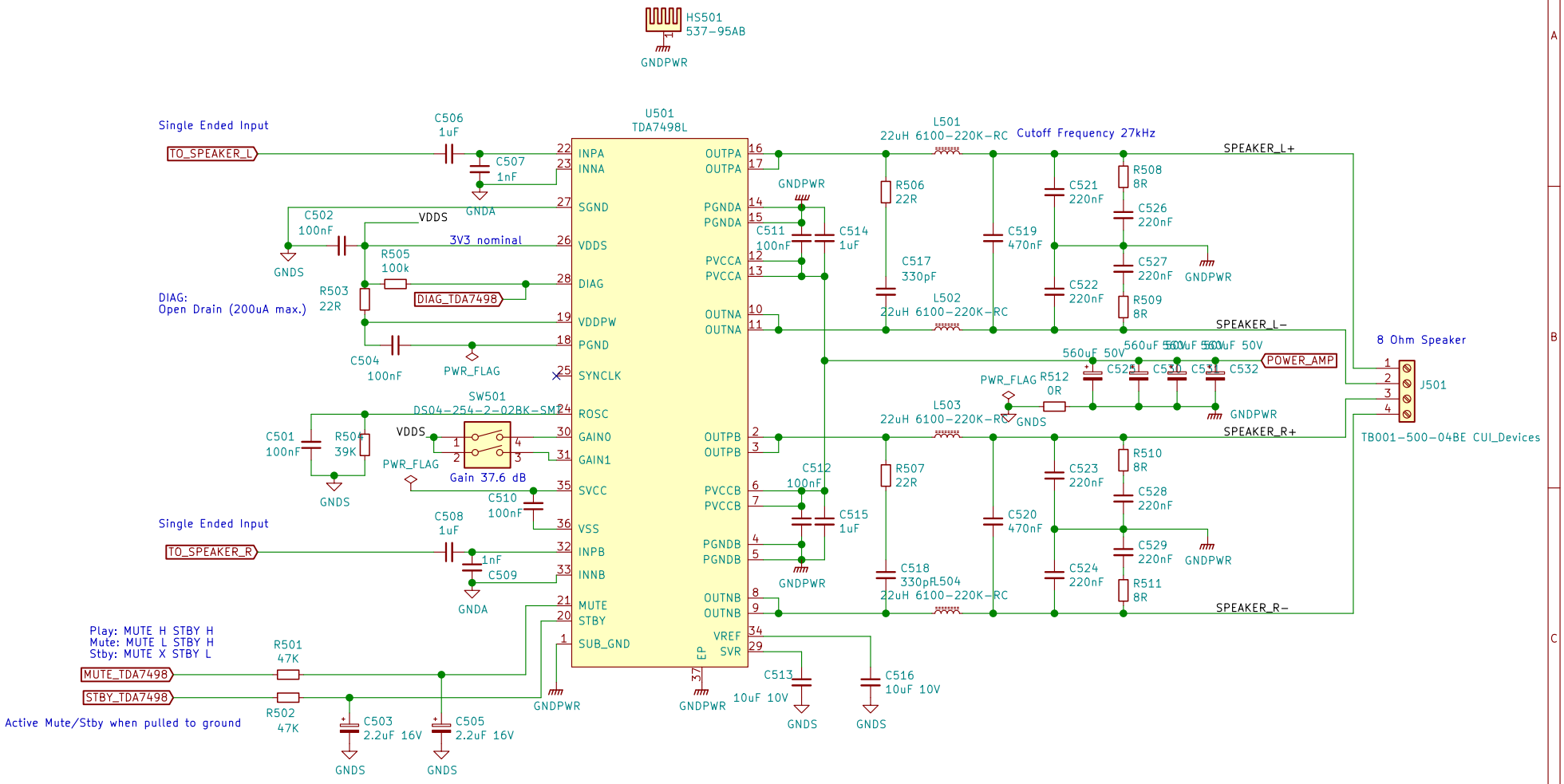


Sheet: /02_StepUp/ File: 02_StepUp.sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 5.0.2-bee76a070ubuntu18.04.1		Id: 3/8

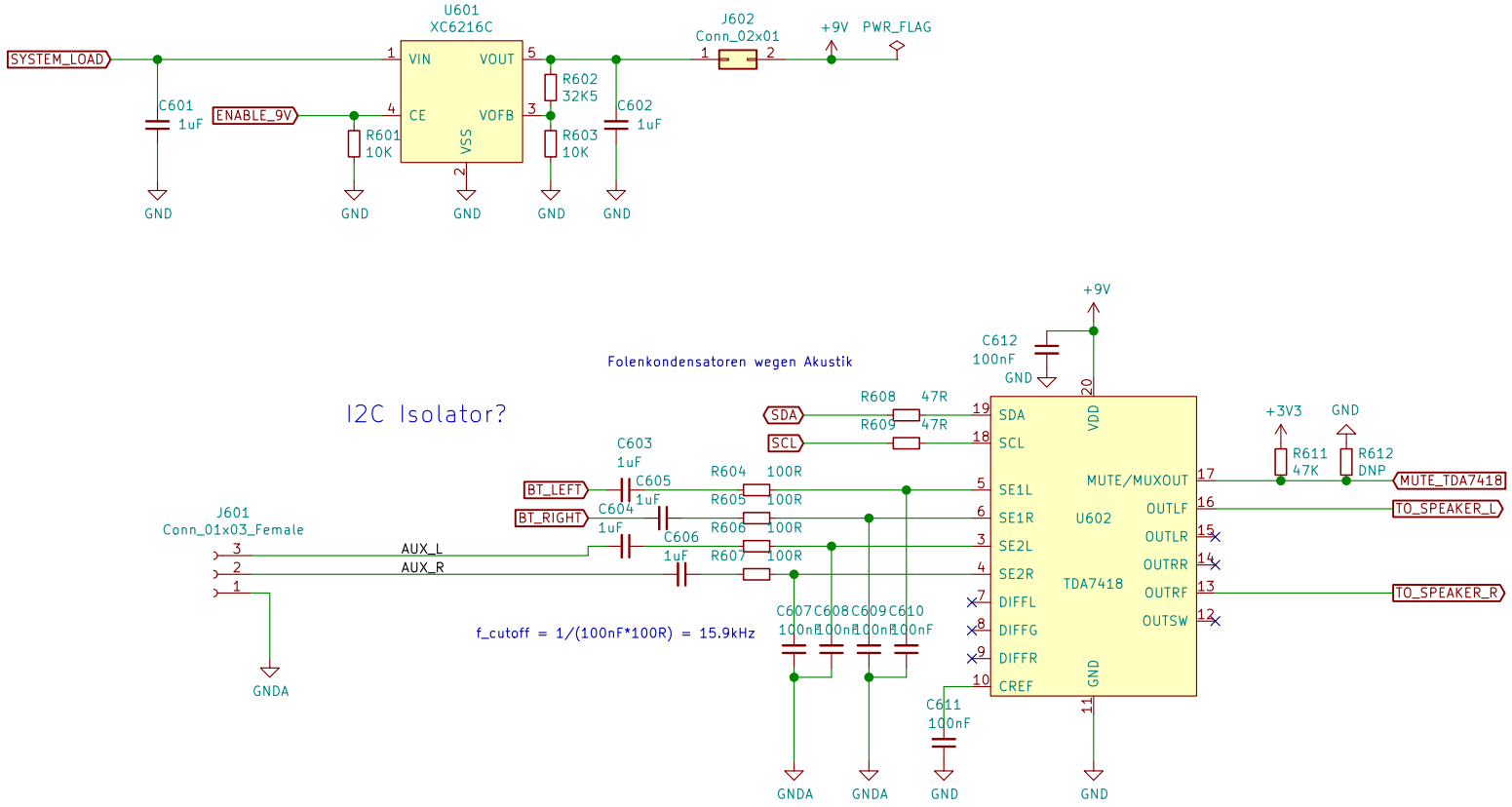


Sheet: /00_Charger/		
File: 00_Charger.sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 5.0.2-bee76a070ubuntu18.04.1		Id: 4/8

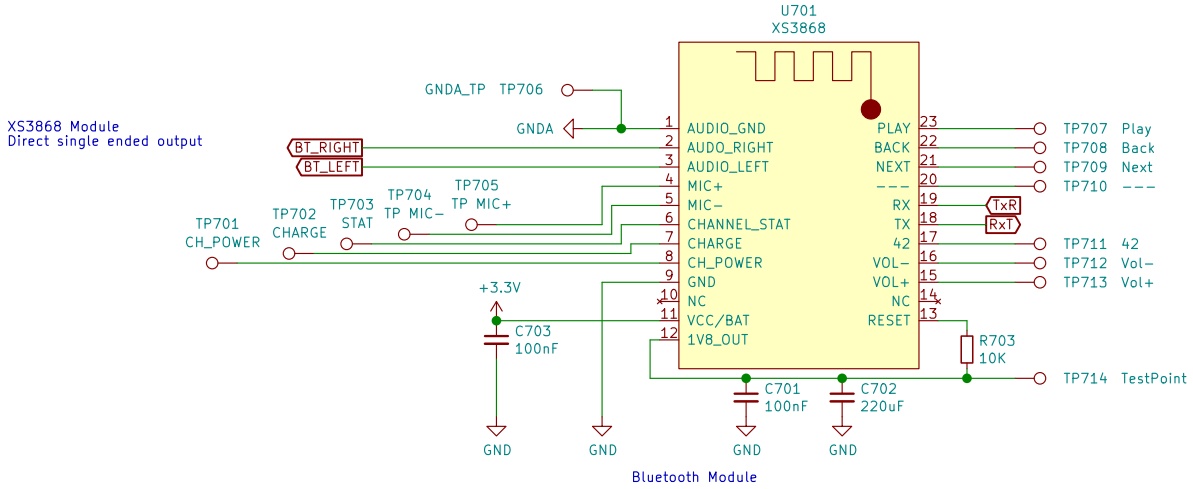
65W an 32V mit 8 Ohm Speaker



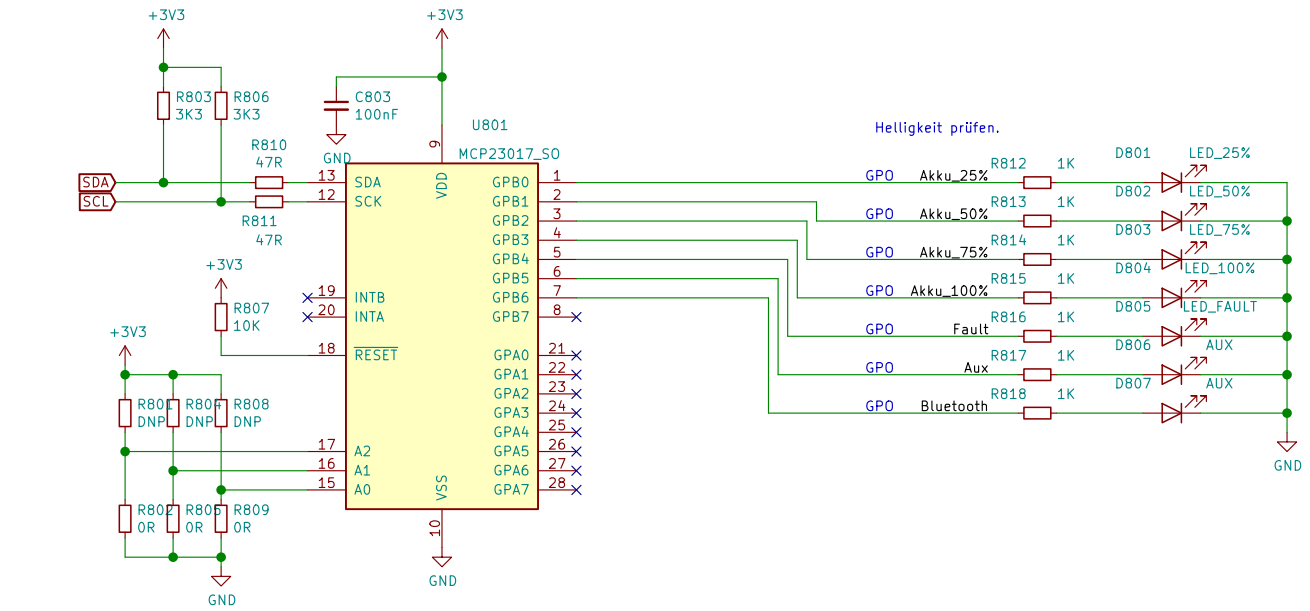
Sheet: /Amplifier/		
File: Amplifier.sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 5.0.2-bee76a070ubuntu18.04.1		Id: 5/8

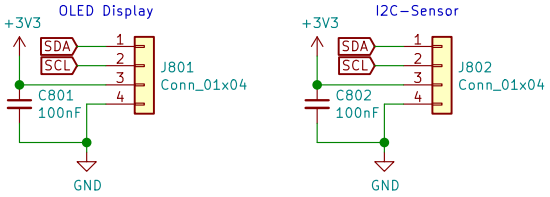


Sheet: /AudioProcessor/		
File: AudioProcessor.sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 5.0.2-bee76a070ubuntu18.04.1		Id: 6/8



Sheet: /Bluetooth/		
File: Bluetooth.sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 5.0.2−bee76a070ubuntu18.04.1		Id: 7/8





Sheet: /Anzeige/ File: Anzeige.sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 5.0.2-bee76a070ubuntu18.04.1		Id: 8/8