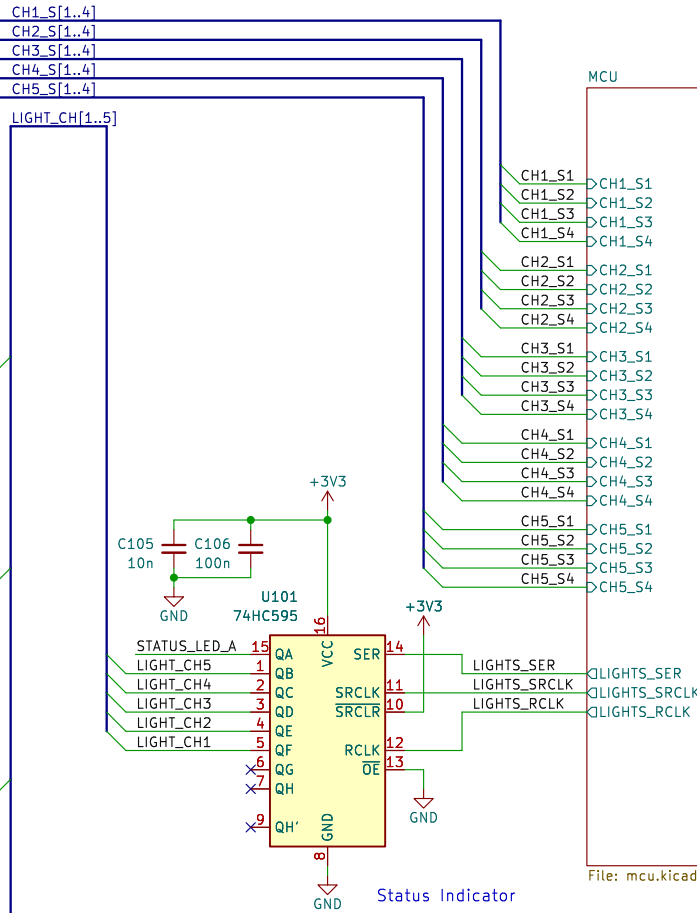
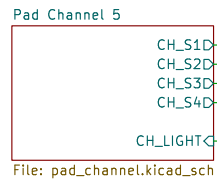
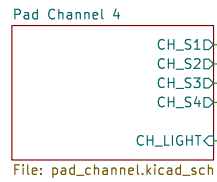
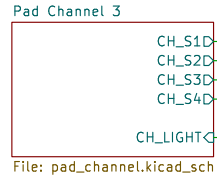
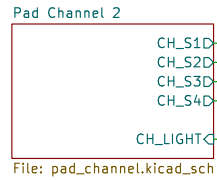
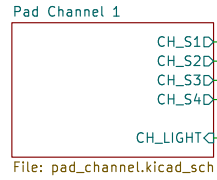
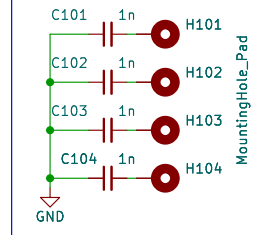


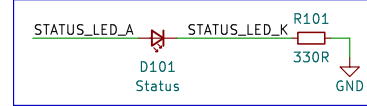
Root page



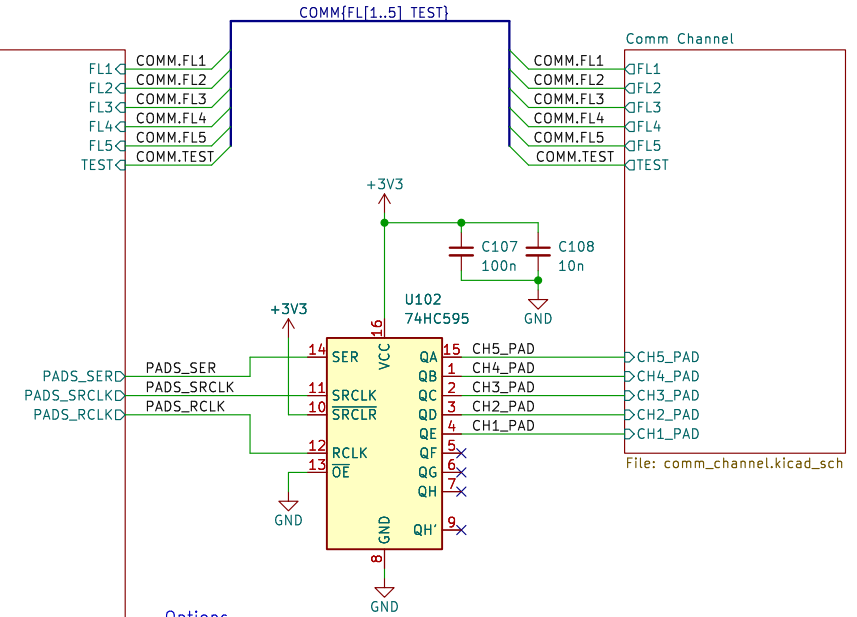
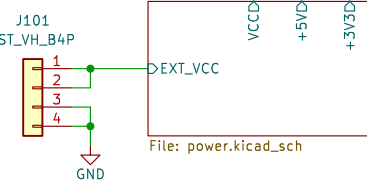
Mounting Holes



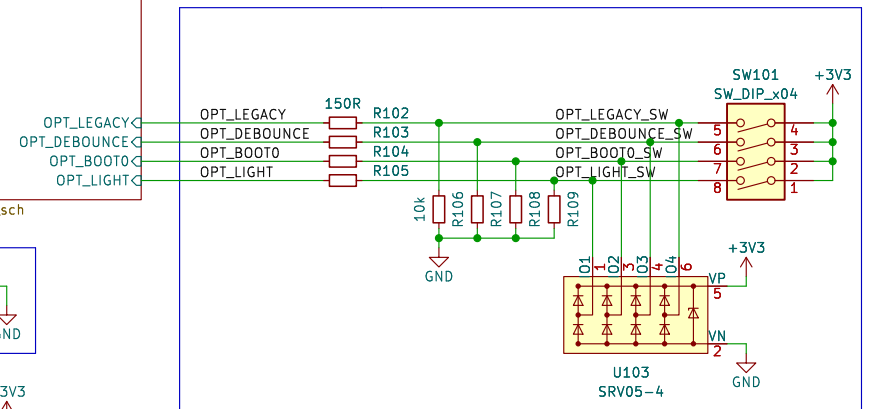
Status Indicator



Power



Options



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Sheet: /

File: bd845-pwb.kicad_sch

Title: BD845-PWB SCH

Size: A4

Date: 2023-06-14

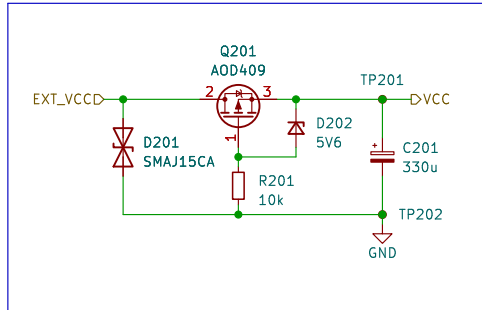
KiCad E.D.A. kicad 7.0.5

Rev: 1.1.0

Id: 1/9

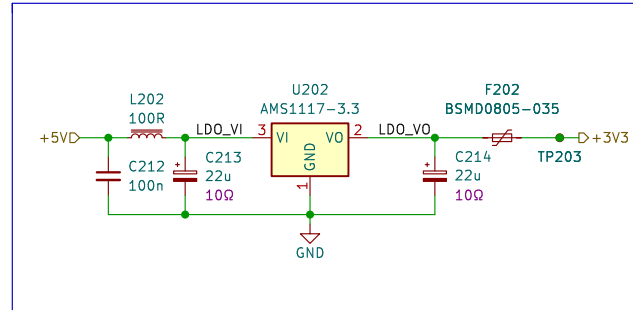
Power

VCC Supply



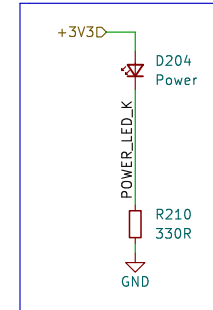
ESD Protection and reverse polarity protection.

+3V3 LDO linear regulator

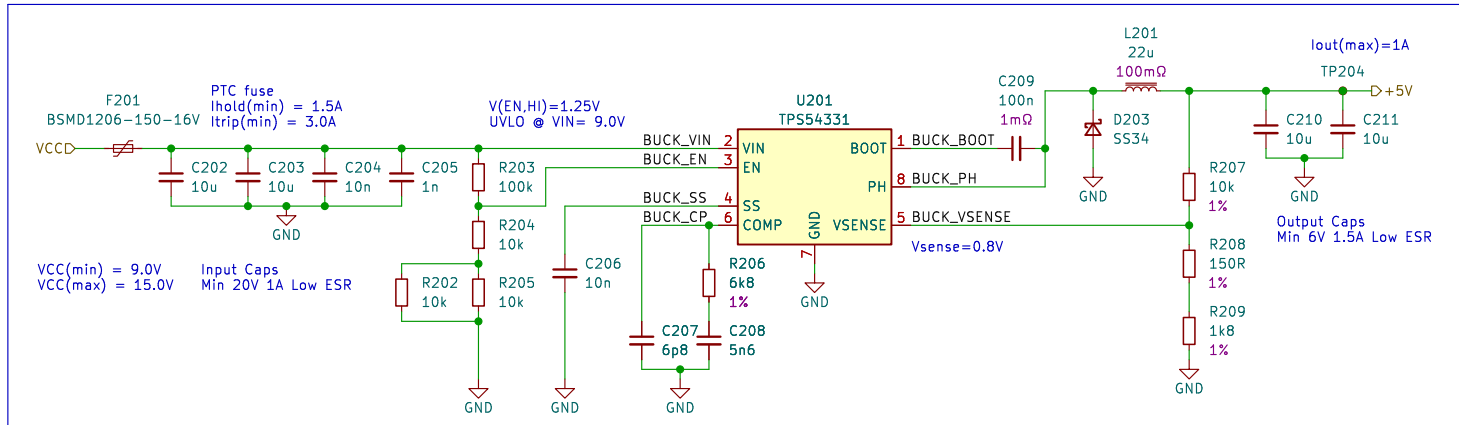


Use tantalum caps with $0.2\Omega < \text{ESR} < 22\Omega$.

Power Indicator



+5V Switching regulator



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Sheet: /Power/
File: power.kicad_sch

Title: BD845-PWB SCH

Size: A4 Date: 2023-06-14

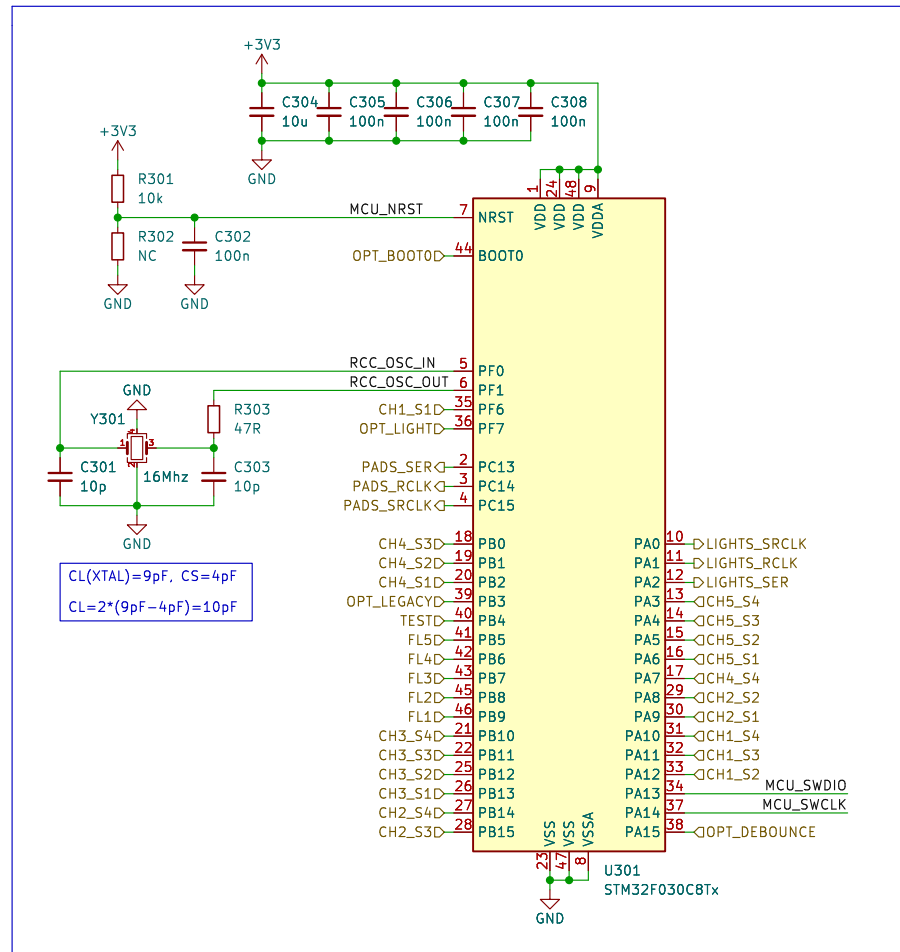
KiCad E.D.A. kicad 7.0.5

Rev: 1.1.0

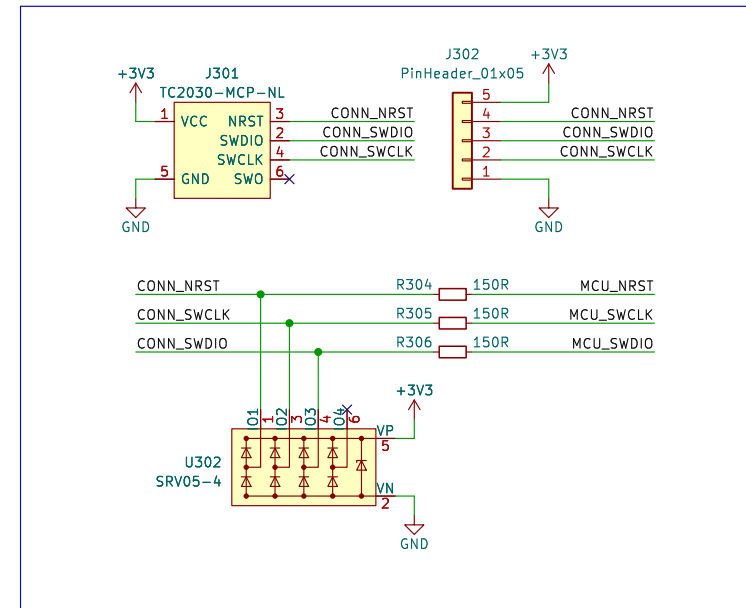
Id: 2/9

Microcontroller Unit

MCU



Debug Header SWD



SWD Tag-Connect TC2030-MCP-NL and redundant PinHeader_01x05. Series resistors limit maximum short-circuit current.

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Sheet: /MCU/

File: mcu.kicad_sch

Title: BD845-PWB SCH

Size: A4 Date: 2023-06-14

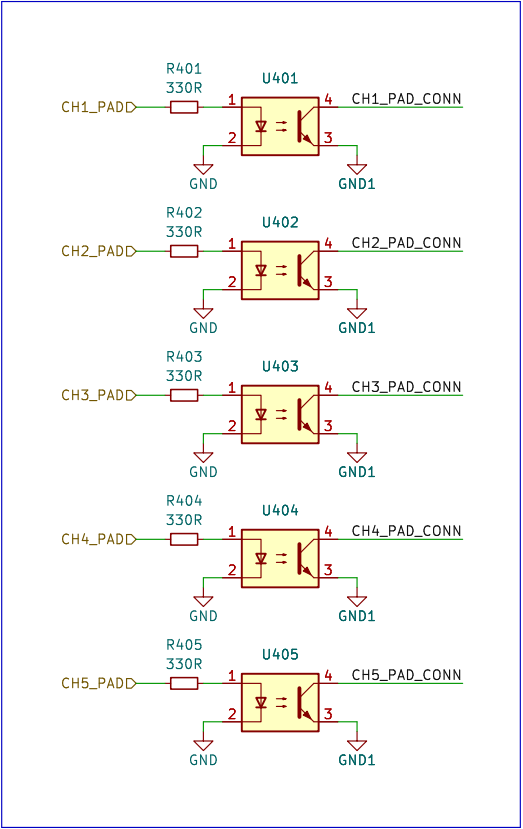
KiCad E.D.A. kicad 7.0.5

Rev: 1.1.0

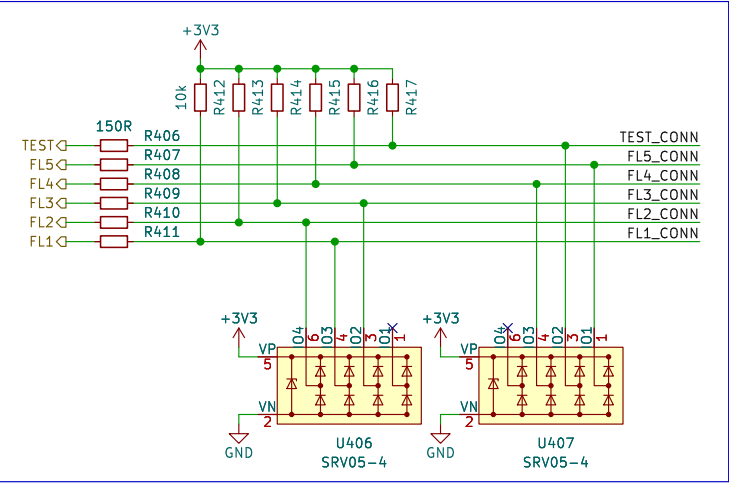
Id: 3/9

Communication channel

Channel output isolators

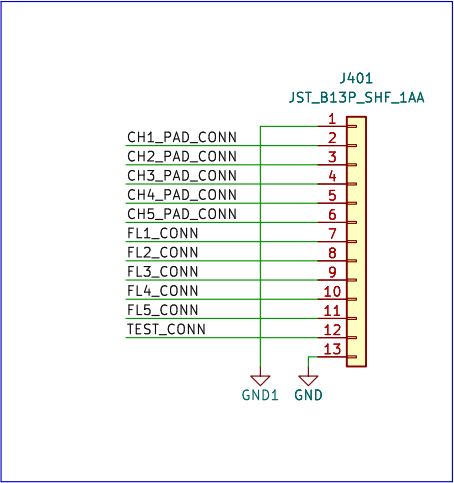


External lights control and TEST



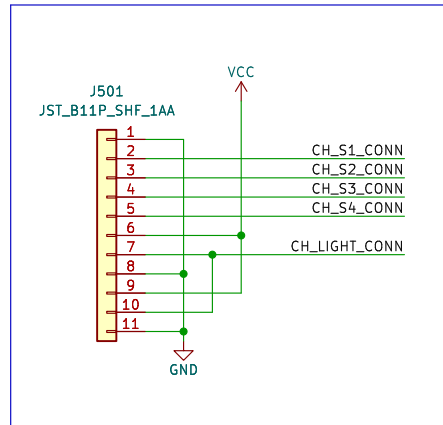
ESD protection. Series resistors limit maximum short-circuit current.

Communication connector

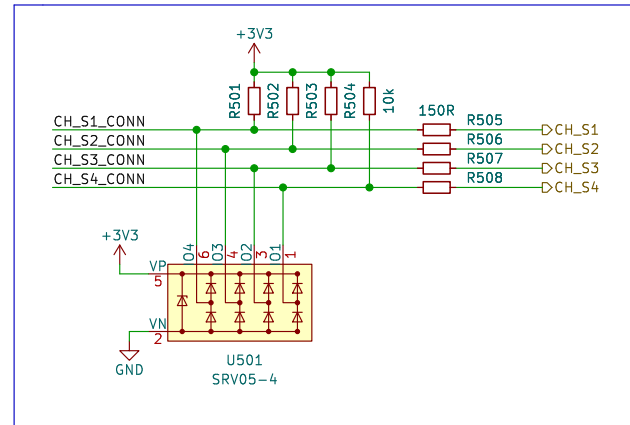


Pad Channel

Pad channel connector

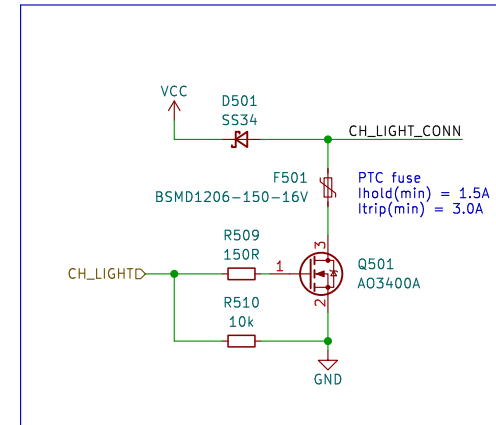


Pad channel sensor inputs



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

Pad channel light control



Resettable fuse on VCC prevents short circuit damage.

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Sheet: /Pad Channel 1/

File: pad_channel.kicad_sch

Title: **BD845-PWB SCH**

Size: A4 Date: 2023-06-14

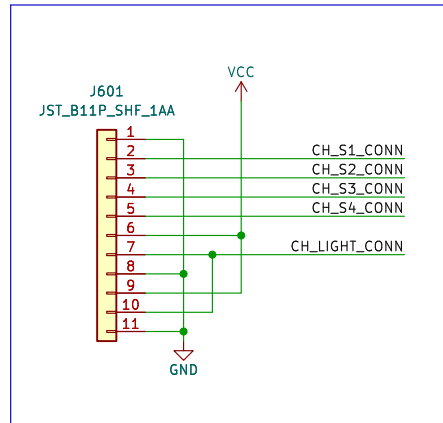
KiCad E.D.A. kicad 7.0.5

Rev: **1.1.0**

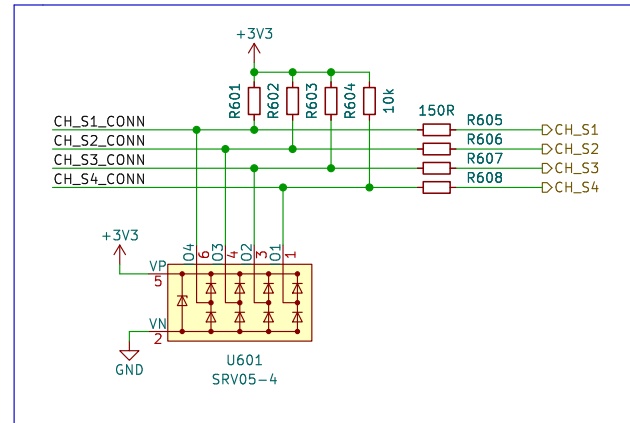
Id: 5/9

Pad Channel

Pad channel connector

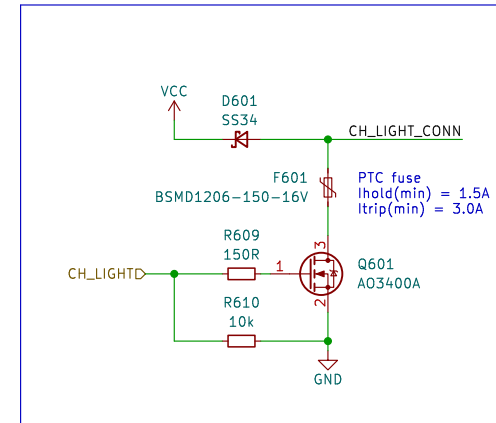


Pad channel sensor inputs



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

Pad channel light control



Resettable fuse on VCC prevents short circuit damage.

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Sheet: /Pad Channel 2/

File: pad_channel.kicad_sch

Title: BD845-PWB SCH

Size: A4 Date: 2023-06-14

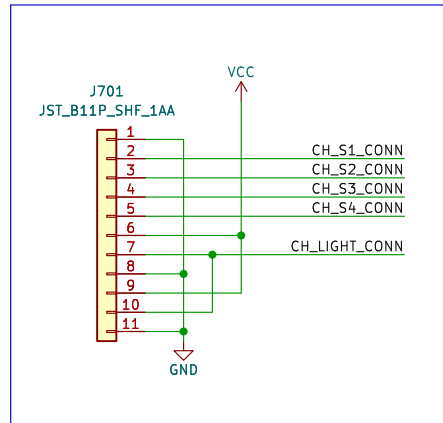
KiCad E.D.A. kicad 7.0.5

Rev: 1.1.0

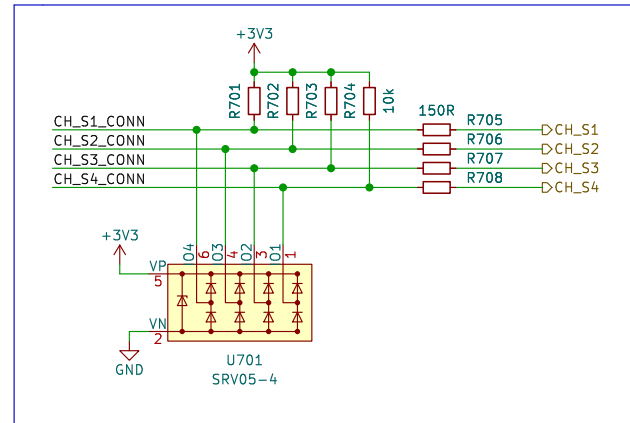
Id: 6/9

Pad Channel

Pad channel connector

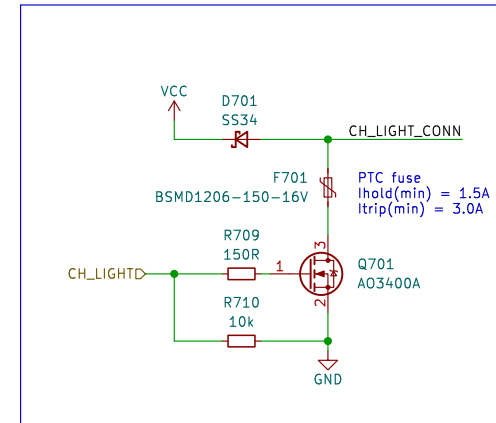


Pad channel sensor inputs



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

Pad channel light control



Resettable fuse on VCC prevents short circuit damage.

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Sheet: /Pad Channel 3/

File: pad_channel.kicad_sch

Title: BD845-PWB SCH

Size: A4 Date: 2023-06-14

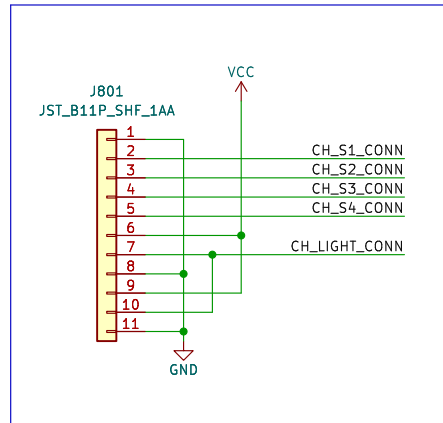
KiCad E.D.A. kicad 7.0.5

Rev: 1.1.0

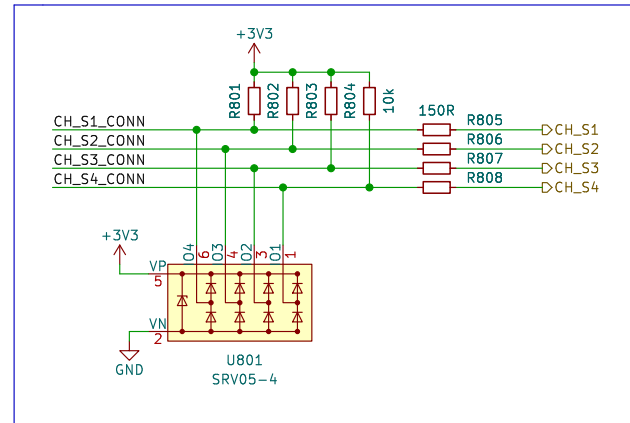
Id: 7/9

Pad Channel

Pad channel connector

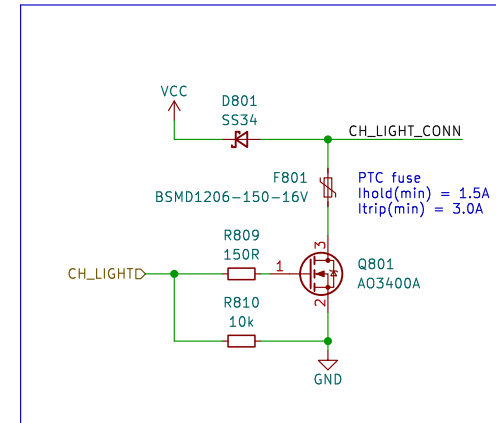


Pad channel sensor inputs



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

Pad channel light control



Resettable fuse on VCC prevents short circuit damage.

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Sheet: /Pad Channel 4/

File: pad_channel.kicad_sch

Title: BD845-PWB SCH

Size: A4 Date: 2023-06-14

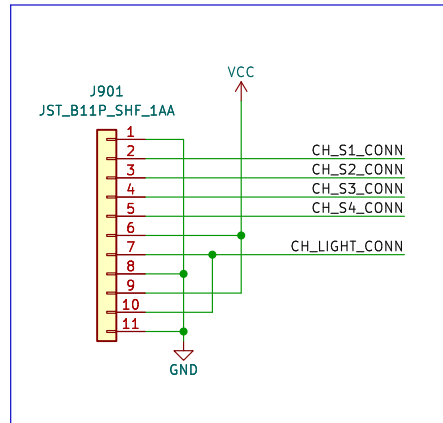
KiCad E.D.A. kicad 7.0.5

Rev: 1.1.0

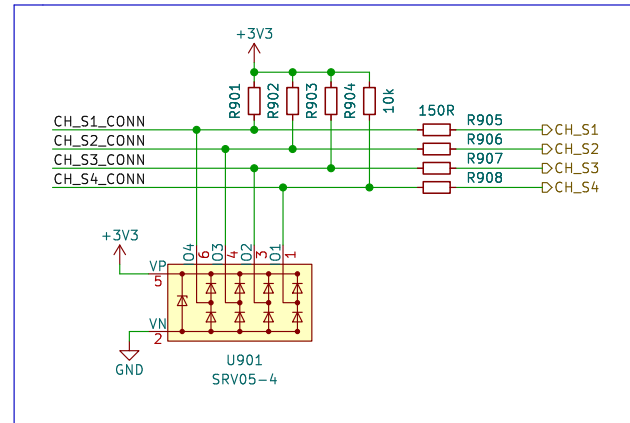
Id: 8/9

Pad Channel

Pad channel connector

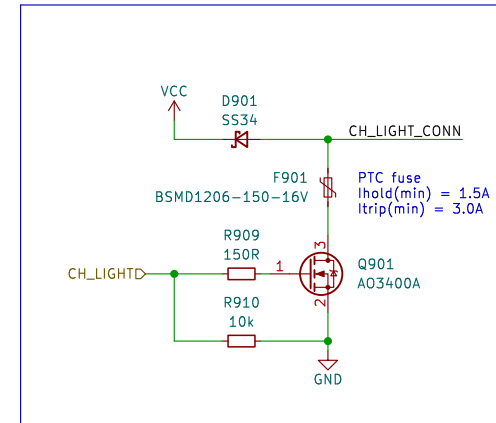


Pad channel sensor inputs



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

Pad channel light control



Resettable fuse on VCC prevents short circuit damage.

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BlueDot Arcade, Vincenzo Fortunato

Sheet: /Pad Channel 5/

File: pad_channel.kicad_sch

Title: BD845-PWB SCH

Size: A4 Date: 2023-06-14

KiCad E.D.A. kicad 7.0.5

Rev: 1.1.0

Id: 9/9