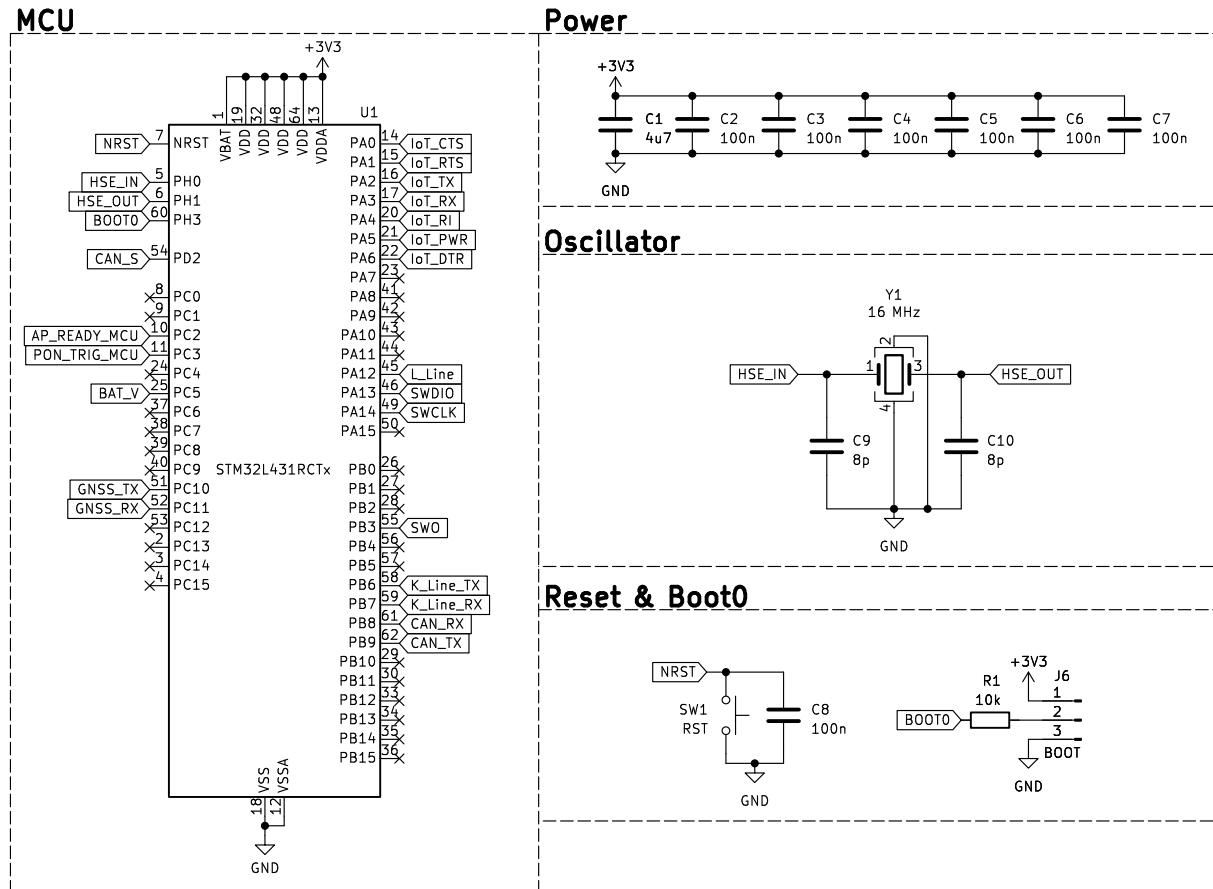


MCU – STM32L431



power_supply
File: pwr.kicad_sch

iot_module
File: iot.kicad_sch

car_comm
File: car.kicad_sch

connectors
File: connect.kicad_sch

VUT

Sheet: /
File: iot_diagnostic_tool.kicad_sch

Title: OBD Monitoring Device

Size: A4 Date: 2023-02-27

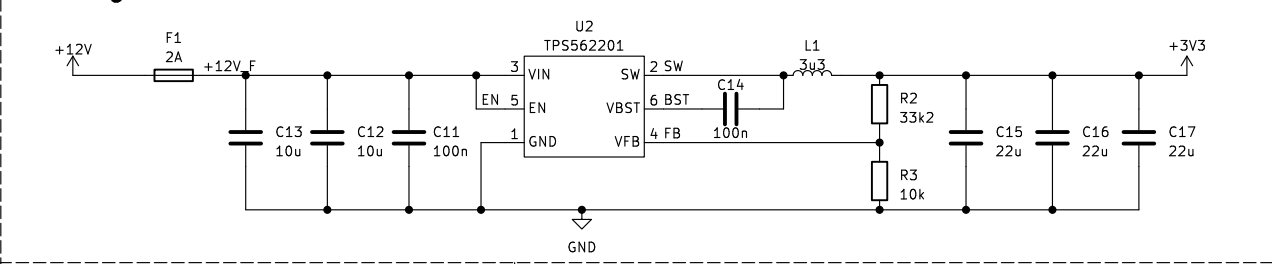
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Rev: 1.0

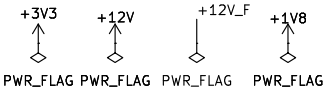
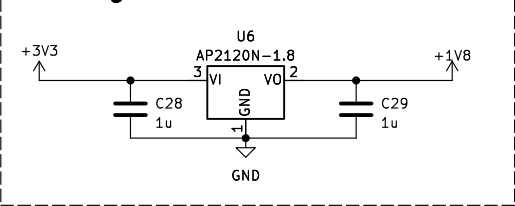
Id: 1/8

Power supplies

3.3V Regulator



1.8V Regulator



VUT		
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File: pwr.kicad_sch		
Title: OBD Monitoring Device		
Size: A4	Date: 2023-02-27	Rev:
KiCad E.D.A. kicad (7.0.0)		Id: 2/8

IoT Module Quectel BG77

PWRKEY & RESET

PON Trigger

AP READY

STATUS INDICATOR

Main module

Power

UART Level Shifter

VUT

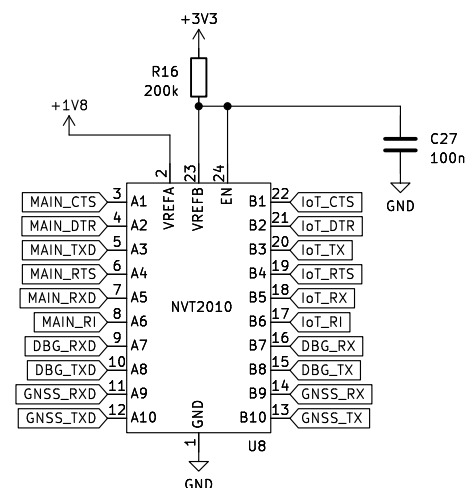
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Size: A4 Date: 2023-02-27
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Rev:
Id: 3/8

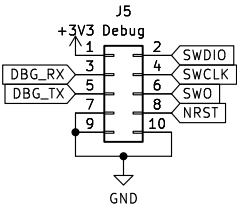
Power



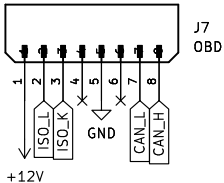
Rev:
Id: 3/8

Connectors

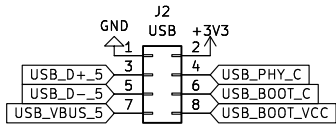
Debug



OBD



USB



VUT

Sheet: /connectors/
File: connect.kicad_sch

Title: OBD Monitoring Device

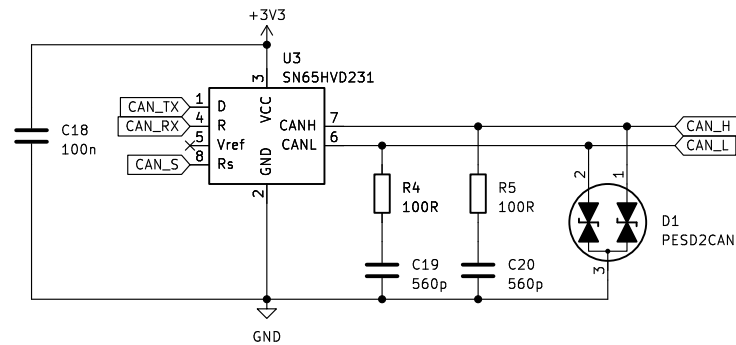
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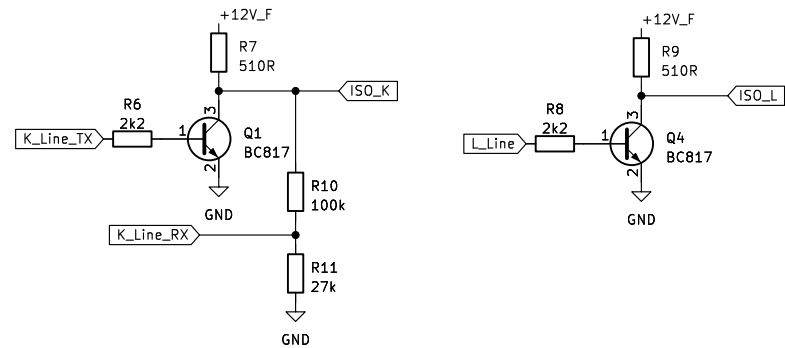
Rev:
Id: 4/8

Car communication circuitry

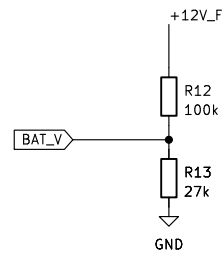
CAN BUS Transceiver



ISO 9141 / ISO 14230 Transceiver



Battery Voltage Monitoring



VUT

Sheet: /car_comm/
File: car.kicad_sch

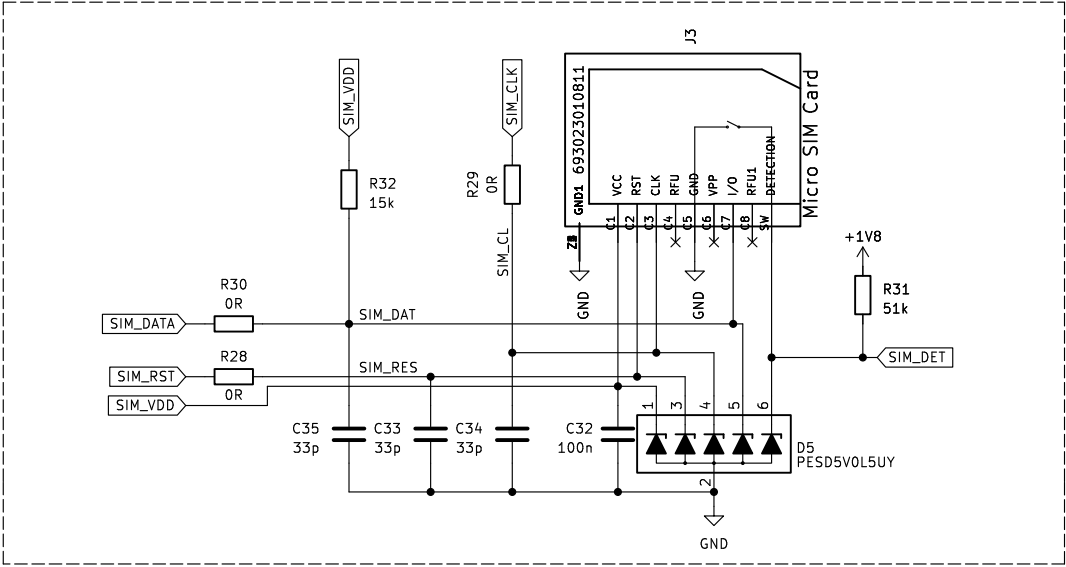
Title: OBD Monitoring Device

Size: A4 Date: 2023-02-27

KiCad E.D.A. kicad (7.0.0)

Rev:
Id: 5/8

SIM Card



Sheet: /iot_module/sim/
File: sim.kicad_sch

Title:

Size: A4

Date:

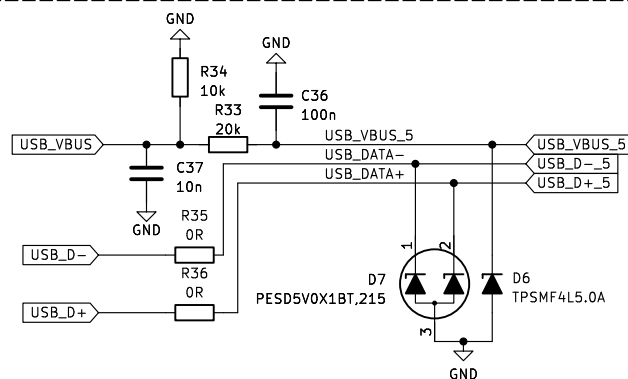
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Rev:

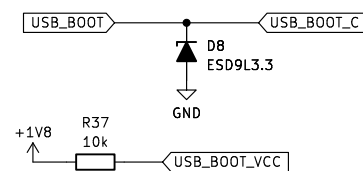
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USB

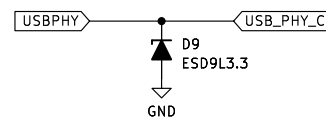
Interface



USB Boot



USB Phy enable circuitry



Sheet: /iot_module/usb/
File: usb.kicad_sch

Title:

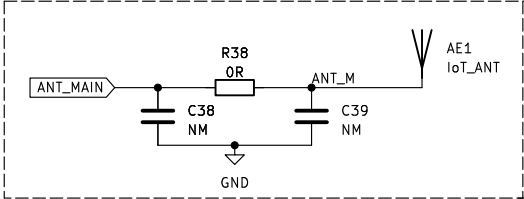
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Date:

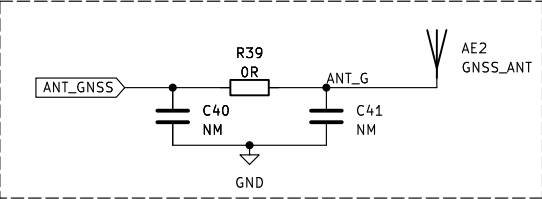
Rev:
Id: 7/8

Antennas

IoT Antenna



GNSS Antenna



Sheet: /iot_module/antenna/
File: ant.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. kicad (7.0.0)

Rev:

Id: 8/8