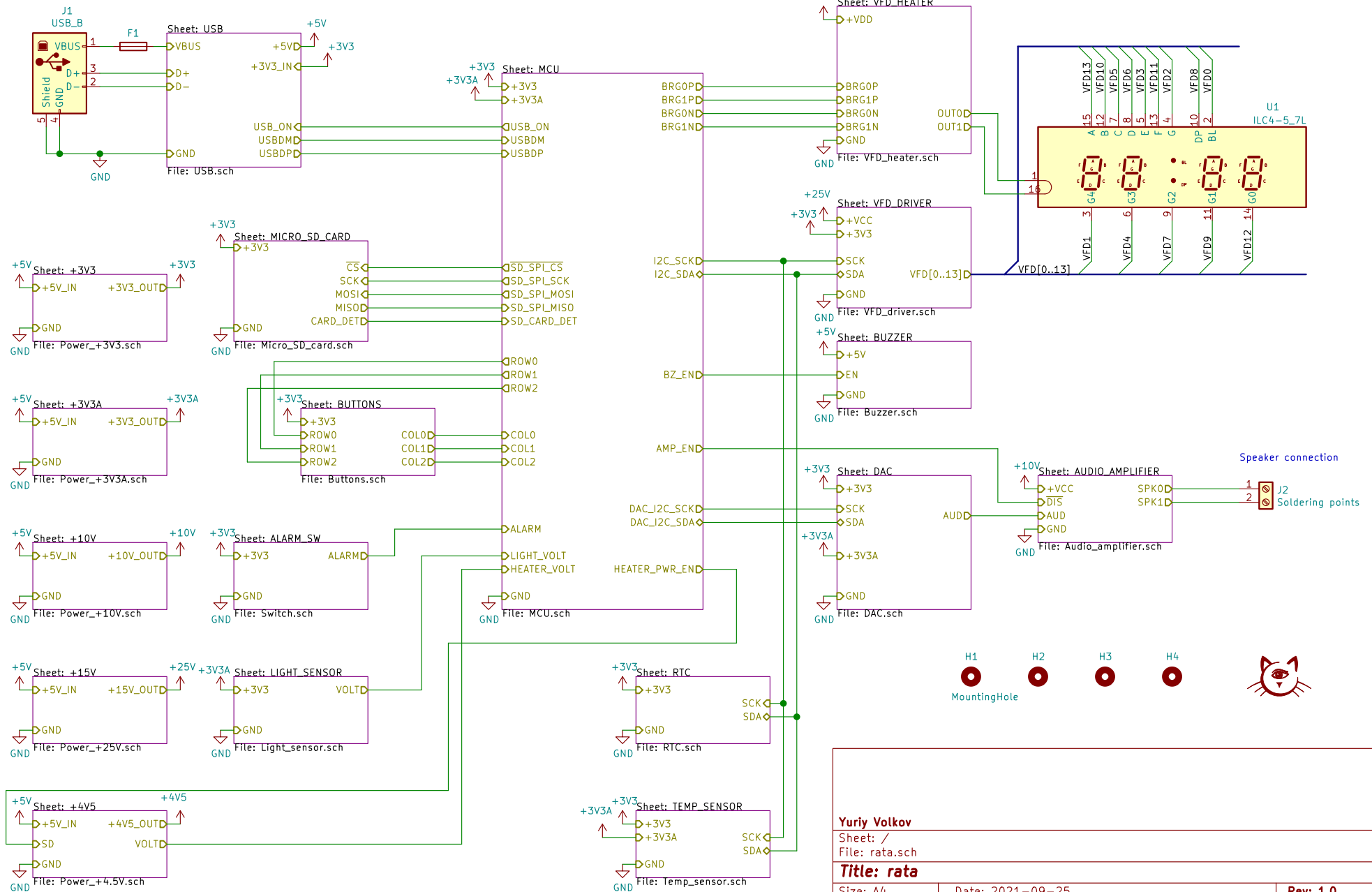


Clock



Yuriy Volkov

Sheet: /
File: rata.sch

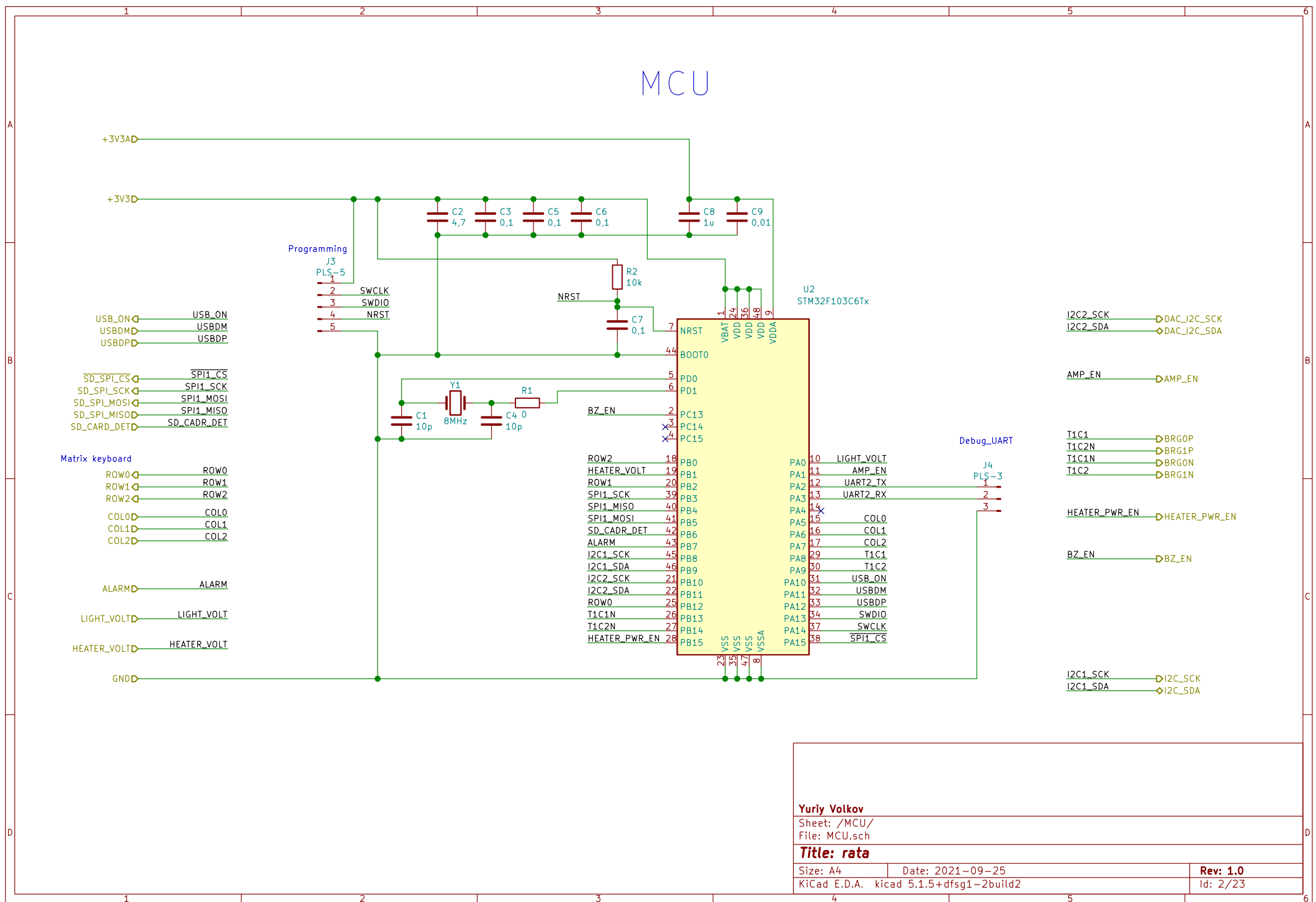
Title: rata

Size: A4 Date: 2021-09-25

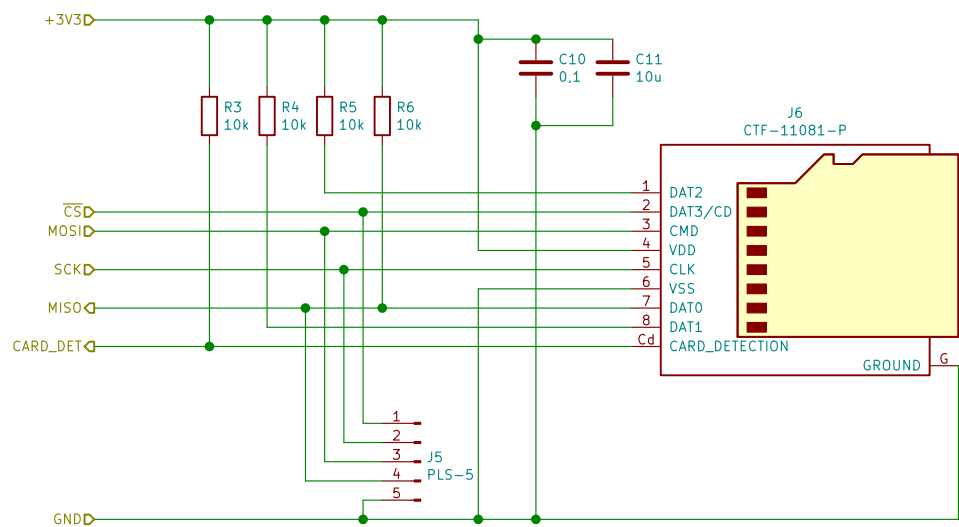
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1.0

Id: 1/23



Micro-SD card connector



Yuriy Volkov

Sheet: /MICRO_SD_CARD/
File: Micro_SD_card.sch

Title: rata

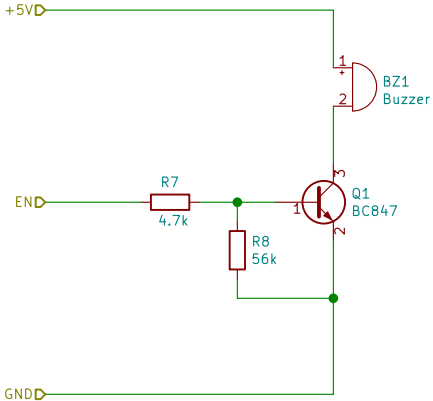
Size: A4
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Date: 2021-09-25

Rev: 1.0

Id: 3/23

Buzzer



Yuriy Volkov

Sheet: /BUZZER/
File: Buzzer.sch

Title: rata

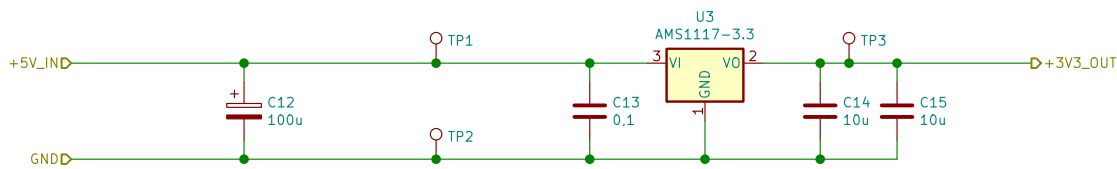
Size: A4
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Date: 2021-09-25

Rev: 1.0

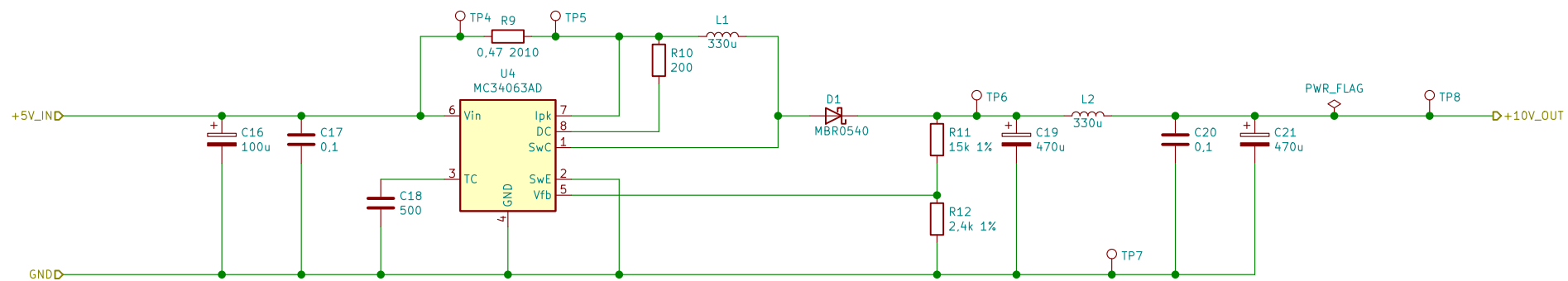
Id: 4/23

Power source +3V3



Yuriy Volkov		
Sheet: /+3V3/		
File: Power_+3V3.sch		
Title: rata		
Size: A4	Date: 2021-09-25	Rev: 1.0
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2		Id: 5/23

Boost converter +10V



Yuriy Volkov

Sheet: /+10V/

File: Power_+10V.sch

Title: rata

Size: A4

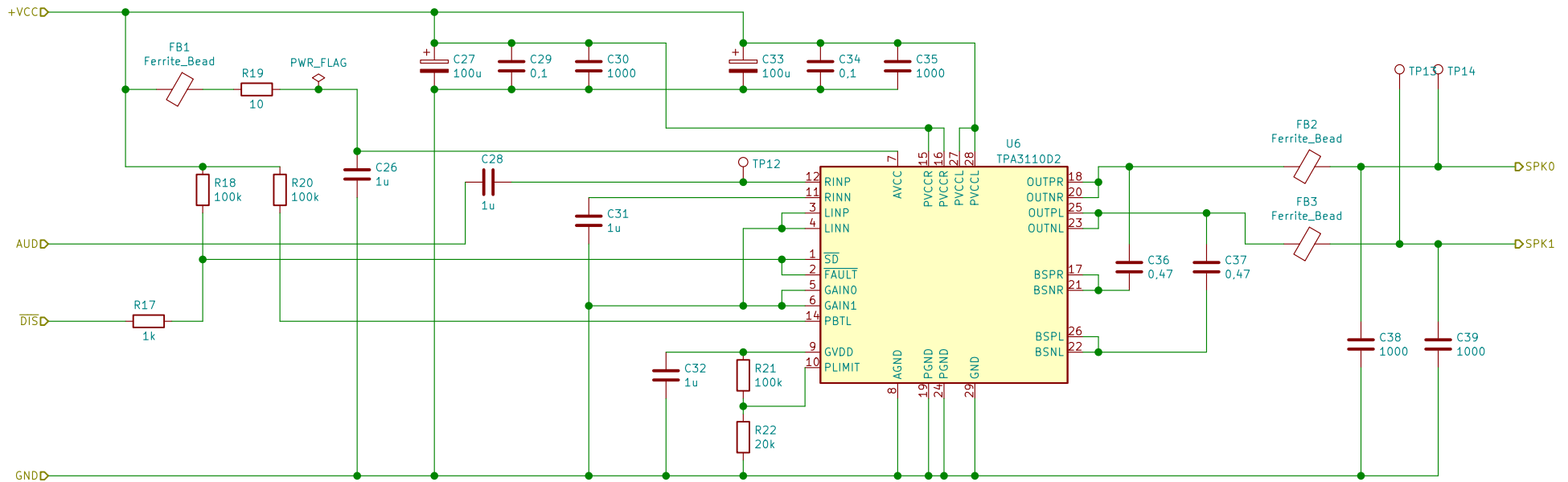
Date: 2021-09-25

Rev: 1.0

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Id: 6/23

D class audio amplifier



Yuriy Volkov

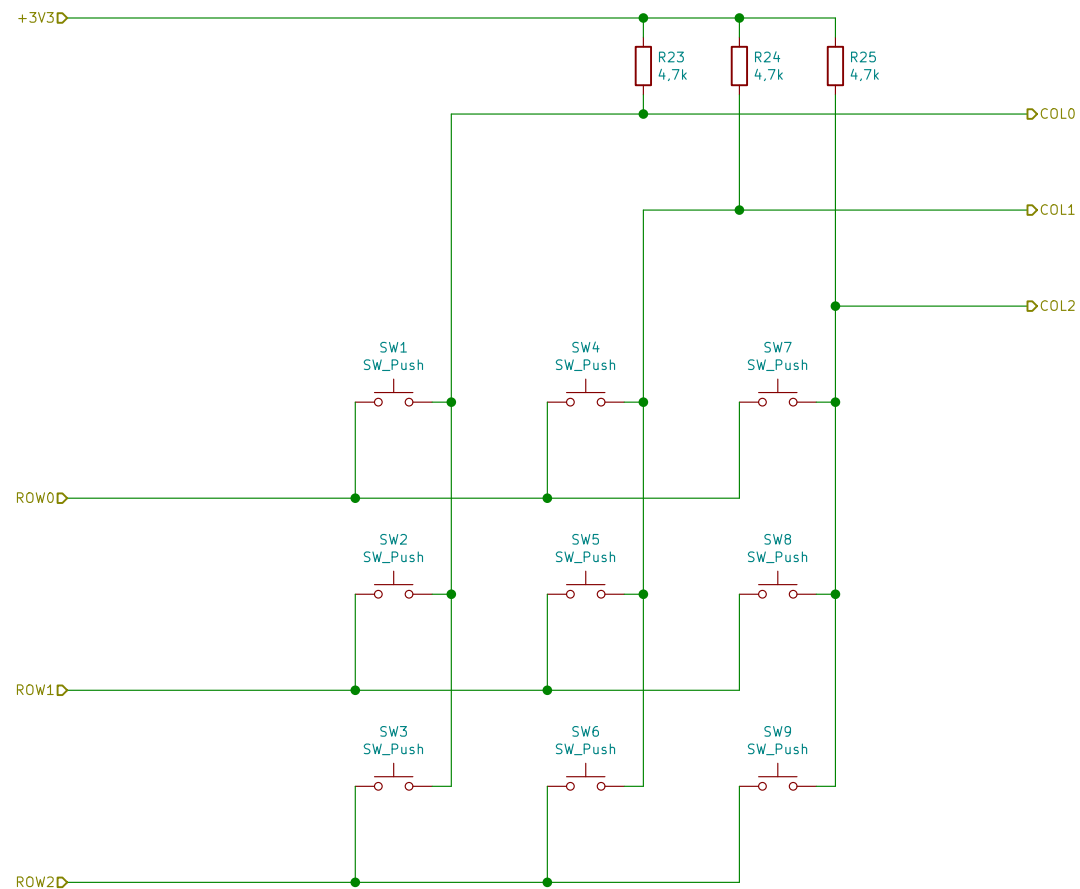
Sheet: /AUDIO_AMPLIFIER/
File: Audio_amplifier.sch

Title: rata

Size: A4 Date: 2021-09-25
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1.0
Id: 7/23

Button matrix



Yuriy Volkov

Sheet: /BUTTONS/

File: Buttons.sch

Title: rata

Size: A4

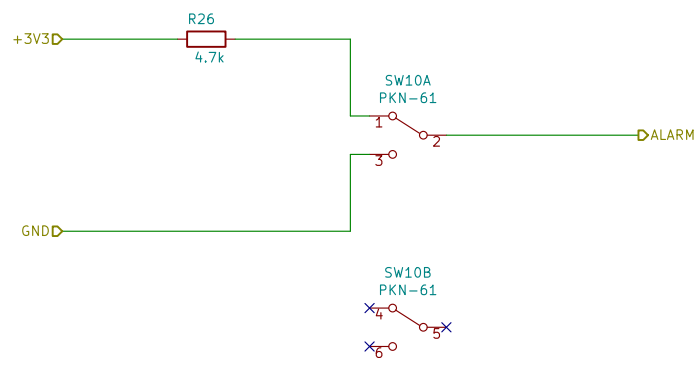
Date: 2021-09-25

Rev: 1.0

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

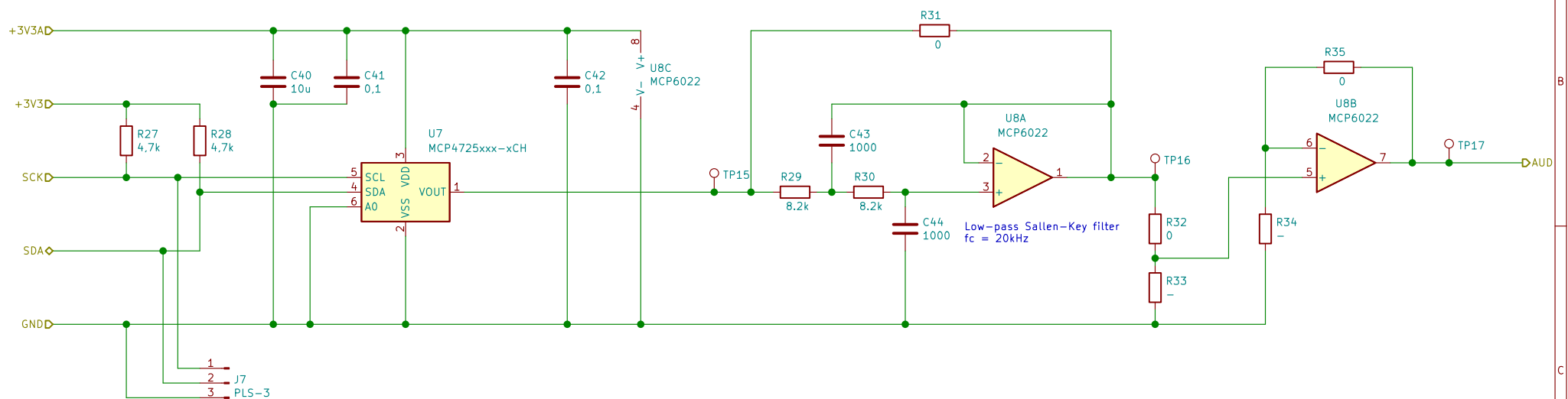
Id: 8/23

Alarm switch



Yuriy Volkov		
Sheet: /ALARM_SW/		
File: Switch.sch		
Title: rata		
Size: A4	Date: 2021-09-25	Rev: 1.0
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2		Id: 9/23

DAC with filter and preamplifier



Yuriy Volkov

Sheet: /DAC/

File: DAC.sch

Title: rata

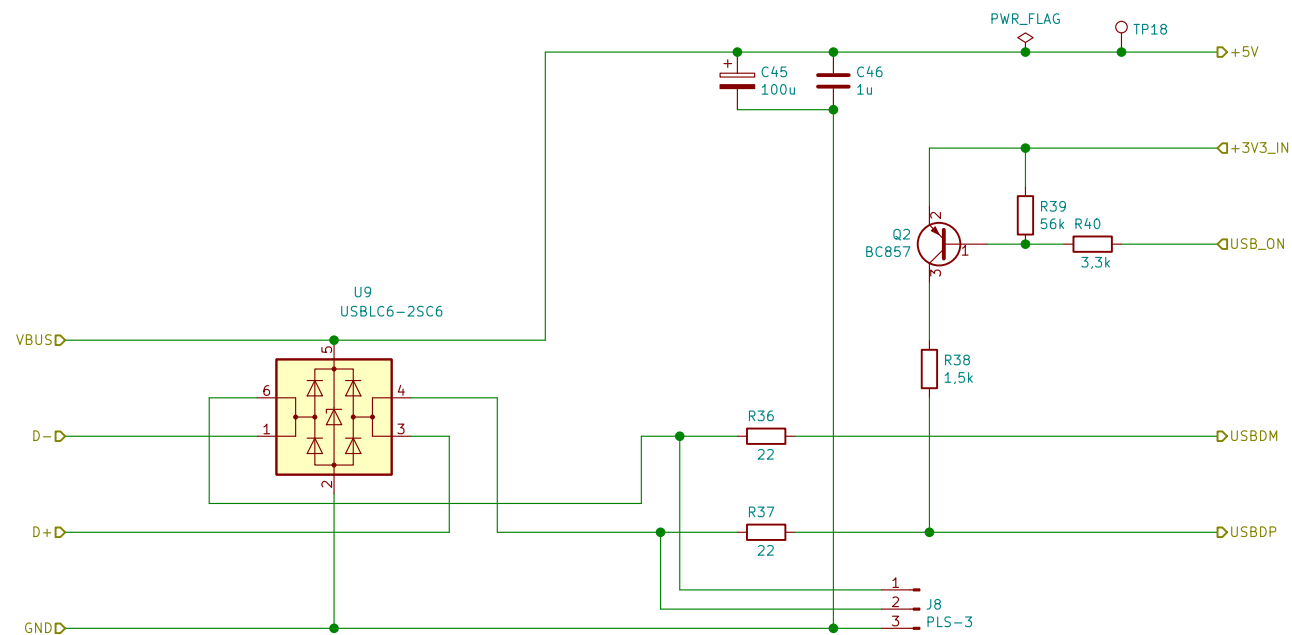
Size: A4 Date: 2021-09-25

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1.0

Id: 10/23

USB in/out circuit



Yuriy Volkov

Sheet: /USB/
File: USB.sch

Title: rata

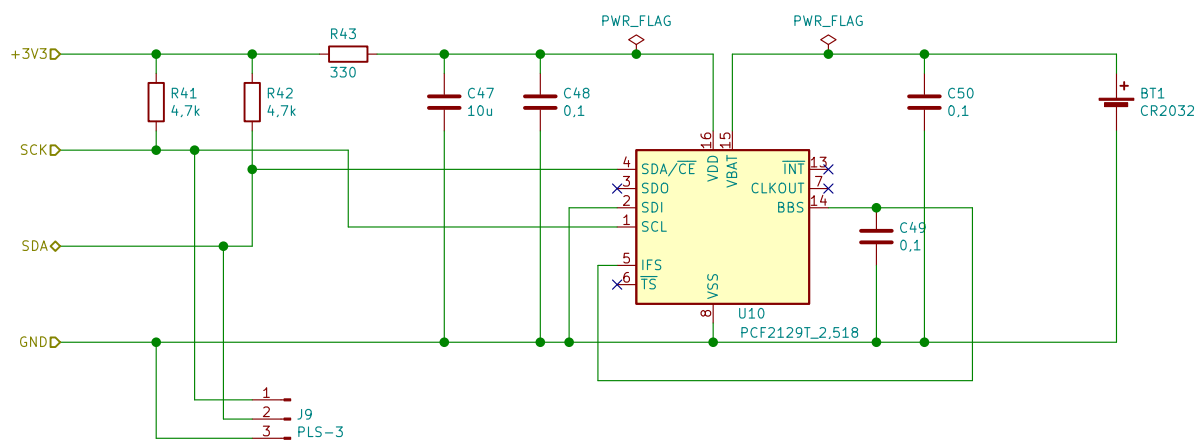
Size: A4 Date: 2021-09-25

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1.0

Id: 11/23

Battery powered RTC



Yuriy Volkov

Sheet: /RTC/
File: RTC.sch

Title: rata

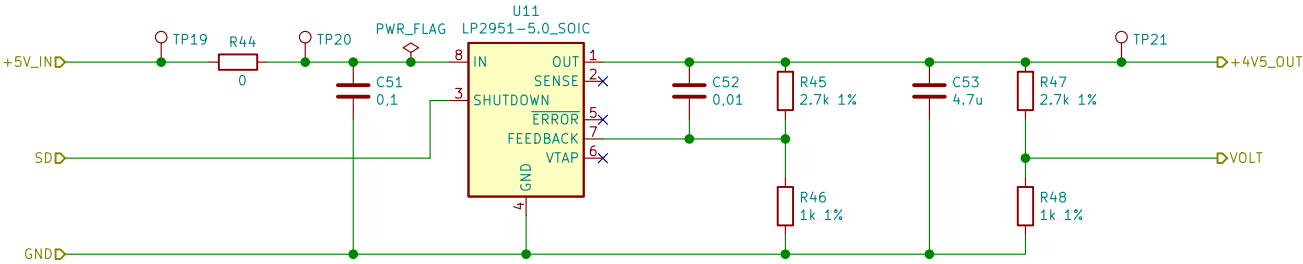
Size: A4 Date: 2021-09-25

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1.0

Id: 12/23

LDO +4V5



Yuriy Volkov

Sheet: /+4V5/

File: Power_+4.5V.sch

Title: rata

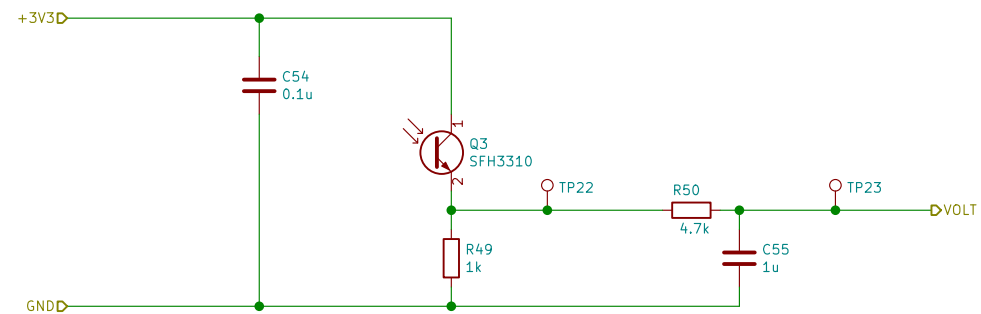
Size: A4 Date: 2021-09-25

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1.0

Id: 13/23

Light level sensor



Yuriy Volkov

Sheet: /LIGHT_SENSOR/
File: Light_sensor.sch

Title: rata

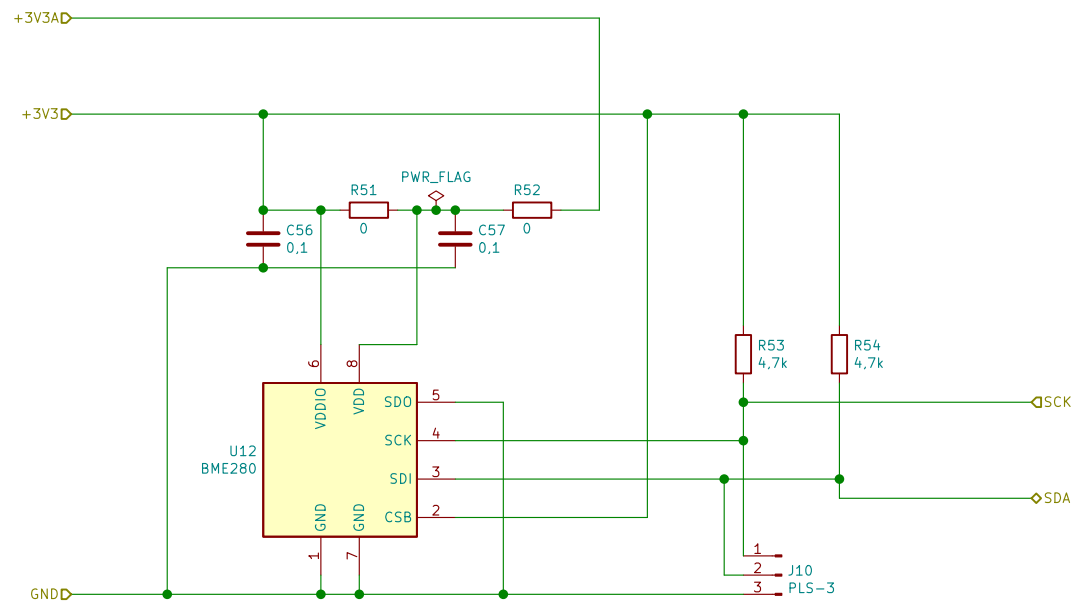
Size: A4 Date: 2021-09-25

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1.0

Id: 14/23

BME280 humidity and temperature sensor



Yuriy Volkov

Sheet: /TEMP_SENSOR/
File: Temp_sensor.sch

Title: rata

Size: A4 Date: 2021-09-25
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1.0
Id: 15/23

Heater power H-bridge

Sheet: E_FOLLOWER0
+VCC
IN
GND
OUTD
File: Emitter_follower.sch

Sheet: E_FOLLOWER1
+VCC
IN
GND
OUTD
File: Emitter_follower.sch

Sheet: E_FOLLOWER2
+VCC
IN
GND
OUTD
File: Emitter_follower.sch

Sheet: E_FOLLOWER3
+VCC
IN
GND
OUTD
File: Emitter_follower.sch

Q4 IRLML6402

Q5 IRLML2402

Q6 IRLML6402

Q7 IRLML2402

R55 56k

R56 56k

R57 56k

R58 56k

TP24

TP25

TP26

TP27

TP28

TP29

OUT0

OUT1

+VDDD

BRG0PD

BRG0ND

BRG1PD

BRG1ND

GND

Yuriy Volkov

Sheet: /VFD_HEATER/
File: VFD_heater.sch

Title: rata

Size: A4 Date: 2021-09-25 Rev: 1.0

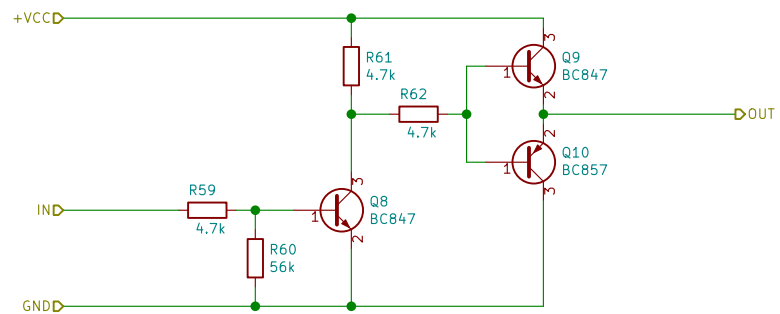
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2 Id: 16/23

Sheet: /VFD_HEATER/
File: VFD_heater.sch

Size: A4	Date: 2021-09-25
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2	

Rev: 1.0
Id: 16/23

Double emitter follower



Yuriy Volkov

Sheet: /VFD_HEATER/E_FOLLOWER0/

File: Emitter_follower.sch

Title: rata

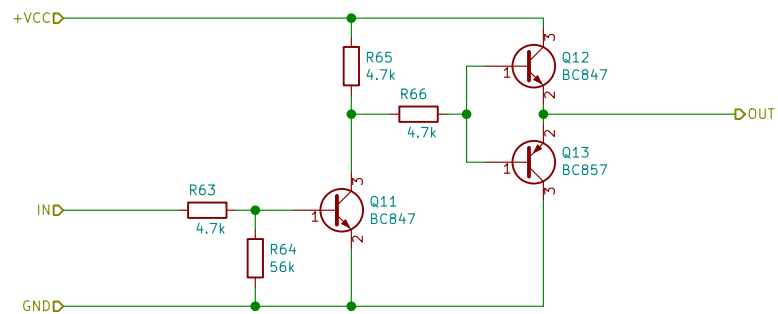
Size: A4 Date: 2021-09-25

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1.0

Id: 17/23

Double emitter follower



Yuriy Volkov

Sheet: /VFD_HEATER/E_FOLLOWER1/

File: Emitter_follower.sch

Title: rata

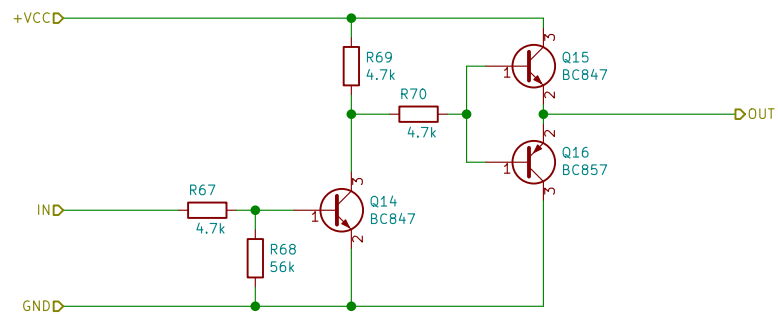
Size: A4 Date: 2021-09-25

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1.0

Id: 18/23

Double emitter follower



Yuriy Volkov

Sheet: /VFD_HEATER/E_FOLLOWER2/

File: Emitter_follower.sch

Title: rata

Size: A4

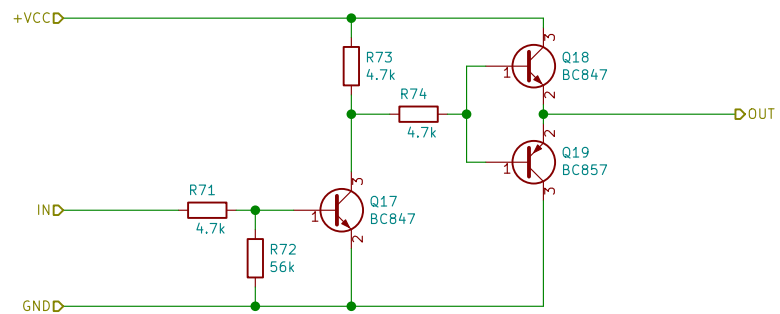
Date: 2021-09-25

Rev: 1.0

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Id: 19/23

Double emitter follower



Yuriy Volkov

Sheet: /VFD_HEATER/E_FOLLOWER3/

File: Emitter_follower.sch

Title: rata

Size: A4

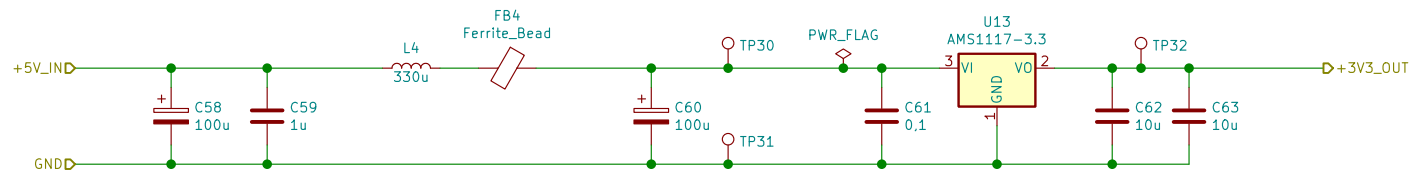
Date: 2021-09-25

Rev: 1.0

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Id: 20/23

Power source +3V3 analog



Yuriy Volkov

Sheet: /+3V3A/

File: Power_+3V3A.sch

Title: rata

Size: A4

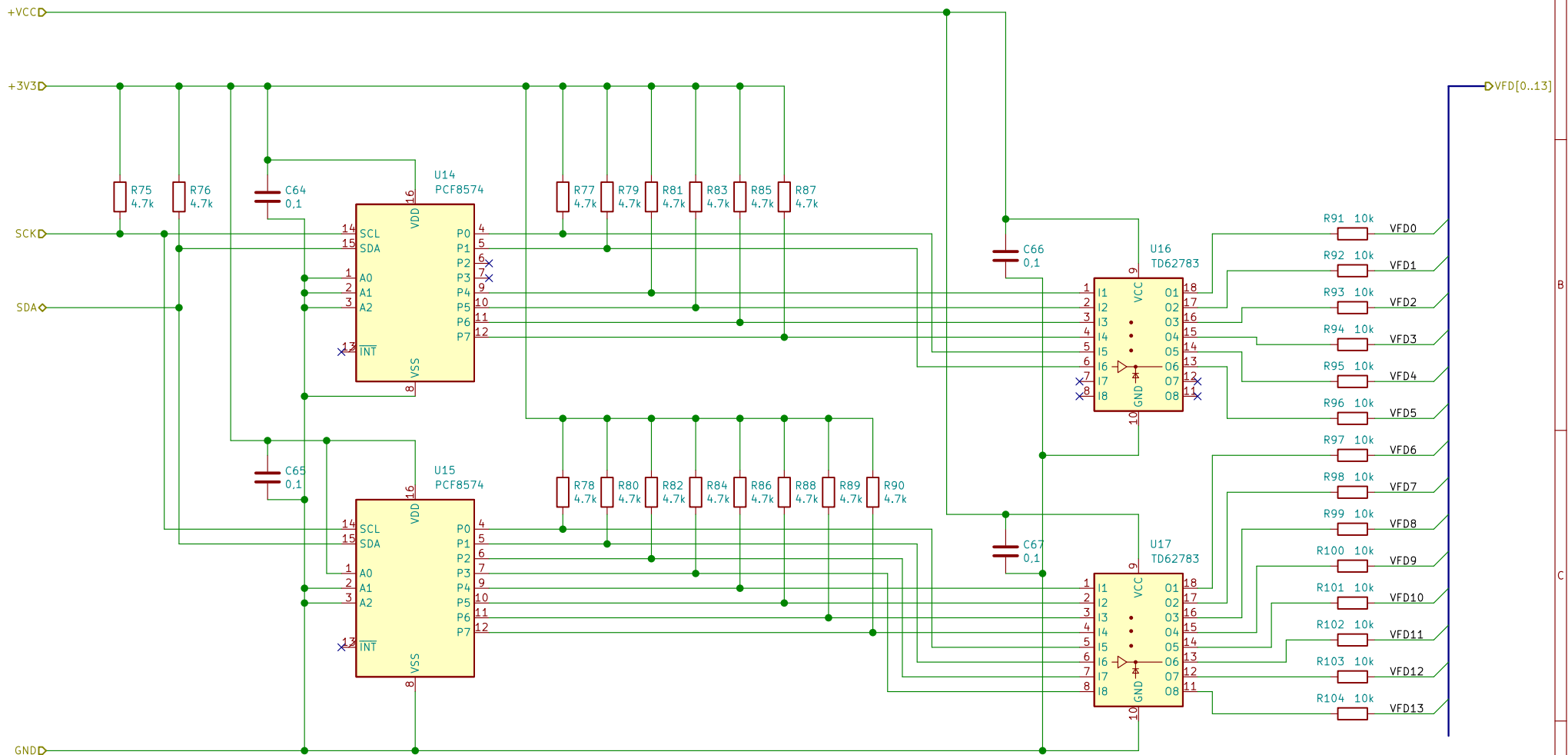
Date: 2021-09-25

Rev: 1.0

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Id: 21/23

VFD (vacuum fluorescent display) control circuit



Yuriy Volkov

Sheet: /VFD_DRIVER/

File: VFD_driver.sch

Title: rata

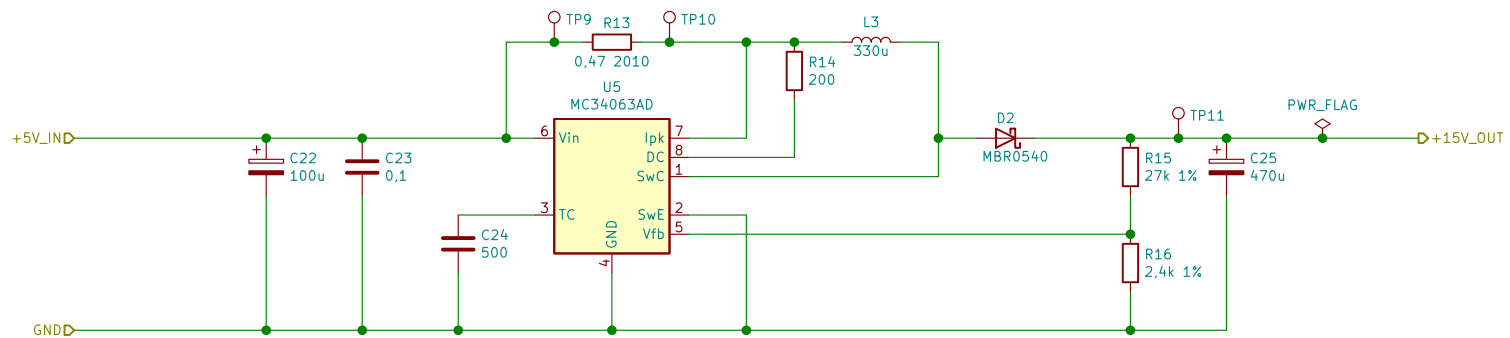
Size: A4 Date: 2021-09-25

KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1.0

Id: 22/23

Boost converter +15V



Yuriy Volkov

Sheet: /+15V/
File: Power_+25V.sch

Title: rata

Size: A4
Date: 2021-09-25
KiCad E.D.A. kicad 5.1.5+dfsg1-2build2

Rev: 1.0
Id: 23/23