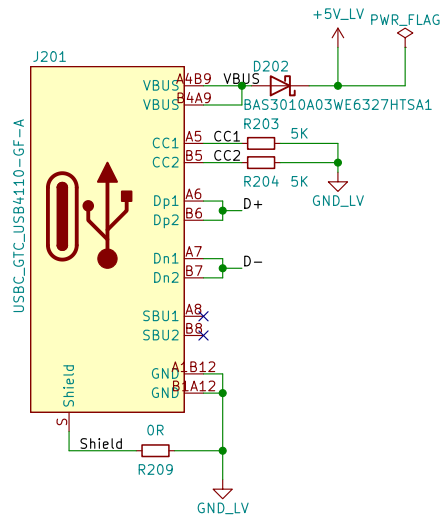
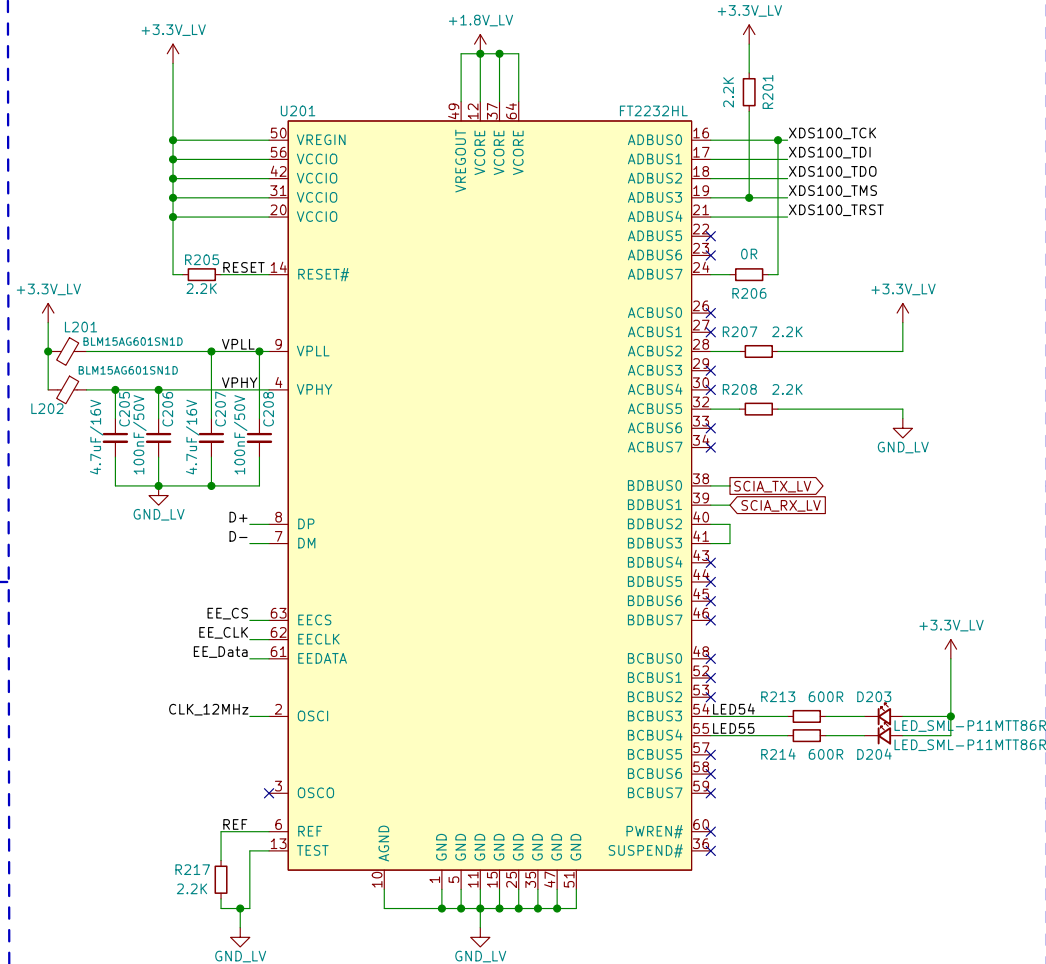


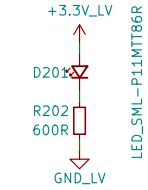
XDS100 USB-C Port



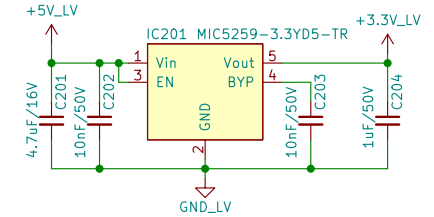
FTDI2232HL XDS100 MCU



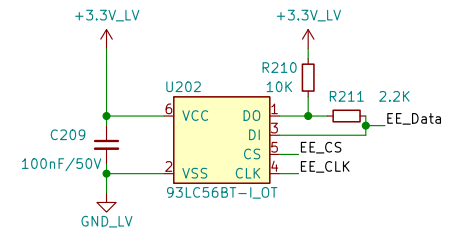
Power Status LED



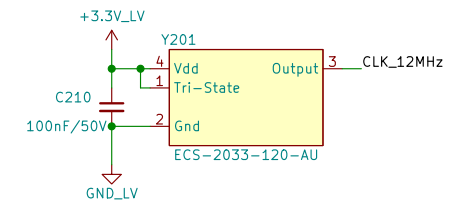
LDO 3.3V



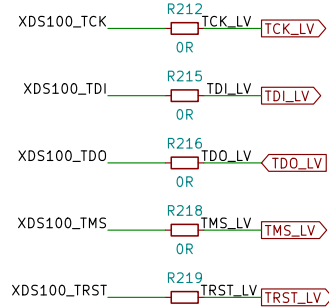
EEPROM XDS100



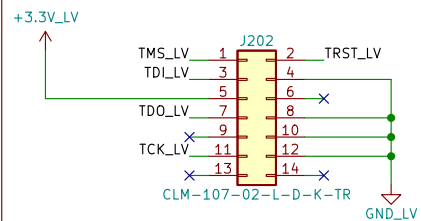
12 MHz Clock



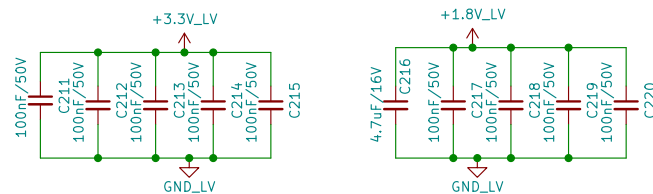
Disconnect XDS100



External Debugger



Decoupling Capacitors MCU FT2232HL



Sheet: /XDS100/
File: Debugger.kicad_sch

Title:

Size: A4

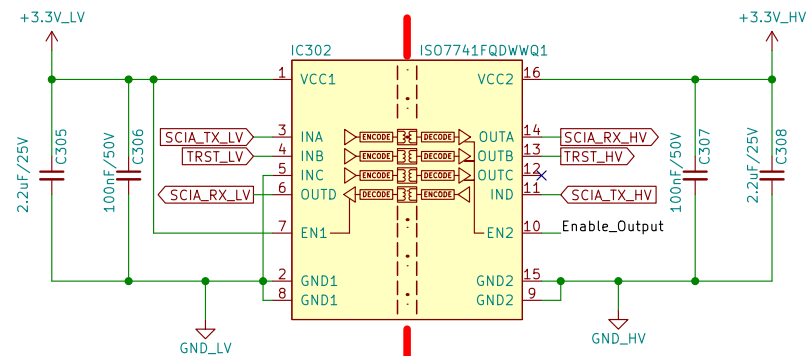
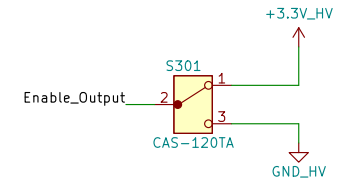
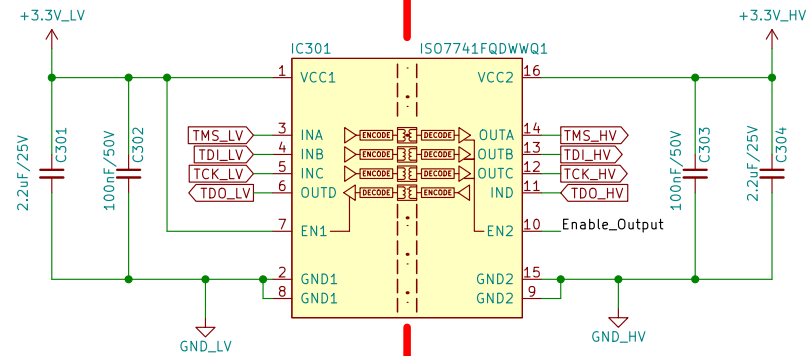
Date:

KiCad E.D.A. kicad (6.0.2-0)

Rev:

Id: 2/11

JTAG and SCI ISOLATION



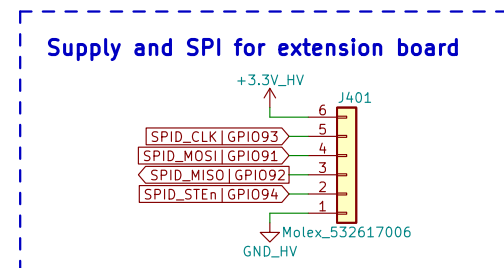
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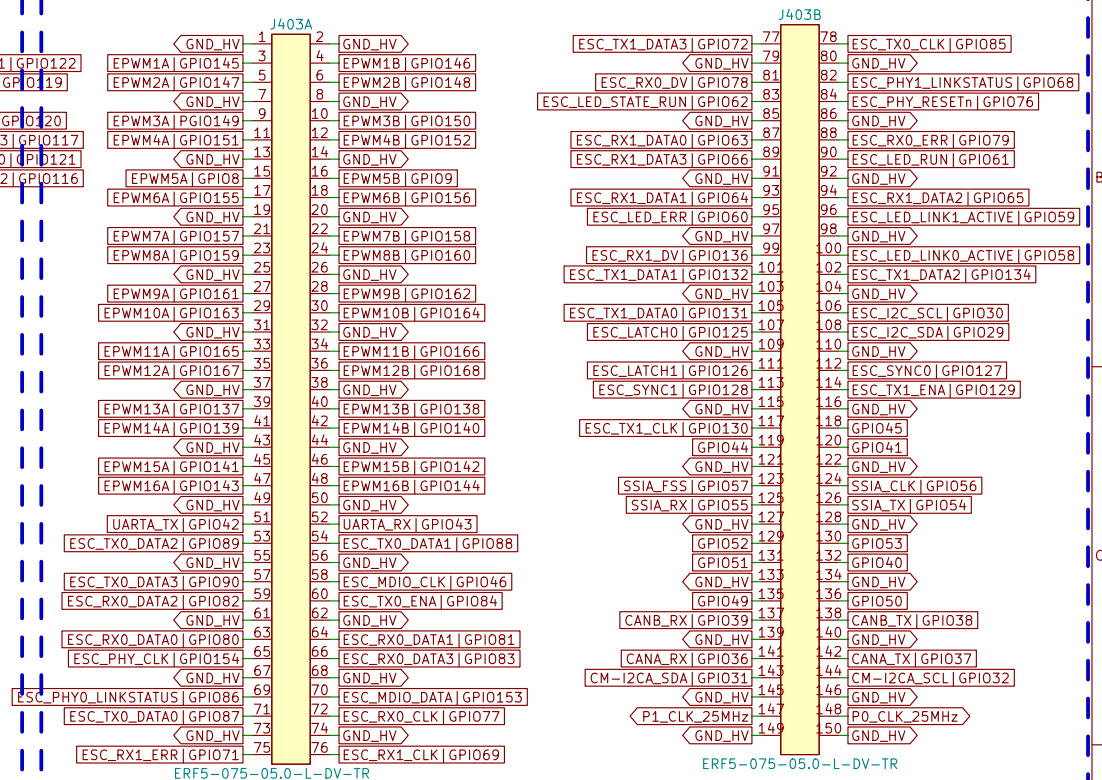
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Date:

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Id: 3/11

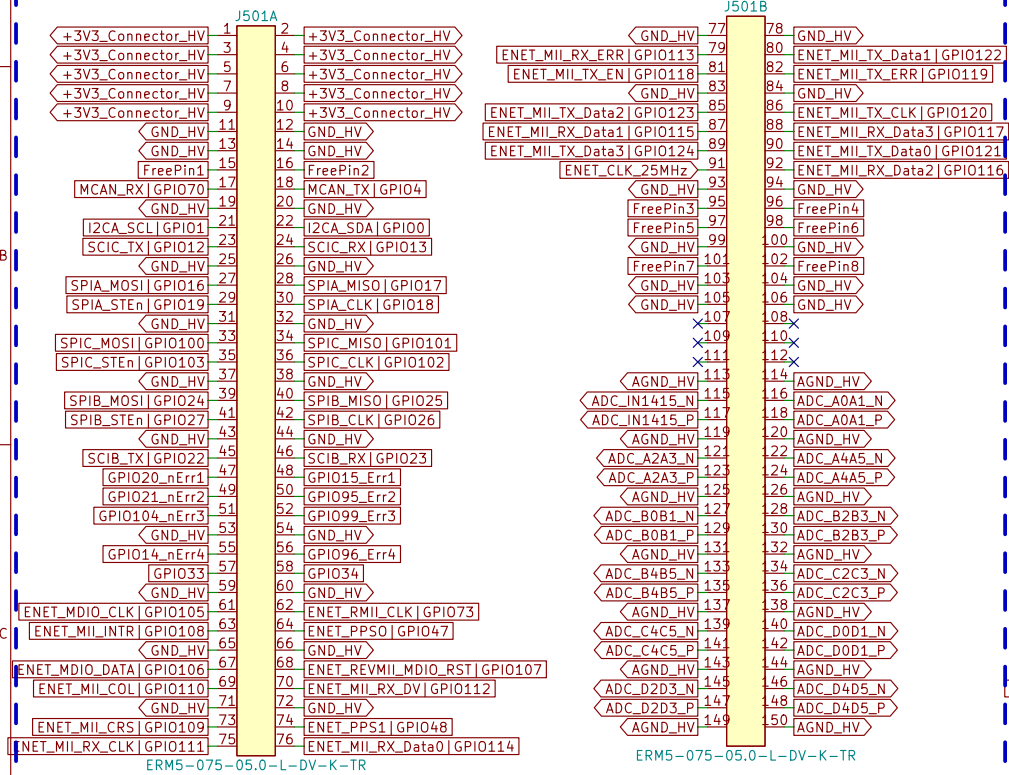


TOP RIGHT CONNECTOR

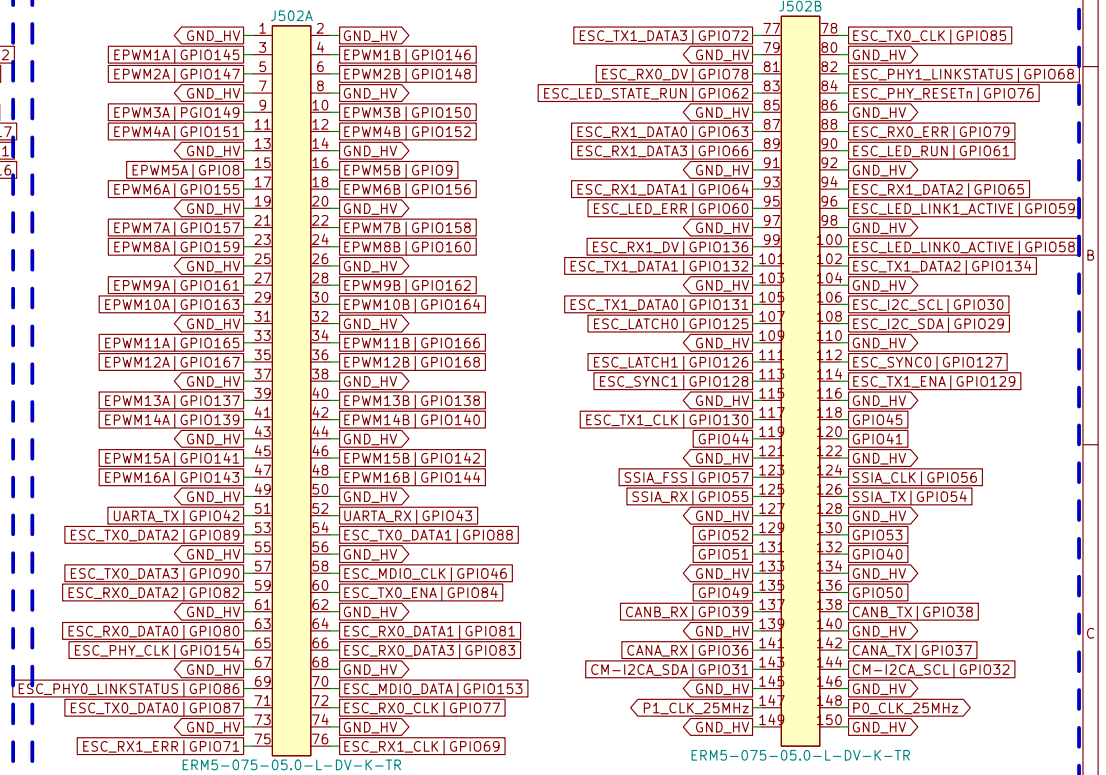


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Id: 4/11

BOTTOM LEFT CONNECTOR



BOTTOM RIGHT CONNECTOR



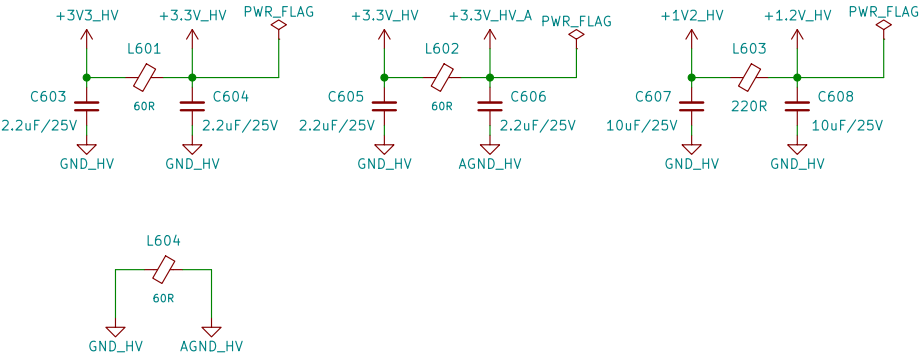
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File: Connector_Bottom.kicad_sch

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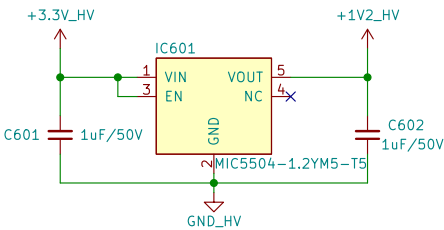
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KiCad E.D.A. kicad (6.0.2-0)	

Rev:
Id: 5/11

Ferrit Beads



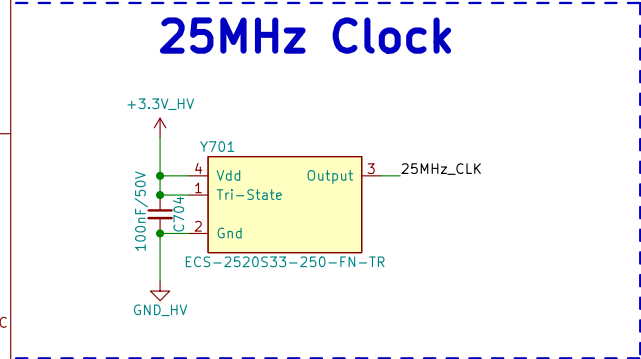
LDO 1.2V for MCU Core



Sheet: /Power/ File: Power.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. kicad (6.0.2-0)		Id: 6/11

Power Supply Monitor

The diagram illustrates a Power Supply Monitor circuit. It consists of two comparators, U701 (TPS3702CX33DDCT) and U702 (TPS3702CX12DDCT), which monitor the +3.3V_HV and +1.2V_HV supply rails. The comparators are configured with their UV pins (pin 1) connected to a common node, which is also connected to the MCU_XRSn pin. The circuit includes a 0R resistor (R704) and a 2.2K resistor (R703) connected to the MCU_XRSn pin, and a 10nF/50V capacitor (C702) connected to GND_HV. The comparators are also connected to GND_HV (pin 2) and VDD (pin 4) via 100nF/50V capacitors (C701 and C703).



JTAG, CLK, Reset

The diagram illustrates the JTAG, CLK, and Reset connections for a TMS320F2838xDZWT microcontroller (U703C). The microcontroller is represented by a yellow box with pins labeled on the left and right. The connections are as follows:

- JTAG:** The JTAG pins (TCK, TDI, TDO, TMS, TRSTn) are connected to the +3.3V_HV supply through 2.2K resistors (R705, R706). The TMS and TRSTn pins are connected to the TMS_HV and TRST_HV signals, respectively.
- CLK:** The CLK_F283XX_25MHz pin (X1) is connected to the MCU_XRSn signal (F19).
- Reset:** The XRSn pin is connected to the MCU_XRSn signal (F19).
- Other Pins:** The ERRORSTS, FLT1, FLT2, NC, and NC pins are connected to the MCU_XRSn signal (F19).

The +3.3V_HV supply is connected to the TMS_HV and TRST_HV signals through 2.2K resistors (R705, R706). The GND_HV is connected to the TMS_HV and TRST_HV signals.

Boot Mode Pins

ESC_TX1_DATA3 | GPIO72

R701 2.2K

S701B

+3.3V_HV

CAS-D20TA

GND_HV

ESC_TX0_ENA | GPIO84

R702 2.2K

S701A

+3.3V_HV

CAS-D20TA

GND_HV

Pin	72	84
Parallel IO	0	0
SCI	0	1
Wait	1	0
Get/Flash	1	1

[illegible]

F2838x MCU Decoupling Capacitors

The diagram illustrates the decoupling capacitor network for the F2838x MCU, organized into three main sections:

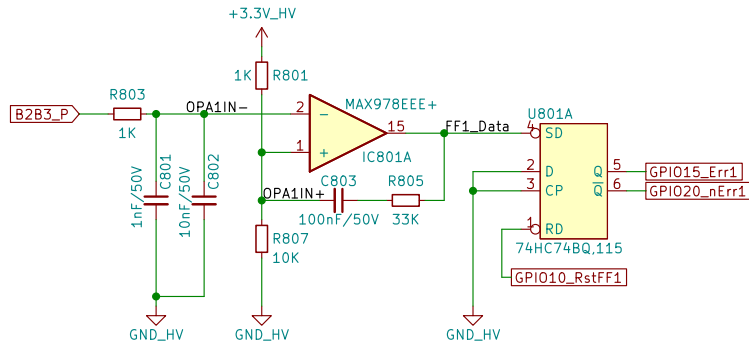
- Section 1 (Left):** A series of capacitors (C715 to C725) connected to the +3.3V_HV_A supply. The capacitors are arranged in a chain, with C715 at the top and C725 at the bottom. The bottom of the chain is connected to GND_HV.
- Section 2 (Middle):** A series of capacitors (C726 to C730) connected to the +3.3V_HV supply. The capacitors are arranged in a chain, with C726 at the top and C730 at the bottom. The bottom of the chain is connected to GND_HV.
- Section 3 (Right):** A series of capacitors (C706 to C707) connected to the +1.2V_HV supply. The capacitors are arranged in a chain, with C706 at the top and C707 at the bottom. The bottom of the chain is connected to GND_HV.

Each capacitor is labeled with its value (100nF/50V) and its pin number (C715 to C730). The ground connection is labeled GND_HV.

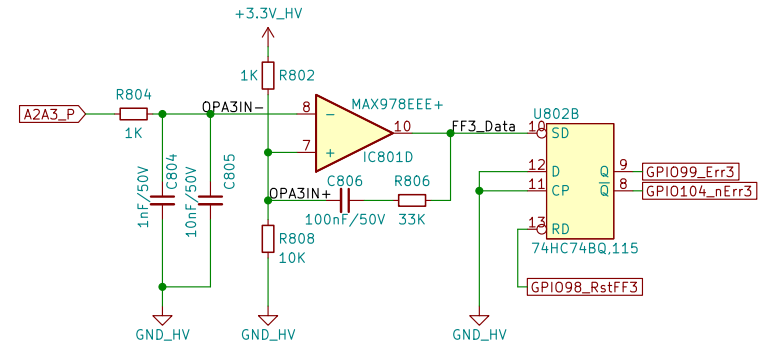
For discharge

Sheet: /MCU/ File: MCU.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. kicad (6.0.2-0)		Id: 7/11

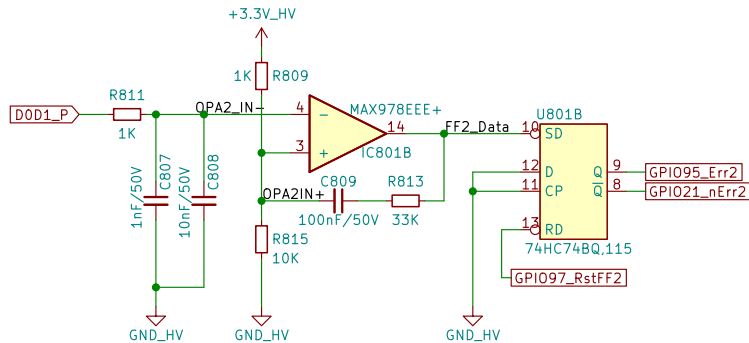
Error1 – B2B3P



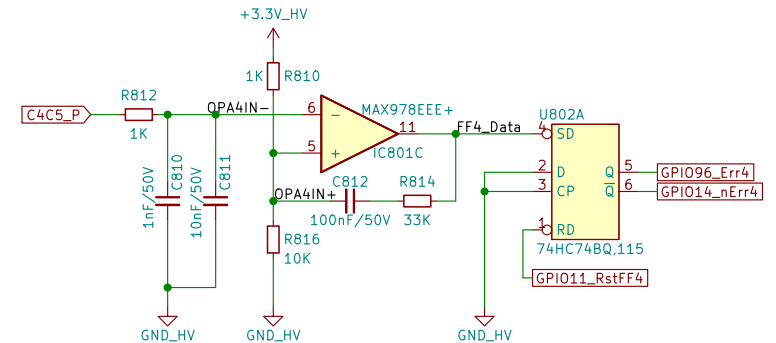
Error3 – A2A3



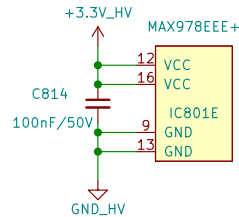
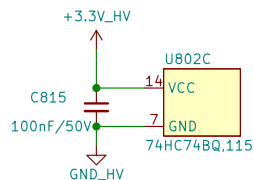
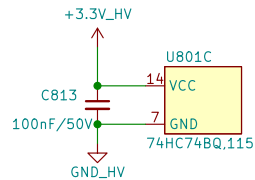
Error2 – D0D1



Error4 – C4C5



Power Supply



Sheet: /Error Detection/
File: ErrorcComparator.kicad_sch

Title:

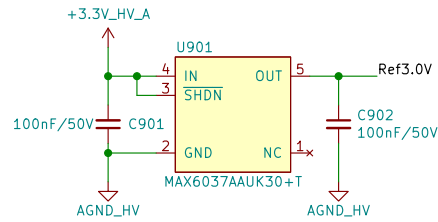
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Date:

Rev:

Id: 8/11

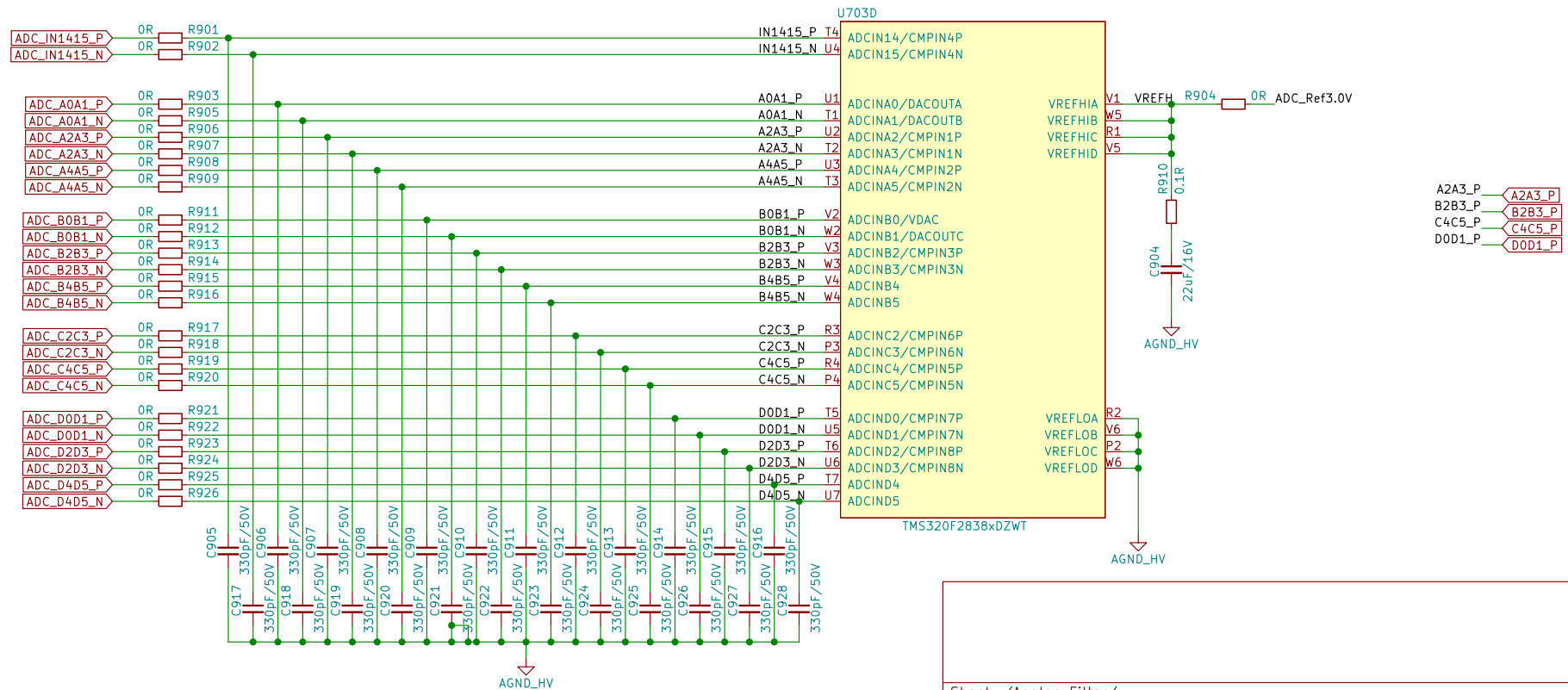
3V Referenz Voltage



3V Referenz Voltage Buffer



Analog Input Filter MCU F2838X



Sheet: /Analog Filter/
File: AnalogFilter.kicad_sch

Title:

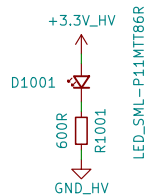
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Date:

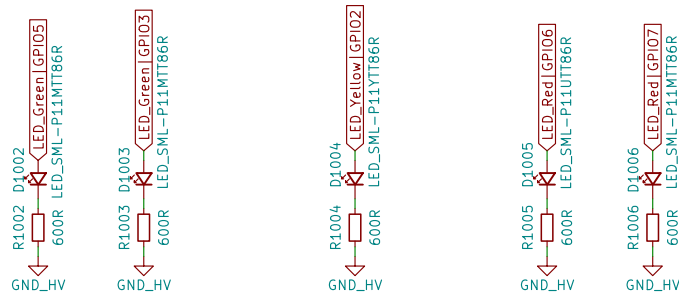
Rev:

Id: 9/11

Power LED



Status LEDs



Sheet: /Status LEDs/
File: LEDS.kicad_sch

Title:

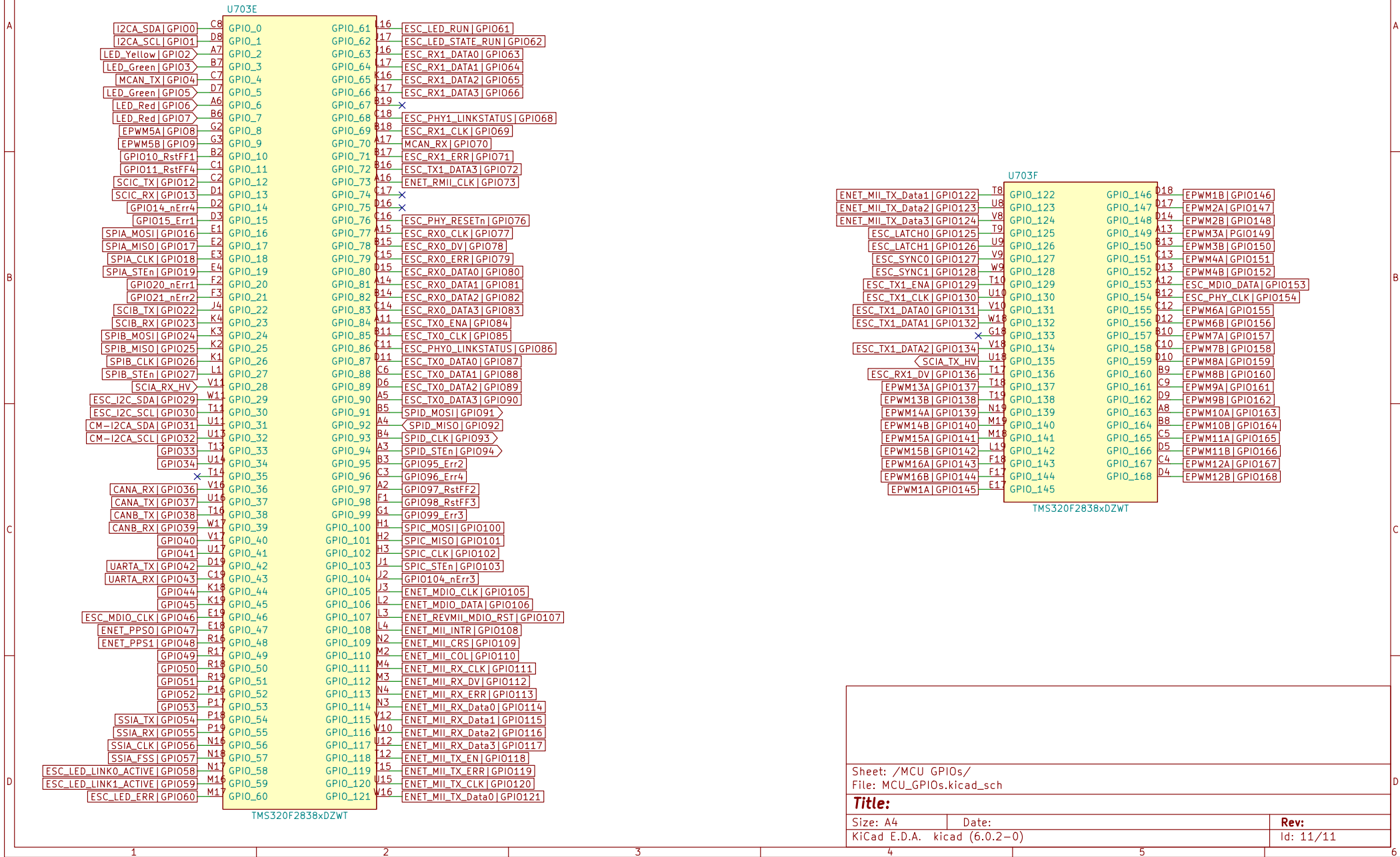
Size: A4
KiCad E.D.A. kicad (6.0.2-0)

Date:

Rev:

Id: 10/11

F2838x MCU GPIO configuration



Sheet: /MCU GPIOs/ File: MCU_GPIOs.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. kicad (6.0.2-0)		Id: 11/11

