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# NANORACK LASER

## Schematic V1.3.0

## History

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VERSION	DISCRIPTION
1.0.0	INITIAL PROJECT
1.1.0	REPLACE SWITCHING OBJECT
1.2.0	ADD HOLES (CENTER OF SIDES)
1.2.1	CHANGE ADG1414 CATEGORY
1.3.0	CHANGE TO HIGHSIDE CURRENT SOURCE



Project: <b>BEE-PC1</b>	Sub-system: <b>NANORACK_LASER.PrjPcb</b>	
Design by: <b>Hung Nguyen D.</b>	Sheet title: <b>INDEX.SchDoc</b>	Sheet <b>1</b> of <b>6</b>
Checked by: <b>Bao Bui Q.</b>	Document No: <b>1</b>	Size: <b>A3</b>
Approved by: <b>Vu Pham</b>	Revision: <b>V1.3.0</b>	Date: <b>6/22/2025</b>

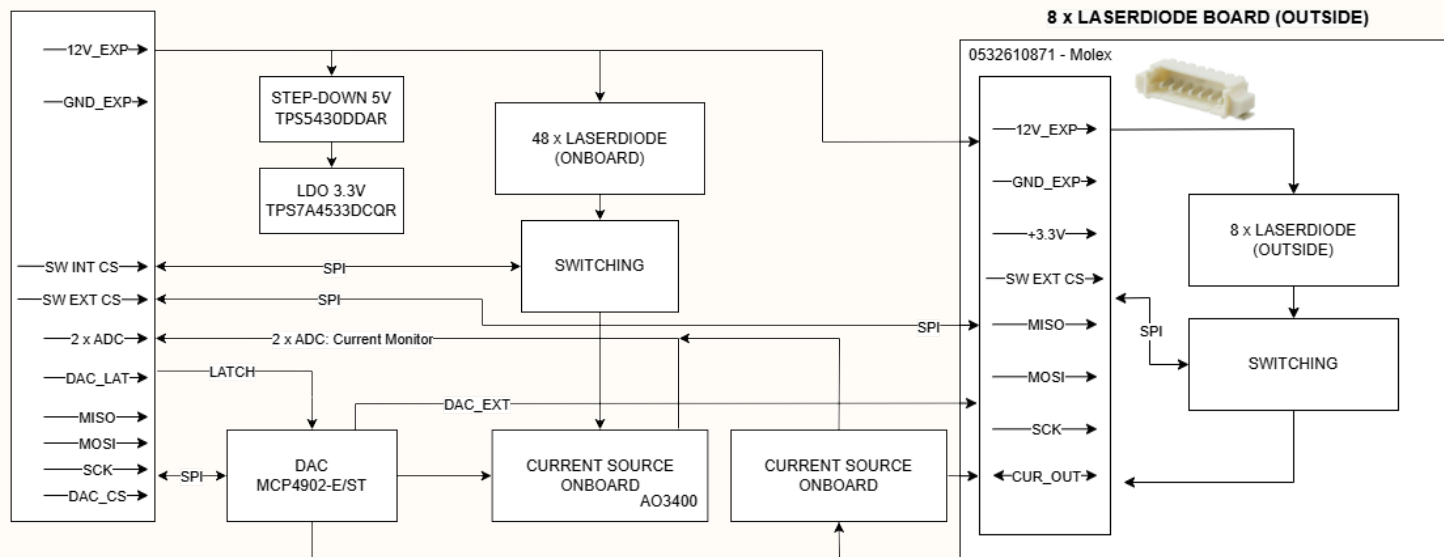
2x7 PIN  
CONNECTOR  
board to board

+12V_EXP	+12V_EXP
GND_EXP	+12V_EXP
GND_EXP	SPI_MISO
SPI_SCK	SPI_MOSI
DAC_CS	SW_INT_CS
DAC_LATCH	SW_EXT_CS
ADC_1	ADC_2

77313-101-14LF - Amphenol ICC (FCI)

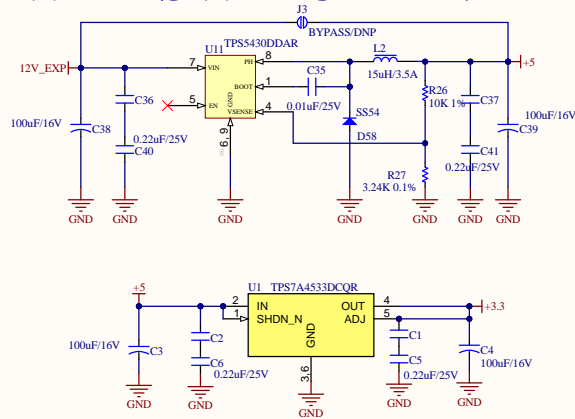


## LASERDIODE

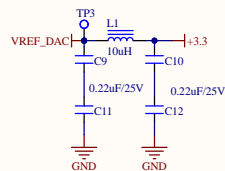


Project: <b>BEE-PC1</b>	Sub-system: <b>NANORACK_LASER.PrjPcb</b>	
Design by: <b>Hung Nguyen D.</b>	Sheet title: <b>BLOCK_DIAGRAM.SchDoc</b>	Sheet <b>2</b> of <b>6</b>
Checked by: <b>Bao Bui Q.</b>	Document No: <b>2</b>	Size: <b>A3</b>
Approved by: <b>Vu Pham</b>	Revision: <b>V1.3.0</b>	Date: <b>6/22/2025</b>

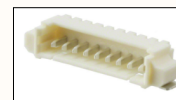
## POWER SWITCH AND LDO



Project: <b>BEE-PC1</b>	Sub-system: <b>NANORACK_LASER.PrjPcb</b>	
Design by: <b>Hung Nguyen D.</b>	Sheet title: <b>POWER SWITCH AND LDO.SchDoc</b>	Sheet <b>3</b> of <b>6</b>
Checked by: <b>Bao Bui Q.</b>	Document No: <b>3</b>	Size: <b>A3</b>
Approved by: <b>Vu Pham</b>	Revision: <b>V1.3.0</b>	Date: <b>6/22/2025</b>



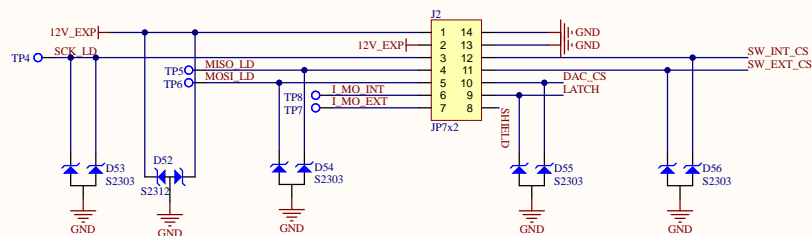
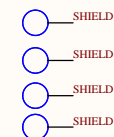
- ELECTRICAL:
  - CURRENT RATING: 1A/CONTACT
  - VOLTAGE RATING: 125V/CONTACT
- ENVIRONMENTAL:
  - TEMPERATURE RANGE: -40°C TO +105°C
- PHYSICAL:
  - PITCH-MATING: 0.049" (1.25mm)
- WIRE:
  - WIRE SIZE: 24 AWG
  - MAX CURRENT: 1A per Wire
  - ISULATION MATERIAL: PTFE
- MATING:
  - Molex - 0510210800



- MATING -



0510210800



- ELECTRICAL:
  - CURRENT RATING: 3A/CONTACT
  - VOLTAGE RATING: 1500VAC/CONTACT
- ENVIRONMENTAL:
  - TEMPERATURE RANGE: -65°C TO +130°C
- PHYSICAL:
  - PITCH-MATING: 0.1" (2.54mm)
- MATING:
  - MAX CURRENT: 5.7A/CONTACT

Samtec Inc. - ESO-107-37-G-D



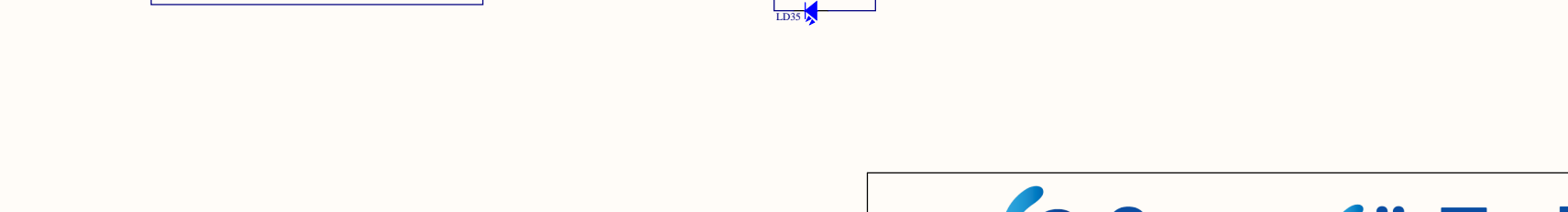
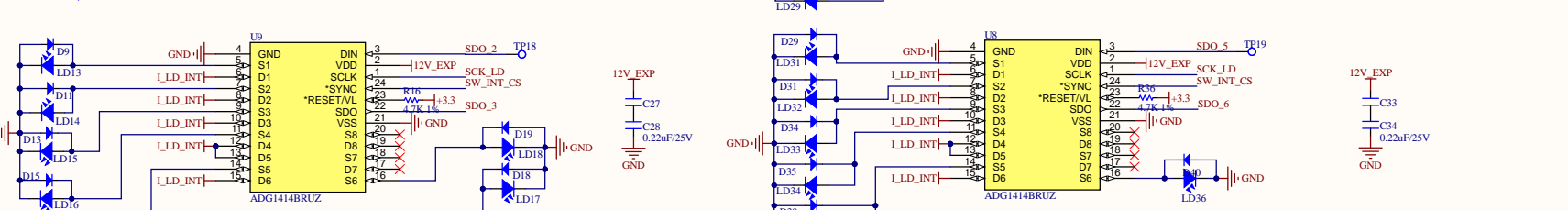
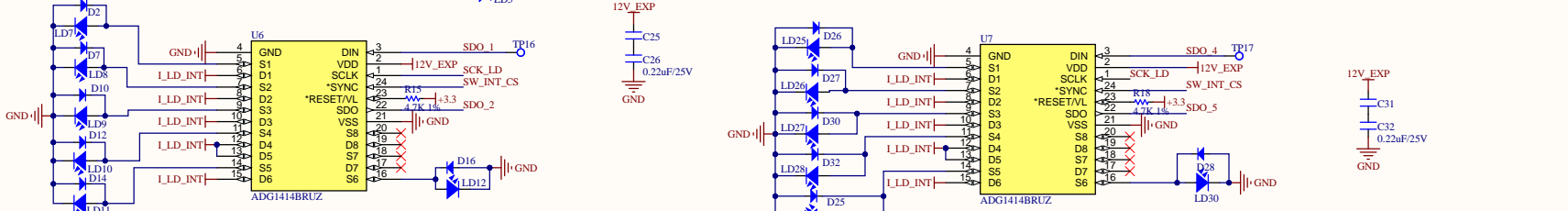
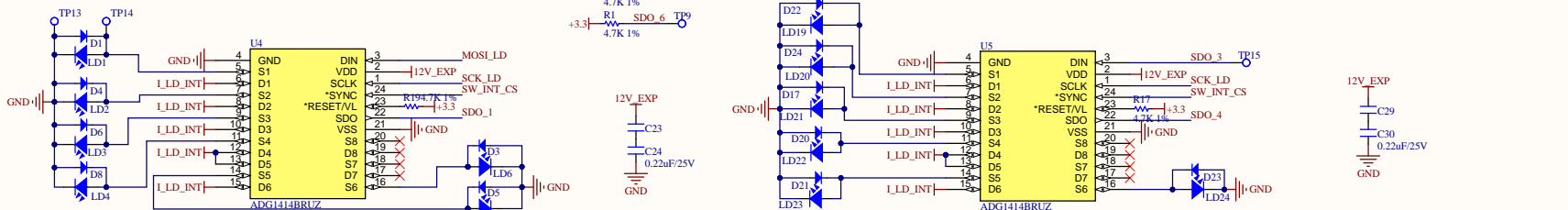
Sub-system: NANORACK\_LASER.PrjPcb

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Size: A3

Date: 6/22/2025





Project: BEE-PC1	Sub-system: NANORACK_LASER.PrjPcb	
Design by: Hung Nguyen D.	Sheet title: SWITCHING.SchDoc	Sheet 6 of 6
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