WiLamp-Street NEMA

Customer: WI4B

Rev:V4.3.0
11/08/2021

RELEASED DD-NOV-2021

Revision History Page

Top Design Page

Title: cover_page.SchDoc		wirelessforbusiness www.wi4b.com
Sheet: 1 of 12	**Project:** WiSN.PrjPCB **Revision:** V4.3.0	
Date: 11/19/2021	**Engineer:** JBayalas	**Wi4B S.r.l**

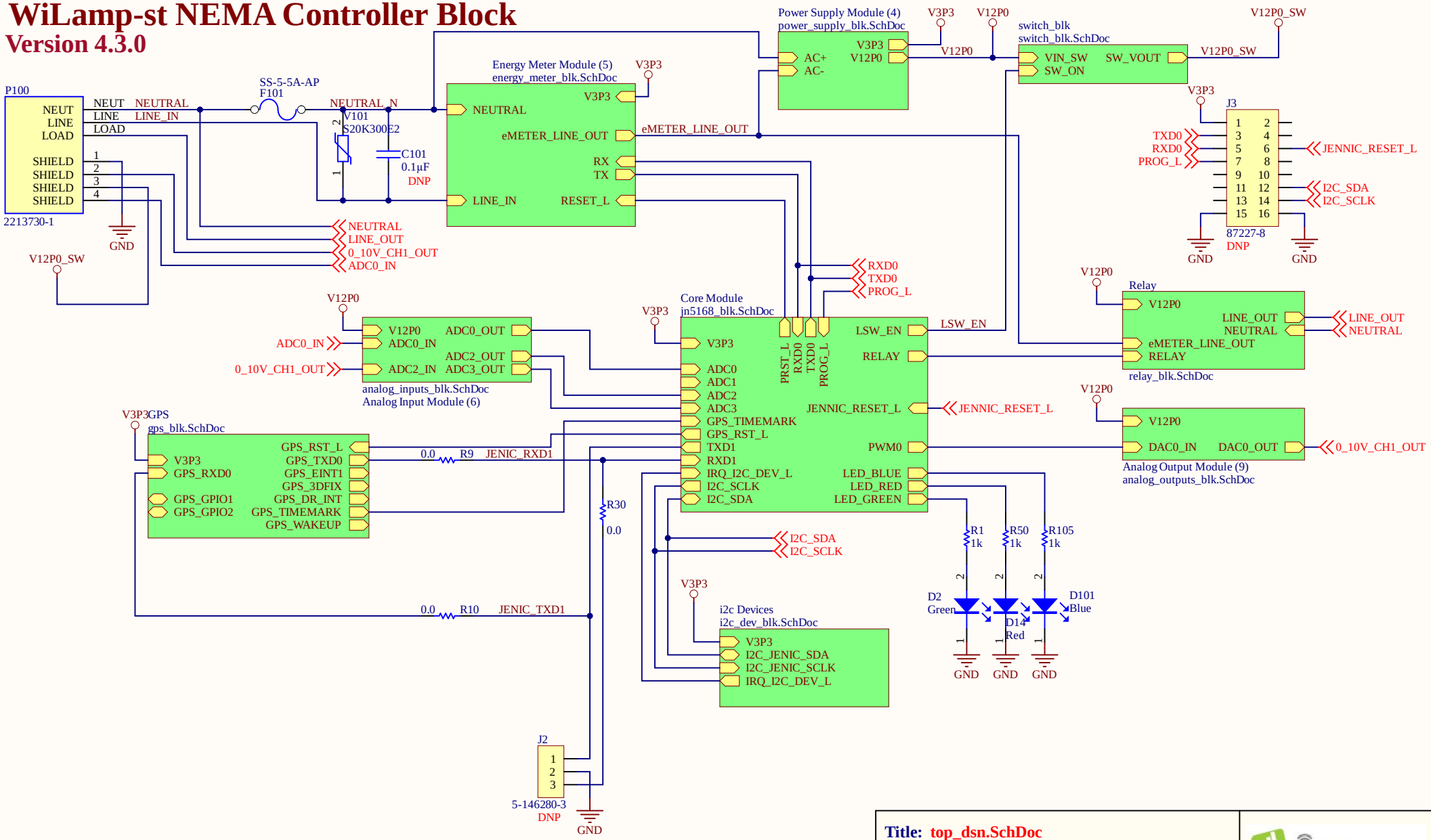
DOC: REVISION HISTORY

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

Title: revision_history.SchDoc		wirelessforbusiness www.wi4b.com
Sheet: 2 of 12	**Project:** WiSN.PrjPCB **Revision:** V4.3.0	
Date: 11/15/2021	**Engineer:** JBayalas	**Wi4B S.r.l**

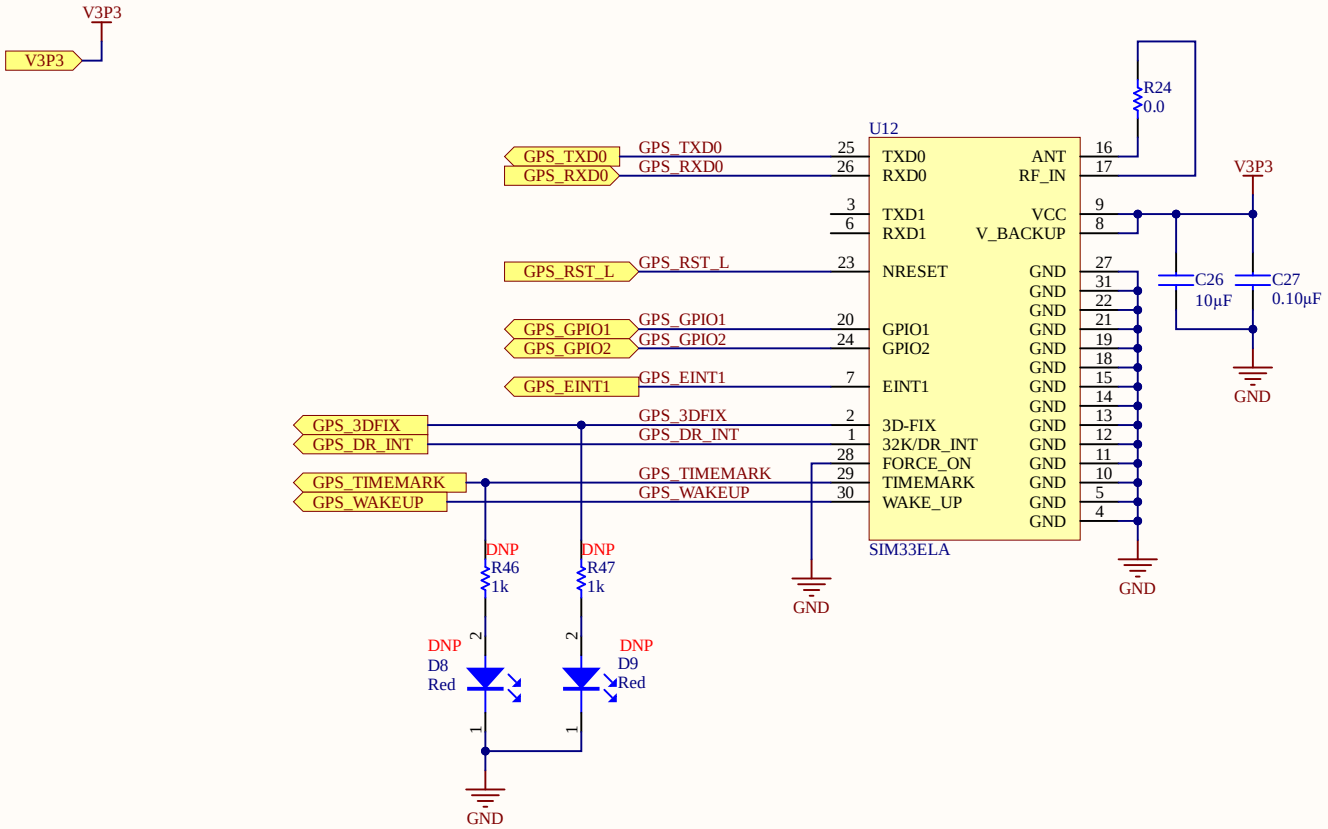
WiLamp-st NEMA Controller Block

Version 4.3.0

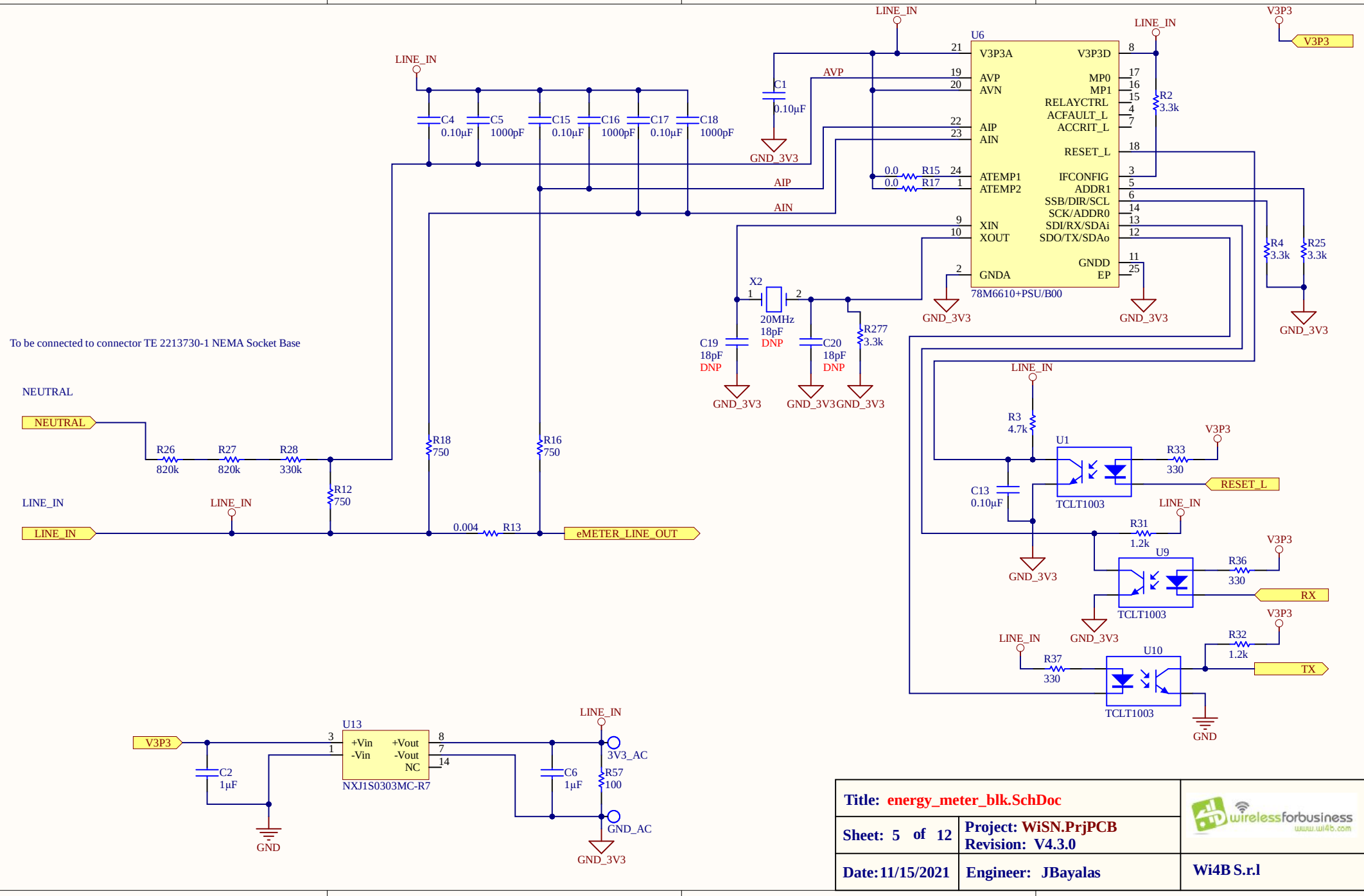


Title: top_dsn.SchDoc		
Sheet: 3 of 12	**Project:** WiSN.PrjPCB **Revision:** V4.3.0	
Date: 11/19/2021	**Engineer:** JBayalas	**Wi4B S.r.l**

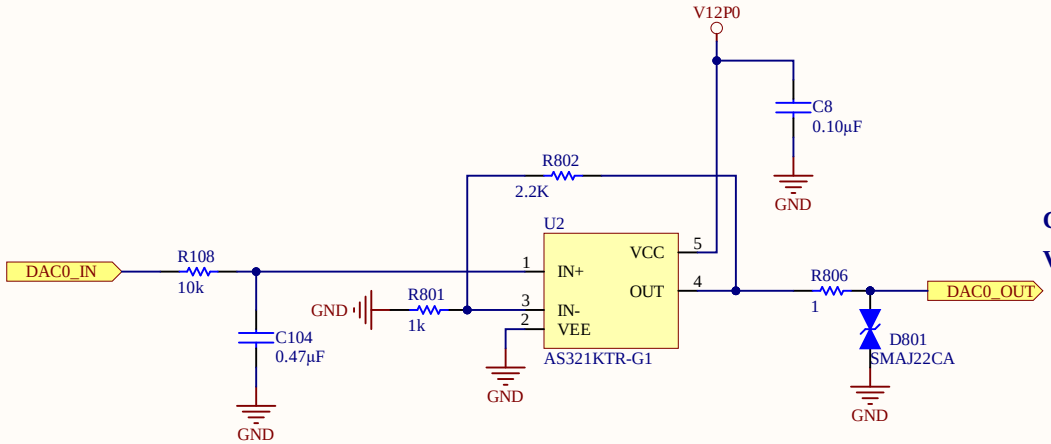
GPS



Title: gps_blk.SchDoc		
Sheet: 4 of 12	Project: WiSN.PrjPCB Revision: V4.3.0	
Date: 11/15/2021	Engineer: JBayalas	WI4B S.r.l

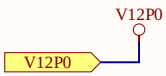


Title: energy_meter_blk.SchDoc		
Sheet: 5 of 12	**Project:** WiSN.PrjPCB **Revision:** V4.3.0	
Date: 11/15/2021	**Engineer:** JBayalas	**Wi4B S.r.l**

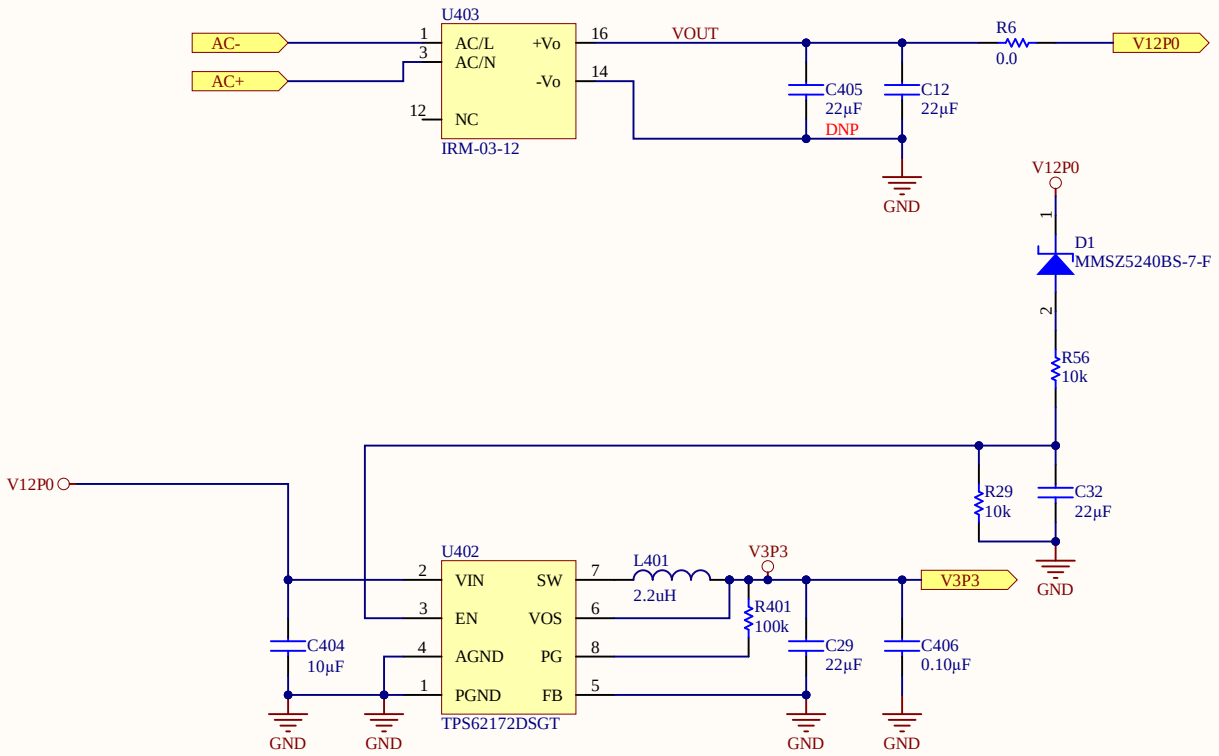


Gain = 1 + (2K2/1K) = 3.2

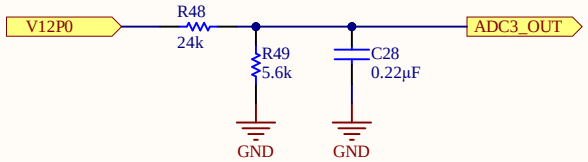
Vout_max = Vin_max * Gain = 3.3V * 3.2 = 10.56V

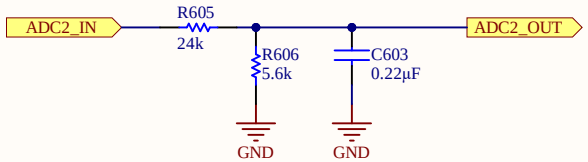


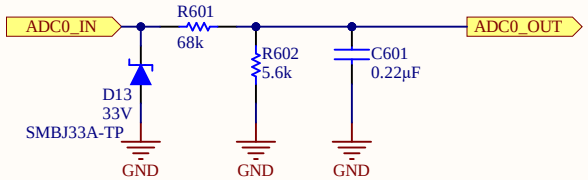
Title: analog_outputs_blk.SchDoc		
Sheet: 6 of 12	**Project:** WiSN.PrjPCB **Revision:** V4.3.0	
Date: 11/15/2021	**Engineer:** JBayalas	**Wi4B S.r.l**



Title: power_supply_blk.SchDoc		
Sheet: 7 of 12	**Project:** WiSN.PrjPCB **Revision:** V4.3.0	
Date: 11/15/2021	**Engineer:** JBayalas	**Wi4B S.r.l**





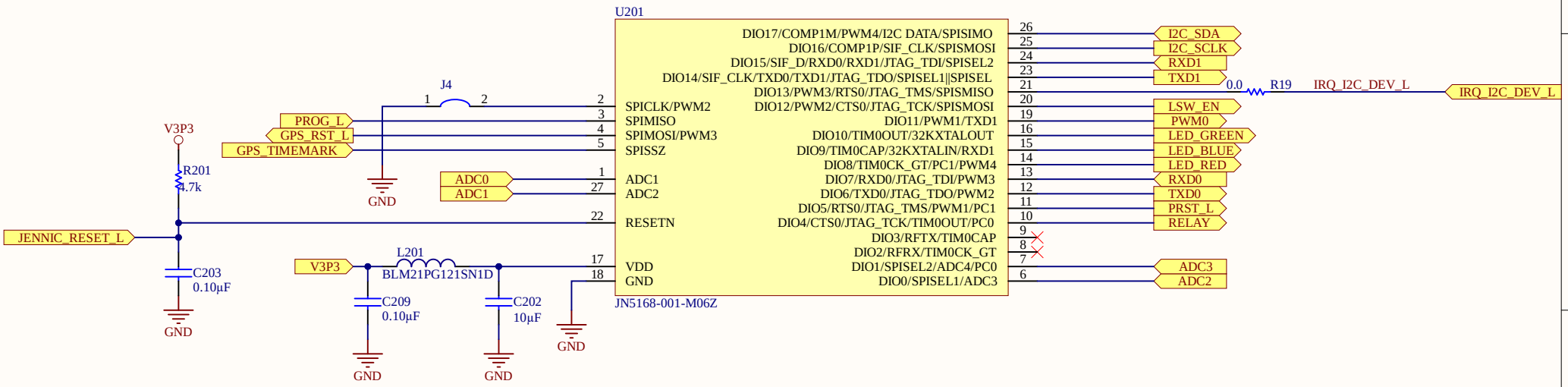


Fcutoff = (R1+R2)/(2*PI*R1*R2*C)

Fcutoff = (82K+10K)/(2*PI*82K*10K*100nF) = 178.56 Hz

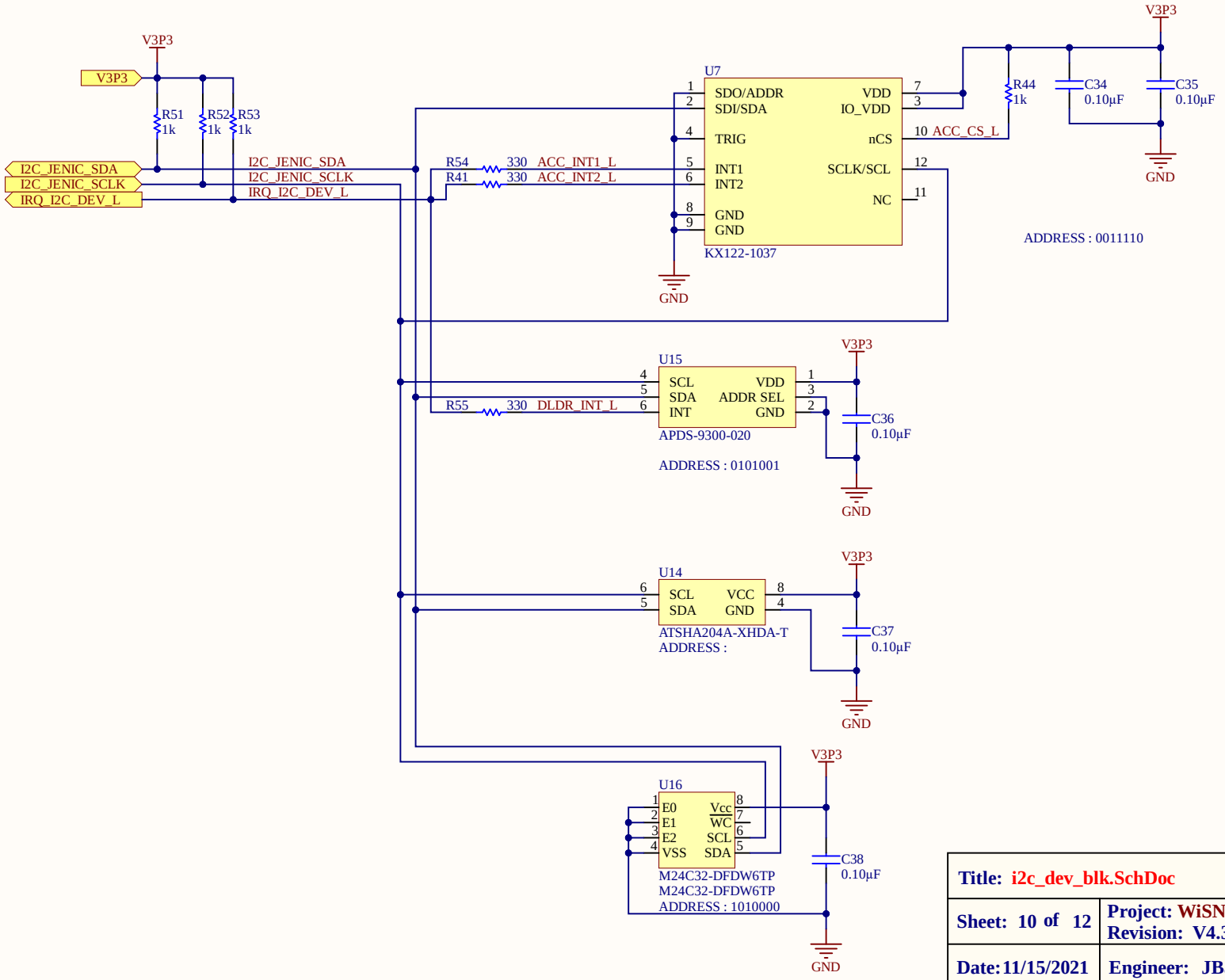
Fcutoff = 1/(2*PI*R*C) = 1/(2*PI*10K*100nF) = 159 Hz

Title: analog_inputs_blk.SchDoc		
Sheet: 8 of 12	**Project:** WiSN.PrjPCB **Revision:** V4.3.0	
Date: 11/15/2021	**Engineer:** JBayalas	**Wi4B S.r.l**

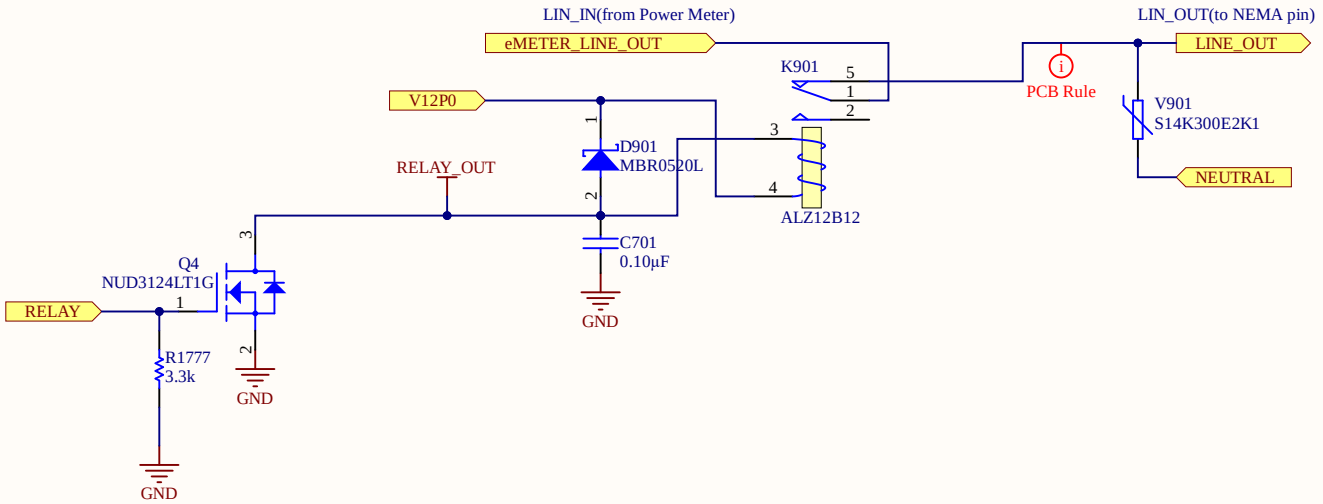


Title: jn5168_blk.SchDoc		
Sheet: 9 of 12	**Project:** WiSN.PrjPCB **Revision:** V4.3.0	
Date: 11/18/2021	**Engineer:** JBayalas	**Wi4B S.r.l**

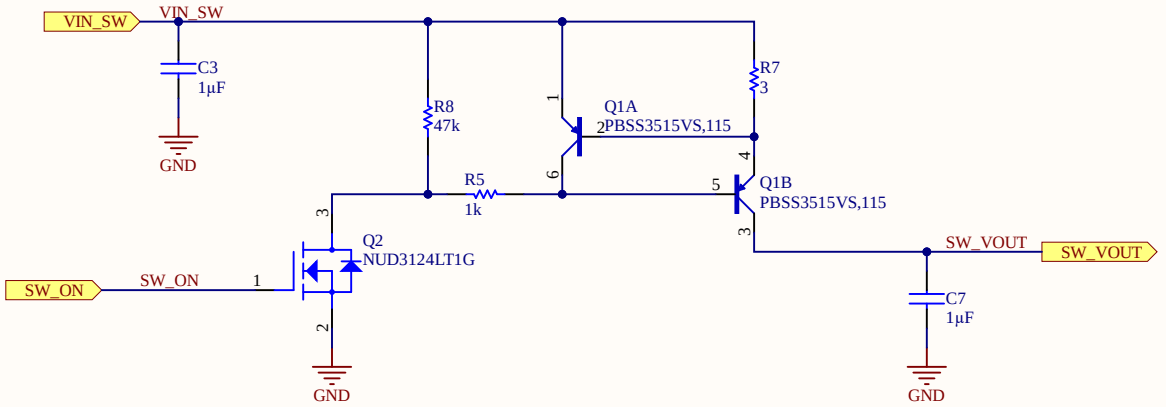
I2C Devices



Title: i2c_dev_blk.SchDoc		
Sheet: 10 of 12	**Project:** WiSN.PrjPCB **Revision:** V4.3.0	
Date: 11/15/2021	**Engineer:** JBayalas	**WI4B S.r.l**



Title: relay_blk.SchDoc		
Sheet: 11 of 12	**Project:** WiSN.PrjPCB **Revision:** V4.3.0	
Date: 11/18/2021	**Engineer:** JBayalas	**WI4B S.r.l**



Title: switch_blk.SchDoc		
Sheet: 12 of 12	**Project:** WiSN.PrjPCB **Revision:** V1.1	
Date: 11/15/2021	**Engineer:** JBayalas	**Wi4B S.r.l**