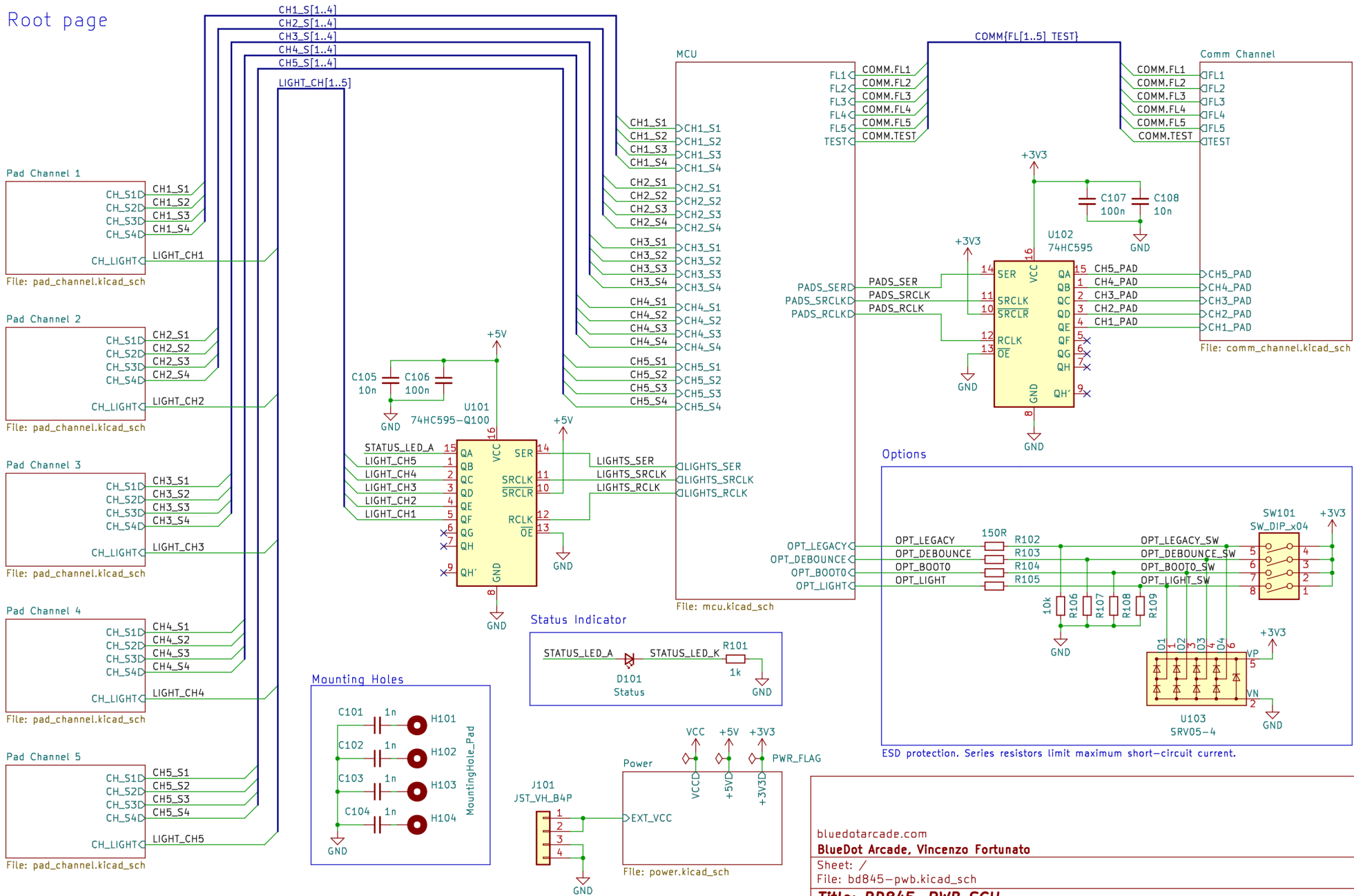


[Root page](#)



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Sheet: /
File: bd845-pwb.kicad_sch

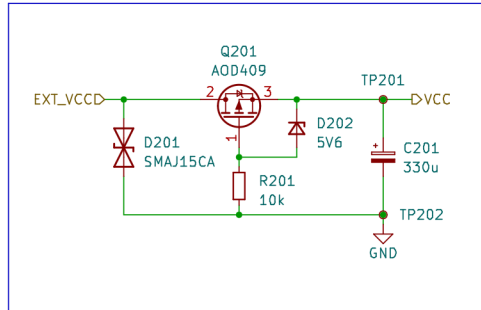
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Size: A4	Date: 2023-06-16
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Rev: 1.1.0
Id: 1/9

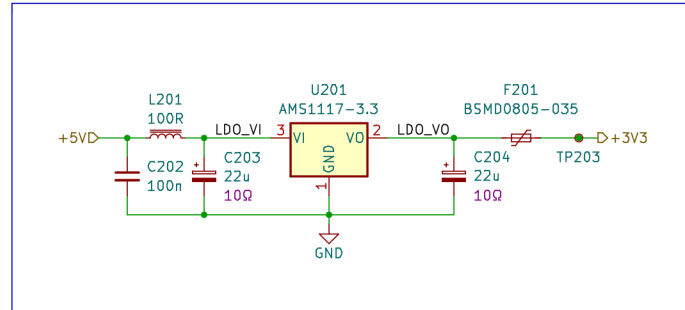
Power

VCC Supply



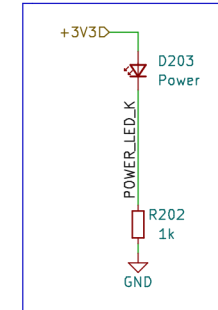
ESD Protection and reverse polarity protection.

+3V3 LDO linear regulator

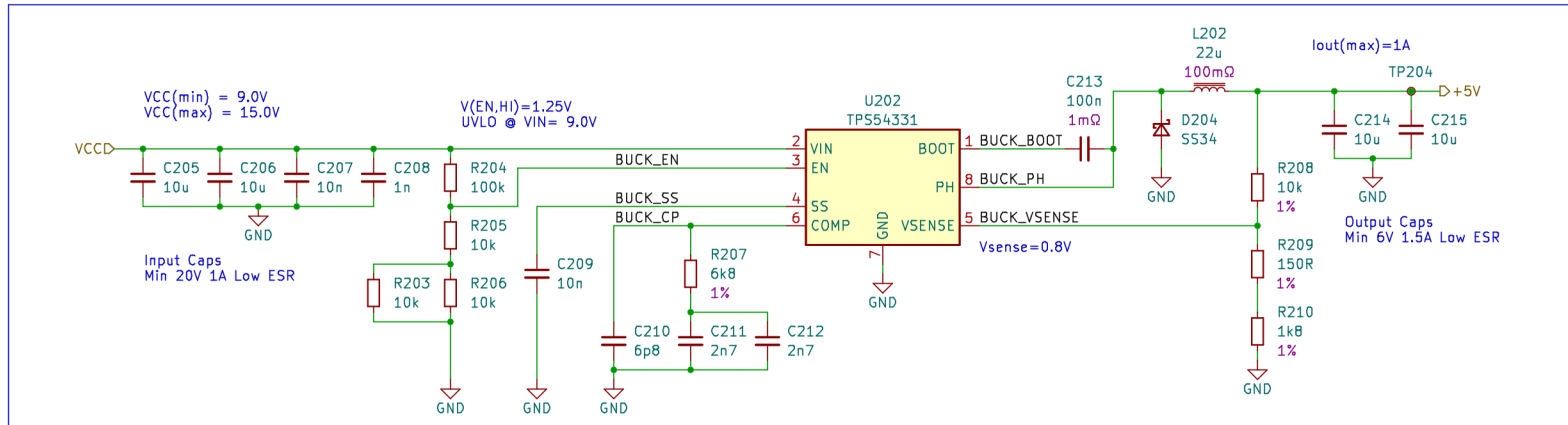


Use tantalum caps with $0.2\Omega < \text{ESR} < 22\Omega$.

Power Indicator

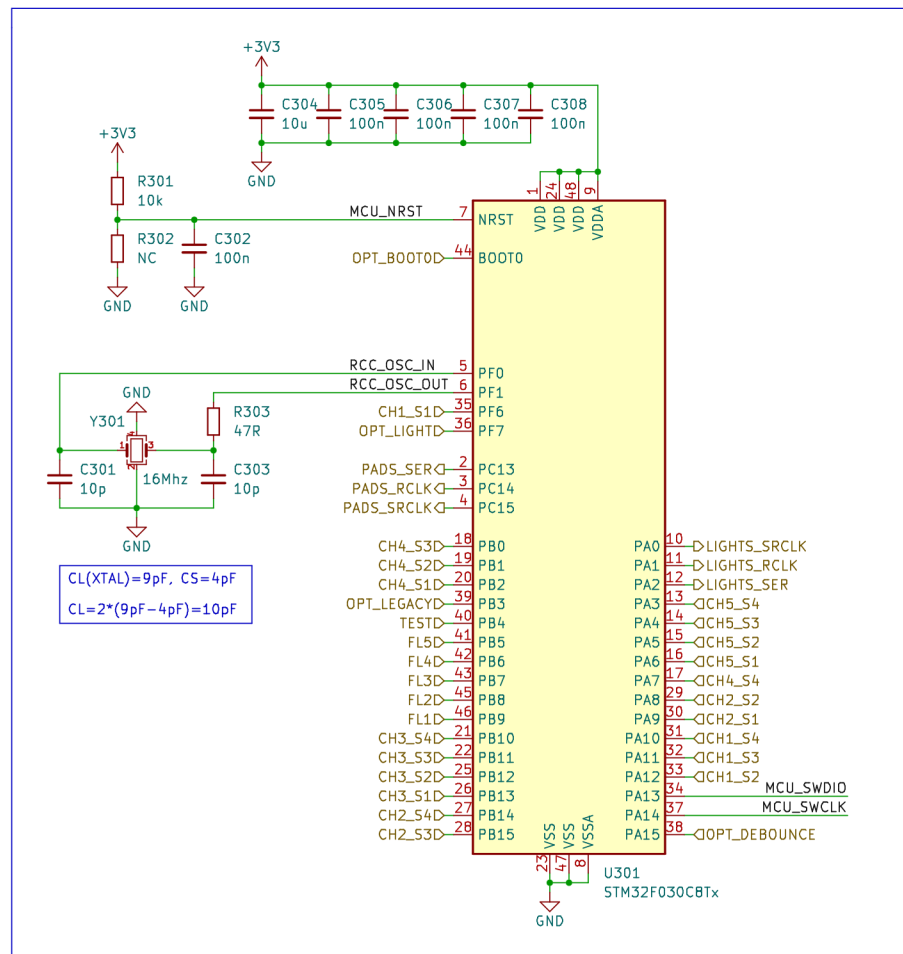


+5V Switching regulator

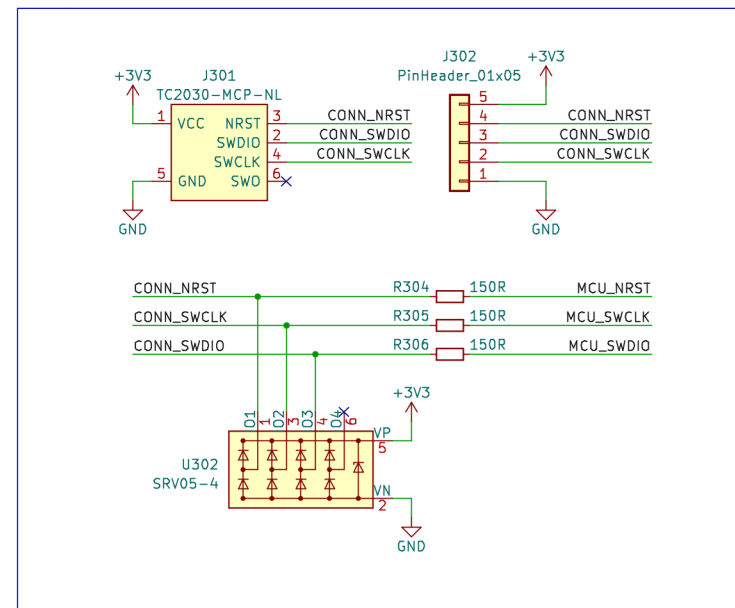


Microcontroller Unit

MCU



Debug Header SWD



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Sheet: /MCU/
File: mcu.kicad_sch

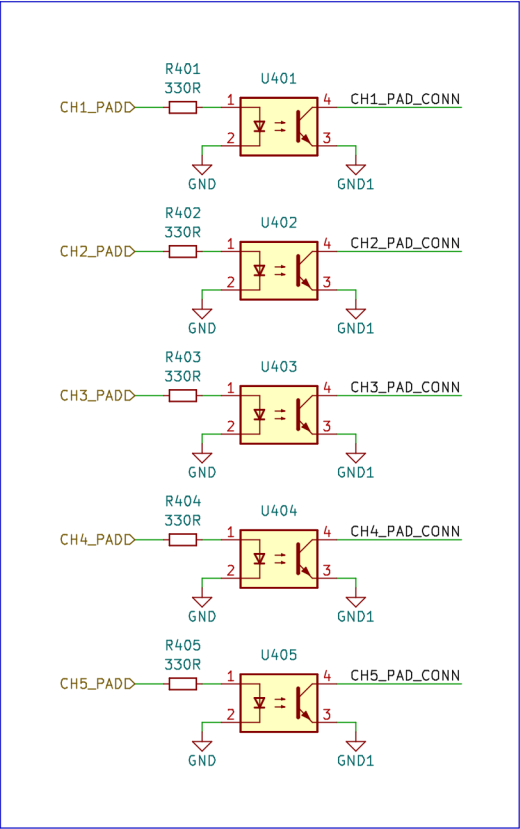
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Size: A4 Date: 2023-06-16
KiCad E.D.A. kicad 7.0.5-ubuntu22.04.1

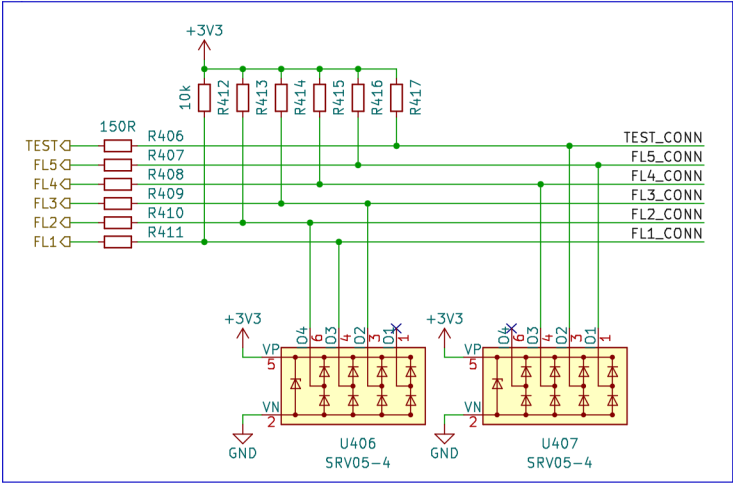
Rev: 1.1.0
Id: 3/9

Communication channel

Channel output isolators

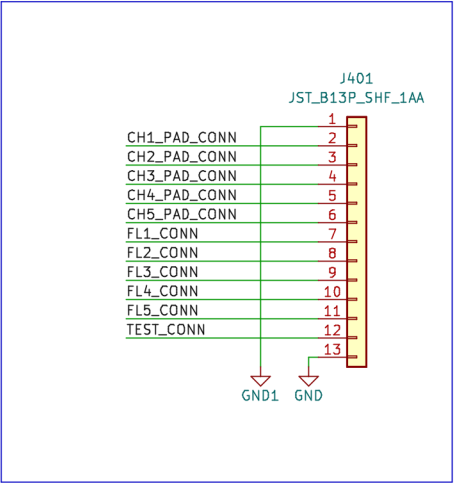


External lights control and TEST



ESD protection. Series resistors limit maximum short-circuit current.

Communication connector

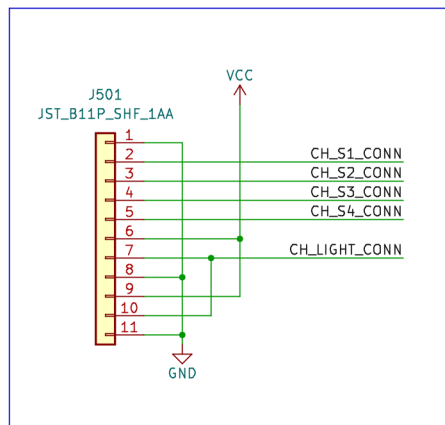


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Sheet: /Comm Channel/
File: comm_channel.kicad_sch
Title: BD845-PWB SCH

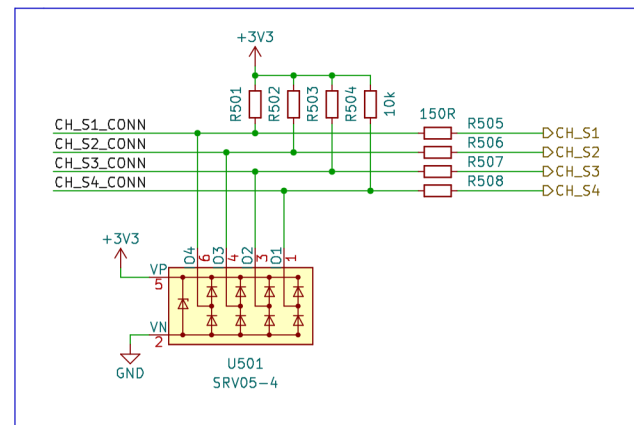
Size: A4	Date: 2023-06-16	Rev: 1.1.0
KiCad E.D.A. kicad 7.0.5-ubuntu22.04.1	Id: 4/9	

Pad Channel

Pad channel connector

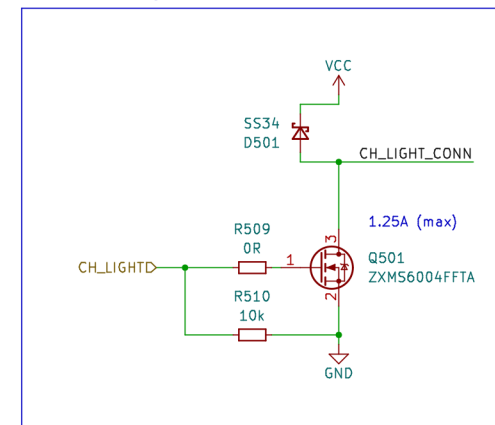


Pad channel sensor inputs



ESD Protection. Series resistors limit maximum short-circuit current.

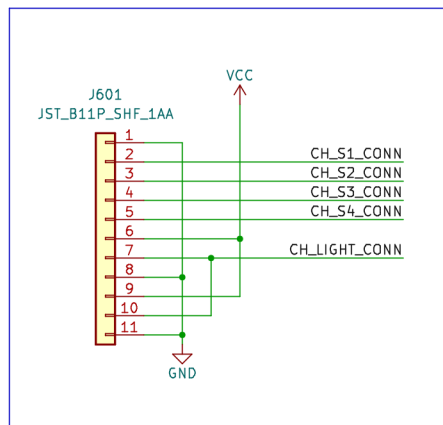
Pad channel light control



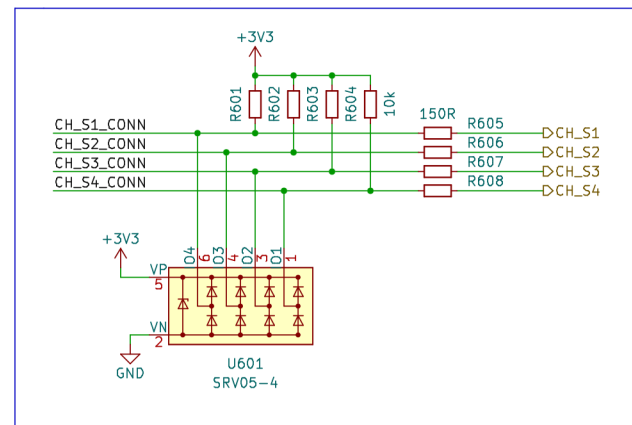
ZXMS6004 is self-protected mosfet with overcurrent, overvoltage and short circuit protection.

Pad Channel

Pad channel connector

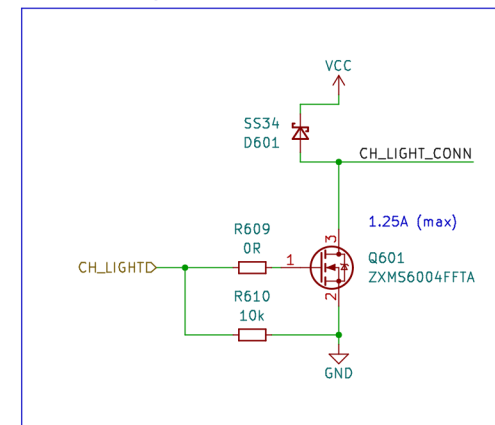


Pad channel sensor inputs



ESD Protection. Series resistors limit maximum short-circuit current.

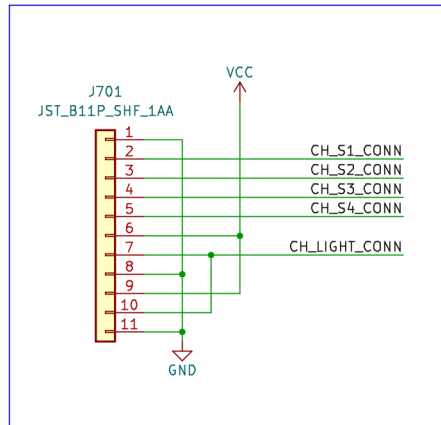
Pad channel light control



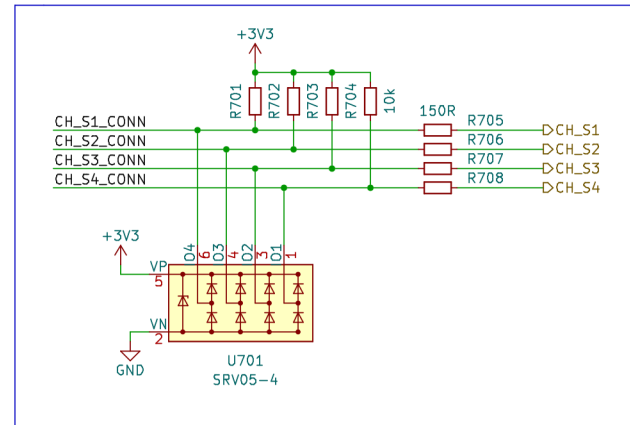
ZXMS6004 is self-protected mosfet with overcurrent, overvoltage and short circuit protection.

Pad Channel

Pad channel connector

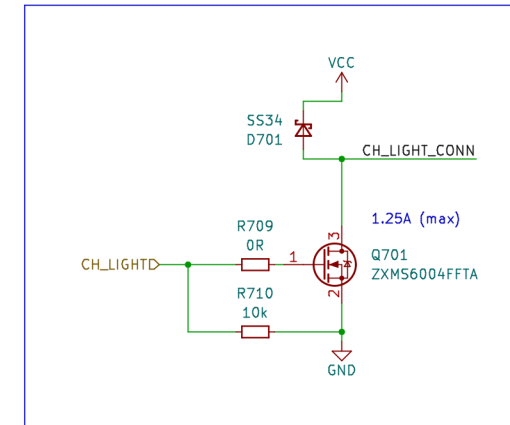


Pad channel sensor inputs



ESD Protection. Series resistors limit maximum short-circuit current.

Pad channel light control



ZXMS6004 is self-protected mosfet with overcurrent, overvoltage and short circuit protection.

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Sheet: /Pad Channel 3/
File: pad_channel.kicad_sch

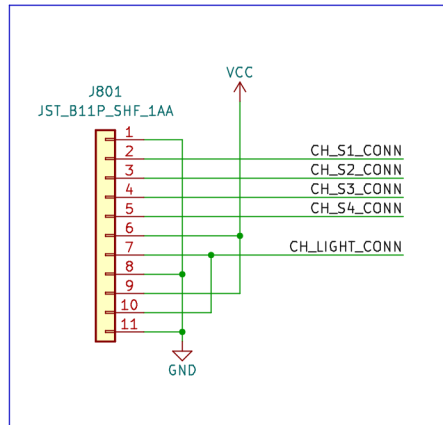
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Size: A4 Date: 2023-06-16
KiCad E.D.A. kicad 7.0.5-7.0.5-ubuntu22.04.1

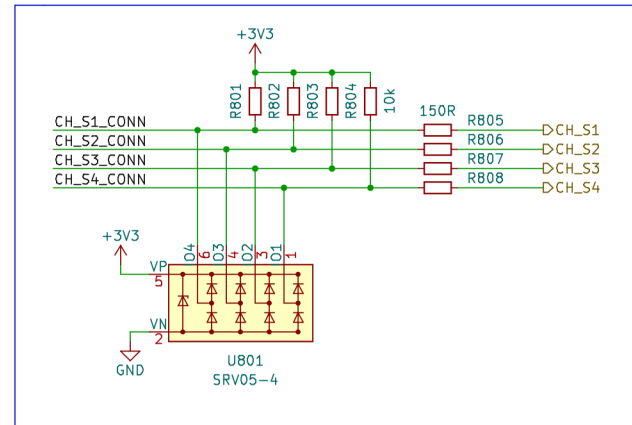
Rev: 1.1.0
Id: 7/9

Pad Channel

Pad channel connector

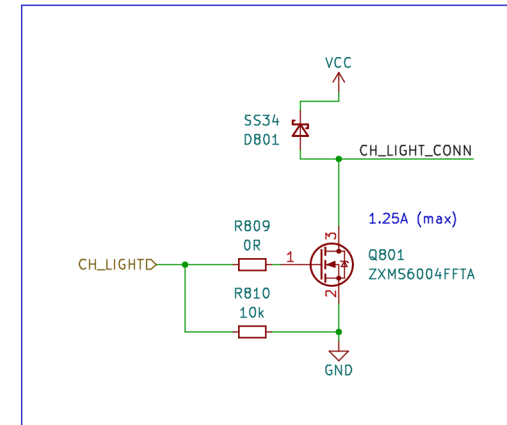


Pad channel sensor inputs



ESD Protection. Series resistors limit maximum short-circuit current.

Pad channel light control



ZXMS6004 is self-protected mosfet with overcurrent, overvoltage and short circuit protection.

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Sheet: /Pad Channel 4/
File: pad_channel.kicad_sch

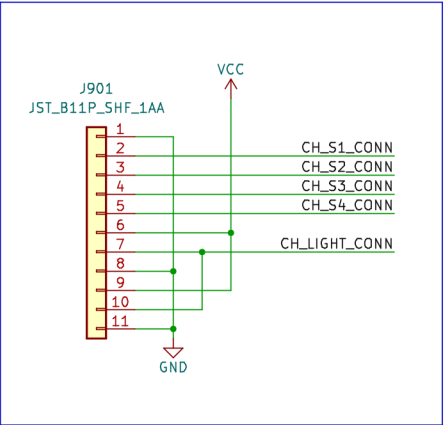
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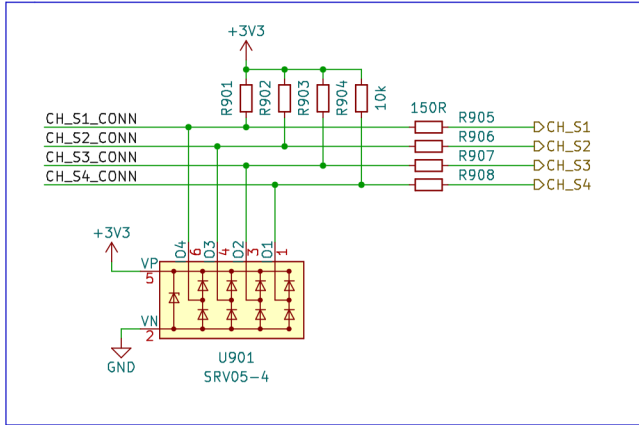
Rev: 1.1.0
Id: 8/9

Pad Channel

Pad channel connector

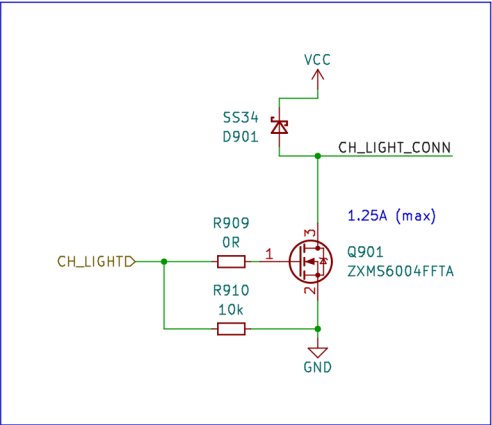


Pad channel sensor inputs



ESD Protection. Series resistors limit maximum short-circuit current.

Pad channel light control



ZXMS6004 is self-protected mosfet with overcurrent, overvoltage and short circuit protection.