

The schematic diagram illustrates the electrical connections for the SDI_in board, centered around the AXIOM-photonSDI-hw component (U201).

Power and Ground Connections:

- VCC_SDI:** Connected to +1V8 through a ferrite bead (L201) and a capacitor (C206, 10uF). A PWR_FLAG pin is also connected to this line.
- VDD_SDI:** Connected to +1V8 through a ferrite bead (L202) and a series of capacitors (C209, 10uF; C210, 100nF; C211, 100nF; C212, 100nF; C213, 100nF; C214, 100nF). A PWR_FLAG pin is also connected to this line.
- Other Power Pins:** VCC_CORE, VDD, VCC01PB_0, VCC01PB_1, VCC0_0, and VCC0_1 are connected to +1V8. VSS, VEE_SDI, VEE_CORE, and VEE0 are connected to GND.

Signal Connections:

- SDI:** The SDI pin (2) is connected to the SDI_IND signal through a capacitor (C201, 4u7). The TERM_SDI pin (3) is connected to GND through a resistor (R201, 2R). The VCO_FILT pin (30) is connected to GND through a capacitor (C204, 10uF). The VCO_FILT pin (34) is connected to GND through a capacitor (C205, 10uF).
- Control Signals:** CS (10), SCLK (13), SDIN (11), and SDOUT (12) are connected to their respective signals.
- GPIOs:** GPIO0 (17) and GPIO1 (18) are connected to the GPIO[0..1] signal. GPIO2 (53) and GPIO3 (56) are marked with an 'X', indicating they are not connected.
- Other Signals:** DD00 (27, 26), DD01/RC0 (23, 22), and LF+ (39) are connected to their respective signals. LF- (40) is connected to GND through a capacitor (C203, 470nF).

Component Values and Notes:

- Capacitors: C201 (4u7), C202 (4u7), C203 (470nF), C204 (10uF), C205 (10uF), C206 (10uF), C207 (10uF), C208 (1uF), C209 (10uF), C210 (100nF), C211 (100nF), C212 (100nF), C213 (100nF), C214 (100nF).
- Resistor: R201 (2R).
- Ferrite Beads: L201, L202.
- AXIOM-photonSDI-hw (U201) is a yellow component with pins 1 through 56.
- GS12241 is a component connected to the LF+ pin.
- A note indicates: "TODO: check sdi termination resistor value".

Metadata:

- Sheet: /SDI_in/
- File: SDI_in.sch
- Title: AXIOM-photonSDI-hw
- Size: A4
- Date:
- KiCad E.D.A. eeschema (5.0.0-rc3-dev-2-g101b68b)
- Rev:
- Id: 2/11

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Signal Connections:

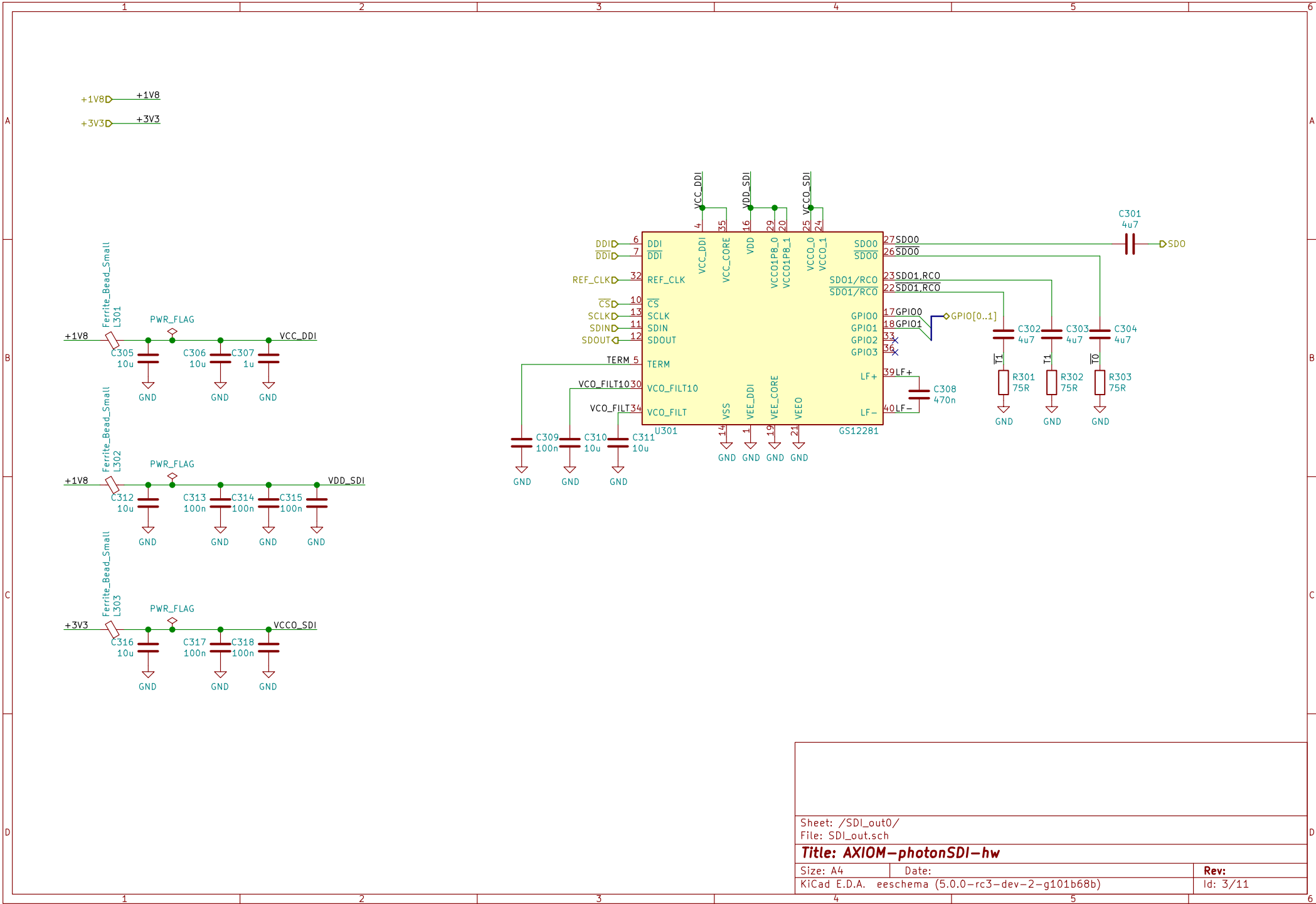
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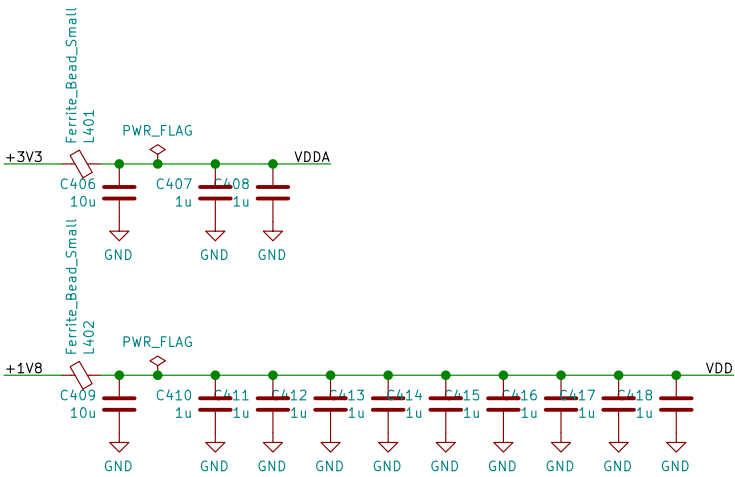
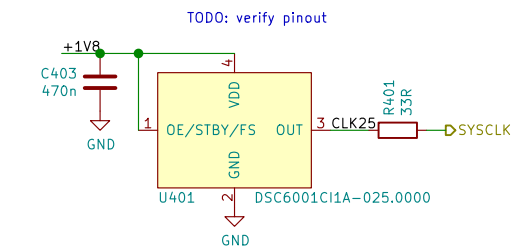
Component Values and Notes:

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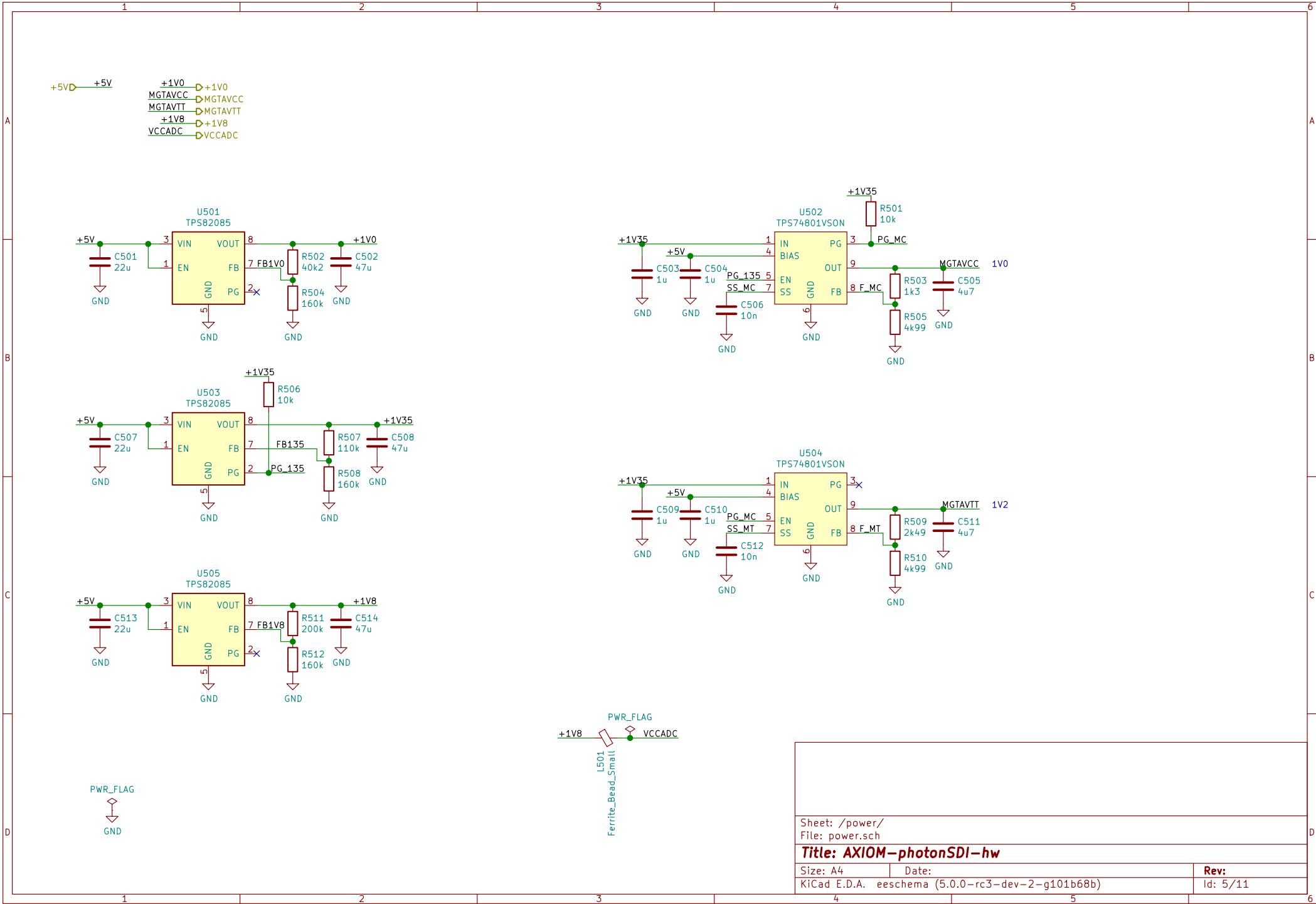
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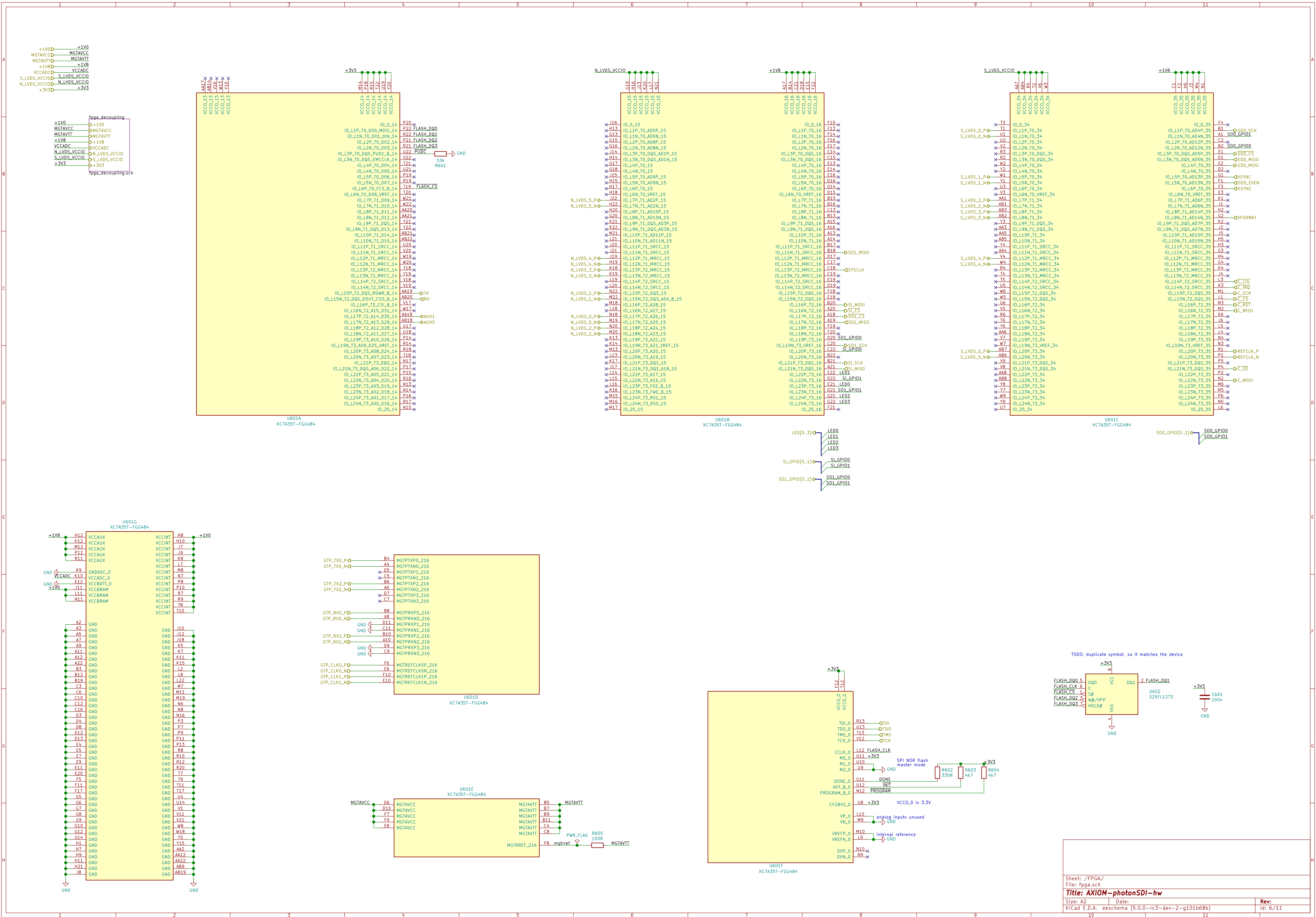
- Sheet: /SDI_in/
- File: SDI_in.sch
- Title: AXIOM-photonSDI-hw
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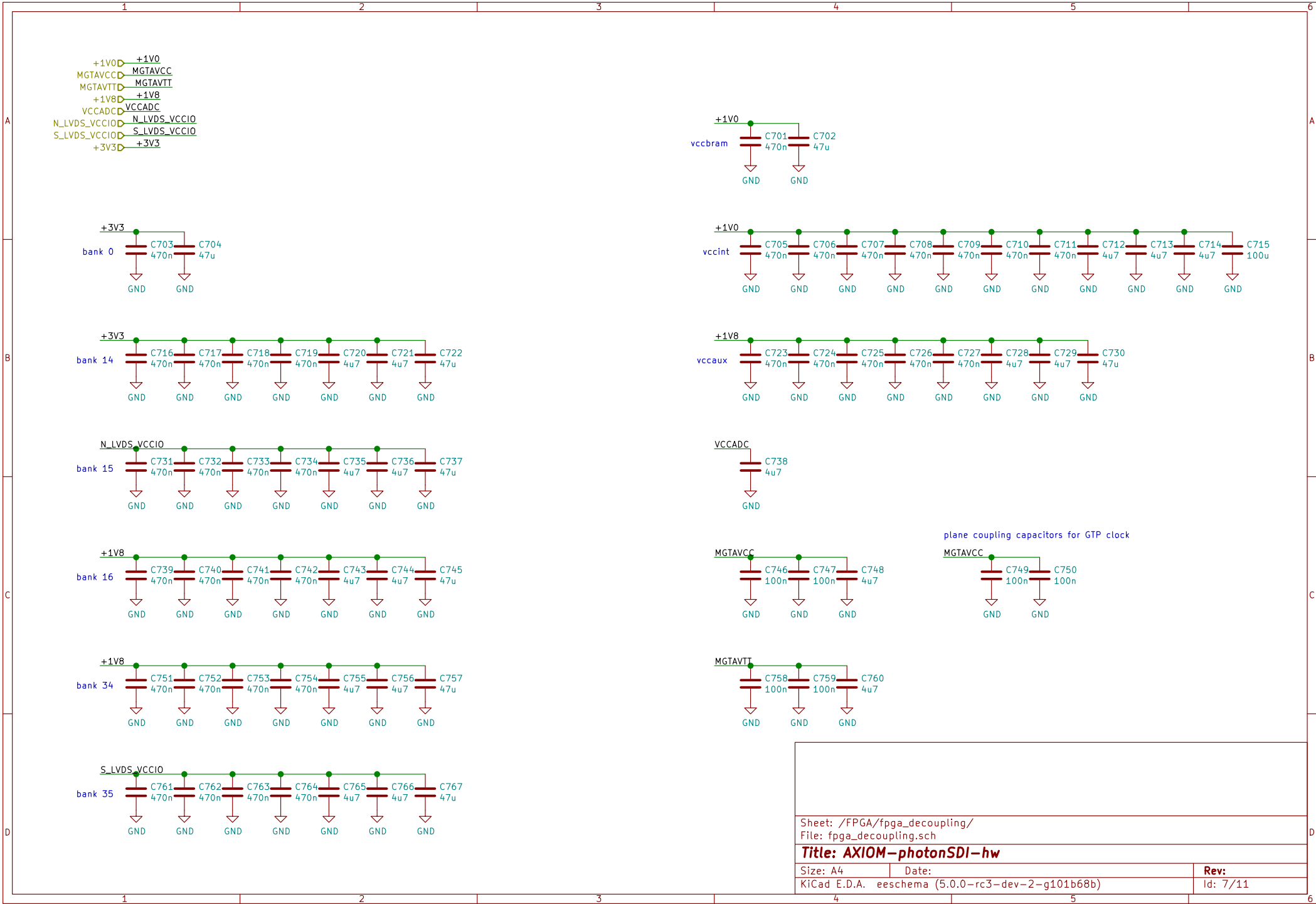


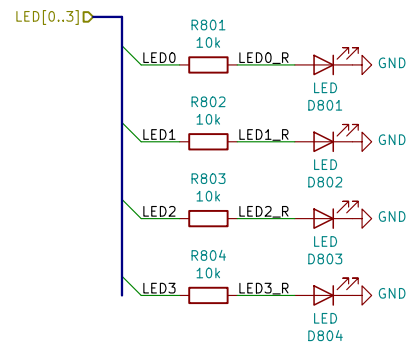


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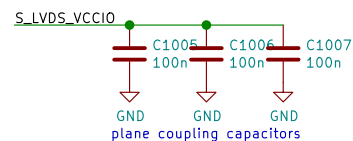
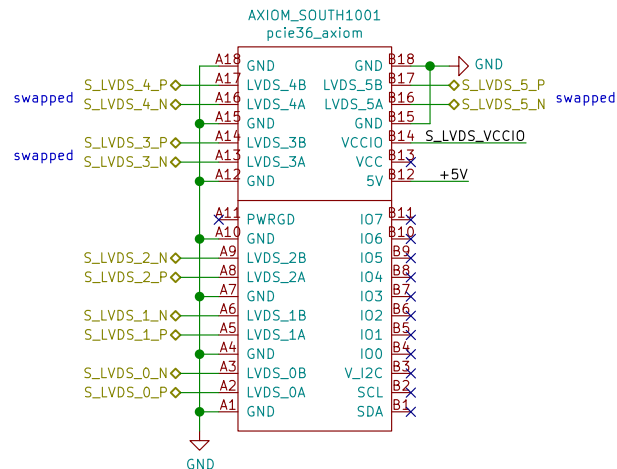
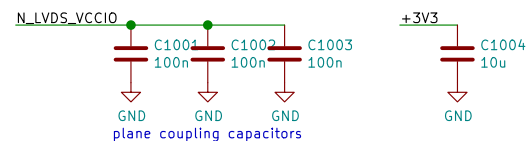
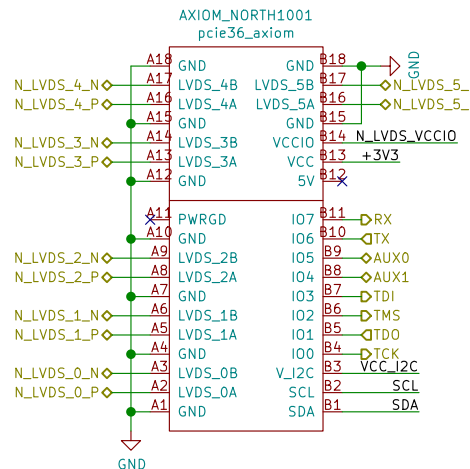
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Size: A4	Date:	Rev:
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+5V → +5V
+3V3 → +3V3
N_LVDS_VCCIO → N_LVDS_VCCIO
S_LVDS_VCCIO → S_LVDS_VCCIO

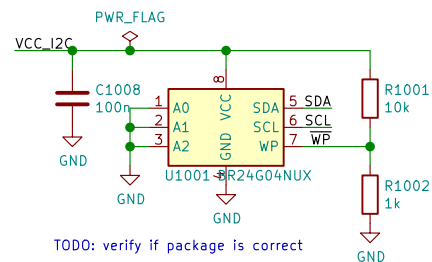
single ended IO voltage; also used for all 3.3V rails

3.3V rail must not be powered when 5V rail isn't

don't connect the power from the two slots together



+5V → PWR_FLAG
+3V3 → PWR_FLAG
N_LVDS_VCCIO → PWR_FLAG
S_LVDS_VCCIO → PWR_FLAG



Sheet: /AXIOM_connector/ File: AXIOM_connector.sch		
Title: AXIOM-photonSDI-hw		
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