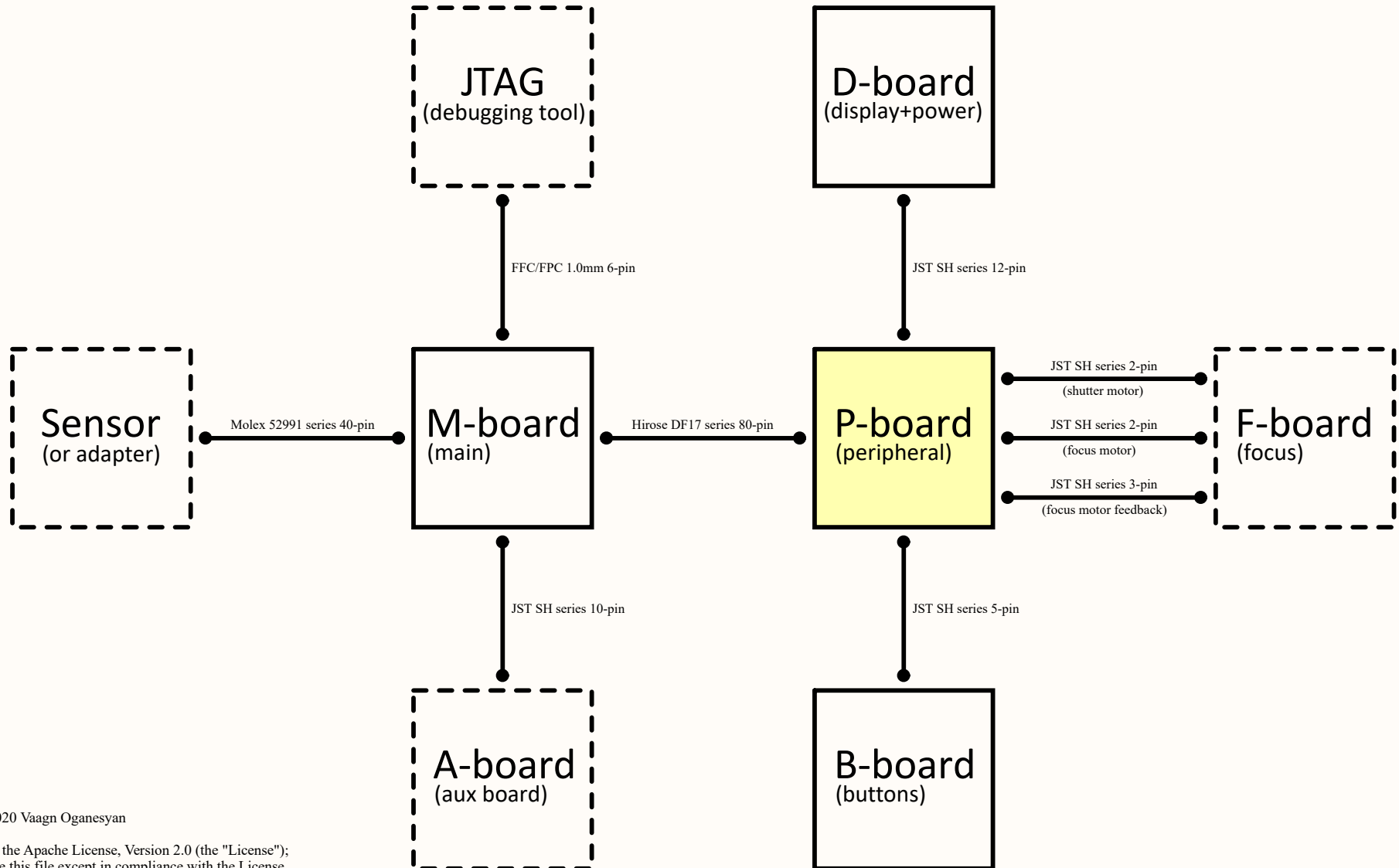
 - optional



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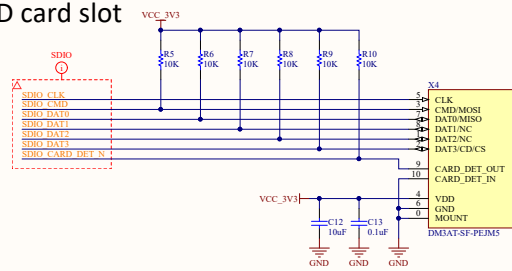
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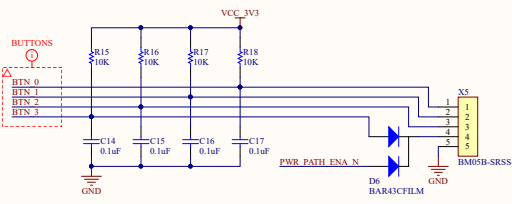
Title: <b>P-board.Header</b>		
File: <b>0_HEADER.SchDoc</b>	Size: <b>A4</b>	
Drawn by: <b>Vaagn Oganessian</b>	Version: <b>v0.1.0</b>	
Date: <b>07.09.2020</b>	Time: <b>17:01:11</b>	Sheet: <b>1</b> of <b>5</b>

**OpenRV**

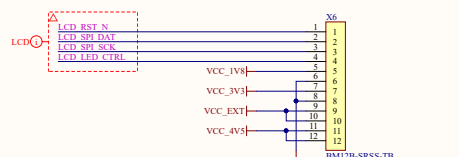
## SD card slot



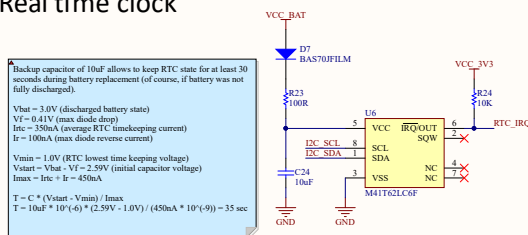
## Buttons connector



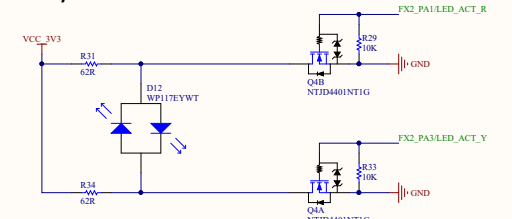
## Display &amp; AUX power connector



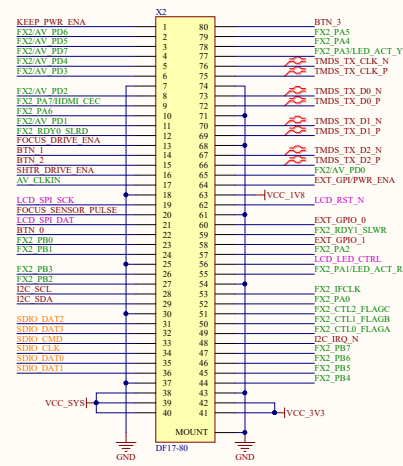
## Real time clock



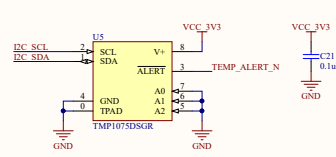
## Activity LEDs



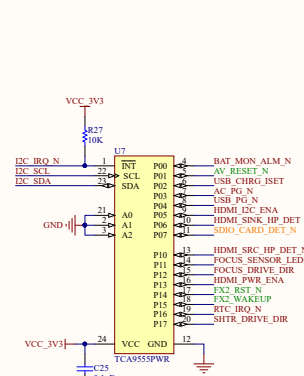
## Main board connector



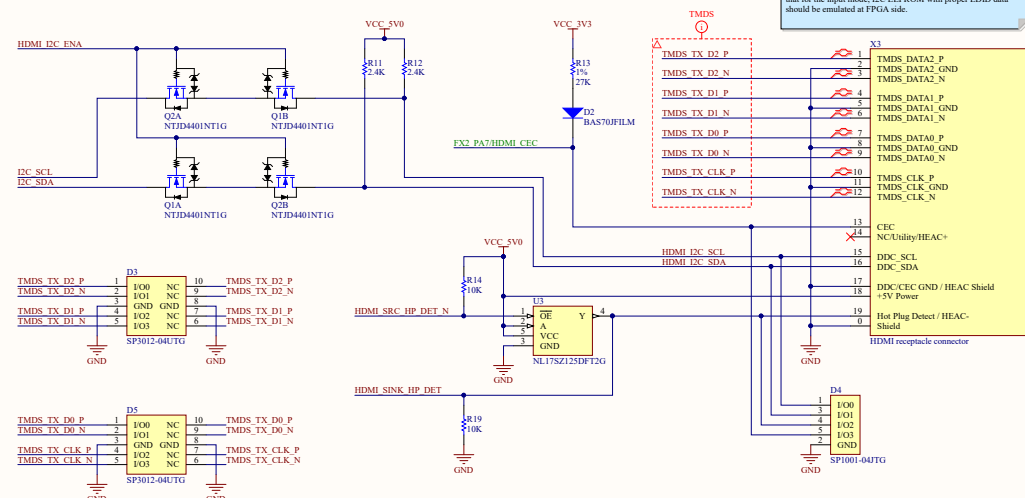
## Temperature sensor



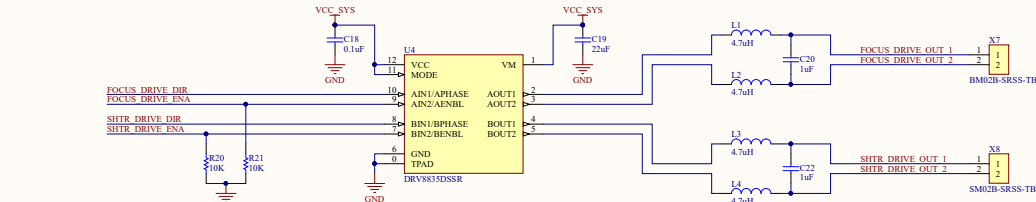
## I2C I/O expander



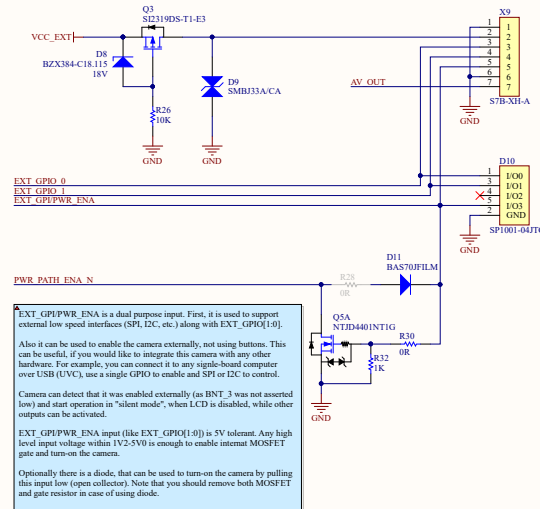
## HDMI



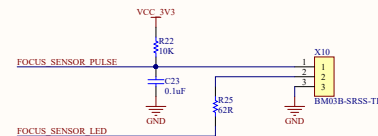
## Shutter &amp; focus motor control



## AV &amp; GPIO external connector



Focus sensor connector



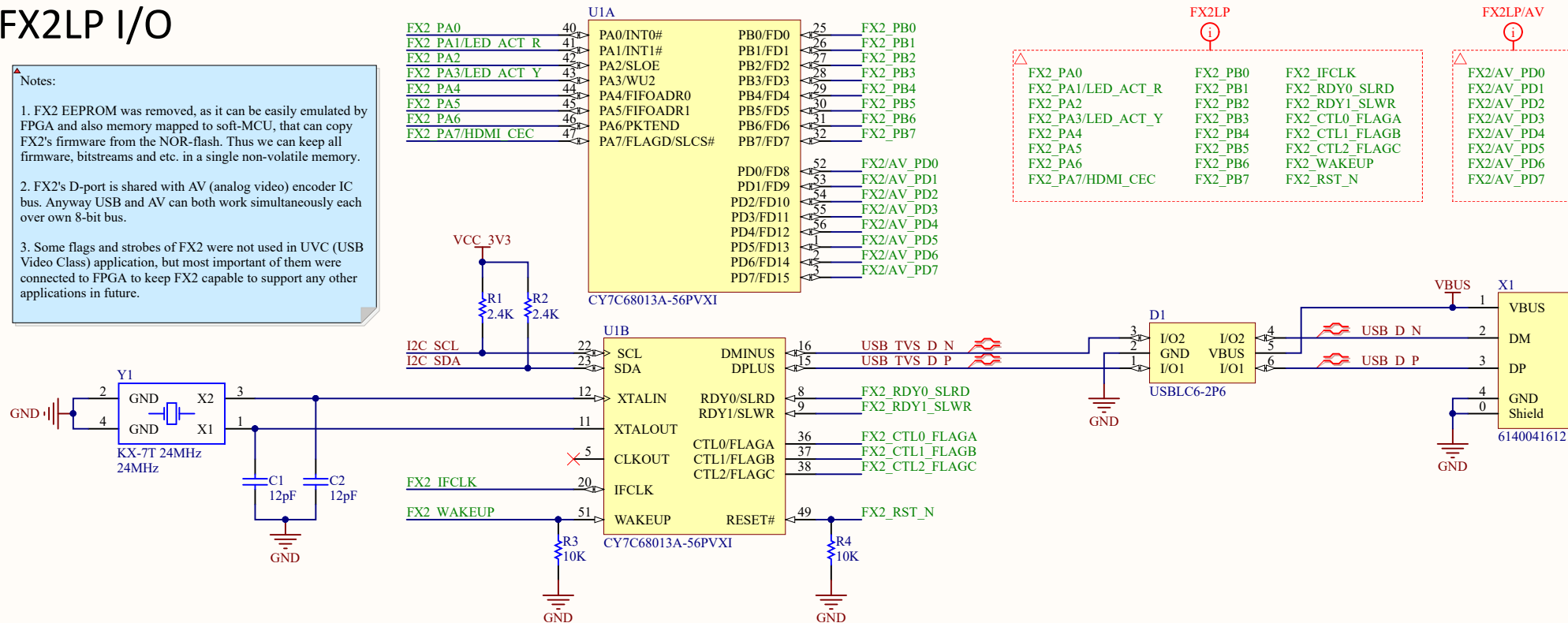
## PCB stacking spacers



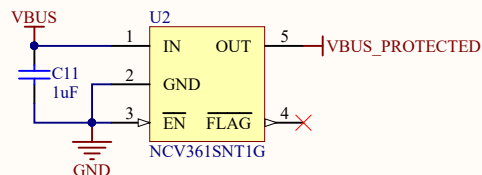
# FX2LP I/O

## Notes:

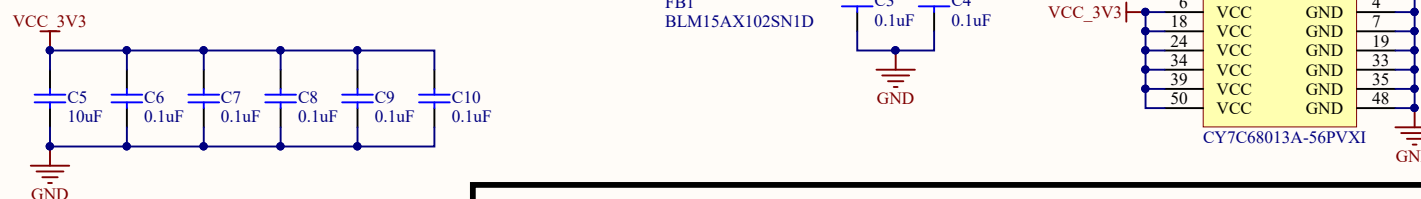
1. FX2 EEPROM was removed, as it can be easily emulated by FPGA and also memory mapped to soft-MCU, that can copy FX2's firmware from the NOR-flash. Thus we can keep all firmware, bitstreams and etc. in a single non-volatile memory.
2. FX2's D-port is shared with AV (analog video) encoder IC bus. Anyway USB and AV can both work simultaneously each over own 8-bit bus.
3. Some flags and strobes of FX2 were not used in UVC (USB Video Class) application, but most important of them were connected to FPGA to keep FX2 capable to support any other applications in future.



## USB power protection



## FX2LP power



Title: P-board.USB

File: 2\_USB.SchDoc

Drawn by: Vaagn Oganessian

Date: 07.09.2020

Size: A4

Version: v0.1.0

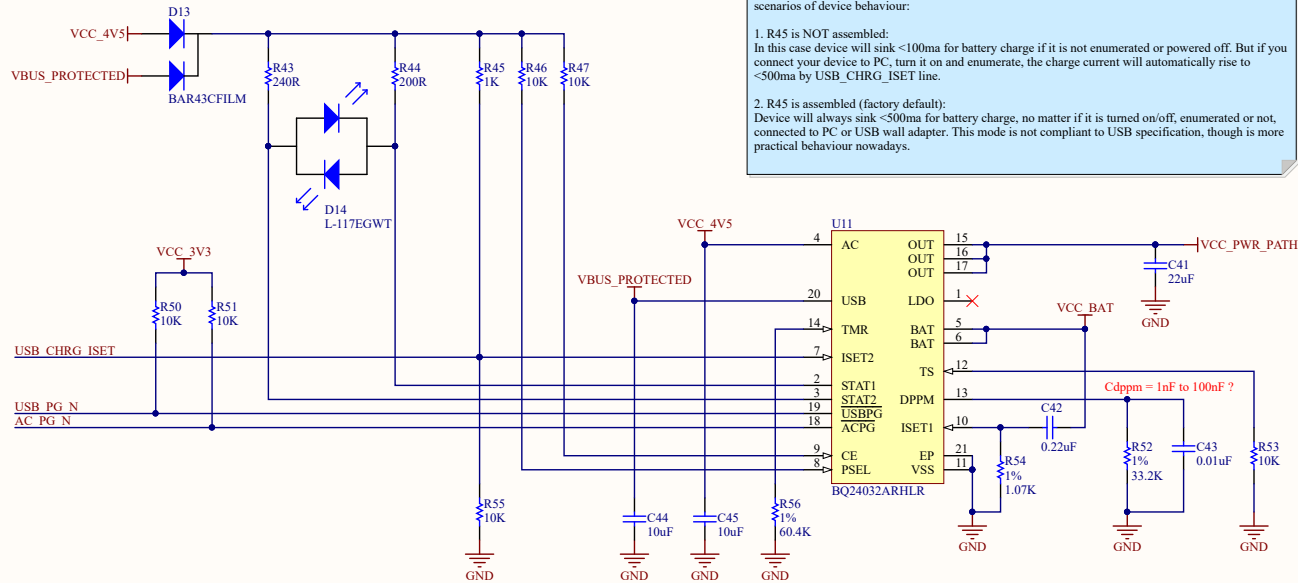
Time: 17:01:12

Sheet: 3 of 5

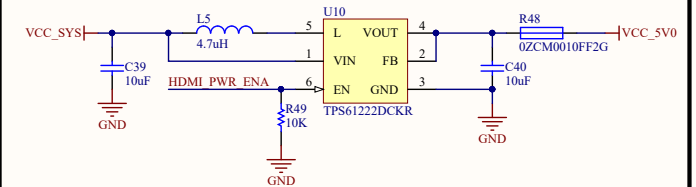
OpenRV



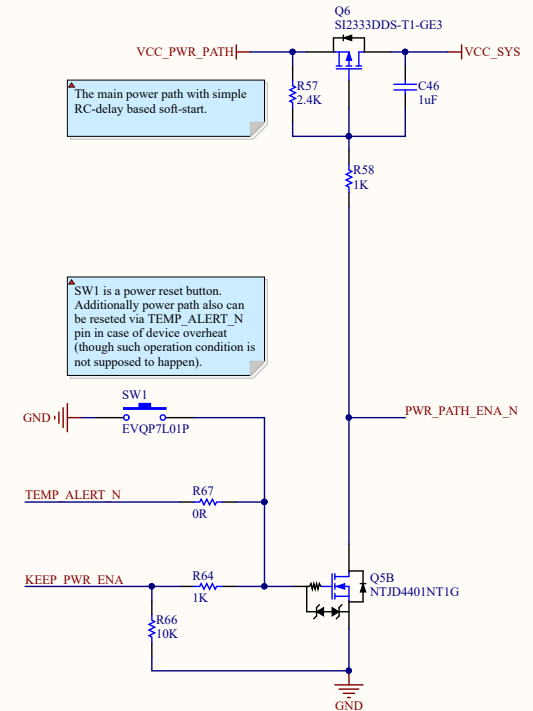
## Battery charger



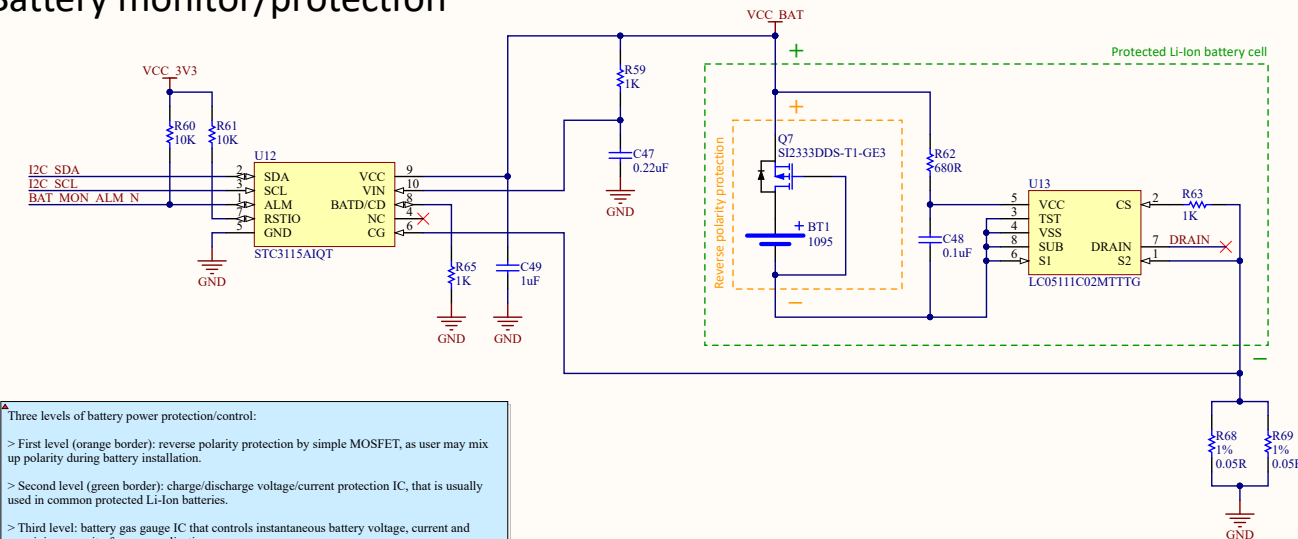
## HDMI power 5V0



## Power on circuit



## Battery monitor/protection



Title: P-board.Power	
File: 4_POWER.SchDoc	Size: A3
Drawn by: Vaagn Oganessyan	Version: v0.1.0
Date: 07.09.2020	Time: 17:01:12
Sheet: 5	of 5

OpenRV