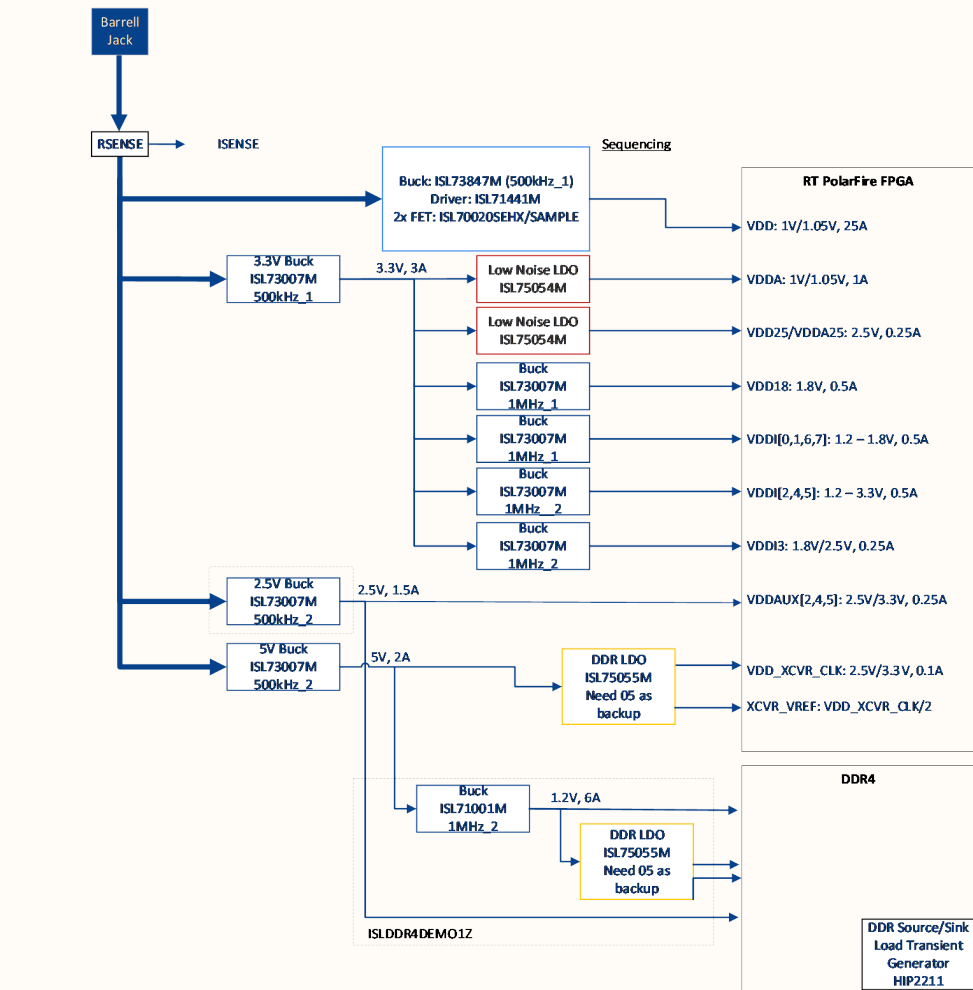
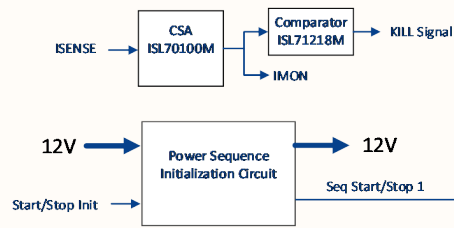


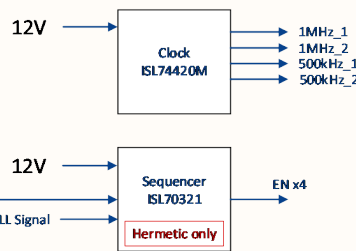
12V +/-10%



Input Protection and Current Monitor



Clock fanout and sequencer



Power Summary

Summary	
Total Power (W)	27.416
→ Device Static (W)	9.476
→ Core Dynamic (W)	14.219
→ I/O (W)	1.906
→ Transceiver (W)	1.815
Junction Temperature Tj (°C)	124.20
Effective Theta JA (°CW)	3.33
Thermal Margin	Maximum Ta (°C)
	Maximum Power (W)

Power Breakdown		
Resource	%	Power (W)
Core Static	35%	9.464
Other Rail Static	0%	0.013
Core Dynamic	Clock	9%
	Logic	23%
	Math Block	16%
	RAMs	4%
	PLL	0%
	DLL	0%
	Crypto	0%
I/O	Switching	5%
	DC	2%
Transceiver		7%
MSS & MDDR		0%

Modes and Scenarios

Low Power Mode Scenario			
Mode	% Time in Mode	Power in Mode (W)	Power in scenario (W)
Active	100.00%	27.416	27.416
Static	0.00%	10.062	0.000
		Scenario Power	27.416

Power by Rails

Rail Breakdown			
Rail Name	Current (A)	Voltage (V)	Power (W)
VDD	23.402	1.050	24.572
VDD18	0.202	1.800	0.364
VDDAUX	0.069	3.300	0.226
VDDI 1.1	0.000	1.100	0.000
VDDI 1.2	0.199	1.200	0.239
VDDI 1.35	0.003	1.350	0.004
VDDI 1.5	0.008	1.500	0.013
VDDI 1.8	0.017	1.800	0.030
VDDI 2.5	0.000	2.500	0.000
VDDI 3.3	0.147	3.300	0.486
XCVR_VDD_CLK	0.013	3.300	0.042
VDD25	0.018	2.500	0.045
VDDA	0.922	1.050	0.968
VDDA25	0.171	2.500	0.428

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Version:
Release Date: --/--
File: ISLRTPFDEMO1Z_BD.SchDoc

Document Revision: B
Sheet 1 of 20

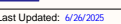
RENESAS

www.renesas.com

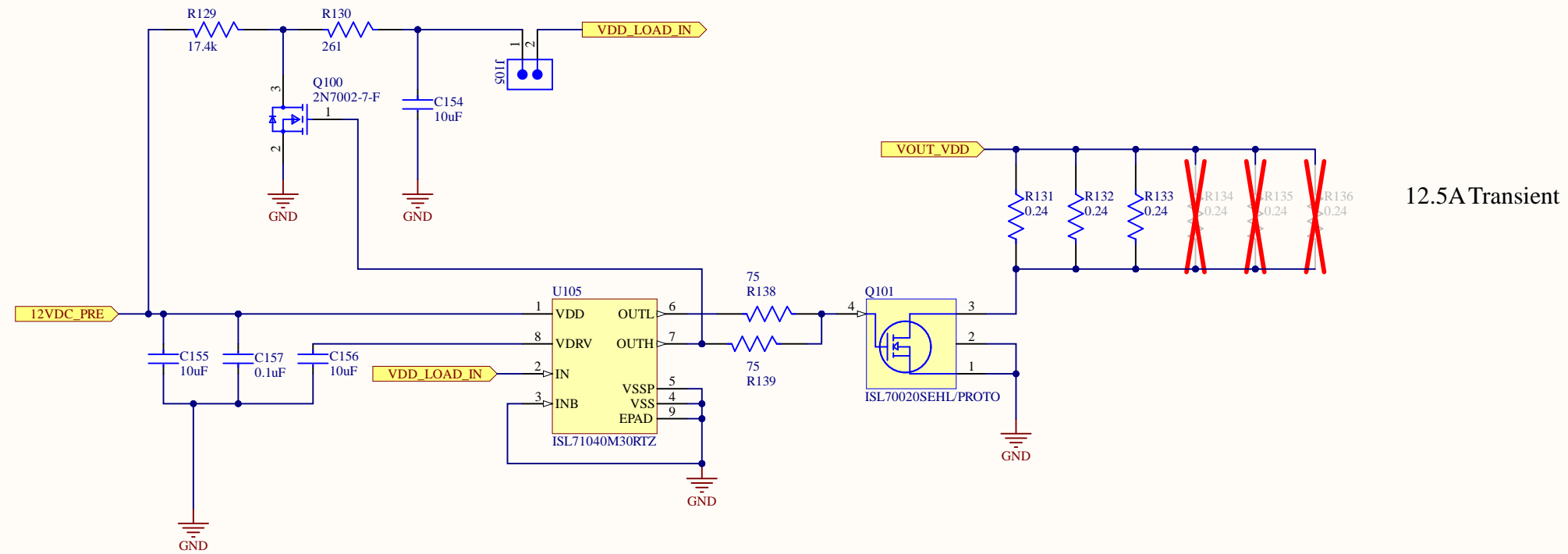
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Last Updated: 6/26/2025

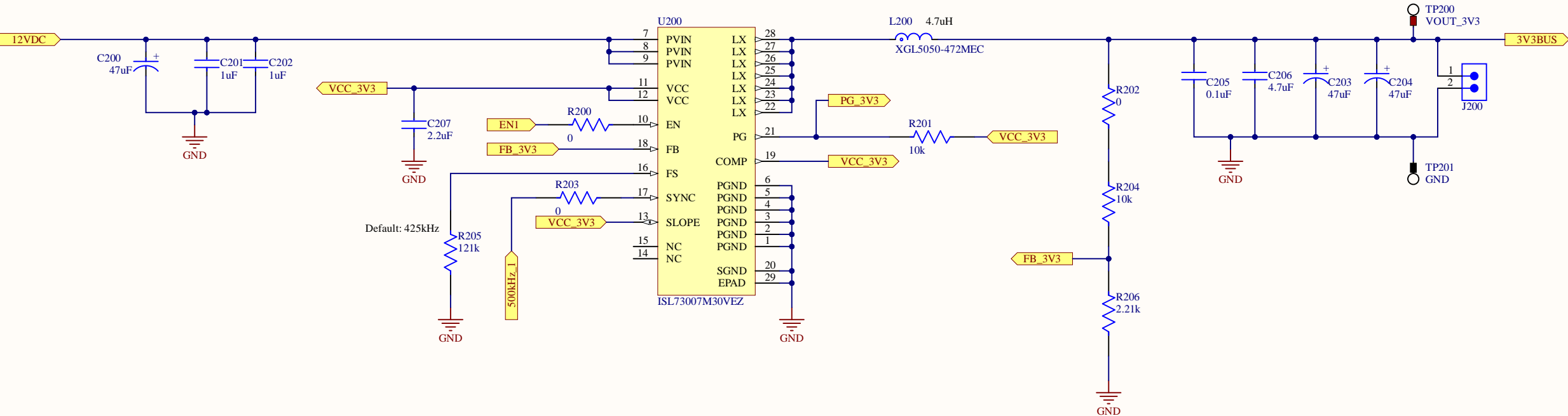
VDD: 1V/25A



VDD Load Transient



3V3 BUS: 3.3V/3A

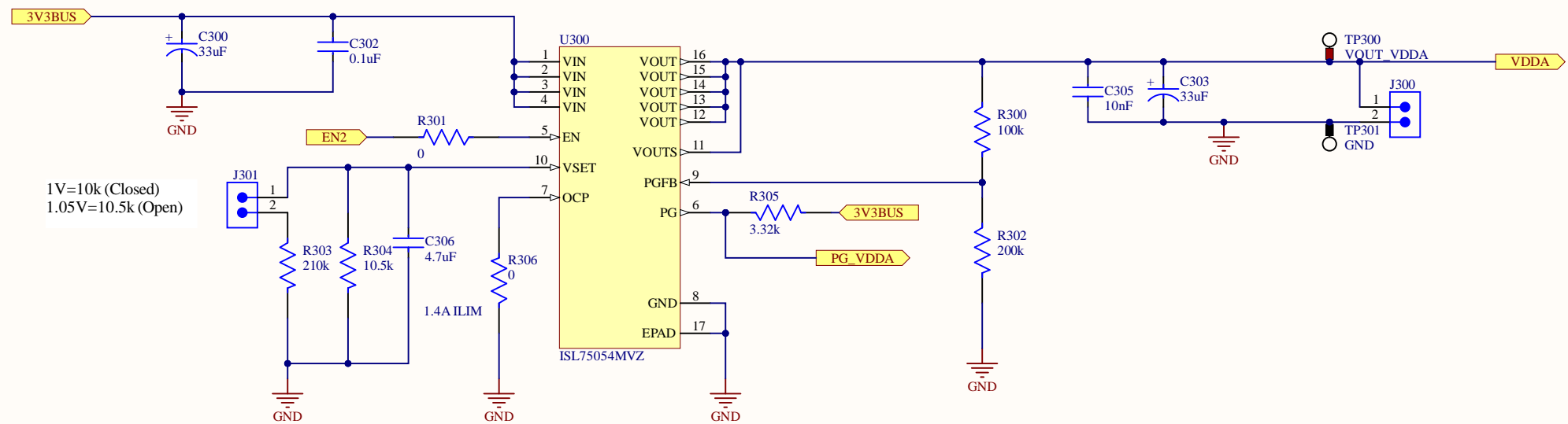


ISL RTP DEMO 1Z

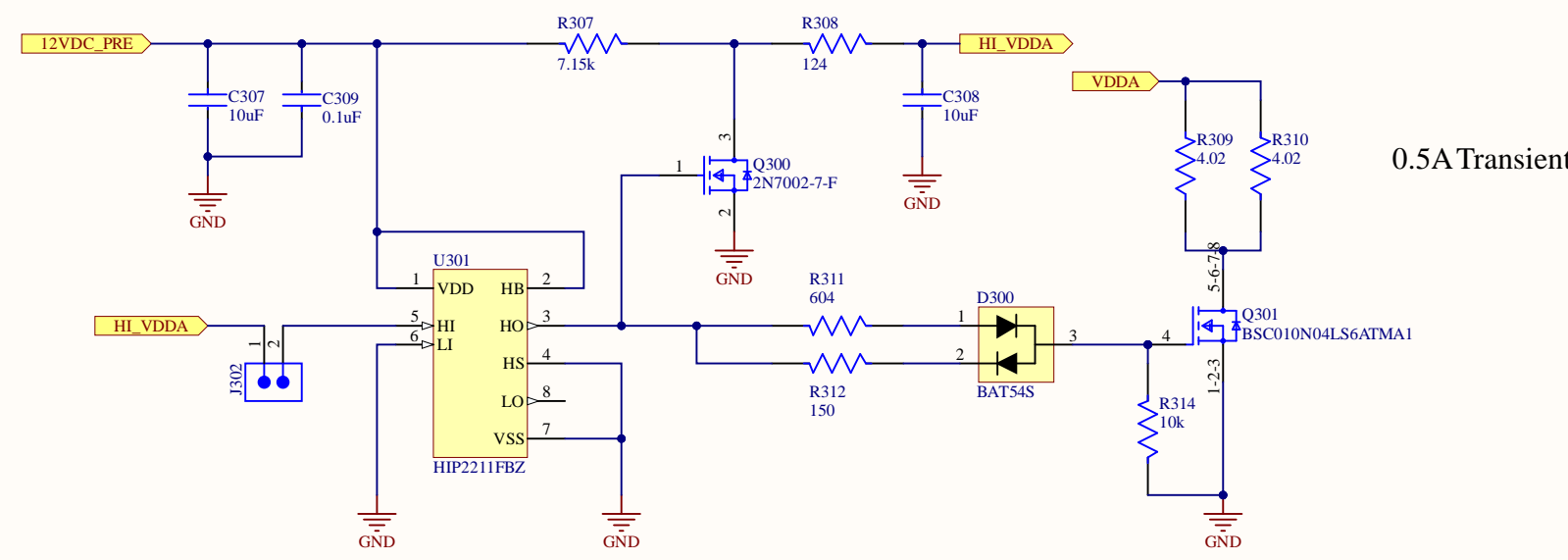
Version: Document Revision: B
Release Date: -/-/-/- Sheet 4 of 20
File: ISL RTP DEMO 1Z_3V3.SchDoc



VDDA: 1V/1A

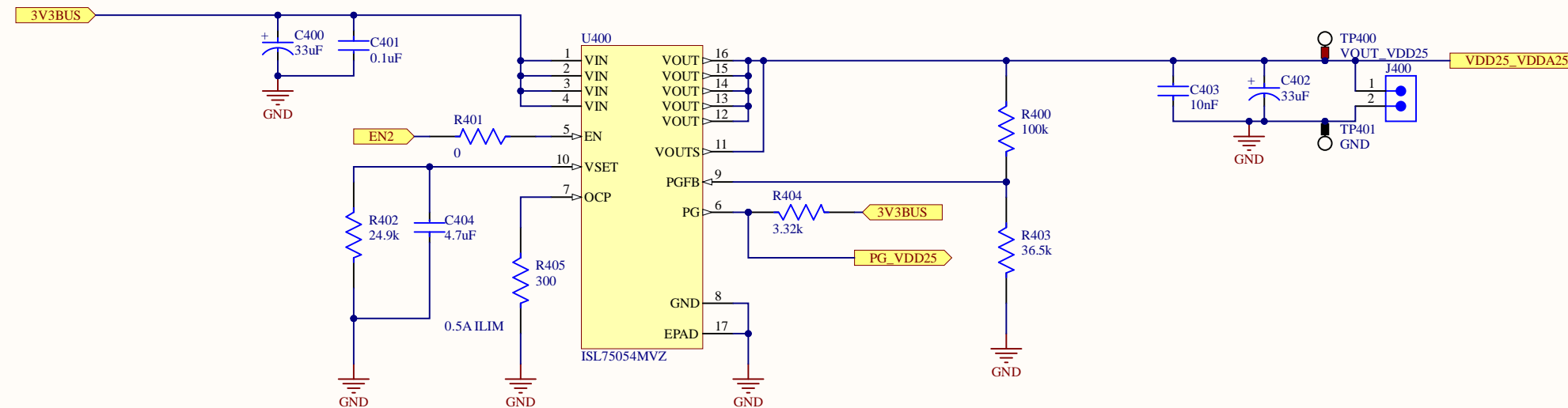


Load Transient

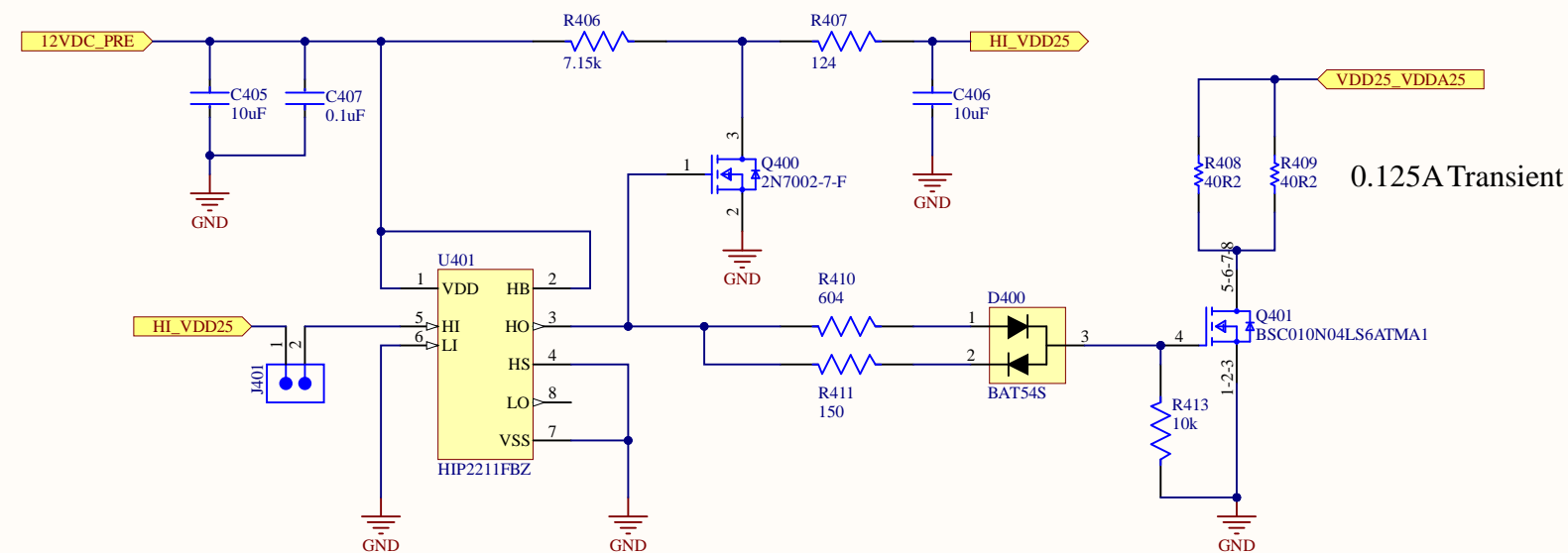


0.5A Transient

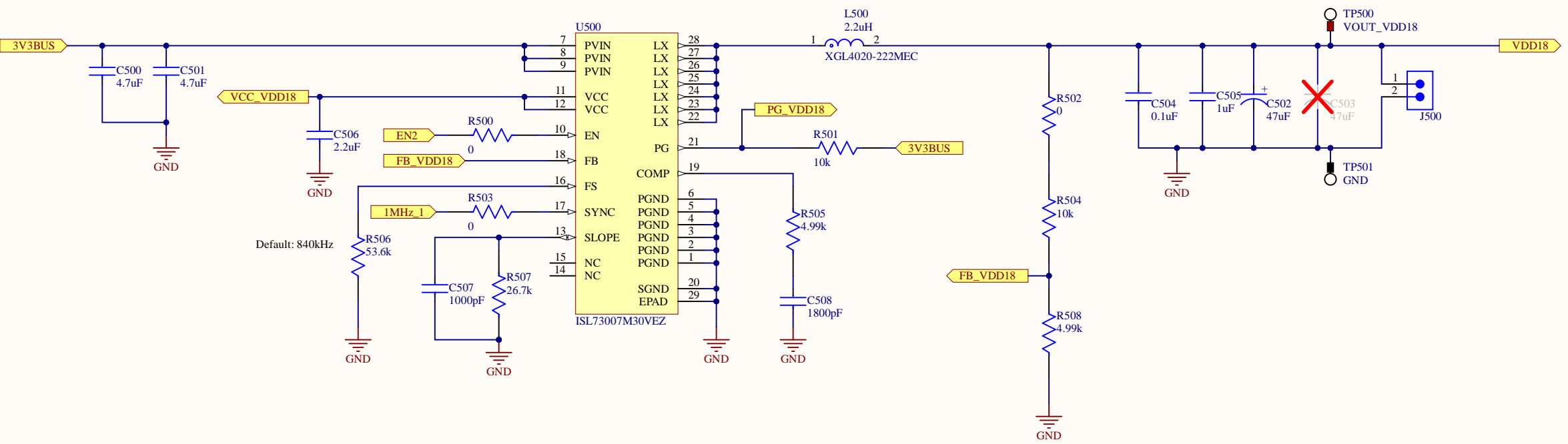
VDD25, VDDA25: 2.5V/0.25A



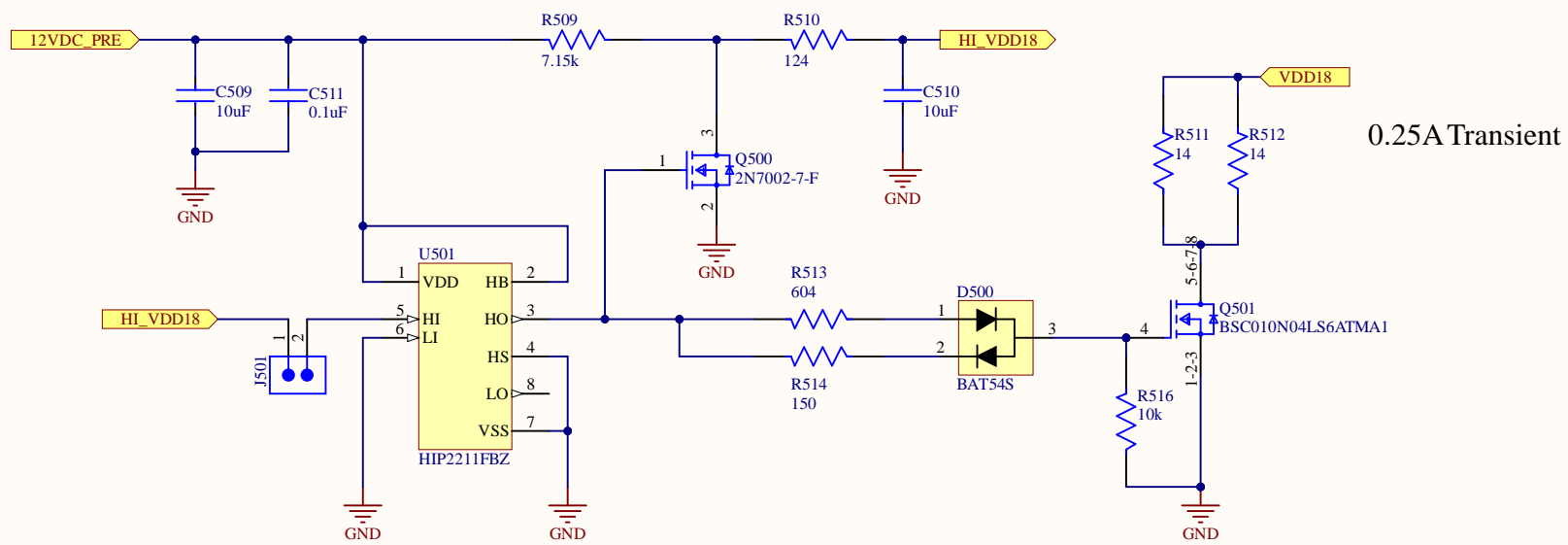
Load Transient



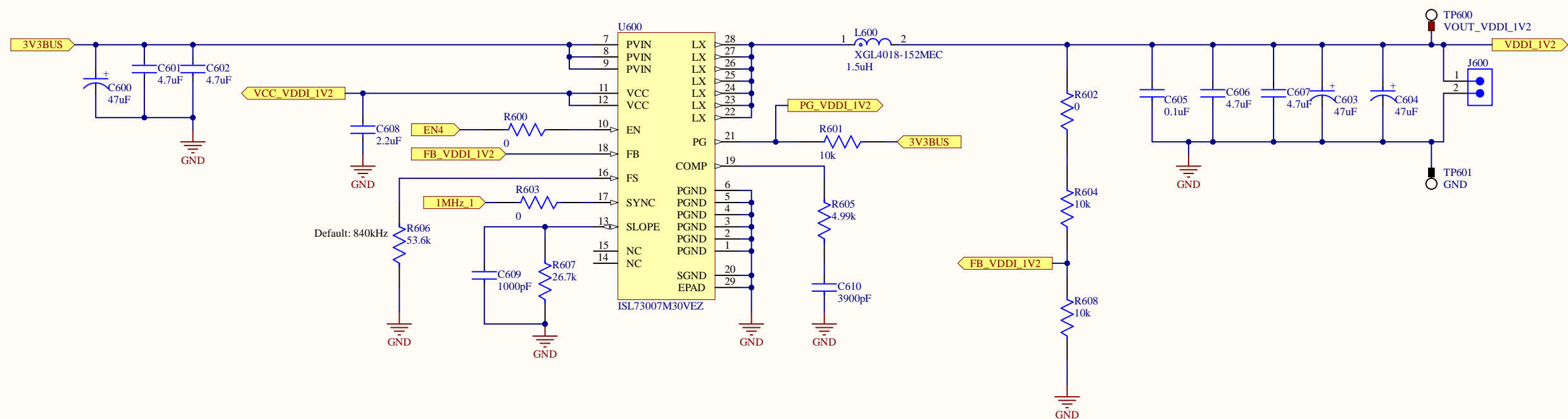
VDD18: 1.8V/0.5A



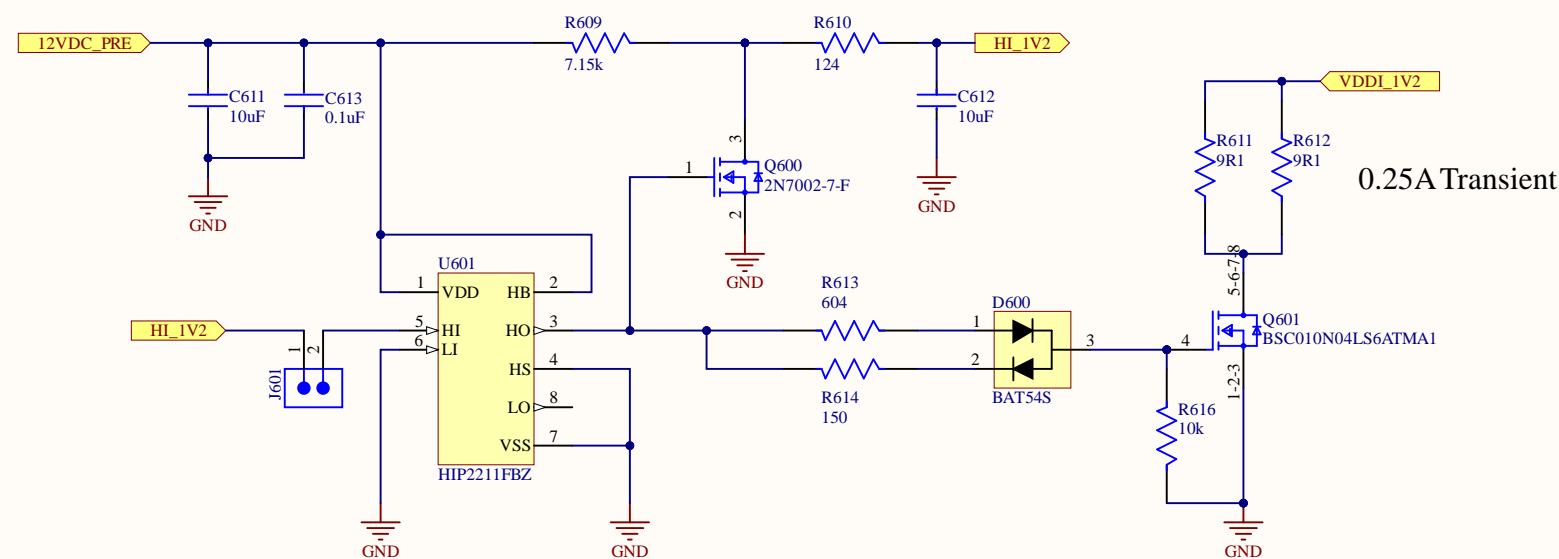
Load Transient



VDDI[0,1,6,7]: 1.2V/0.5A



Load Transient



ISLRTPFDEMO1Z

Version:
Release Date: --/--/---
File: ISLRTPFDEMO1Z_VDDI_IV2.SchDoc

Document Revision: B
Sheet 8 of 20

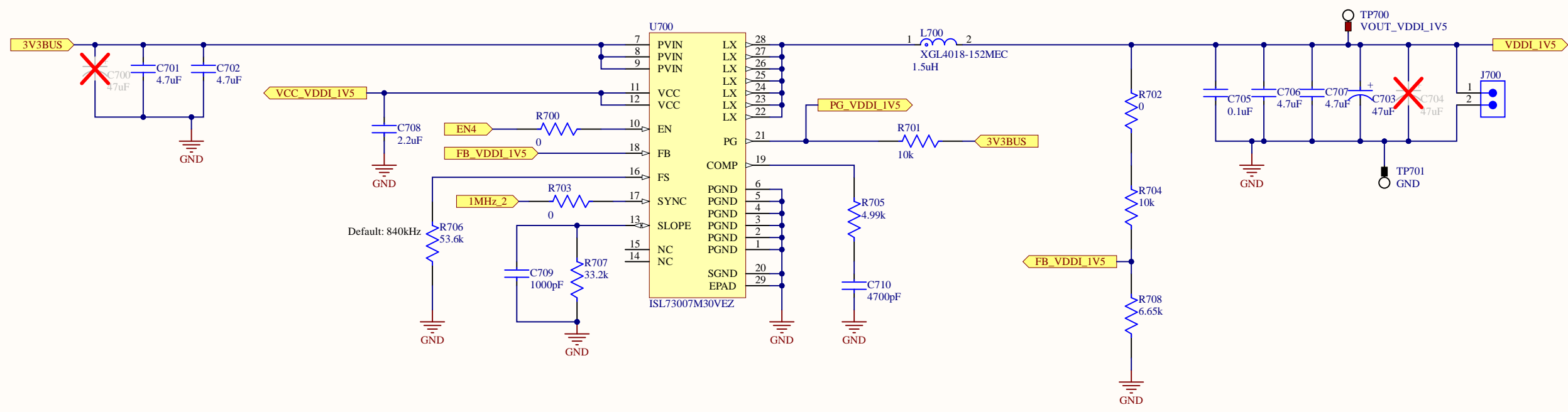
RENESAS

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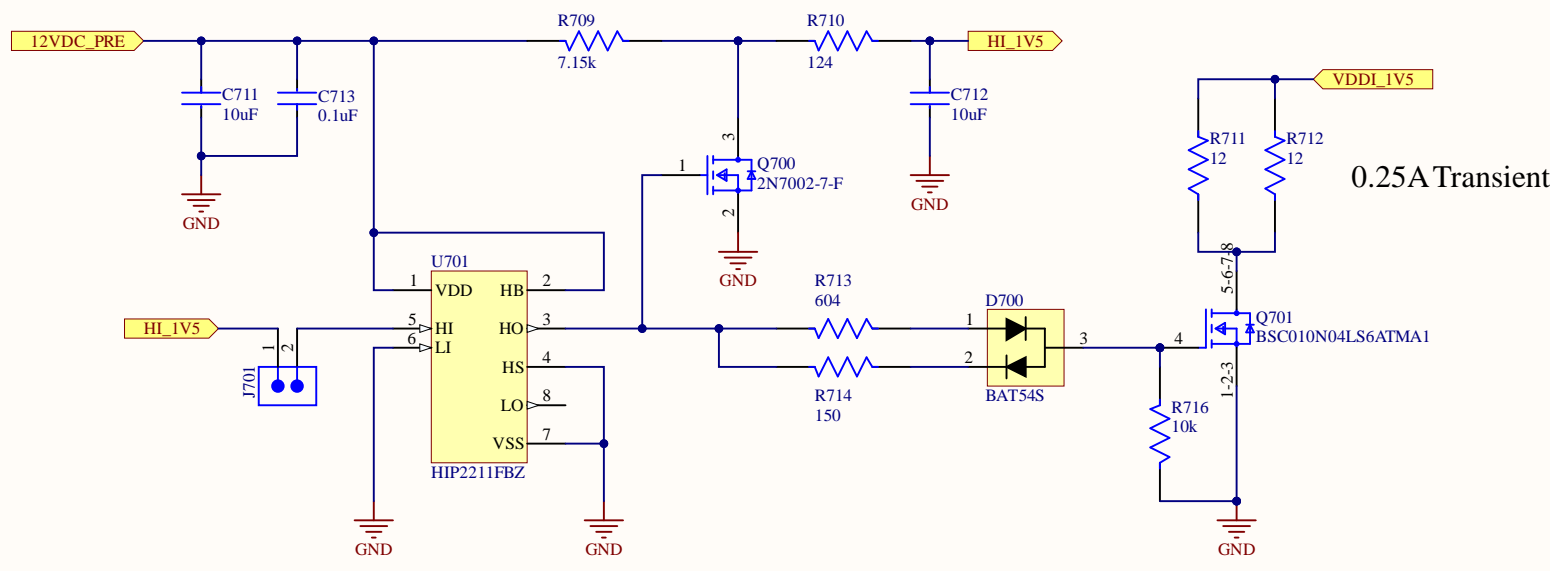
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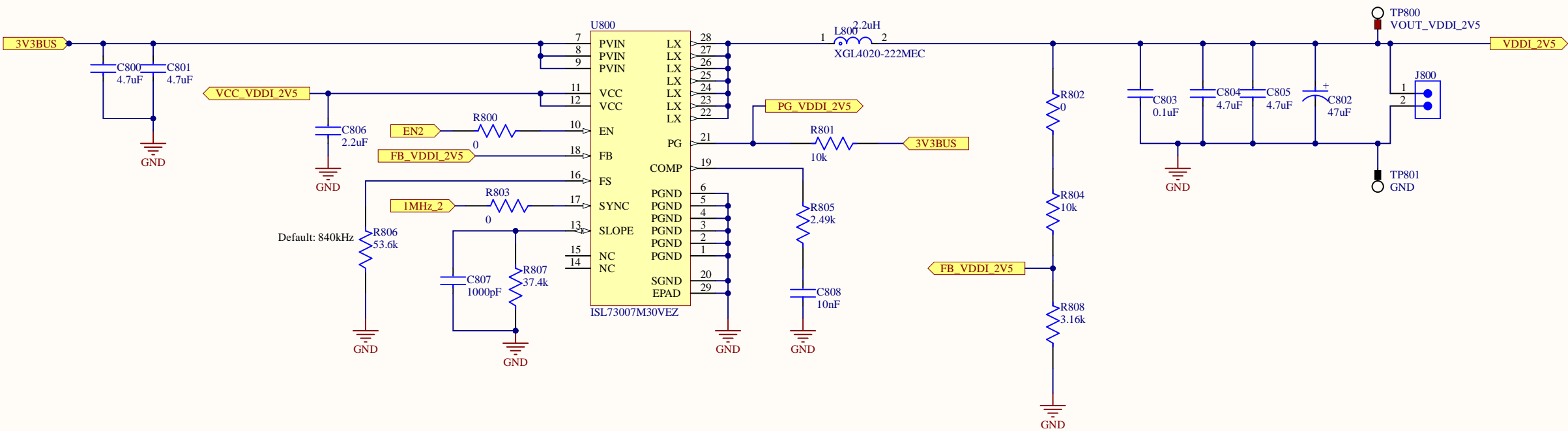
VDDI[2,4,5]: 1.5V/0.5A



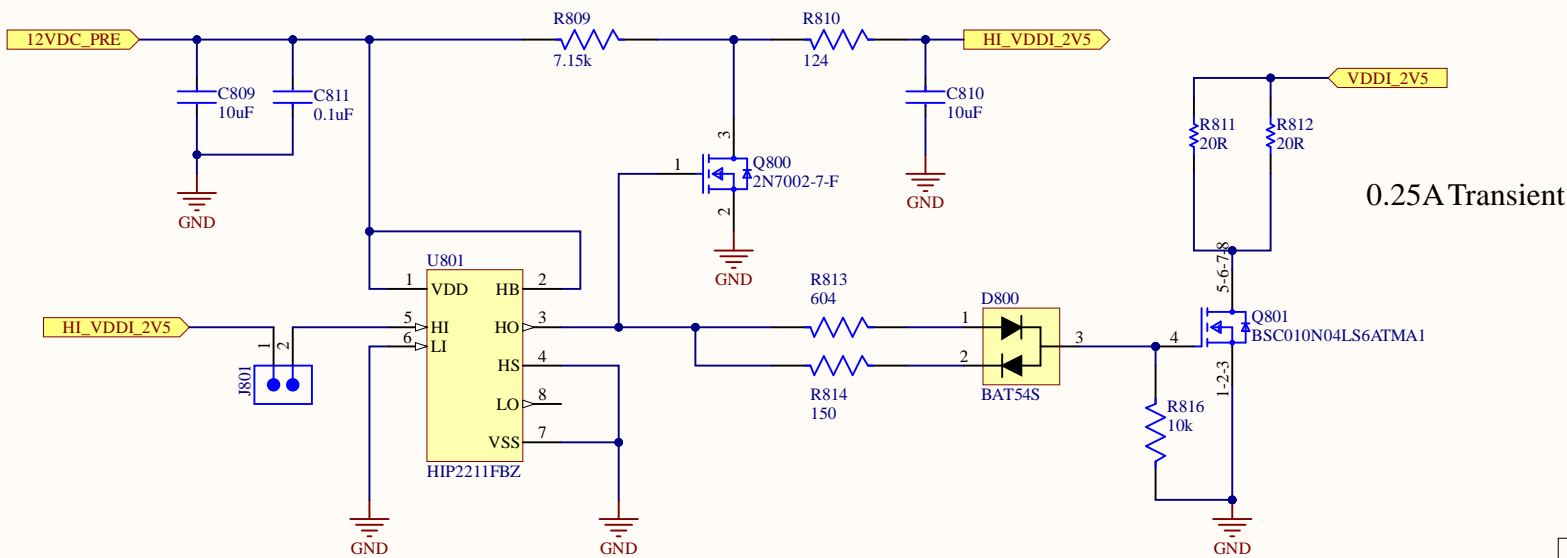
Load Transient



VDDI3: 2.5V/0.25A



Load Transient



0.25A Transient

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Version:
Release Date: --/--
File: ISLRTPFDEMO1Z_VDDI3.SchDoc

Document Revision: B
Sheet 10 of 20

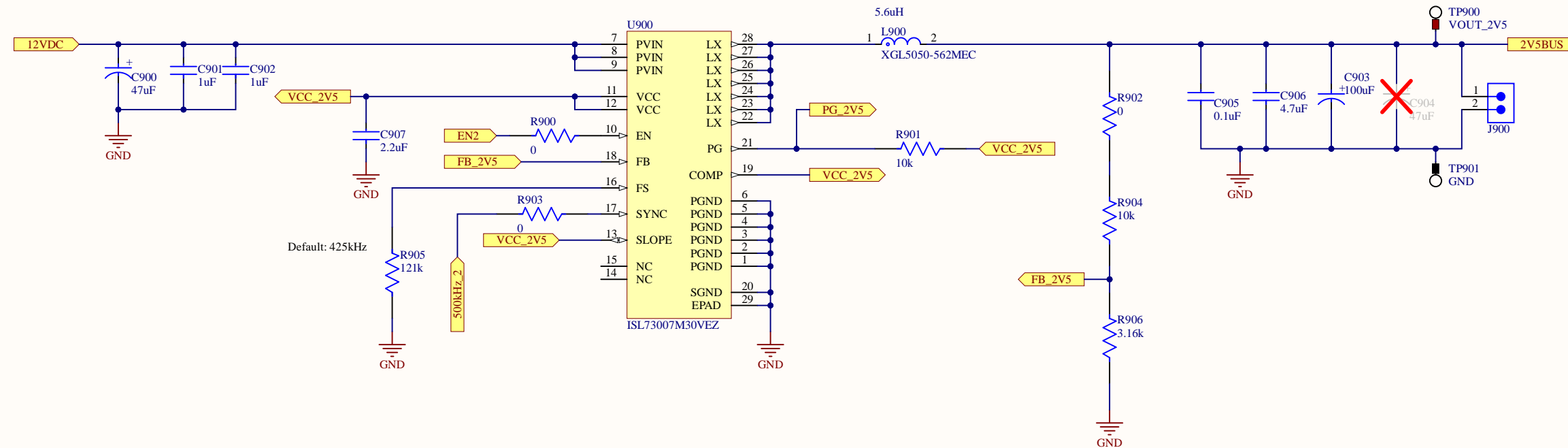
RENESAS

www.renesas.com

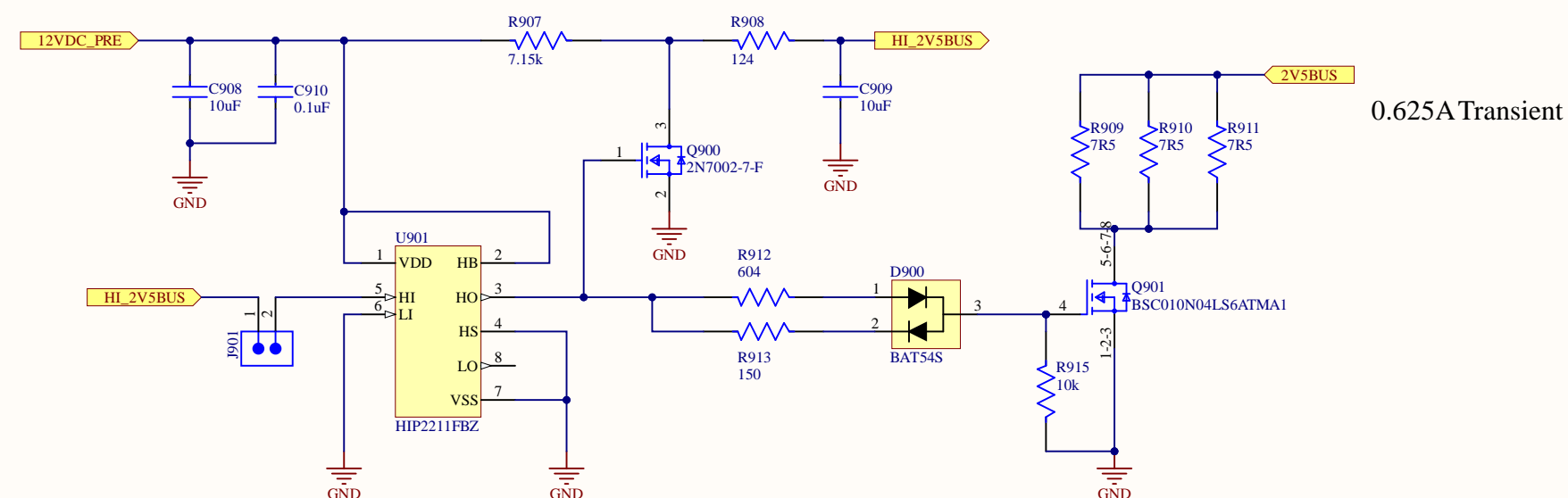
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Last Updated: 6/26/2025

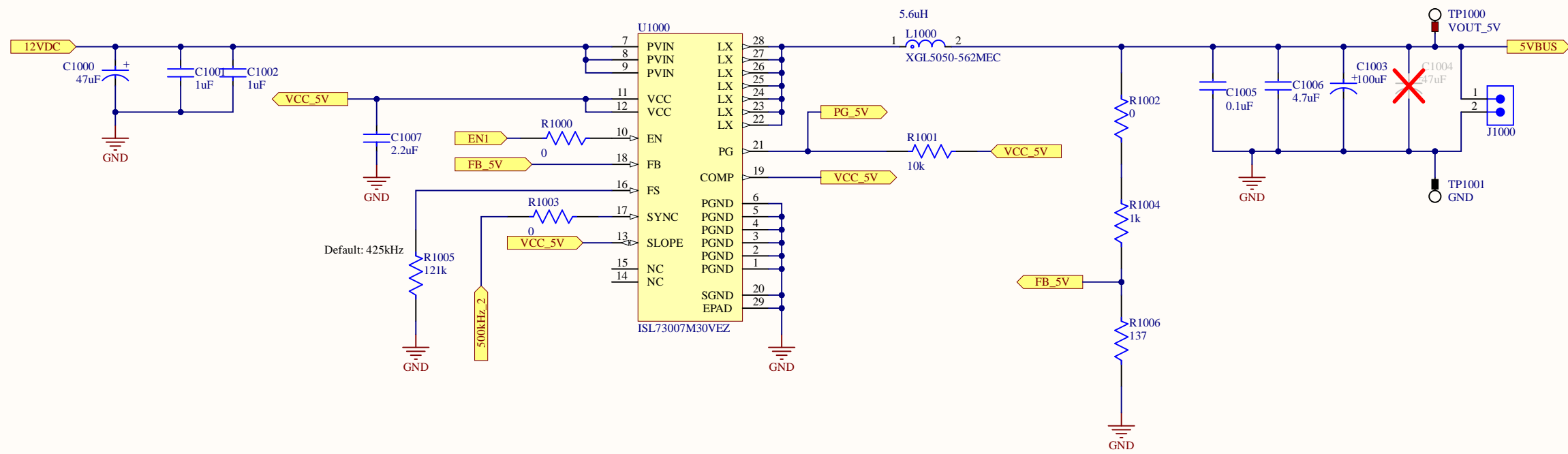
VPP, VDDAUX[2,4,5]: 2.5V/1.5A



Load Transient



5V BUS: 5V/2A



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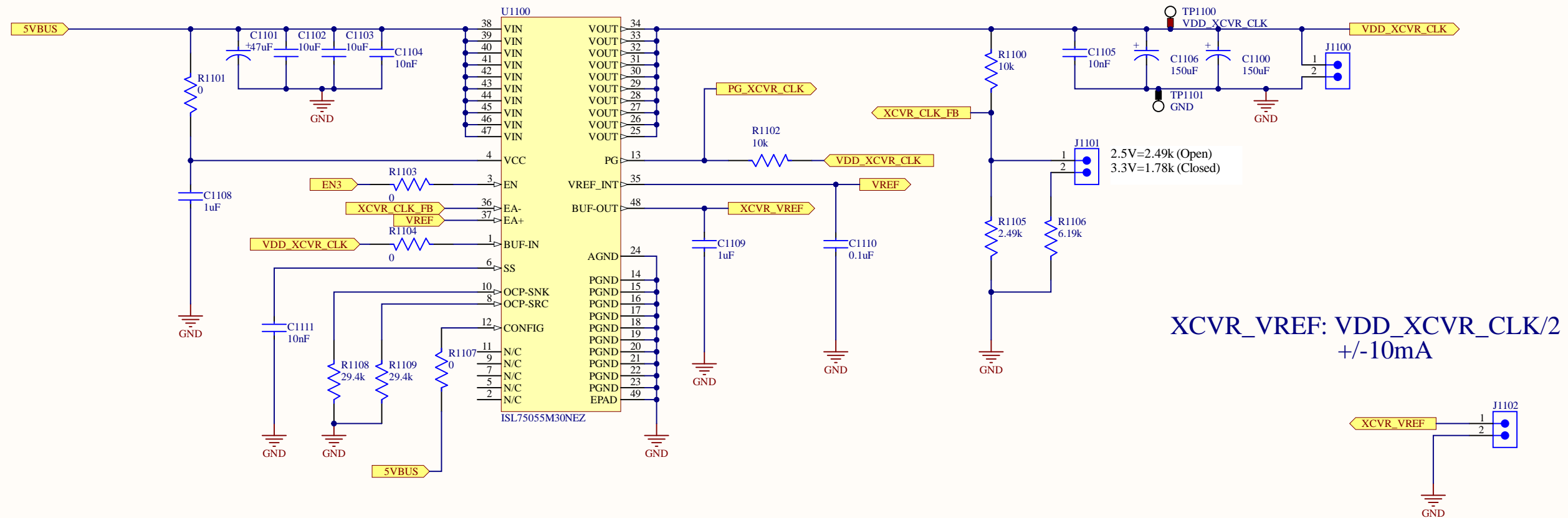
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File: ISLRTPFDEMO1Z_5V.SchDoc

Document Revision: B
Sheet 12 of 20



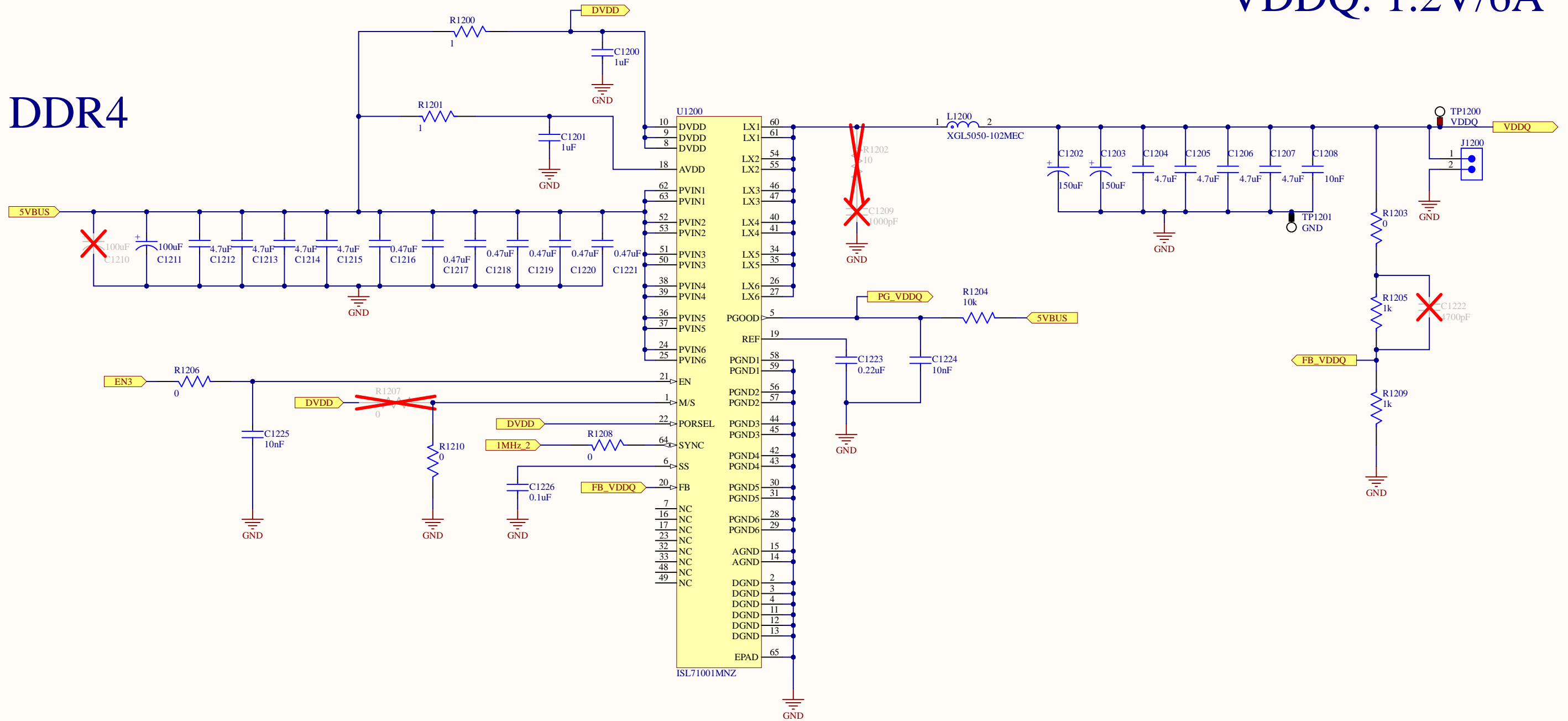
www.renesas.com

VDD_XCVR_CLK: 2.5V, 3.3V/0.1A



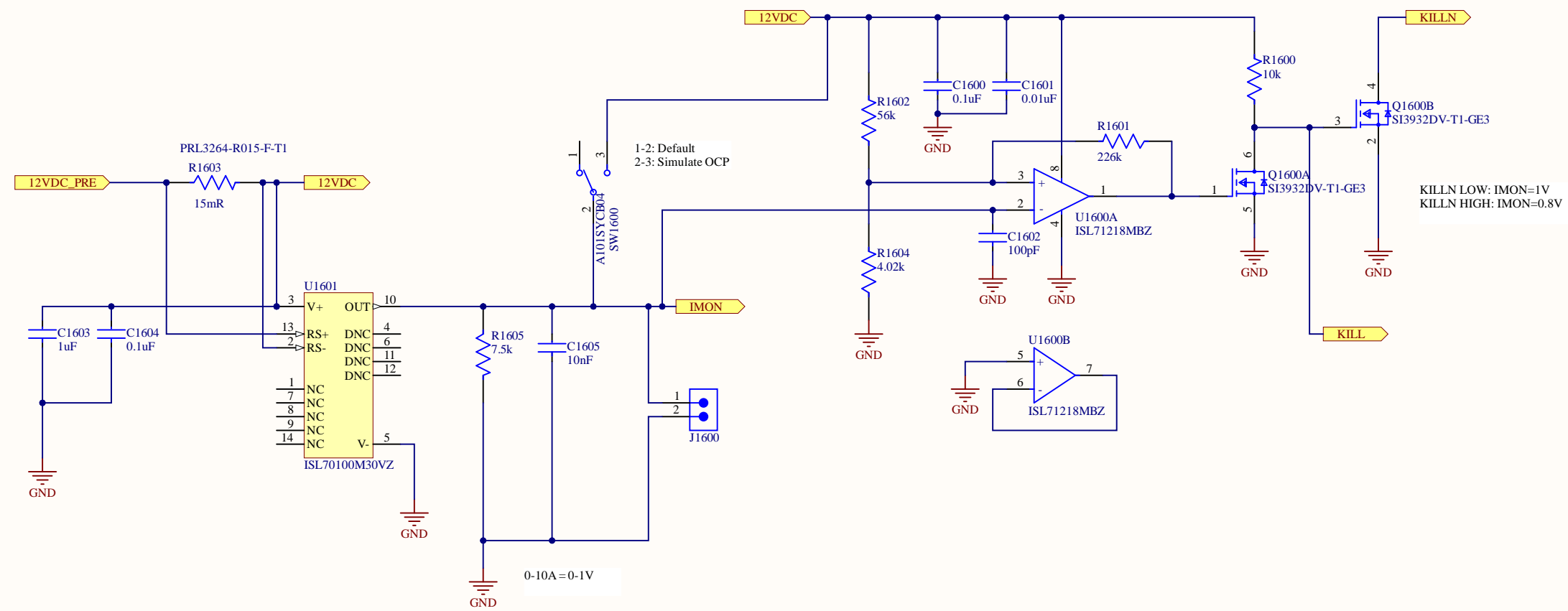
DDR4

VDDQ: 1.2V/6A

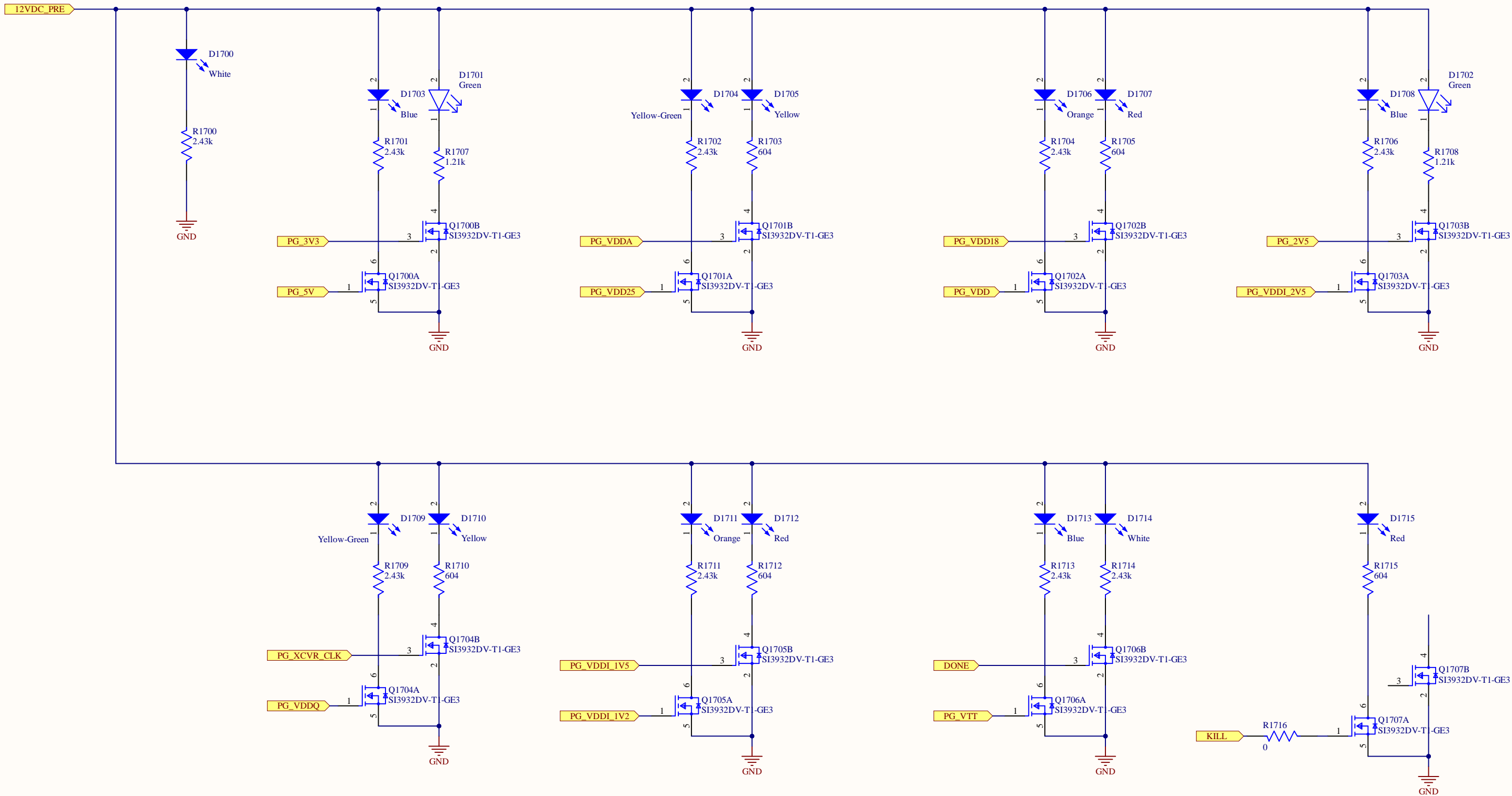


Current Sense

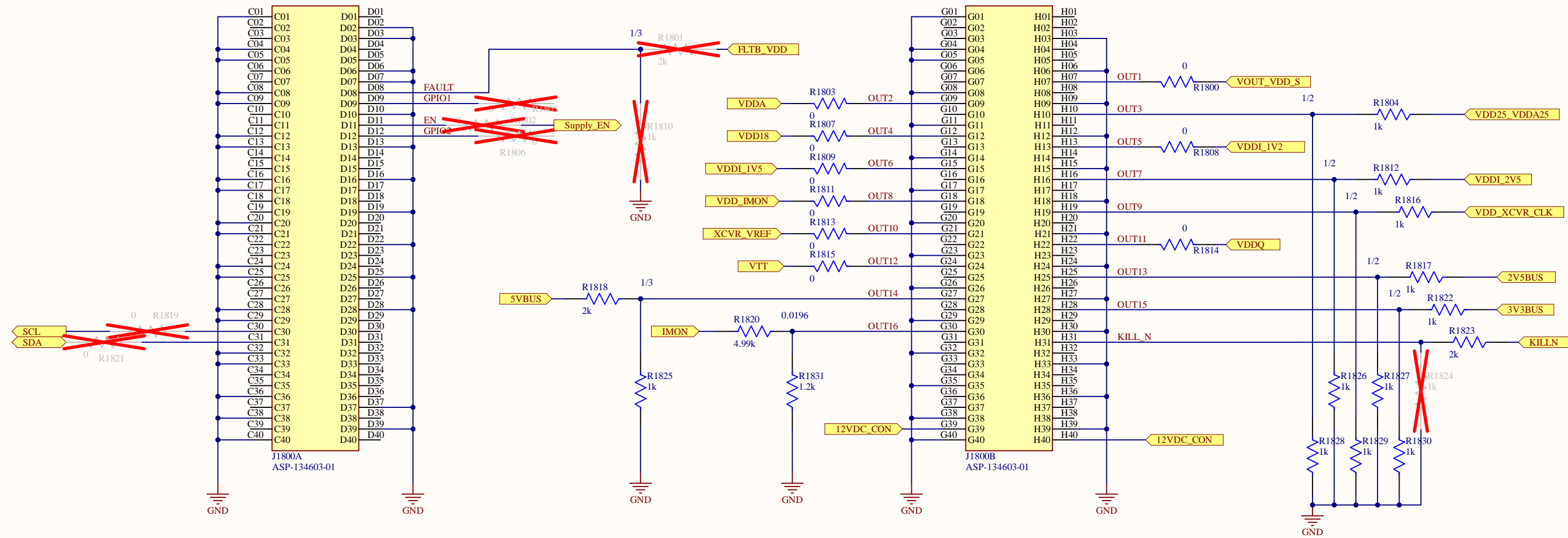
KILL Comparator



LED PG Indicators



ADC Interface



MP1800 1957	MP1801 1957	MP1802 1957
MP1803 1957	MP1804 1957	MP1805 1957