

WiLamp-Street NEMA
Customer: WI4B

Rev:V5.0.0
DD/10/2022

RELEASED DD-NOV-2022

Revision History Page


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Date:11/25/2022	Engineer: JBayalas	Wi4B S.r.l

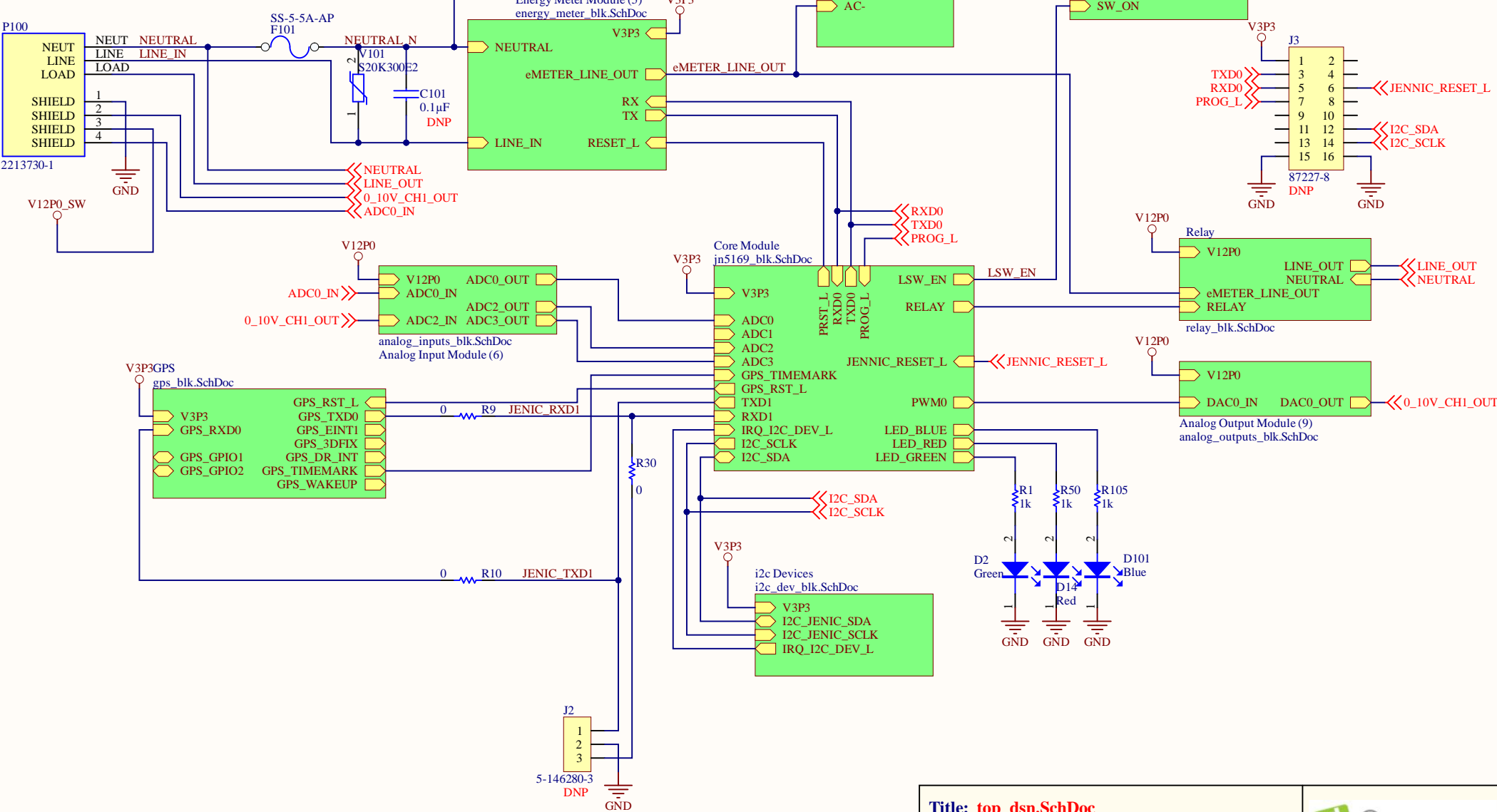
DOC: REVISION HISTORY


Revision	Changes	Engineer
1.0	First Release.	JBayalas
2.0	added 3 holes on pcb	JBayalas
2.1	BOM updated	JBayalas
3.0	Power Supply Schematic updated	JBayalas
4.0	Fix short circuit on U4 add DNP properties on GPS external antenna.	JBayalas
4.1	J2, J3 Marked as DNP	JBayalas
4.01	Added FUNCTION Parameter on C12,C32,D1, D402,D901,R29,R56,R802 Partitioned DNP compnents in exporting Bom	JBayalas
4.1	U15 pin 1 reference mark added equivalent parts for K901(relay) added R13 FUNCTION parameter changed J4 moved to top side added 0ohm resistor on JN5168 blk	JBayalas
4.1_1	MFT requirements applied	JBayalas
4.1_1B	0603 component pad expansion undo 0402 component pad expansion applied	JBayalas
4.3.0	Remove PIC16LF1947 Remove all DALI components (LPC1343 and DALI PHY)	JBayalas
5.0.0	JN5168 module replaced with JN5169	JBayalas

Title: revision_history.SchDoc		
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Date:10/26/2022	Engineer: JBayalas	Wi4B S.r.l

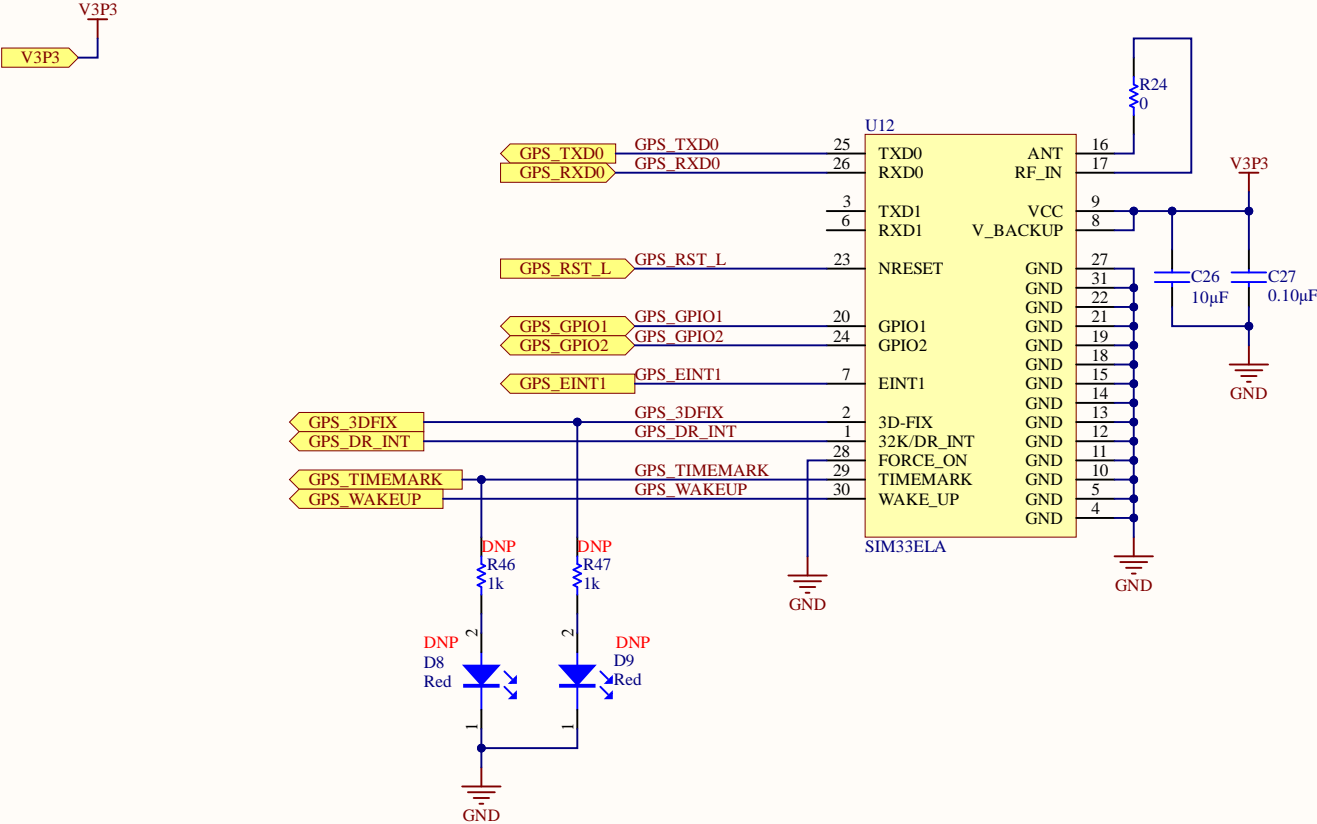
WiLamp-st NEMA Controller Block

Version 5.0.0

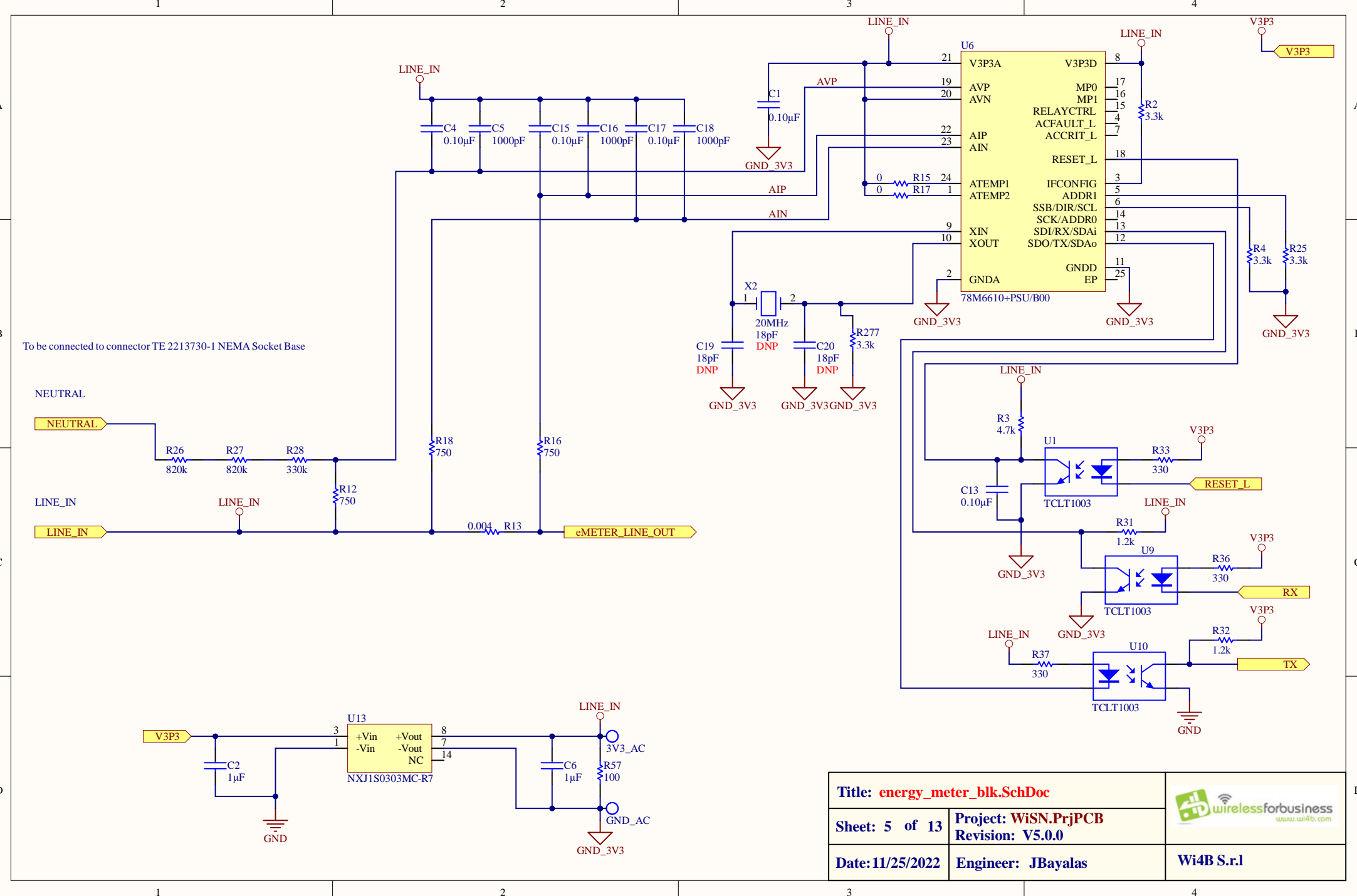



Title: top_dsn.SchDoc		 www.wi4b.com
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Date: 11/06/2022	Engineer: JBayalas	

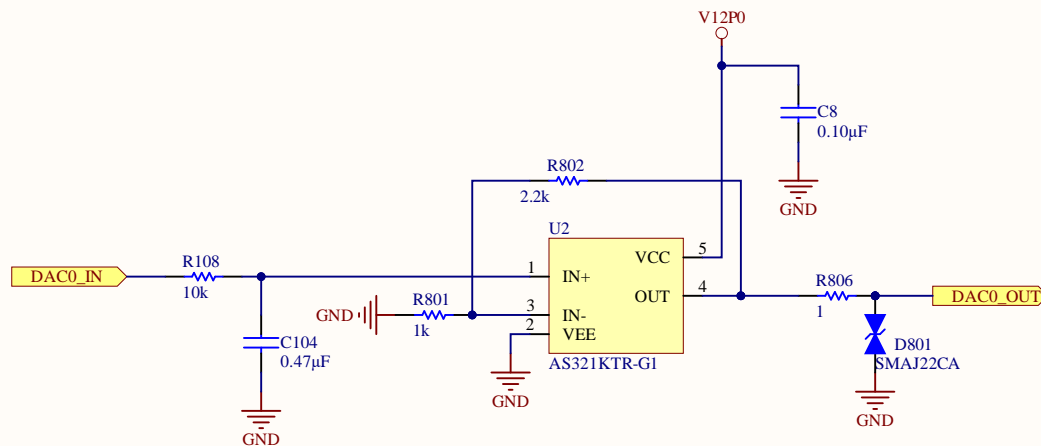
GPS



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Date: 11/06/2022	Engineer: JBayalas	WI4B S.r.l

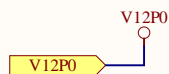



Title: energy_meter_blk.SchDoc		 www.wi4b.com
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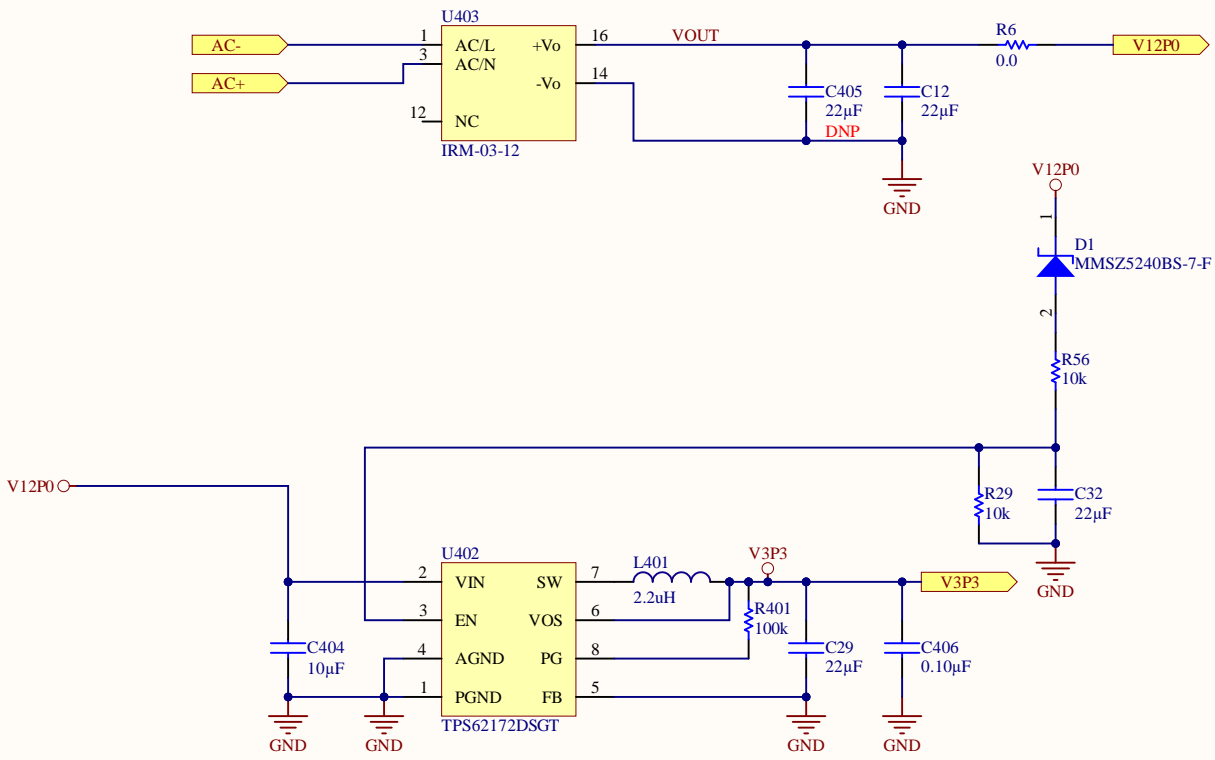



$$\text{Gain} = 1 + (2K2/1K) = 3.2$$

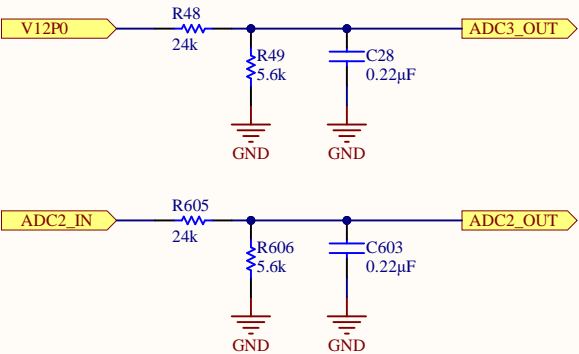
$$\text{Vout_max} = \text{Vin_max} * \text{Gain} = 3.3V * 3.2 = 10.56V$$



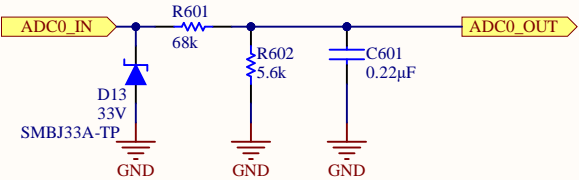
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Title: power_supply_blk.SchDoc		
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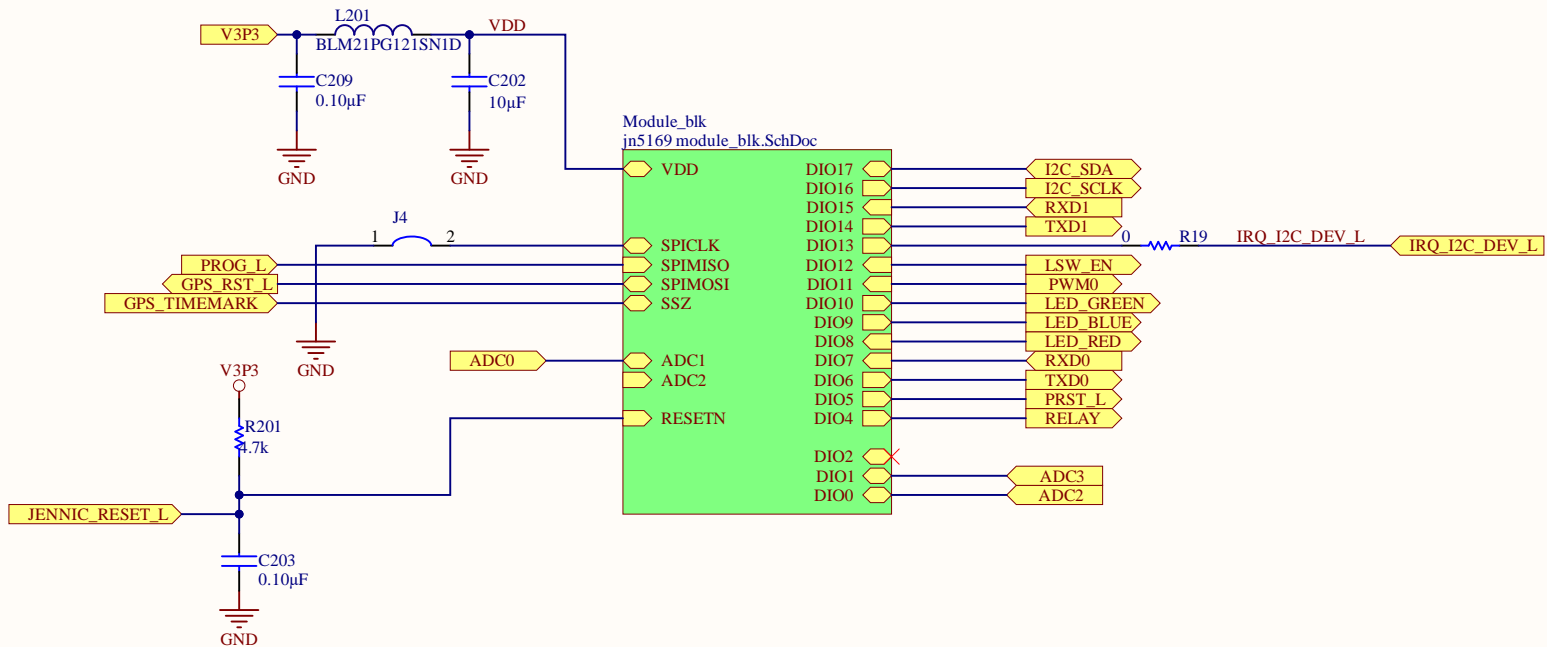



$$F_{cutoff} = \frac{(R1+R2)}{(2*\pi*R1*R2*C)}$$
$$F_{cutoff} = \frac{(82K+10K)}{(2*\pi*82K*10K*100nF)} = 178.56 \text{ Hz}$$

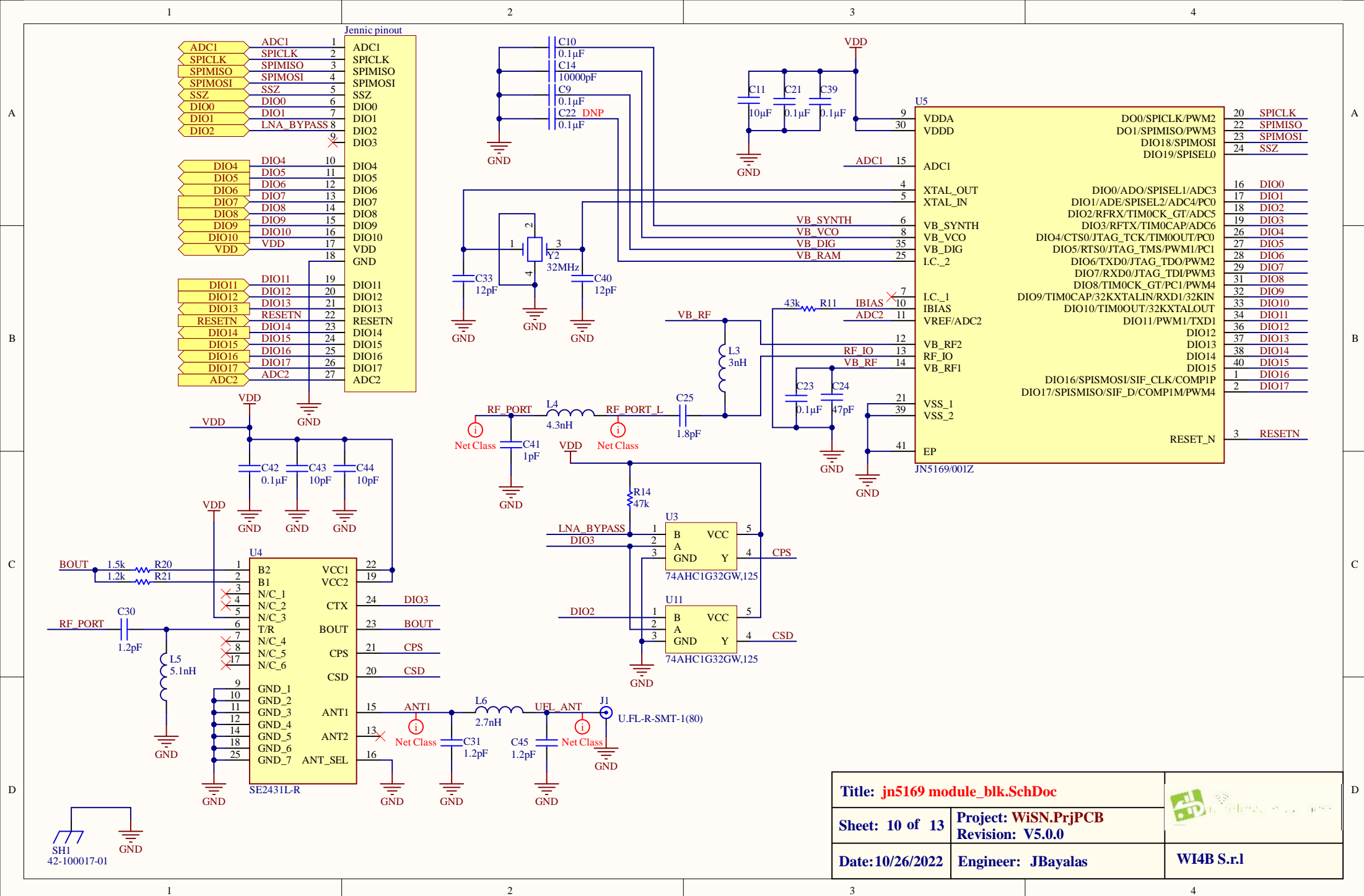


$$F_{cutoff} = \frac{1}{(2*\pi*R*C)} = \frac{1}{(2*\pi*10K*100nF)} = 159 \text{ Hz}$$

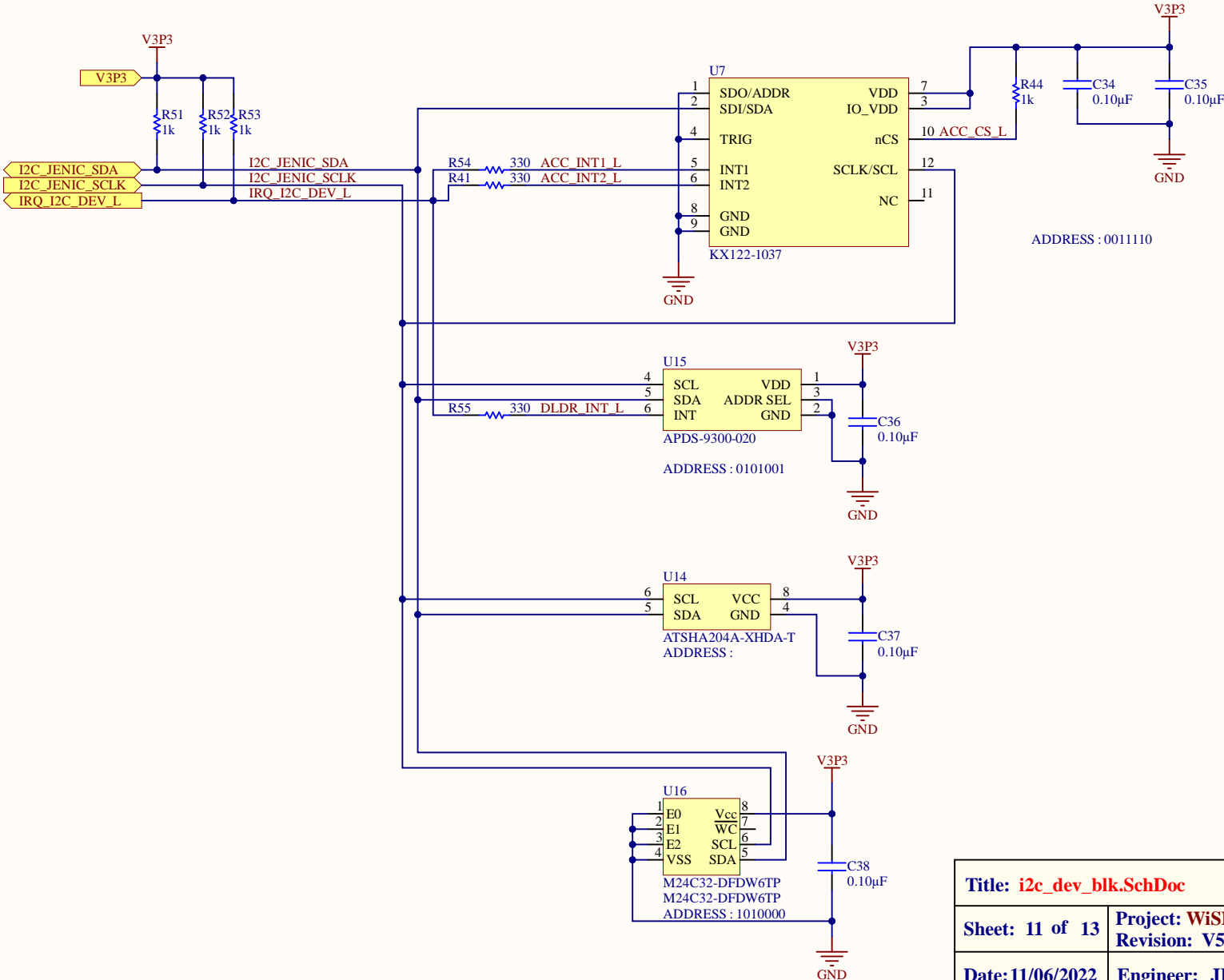
Title: analog_inputs_blk.SchDoc		 www.wi4b.com
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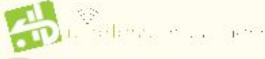


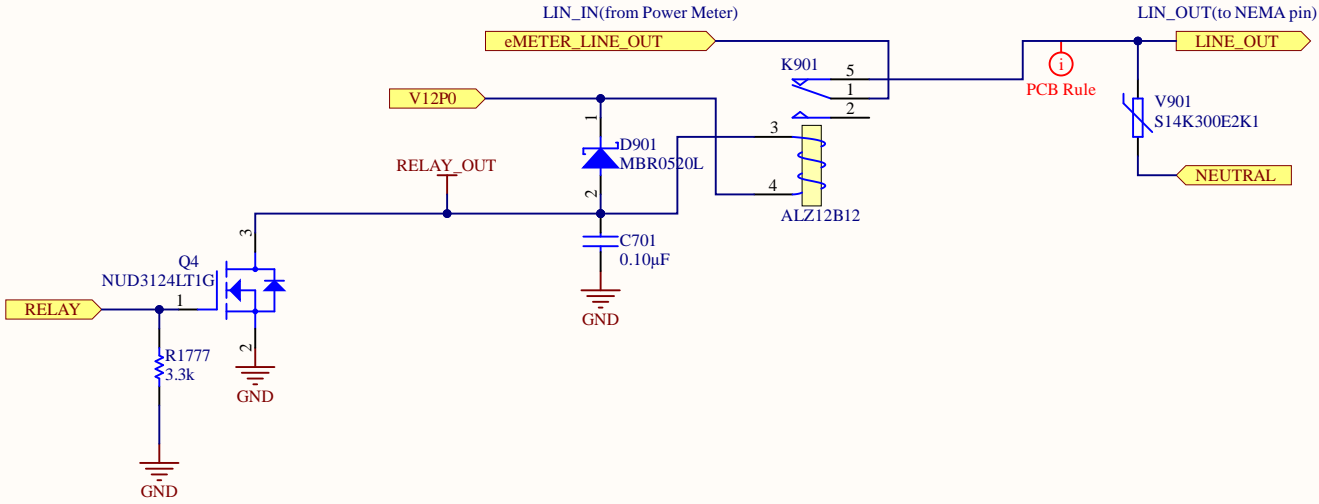
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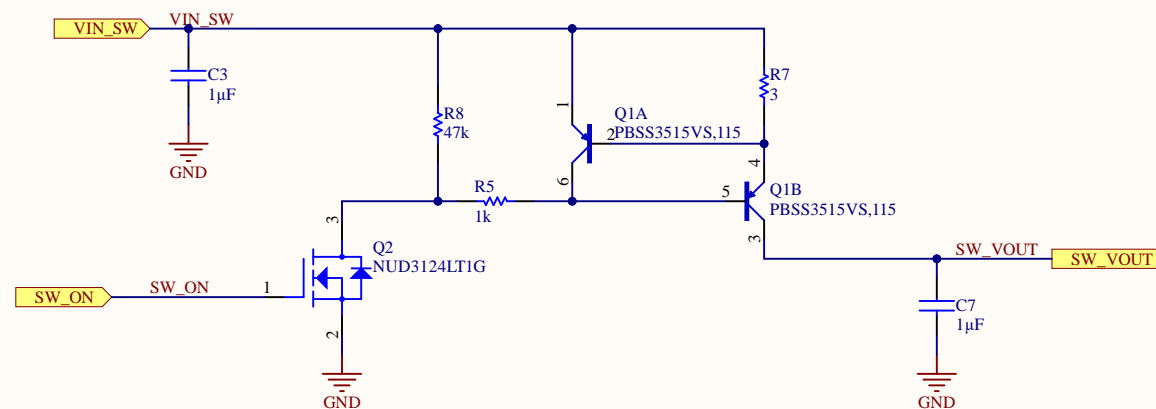
I2C Devices




Title: i2c_dev_blk.SchDoc		
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Title: switch_blk.SchDoc		
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