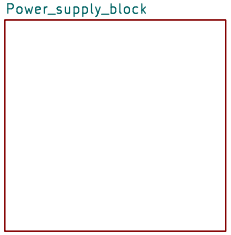
MCU-IO

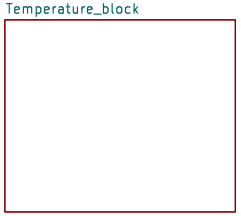
File: MCU-IO.kicad_sch

Power_supply_block



File: Power_supply_block.kicad_sch

Temperature_block



File: Temperature_block.kicad_sch

Modbus_block

File: Modbus_block.kicad_sch

Sheet: /
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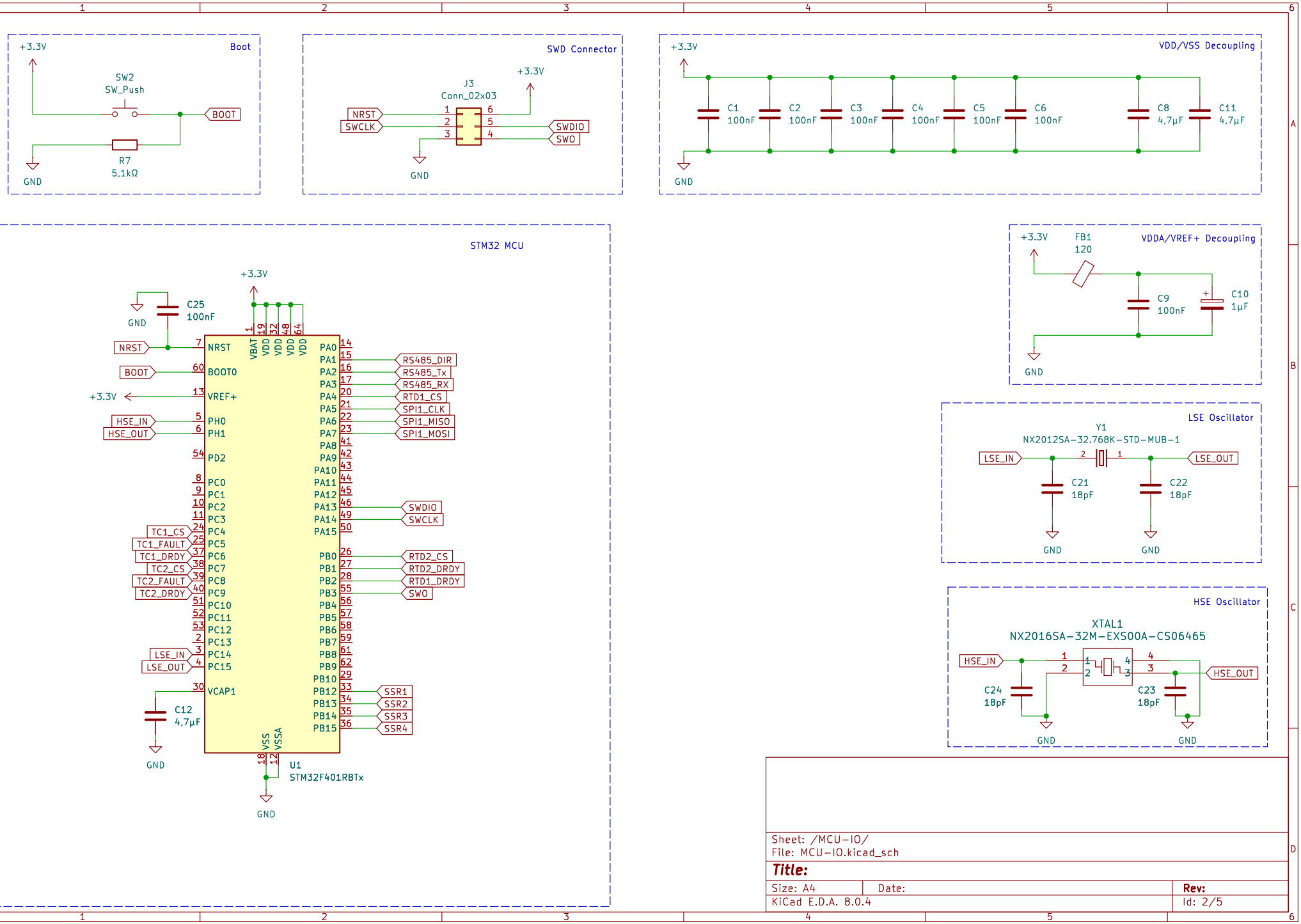
Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. 8.0.4		Id: 1/5



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File: MCU-IO.kicad_sch

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PT100/PT1000 IN

+3.3V

C14 100nF

C13 100nF

GND

GND

RTD1_DRDY

RTD1_CS

SPI1_MOSI

SPI1_CLK

SPI1_MISO

U2
MAX31865xAP

DRDY
SDI
SCLK
CS
SDO
DVDD
VDD
BIAS
REFIN+
REFIN−
ISENSOR
FORCE+
FORCE2
RTDIN+
RTDIN−
FORCE−
DGND
GND

R1 400Ω

C15 100nF

RTD1_FORCE+

RTD1_FORCE−

SW4
SW_DIP_x04

RTD1_RTDIN+

RTD1_FORCE+

RTD1_RTDIN−

GND

RTD1_RTDIN+

RTD1_RTDIN−

+3.3V

C41 100nF

C42 100nF

GND

GND

RTD2_DRDY

RTD2_CS

U7
MAX31865xAP

R19 400Ω

C43 100nF

RTD2_FORCE+

RTD2_FORCE−

SW1
SW_DIP_x04

RTD2_RTDIN+

RTD2_FORCE+

RTD2_RTDIN−

GND

RTD2_RTDIN+

RTD2_RTDIN−

GND

PT100/PT1000 IN

J1
RTD1 IN

RTD1_FORCE+

RTD1_FORCE−

RTD1_RTDIN+

RTD1_RTDIN−

J5
RTD2 IN

RTD2_FORCE+

RTD2_FORCE−

RTD2_RTDIN+

RTD2_RTDIN−

K,J,N,R,S,T,E,B IN

J2
T1 IN

T1−

T1+

J4
T2 IN

T2−

T2+

K,J,N,R,S,T,E,B IN

MAX31856
U3

SDI
SDO
SCK
CS
FAULT
DRDY
DGND
AGND
DVDD
AVDD
BIAS
T−
T+

TC1_CS

TC1_FAULT

TC1_DRDY

SPI1_MOSI

SPI1_CLK

SPI1_MISO

GND

+3.3V

R2 100Ω

R3 100Ω

C19 10nF

C18 100nF

C20 10nF

C17 100nF

C16 100nF

T1−

T1+

MAX31856
U6

TC2_CS

TC2_FAULT

TC2_DRDY

R17 100Ω

R18 100Ω

C39 10nF

C40 100nF

C38 10nF

C36 100nF

C37 100nF

T2−

T2+

SSR1 Control

J15
Conn_01x02_Socket

+24V

SSR1

Q1
BS170F

R25 10kΩ

GND

SSR2 Control

J11
Conn_01x02_Socket

+24V

SSR2

Q2
BS170F

R26 10kΩ

GND

SSR3 Control

J12
Conn_01x02_Socket

+24V

SSR3

Q3
BS170F

R27 10kΩ

GND

SSR4 Control

J13
Conn_01x02_Socket

+24V

SSR4

Q4
BS170F

R28 10kΩ

GND

Sheet: /Temperature_block/
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Size: A3	Date:	**Rev:**
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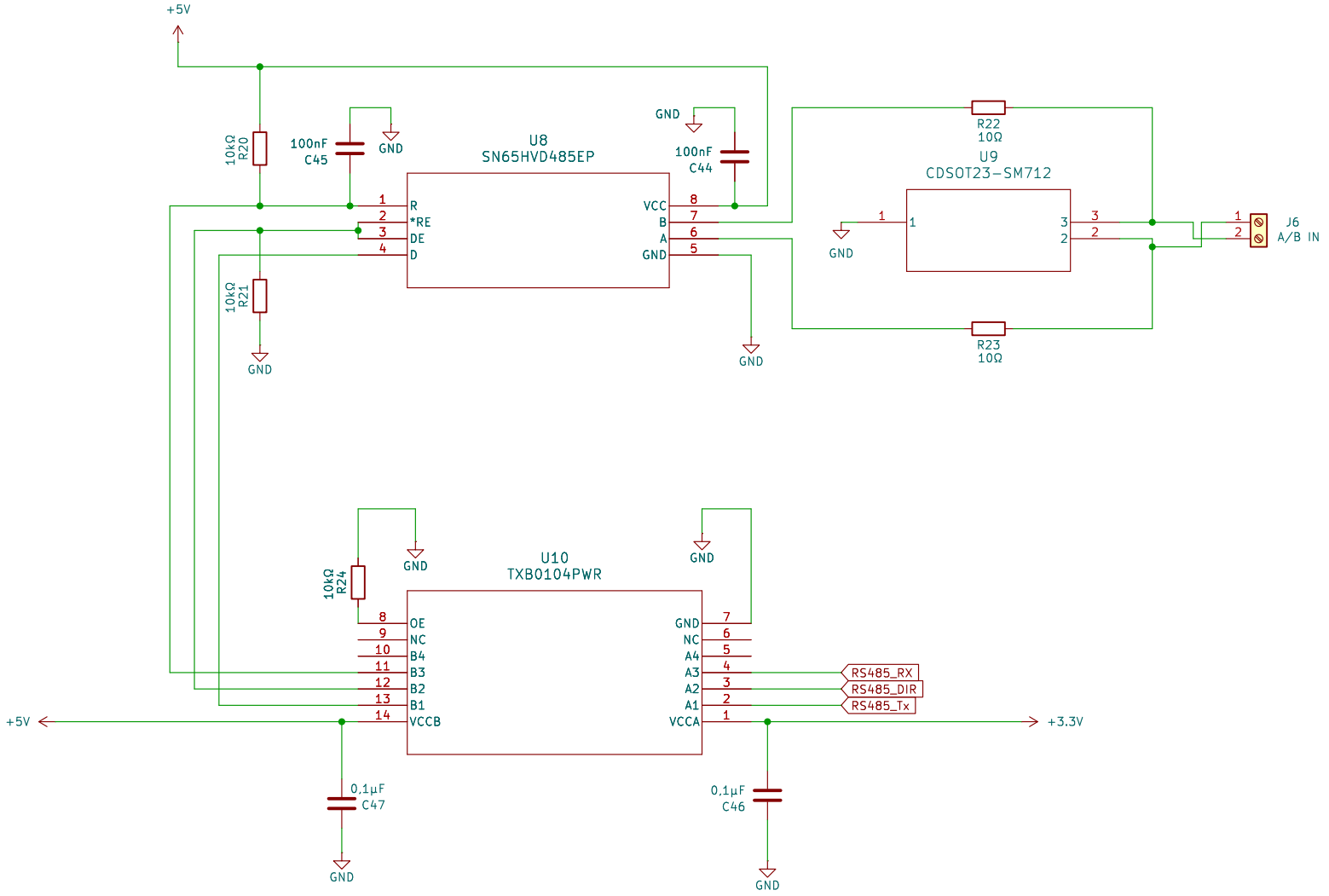

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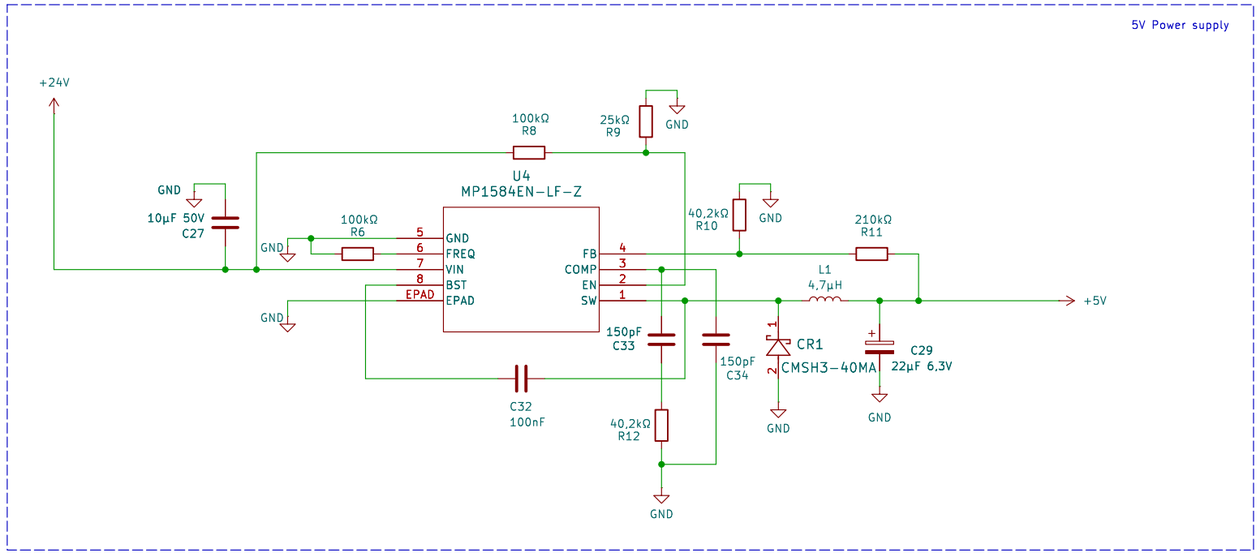
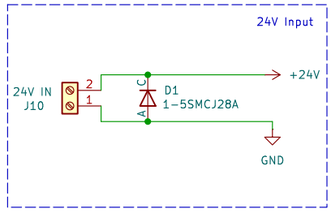
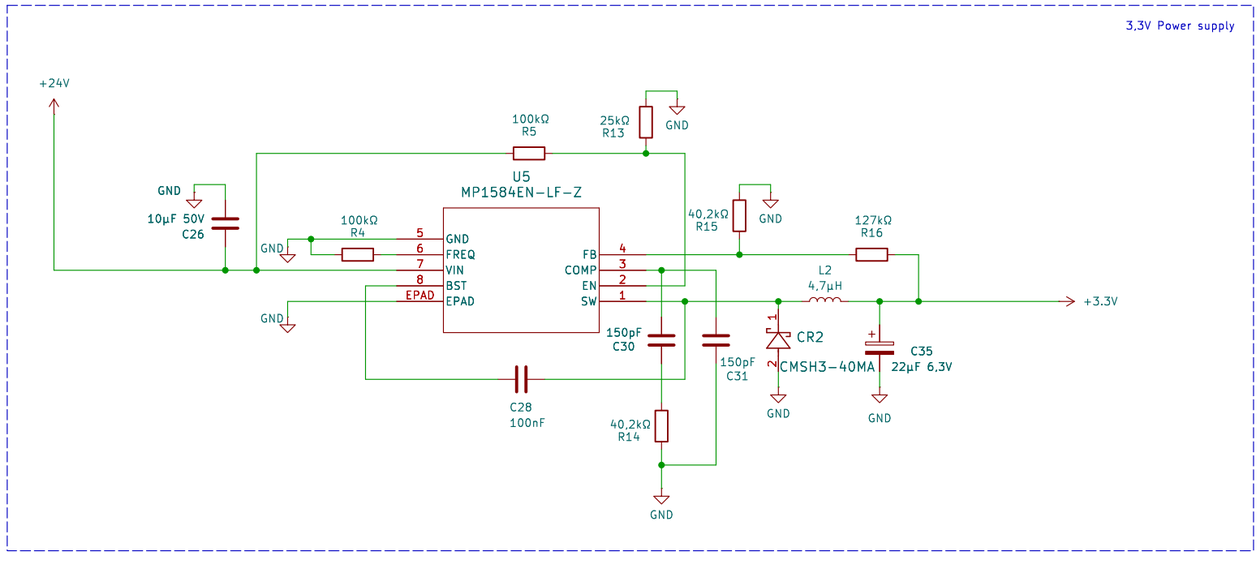
Size: A4	Date:	**Rev:**
KiCad E.D.A. 8.0.4		Id: 4/5







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Title:

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KiCad E.D.A. 8.0.4		Id: 5/5