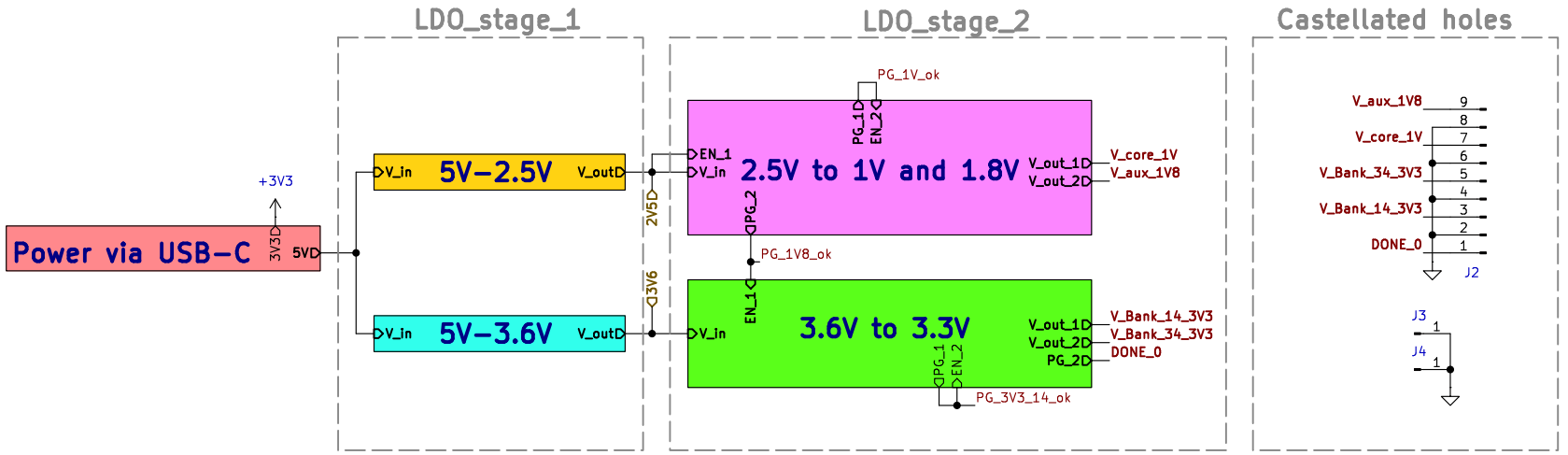
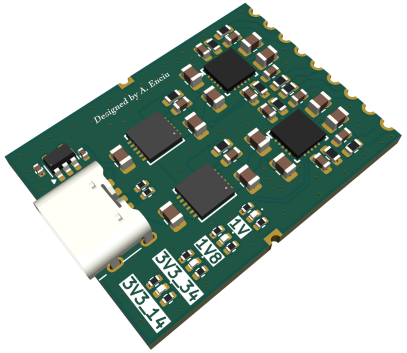
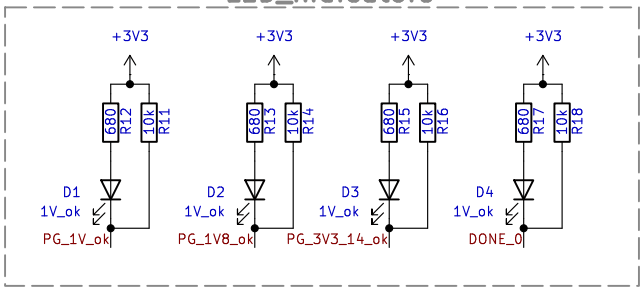
Note: FPGA Power sequence: V_core_1V -> V_aux_1V8 -> V_bank_3V3
Power regulation via LDOs cascade







Project: HYDRA TPC & Fiber Tracker	TECHNISCHE UNIVERSITÄT DARMSTADT
Author: Dr. Alexandru Enciu	
Institution: Technische Universität Darmstadt	
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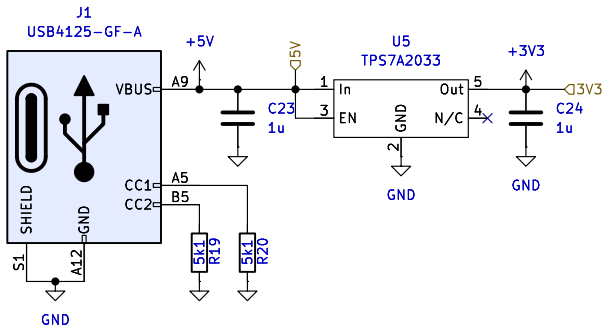
Title: PSU Stamp for Spartan7-FTGB196	
Size: A4 | Date: 2025-07-14	**Rev: 0**
KiCad E.D.A. 9.0.3	Id: 1/6



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Sheet: /Power via USB-C/
File: USB_C_Power.kicad_sch

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Size: A4	Date:	**Rev:**
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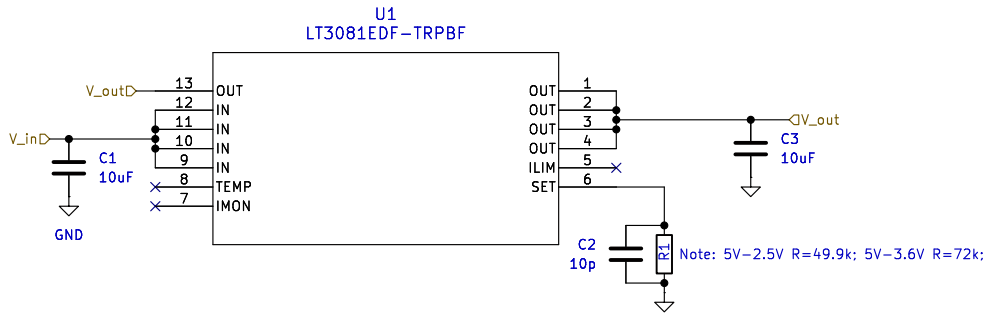

Project: HYDRA TPC & Fiber Tracker Author: Dr. Alexandru Enciu **Institution: Technische Universität Darmstadt**	TECHNISCHE UNIVERSITÄT DARMSTADT	
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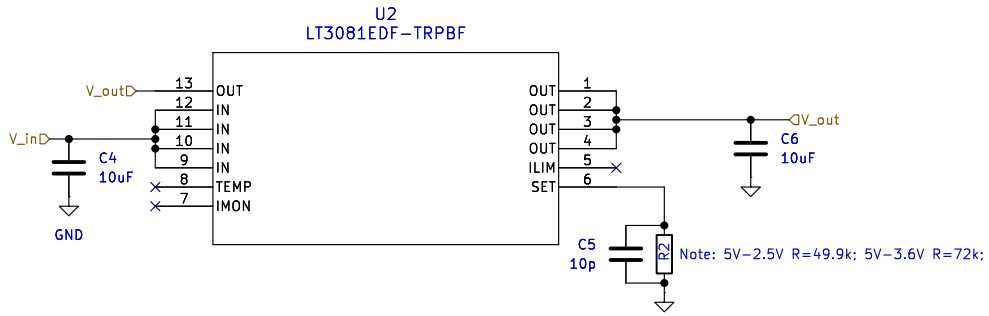
Size: A4	Date:	**Rev:**
KiCad E.D.A. 9.0.3		Id: 2/6



Project: HYDRA TPC & Fiber Tracker Author: Dr. Alexandru Enciu **Institution: Technische Universität Darmstadt**	TECHNISCHE UNIVERSITÄT DARMSTADT	
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KiCad E.D.A. 9.0.3		Id: 3/6

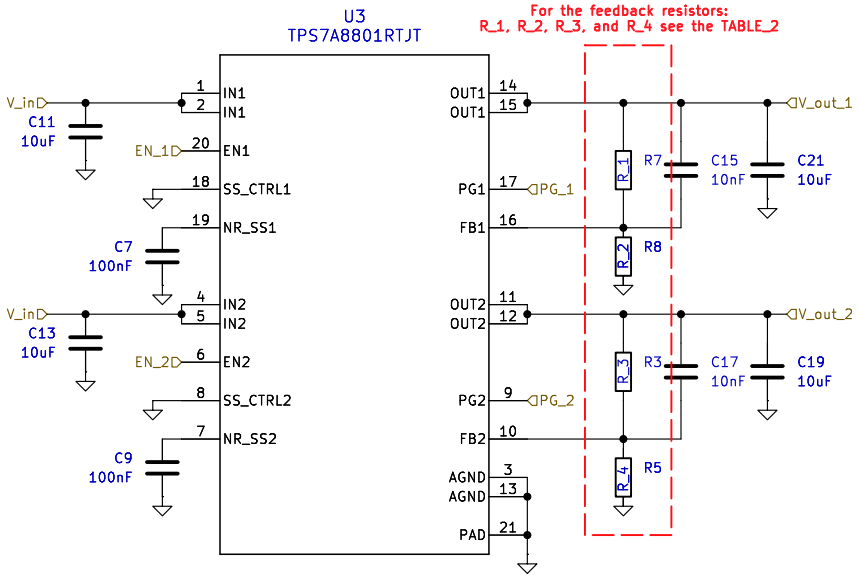

Table 2. Recommended Feedback-Resistor Values

$V_{OUTx(TARGET)}$ (V)	FEEDBACK RESISTOR VALUES(1)	
	R_1, R_3 (kΩ)	R_2, R_4 (kΩ)
0.8	Short	Open
1.00	2.55	10.2
1.20	5.9	11.8
1.50	9.31	10.7
1.80	1.87	1.5
1.90	15.8	11.5
2.50	2.43	1.15
3.00	3.16	1.15
3.30	3.57	1.15
5.00	10.5	2

(1) R_1, R_3 are connected from OUTx to FBx; R_2, R_4 are connected from FBx to GND; see Figure 42.

Project: HYDRA TPC & Fiber Tracker
Author: Dr. Alexandru Enciu
Institution: Technische Universität Darmstadt
Sheet: /2.5V to 1V and 1.8V/
File: TPS7A8801RTJT.kicad_sch

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Size: A4	Date:	**Rev:**
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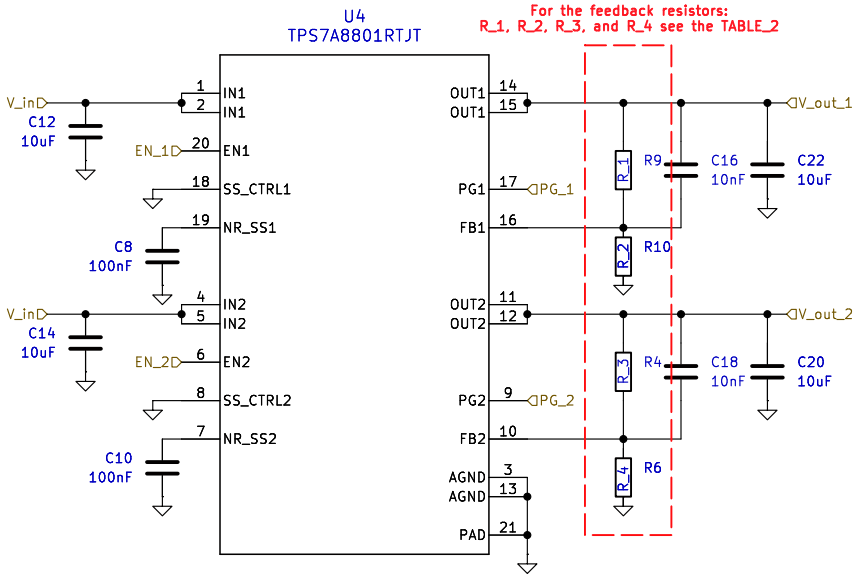

Table 2. Recommended Feedback-Resistor Values

$V_{OUTx(TARGET)}$ (V)	FEEDBACK RESISTOR VALUES(1)	
	R_1, R_3 (kΩ)	R_2, R_4 (kΩ)
0.8	Short	Open
1.00	2.55	10.2
1.20	5.9	11.8
1.50	9.31	10.7
1.80	1.87	1.5
1.90	15.8	11.5
2.50	2.43	1.15
3.00	3.16	1.15
3.30	3.57	1.15
5.00	10.5	2

(1) R_1, R_3 are connected from OUTx to FBx; R_2, R_4 are connected from FBx to GND; see Figure 42.

Project: HYDRA TPC & Fiber Tracker
Author: Dr. Alexandru Enciu
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