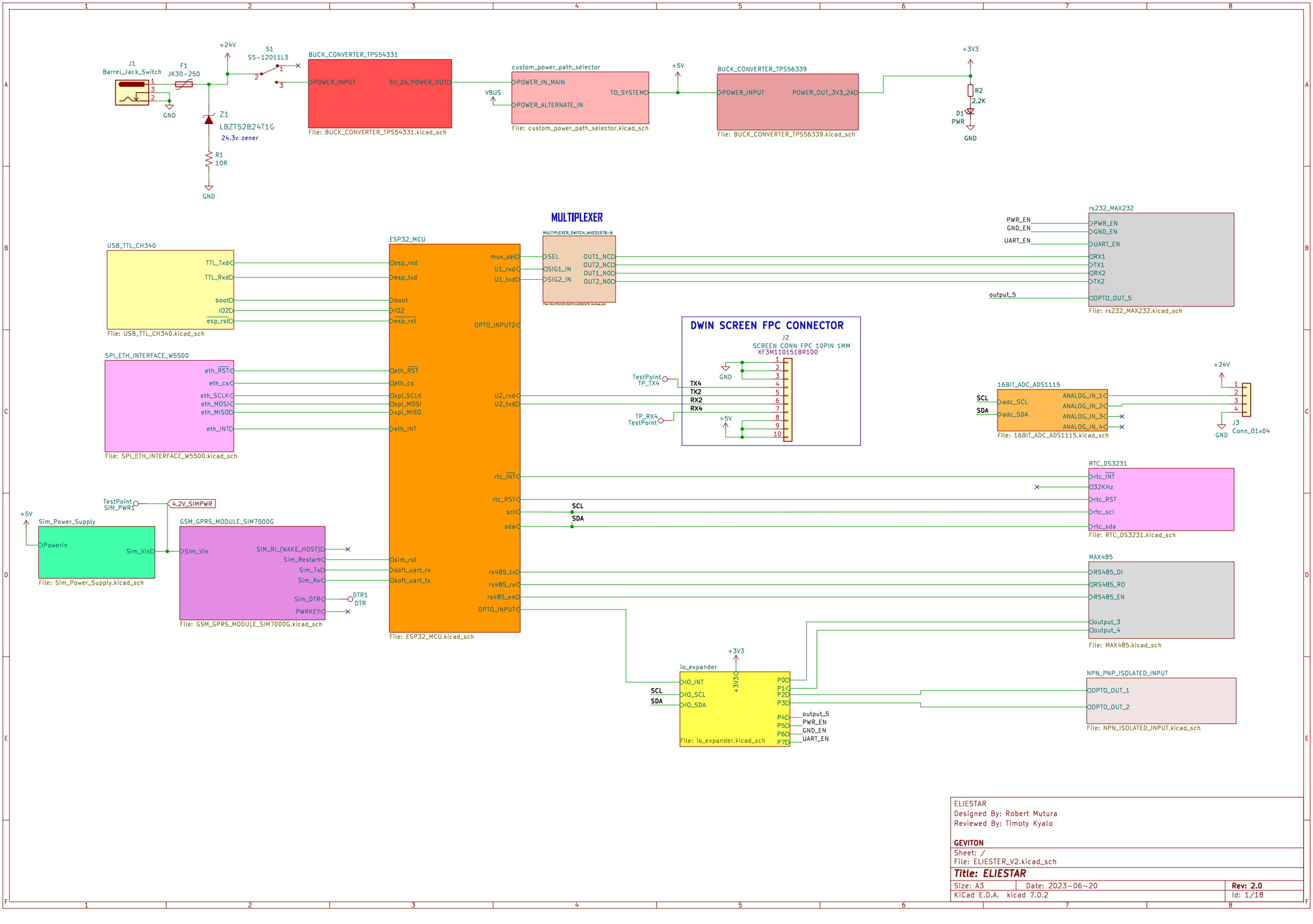


ELIESTAR
Designed By: Robert Mutura
Reviewed By: Timoty Kyalo

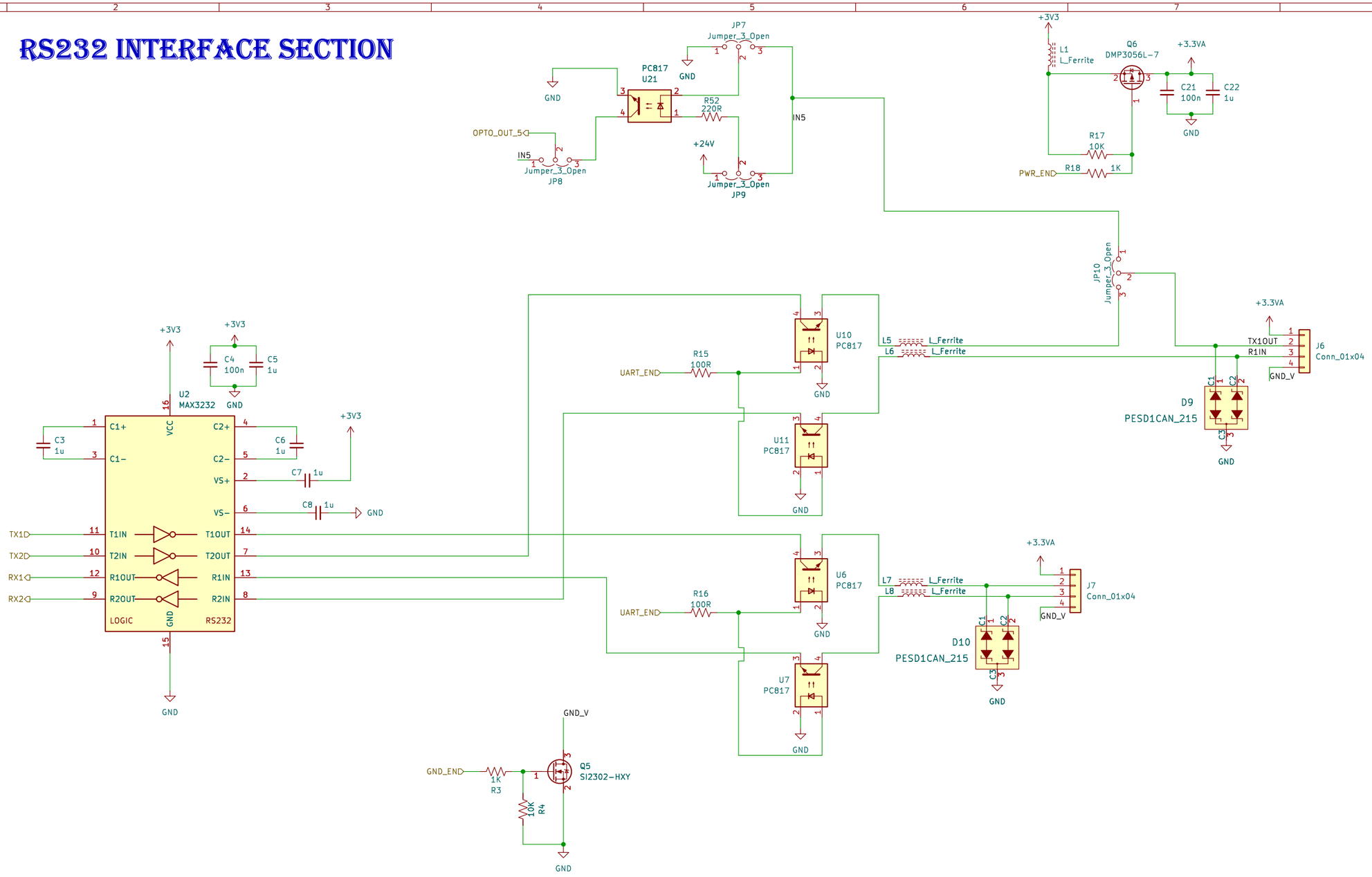
GEVITON

Sheet: /
File: ELIESTER_V2.kicad_sch

Title: ELIESTAR

Size: A3	Date: 2023-06-20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 1/18

RS232 INTERFACE SECTION



ELIESTAR
Designed By: Robert Mutura
Reviewed By: Timoty Kyalo

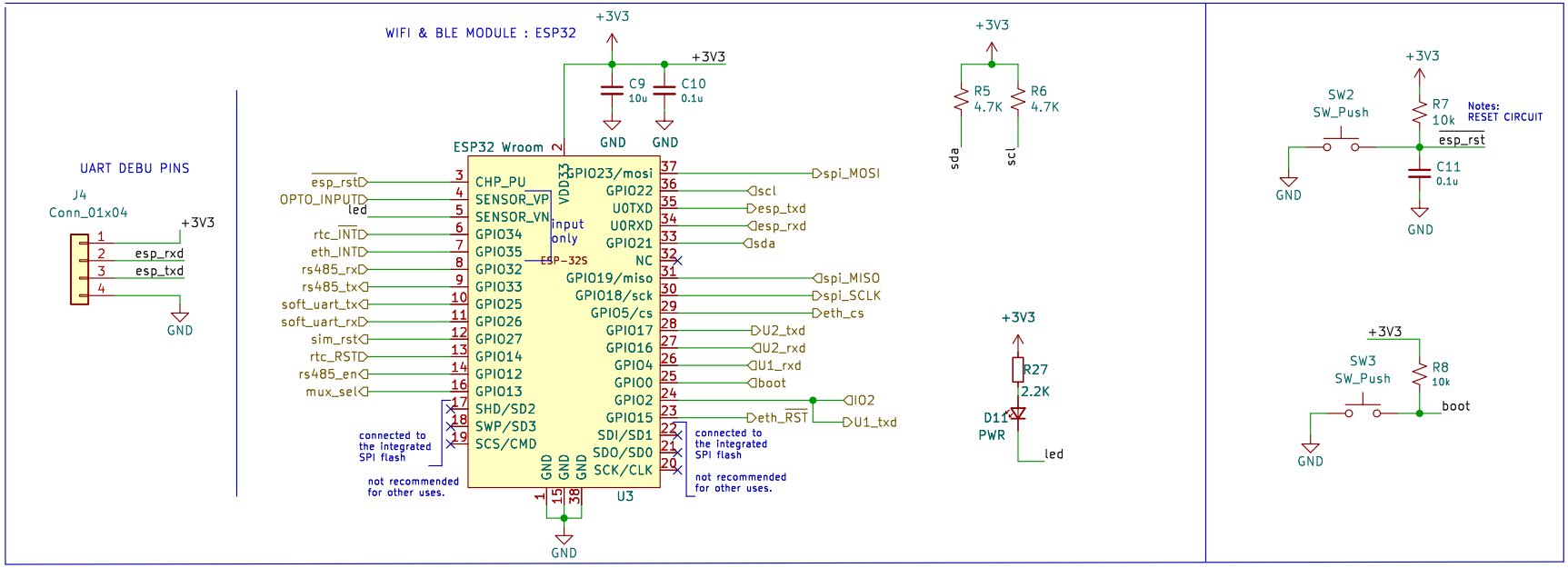
GEVITON

Sheet: /rs232_MAX232/
File: rs232_MAX232.kicad_sch

Title: ELIESTAR

Size: A3	Date: 2023-06-20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 2/18

ESP32 MCU

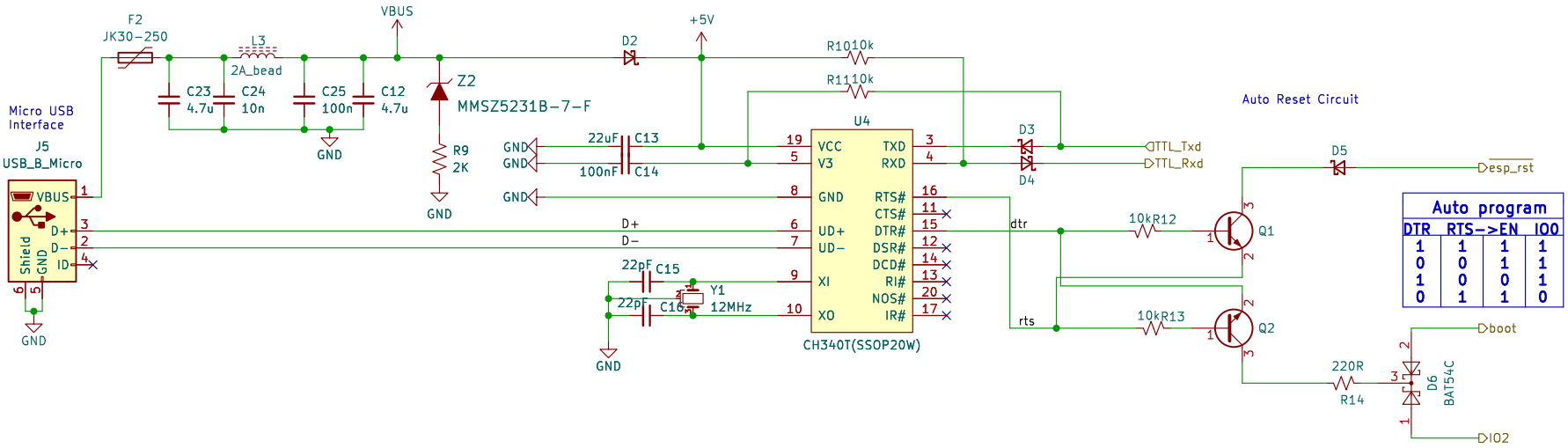


PLEASE USE THIS VIDEO TO SETUP SERIAL PINS FOR ESP32

https://techoverflow.net/2021/11/19/which-pins-can-you-use-for-uart-on-the-esp32/
https://microcontrollerslab.com/esp32-uart-communication-pins-example/

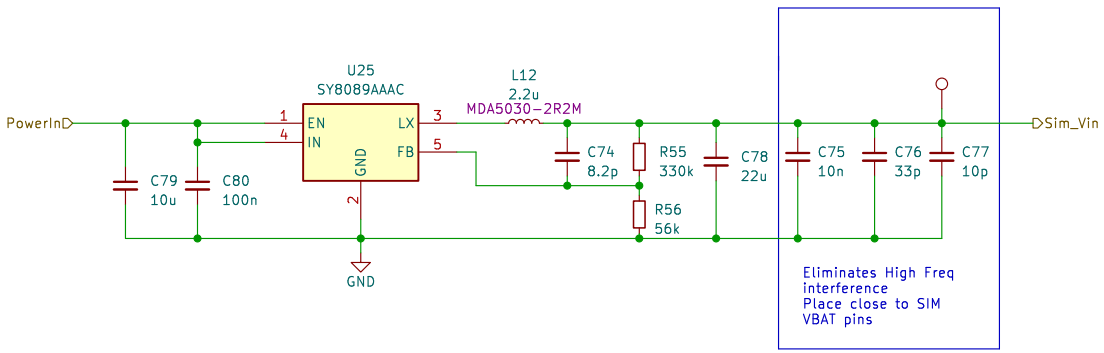
ELIESTAR		
Designed By: Robert Mutura		
Reviewed By: Timoty Kyalo		
GEVITON		
Sheet: /ESP32_MCU/		
File: ESP32_MCU.kicad_sch		
Title: ELIESTAR		
Size: A4	Date: 2023-06-20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 3/18

USB To TTL Conveter Section



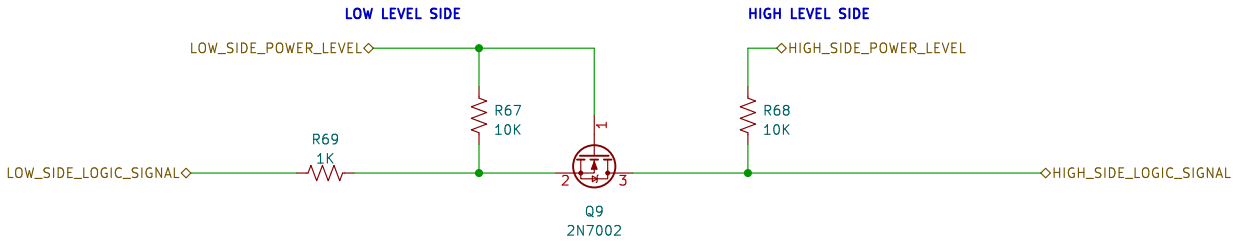
ELIESTAR		
Designed By: Robert Mutura		
Reviewed By: Timoty Kyalo		
GEVITON		
Sheet: /USB_TTL_CH340/		
File: USB_TTL_CH340.kicad_sch		
Title: ELIESTAR		
Size: A4	Date: 2023−06−20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 4/18

SIM MODULE POWER SUPPLY 4.2V/2A



ELIESTAR		
Designed By: Robert Mutura		
Reviewed By: Timoty Kyalo		
GEVITON		
Sheet: /Sim_Power_Supply/		
File: Sim_Power_Supply.kicad_sch		
Title: ELIESTAR		
Size: A4	Date: 2023-06-20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 5/18

BI-DIRECTIONAL LEVEL TRANSLATOR MOSFET - IMPLEMENTATION



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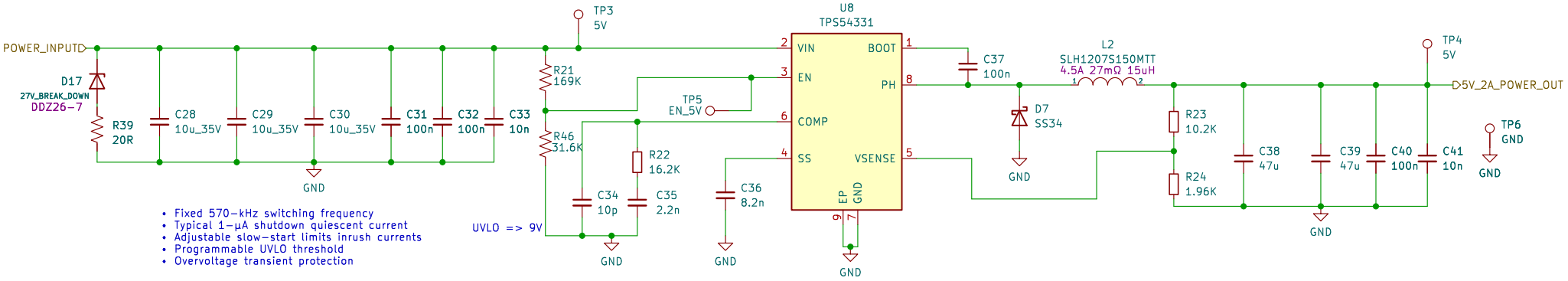
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2		Id: 6/18

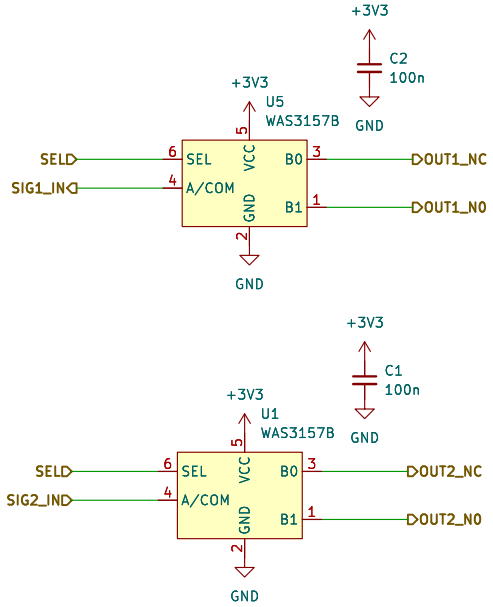
BUCK CONVERTER 24V MAX INPUT 2A 5V OUTPUT



- Fixed 570−kHz switching frequency
- Typical 1−µA shutdown quiescent current
- Adjustable slow−start limits inrush currents
- Programmable UVLO threshold
- Overvoltage transient protection

ELIESTAR		
Designed By: Robert Mutura		
Reviewed By: Timoty Kyalo		
GEVITON		
Sheet: /BUCK_CONVERTER_TPS54331/		
File: BUCK_CONVERTER_TPS54331.kicad_sch		
Title: ELIESTAR		
Size: A4	Date: 2023−06−20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 8/18

ANALOG SWITCH / MULTIPLEXER IC



ELIESTAR
Designed By: Robert Mutura
Reviewed By: Timoty Kyalo

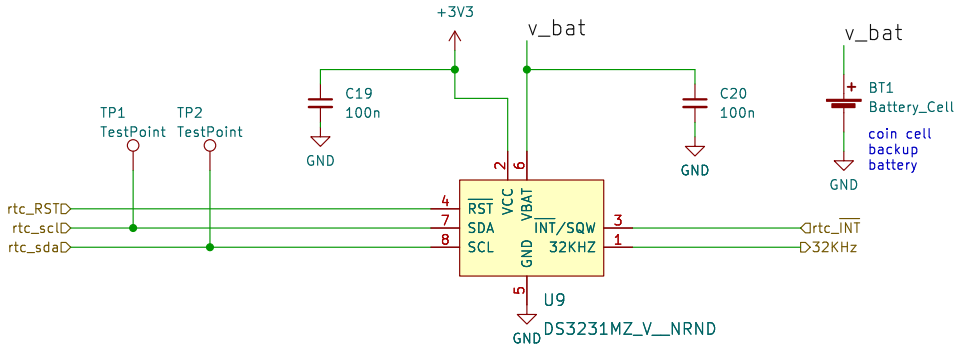
GEVITON

Sheet: /MULTIPLEXER_SWITCH_WAS3157B-6/
File: MULTIPLEXER_SWITCH_WAS3157B-6.kicad_sch

Title: ELIESTAR

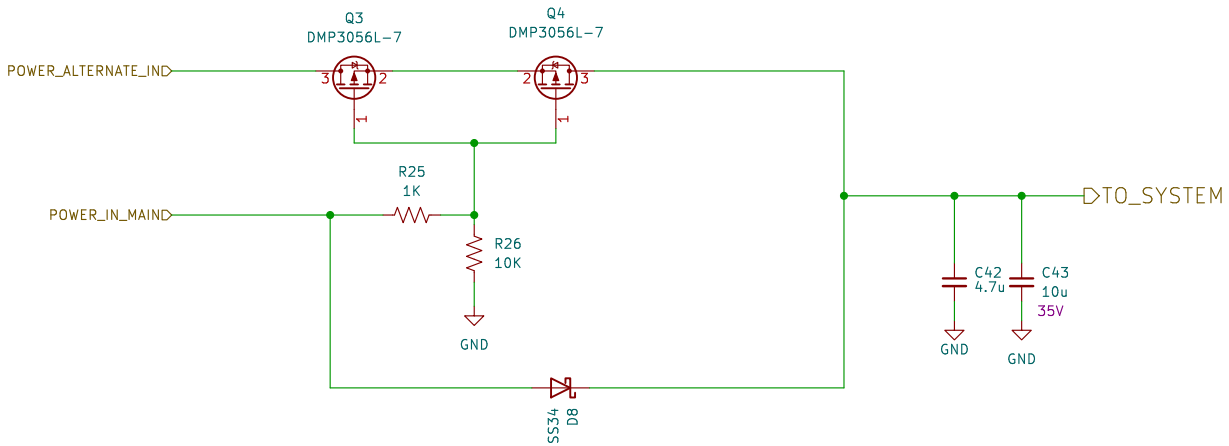
Size: A4	Date: 2023-06-20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 8/18

RTC MODULE DS3231



ELIESTAR		
Designed By: Robert Mutura		
Reviewed By: Timoty Kyalo		
GEVITON		
Sheet: /RTC_DS3231/		
File: RTC_DS3231.kicad_sch		
Title: ELIESTAR		
Size: A4	Date: 2023-06-20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 8/18

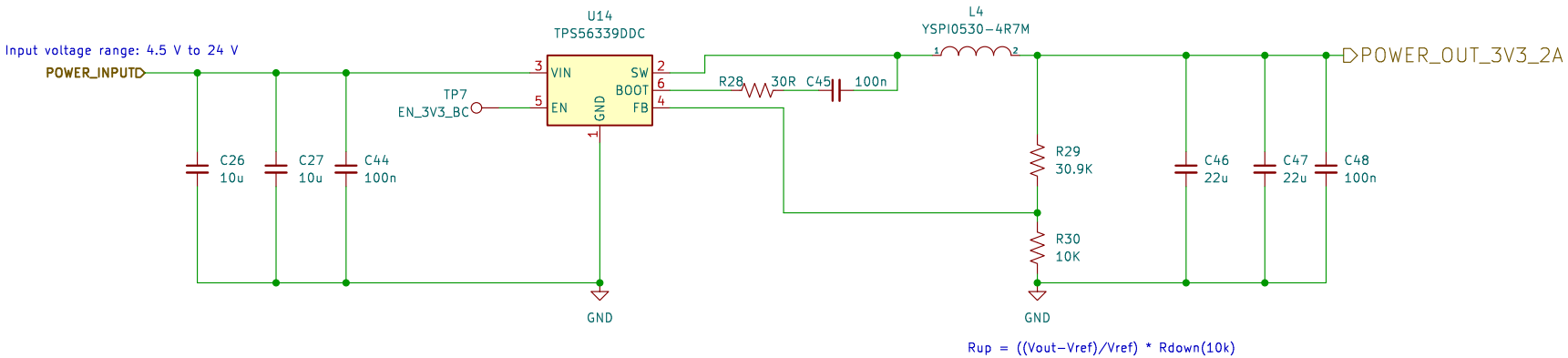
POWER PATH SELECTOR WITH LOW QUIESCENT/LEAKAGE CURRENT



WHEN CIRUCIT IS ON 24v is ocnnected
- voltage across the gate is at a max of 20V(our gate can handle upto 25v)
- when not connected the gateis at 0V and source at 5V which enable power to flow through the circuit

ELIESTAR Designed By: Robert Mutura Reviewed By: Timoty Kyalo **GEVITON**		
Sheet: /custom_power_path_selector/ File: custom_power_path_selector.kicad_sch		
Title: ELIESTAR		
Size: A4	Date: 2023-06-20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 9/18

3V3 2A BUCK CONVERTER TPS56339DDCR



ELIESTAR
Designed By: Robert Mutura
Reviewed By: Timoty Kyalo

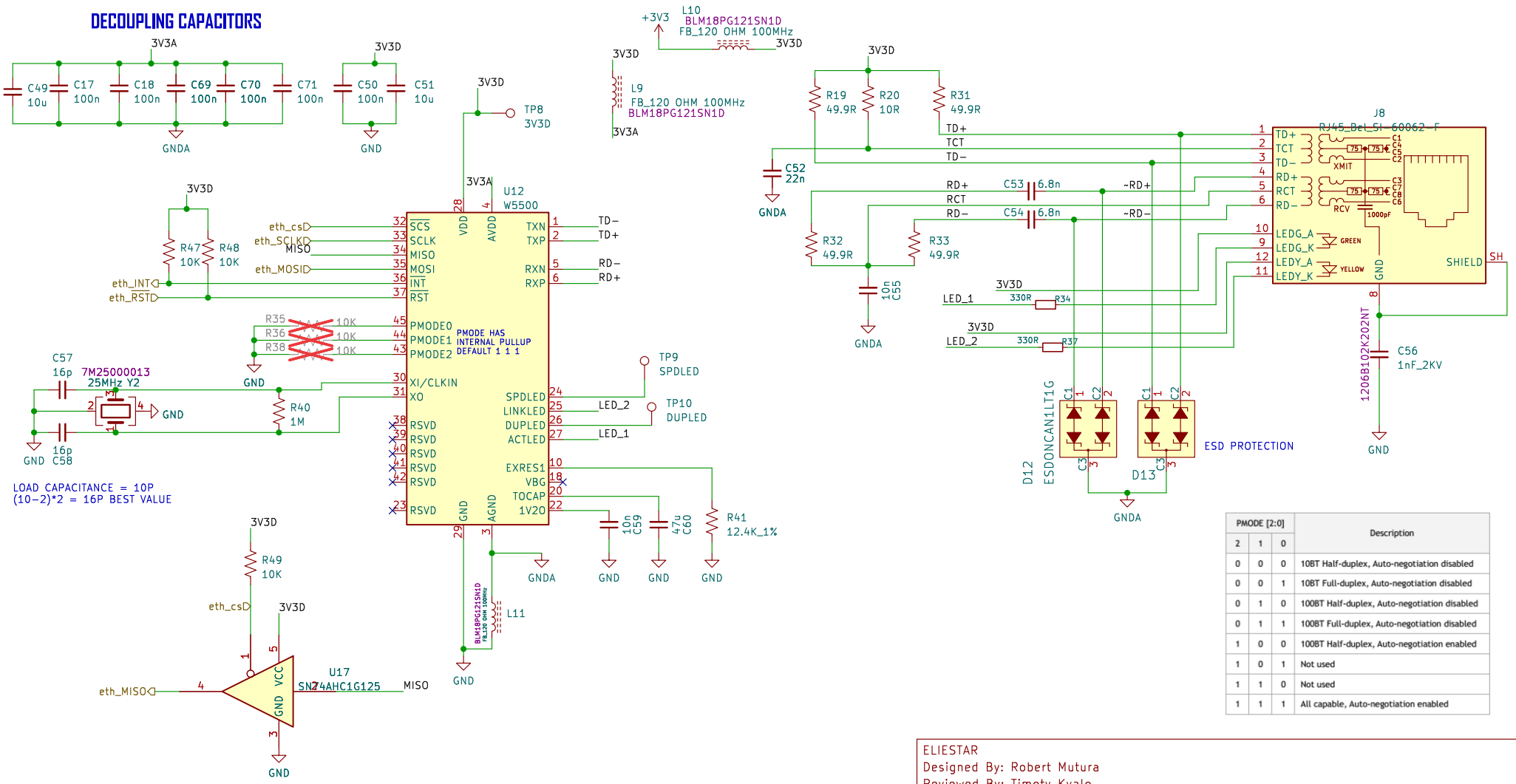
GEVITON

Sheet: /BUCK_CONVERTER_TPS56339/
File: BUCK_CONVERTER_TPS56339.kicad_sch

Title: ELIESTAR

Size: A4	Date: 2023-06-20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 9/18

ETHENET TO SPI INTERFACE ID W5500



PMODE [2:0]			Description
2	1	0	
0	0	0	10BT Half-duplex, Auto-negotiation disabled
0	0	1	10BT Full-duplex, Auto-negotiation disabled
0	1	0	100BT Half-duplex, Auto-negotiation disabled
0	1	1	100BT Full-duplex, Auto-negotiation disabled
1	0	0	100BT Half-duplex, Auto-negotiation enabled
1	0	1	Not used
1	1	0	Not used
1	1	1	All capable, Auto-negotiation enabled

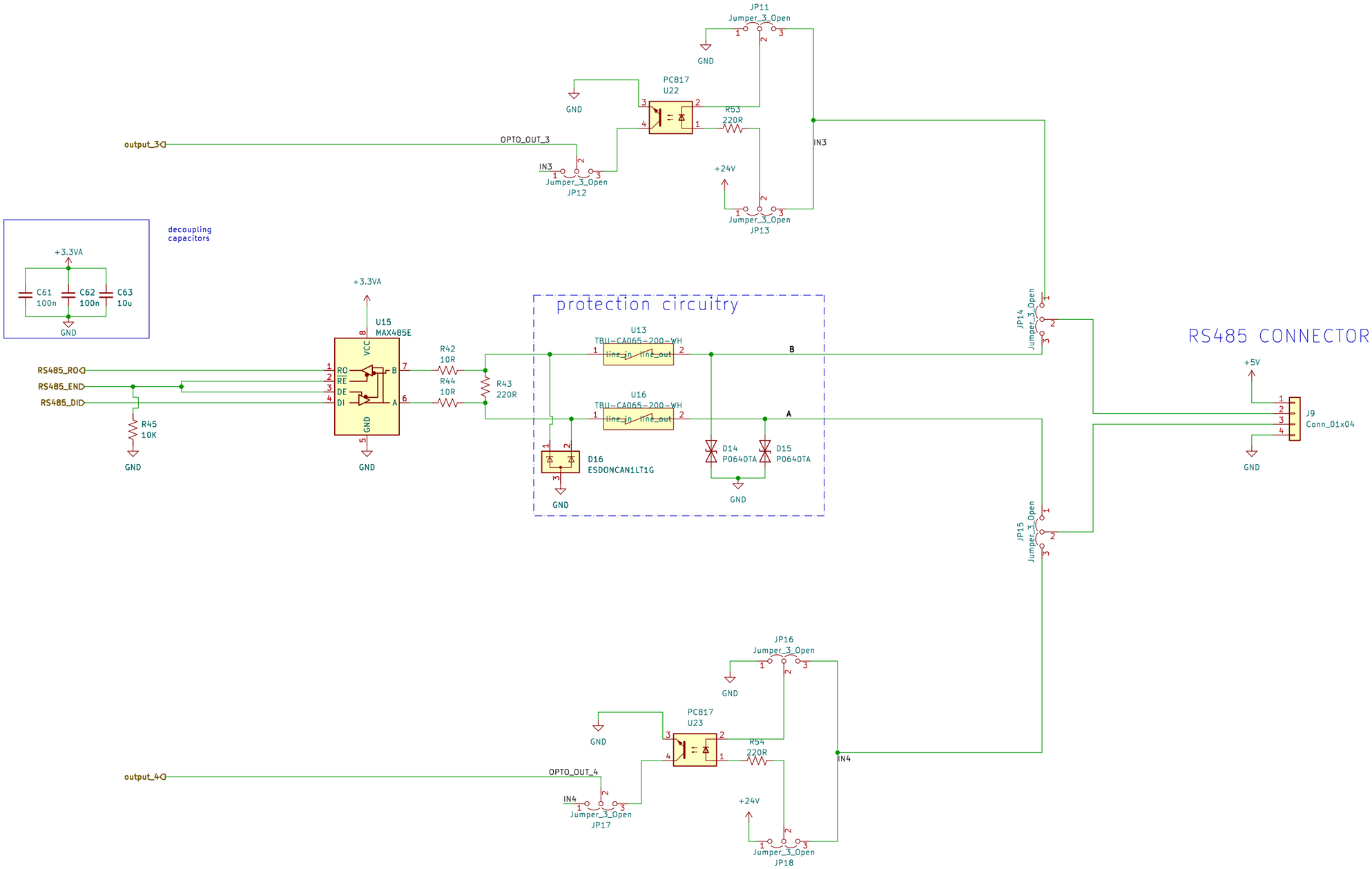
ELIESTAR
Designed By: Robert Mutura
Reviewed By: Timoty Kyalo
VERIFIED
GEVITON

Sheet: /SPI_ETH_INTERFACE_W5500/
File: SPI_ETH_INTERFACE_W5500.kicad_sch

Title: ELIESTAR

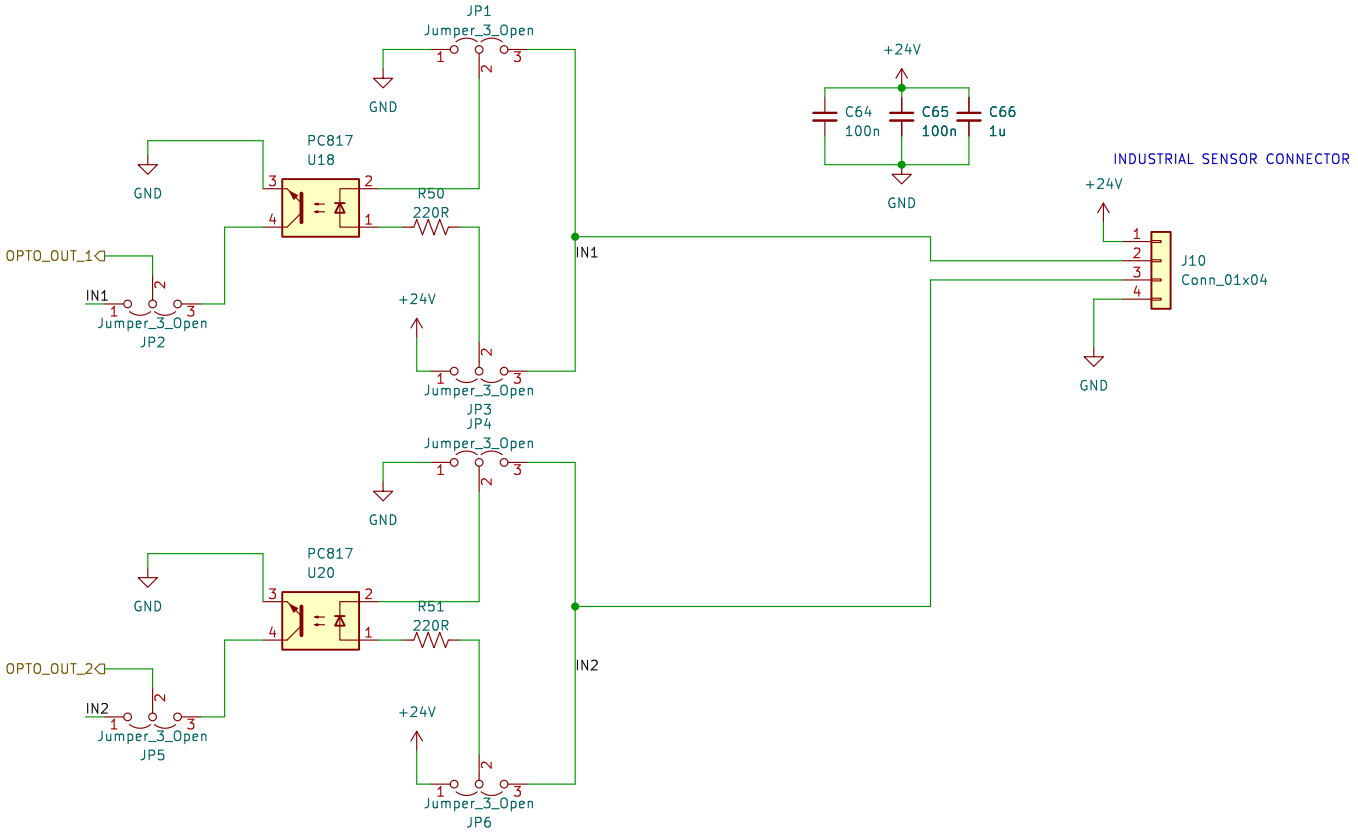
Size: A4	Date: 2023-06-20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 10/18

RS485 COMMUNICATION INTERFACE WITH PROTECTION CIRUIT



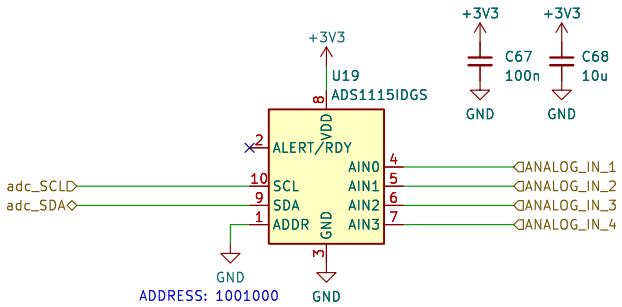
ELIESTAR Designed By: Robert Mutura Reviewed By: Timoty Kyalo **GEVITON**		
Sheet: /MAX485/ File: MAX485.kicad_sch		
Title: ELIESTAR		
Size: A3	Date: 2023-06-20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 11/18

OPTO ISOLATOR INPUT



ELIESTAR	
Designed By: Robert Mutura	
Reviewed By: Timoty Kyalo	
GEVITON	
Sheet: /NPN_PNP_ISOLATED_INPUT/	
File: NPN_ISOLATED_INPUT.kicad_sch	
Title: ELIESTAR	
Size: A4	Date: 2023-06-20
KiCad E.D.A. kicad 7.0.2	**Rev: 2.0**
	Id: 12/18

16BIT DIGITAL TO ANALOG CONVERTER



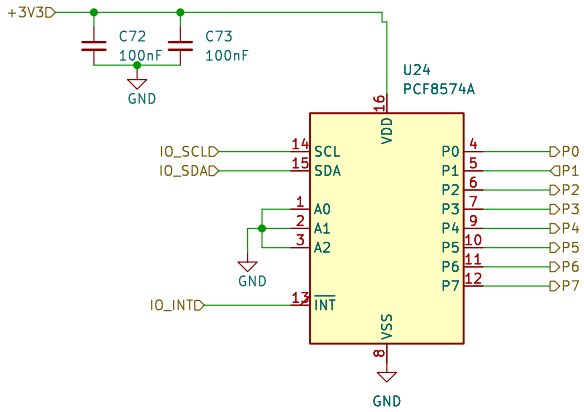
ELIESTAR
Designed By: Robert Mutura
Reviewed By: Timoty Kyalo

GEVITON

Sheet: /16BIT_ADC_ADS1115/
File: 16BIT_ADC_ADS1115.kicad_sch

Title: ELIESTAR

Size: A4	Date: 2023-06-20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 13/18



ELIESTAR
Designed By: Robert Mutura
Reviewed By: Timoty Kyalo

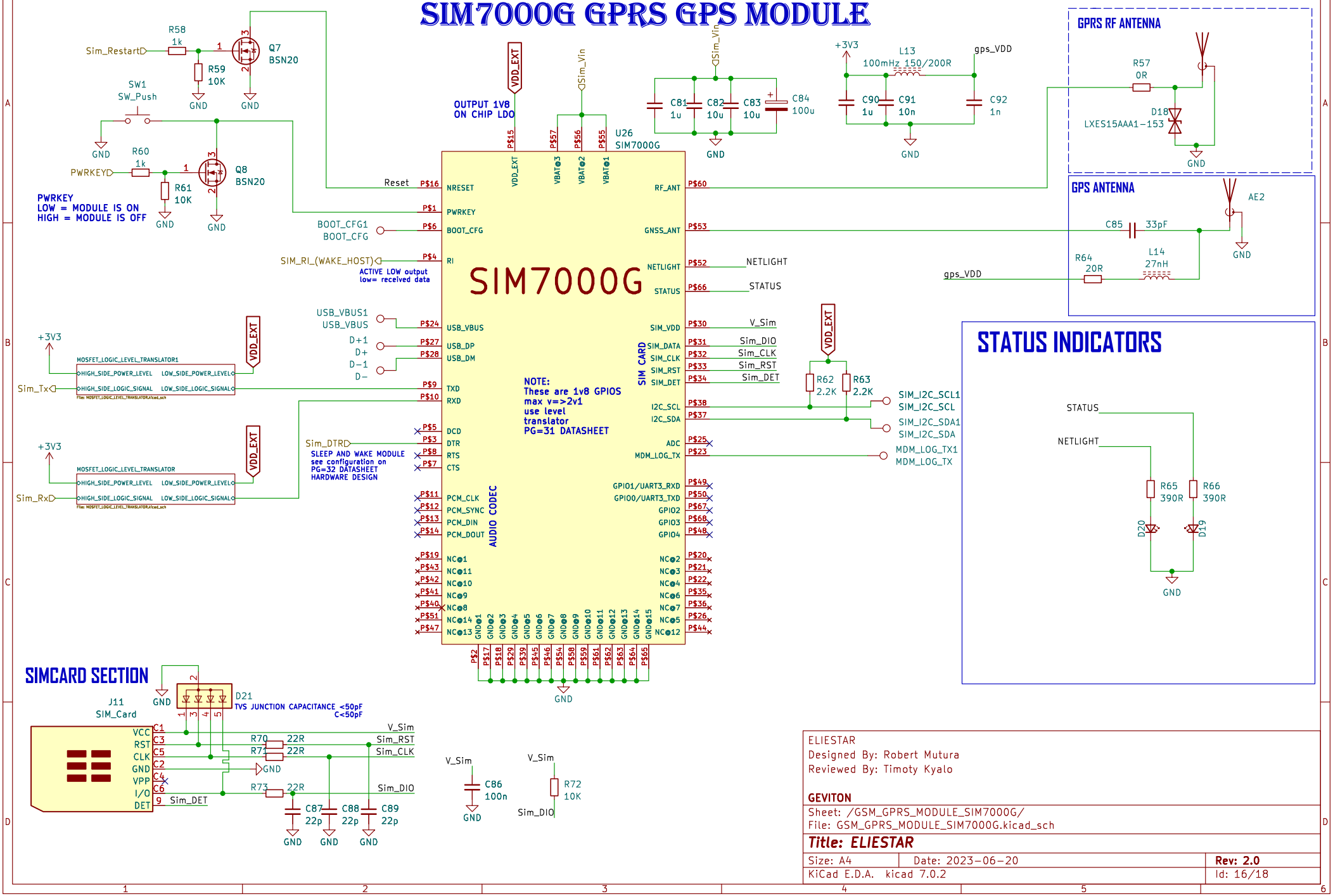
GEVITON

Sheet: /io_expander/
File: io_expander.kicad_sch

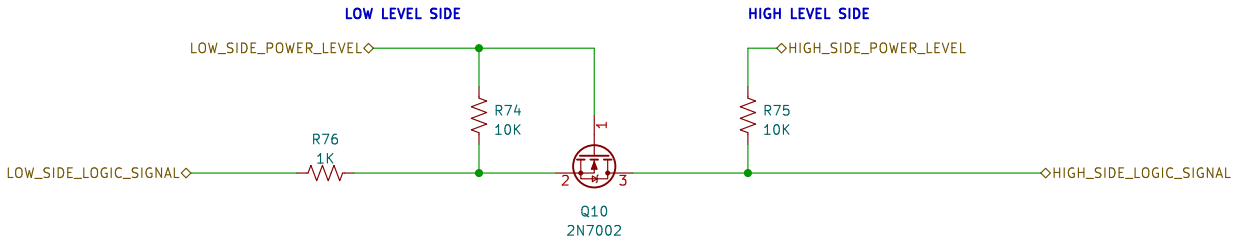
Title: ELIESTAR

Size: A4	Date: 2023-06-20	**Rev: 2.0**
KiCad E.D.A. kicad 7.0.2		Id: 14/18

SIM7000G GPRS GPS MODULE



BI-DIRECTIONAL LEVEL TRANSLATOR MOSFET - IMPLEMENTATION



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File: MOSFET_LOGIC_LEVEL_TRANSLATOR.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2		Id: 17/18