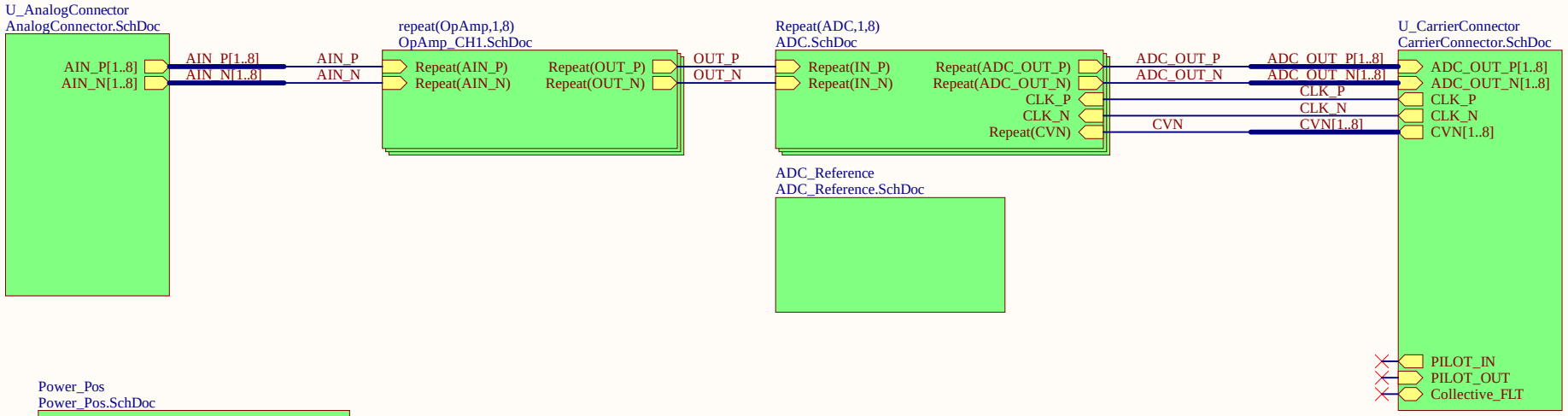
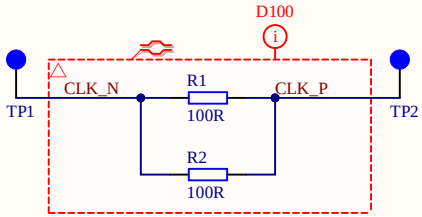
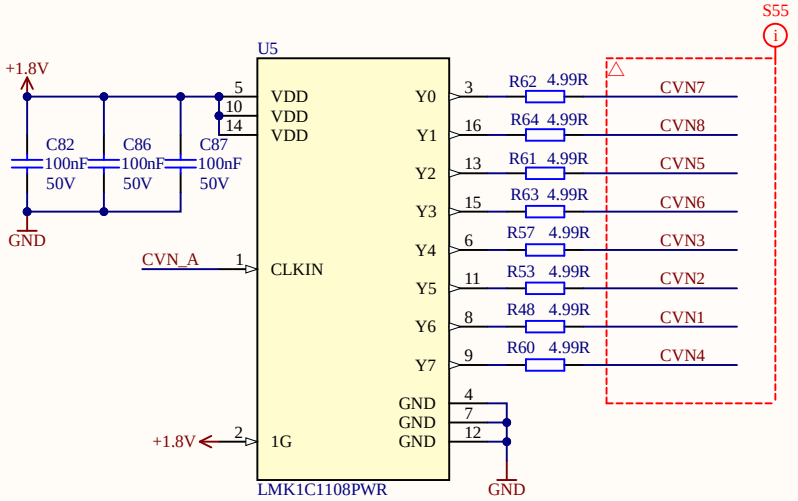


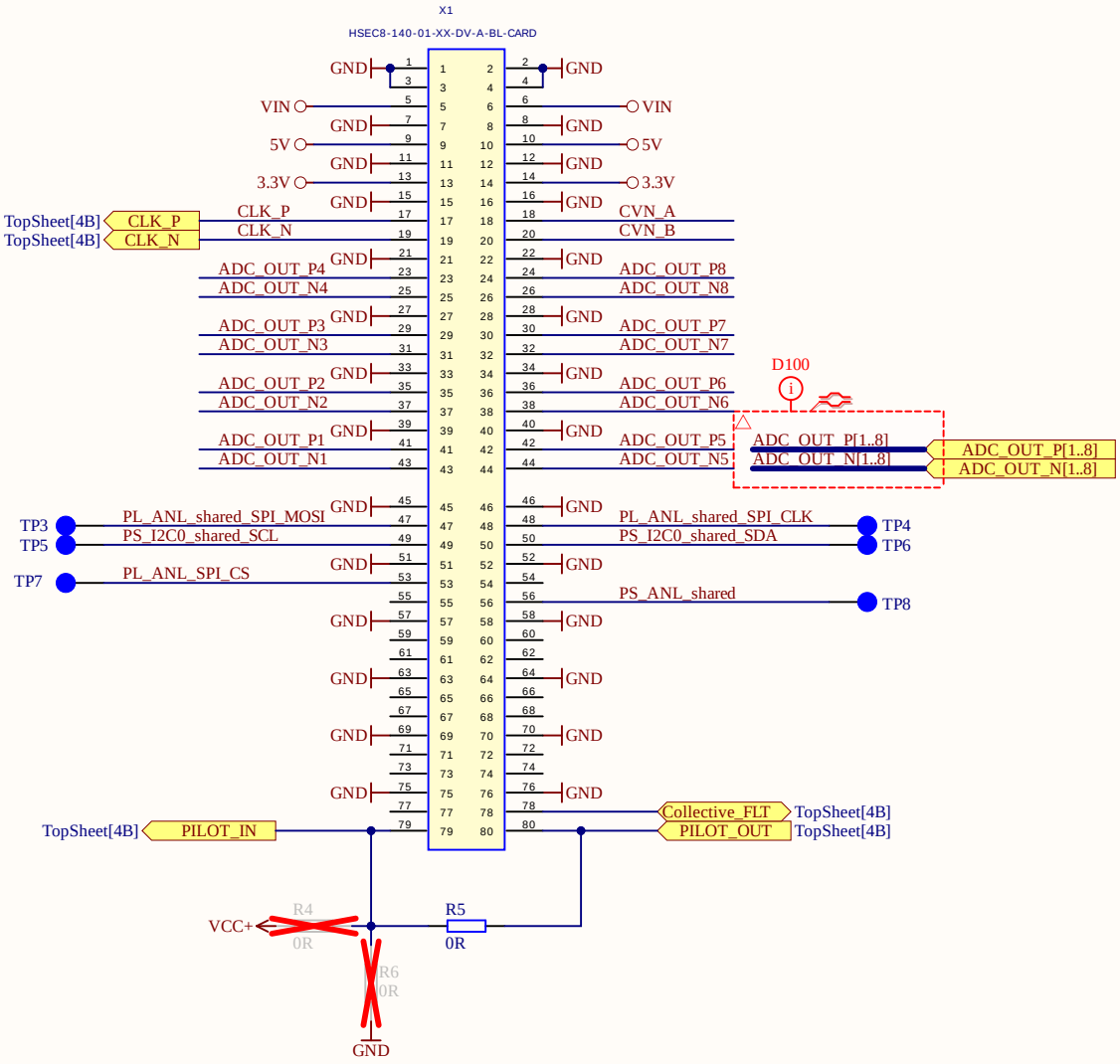
Title TopSheet.SchDoc		**UltraZohm**	
Revision: Rev06	Design Engineer: E. Liegmann	www.ultrazohm.com	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022	
		Sheet 1 of 22	

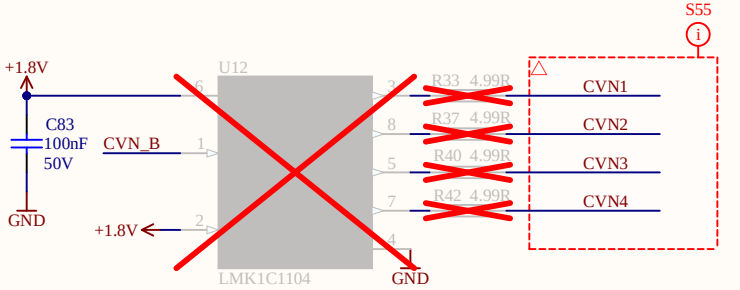
Clock Termination



Conversion Signal Distribution

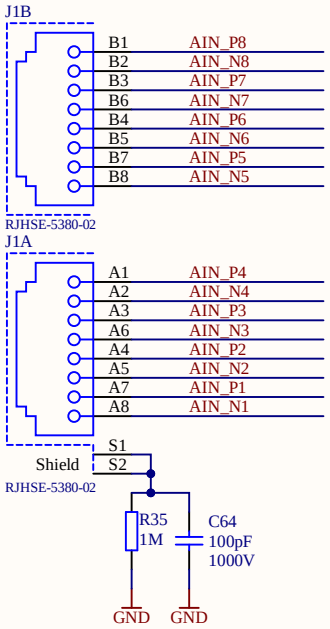




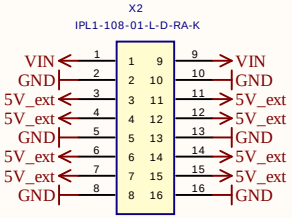


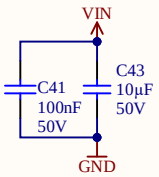
CVN[1..8] CVN[1..8]

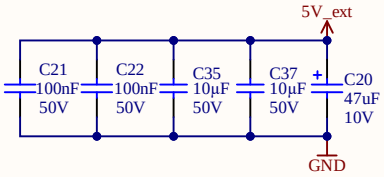
Title CarrierConnector.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	Date: 25.01.2022
Project: UZ_A_LTC2311.PrjPCB		Sheet 2 of 22

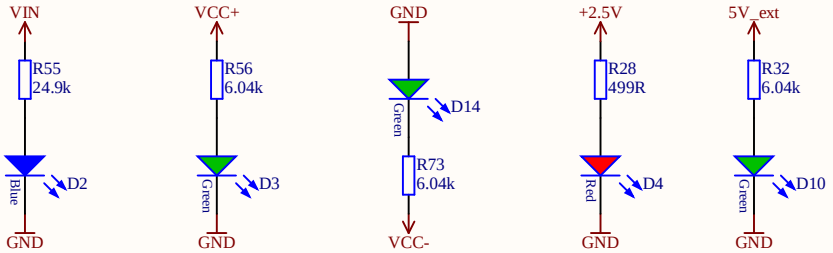


When using the VIN on the power connector X1, use pin 2 and 10 as return ground

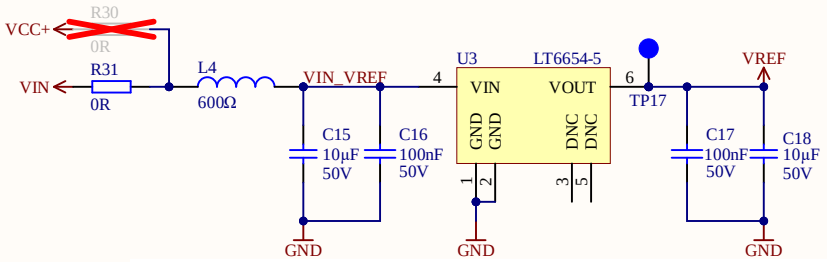






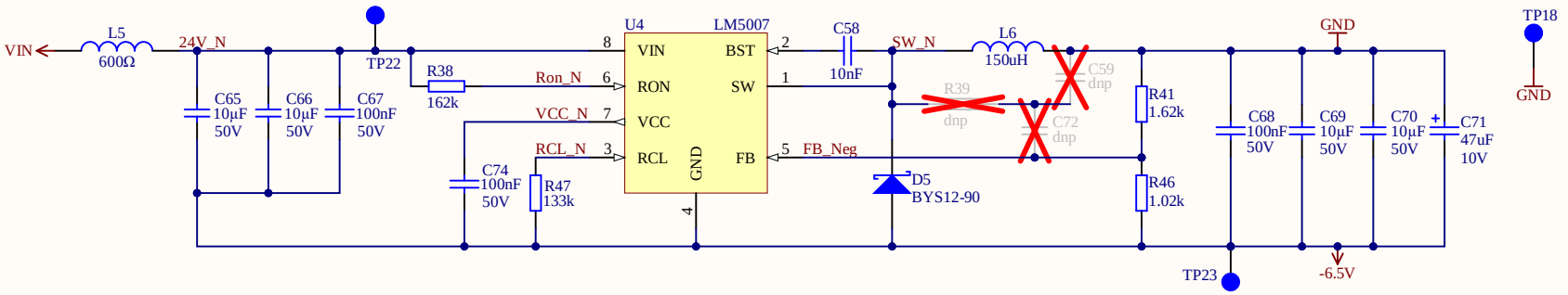


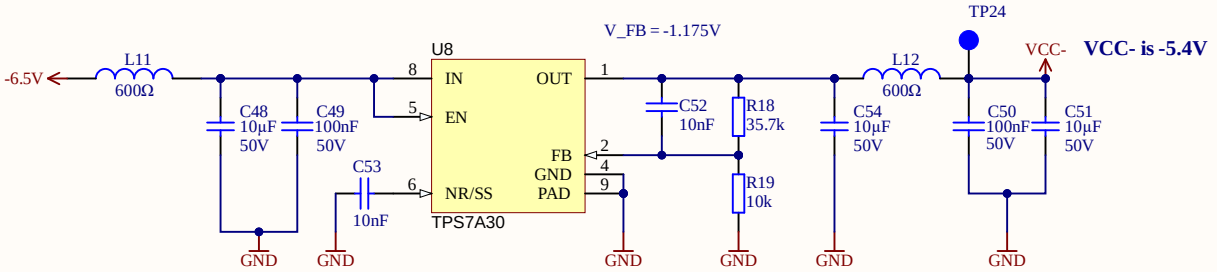
Title AnalogConnector.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022 Sheet 3 of 22

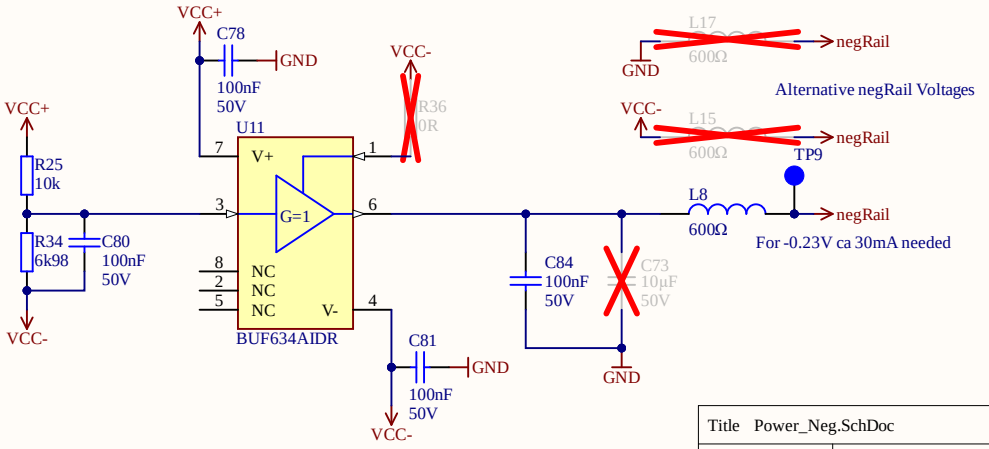


1. LT6654 is available in 1.25V/2.048V/2.5V/3V/3.3V/4.096V/5V
2. If the internal reference from LTC2311 (4.096V) is used, U3 is DNP, at LTC2311 REFIN needs to be connected to a cap to GND, and REFOUT disconnected
3. LTC2311 REFOUT max current sink is 700uA.
8ADCs*0.7mA = 5.6mA < 10mA max output current of LT6654

Title ADC_Reference.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022 Sheet 4 of 22







Title Power_Neg.SchDoc		UltraZohm	
Revision: Rev06	Design Engineer: E. Liegmann	www.ultrazohm.com	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022	
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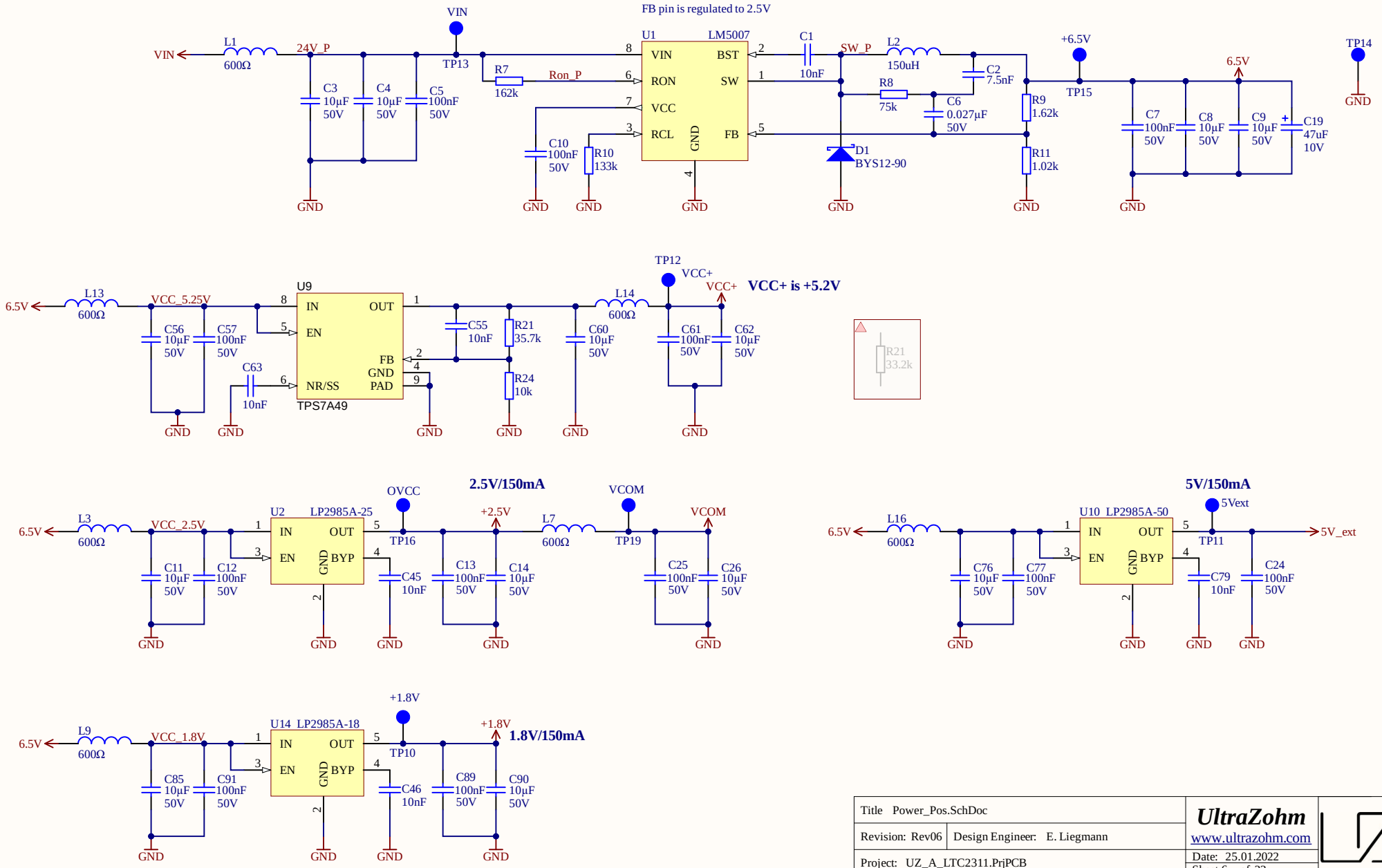
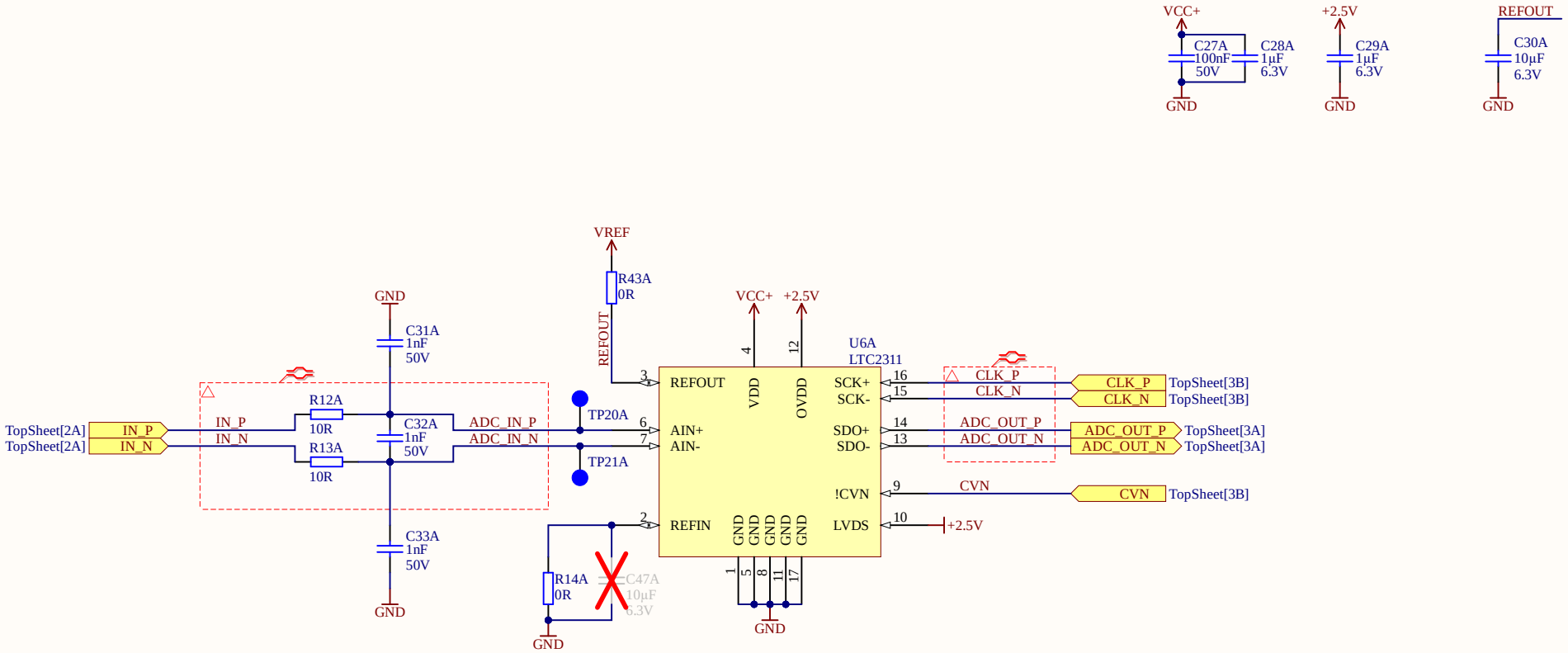


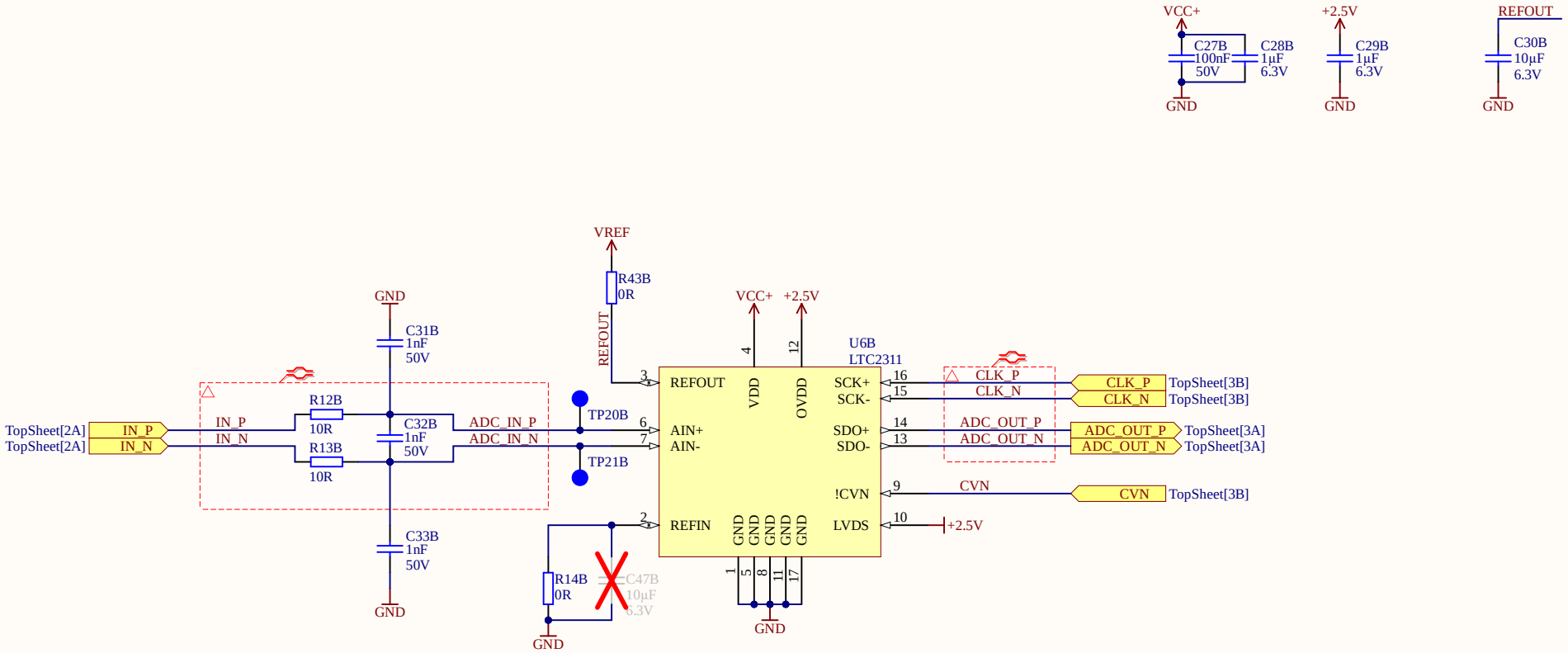
Title Power_Pos.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	Date: 25.01.2022
Project: UZ_A_LTC2311.PrjPCB		Sheet 6 of 22

ADC can provide internal 4.096V reference. For that purpose R14 has to be replaced by 10u capacitor



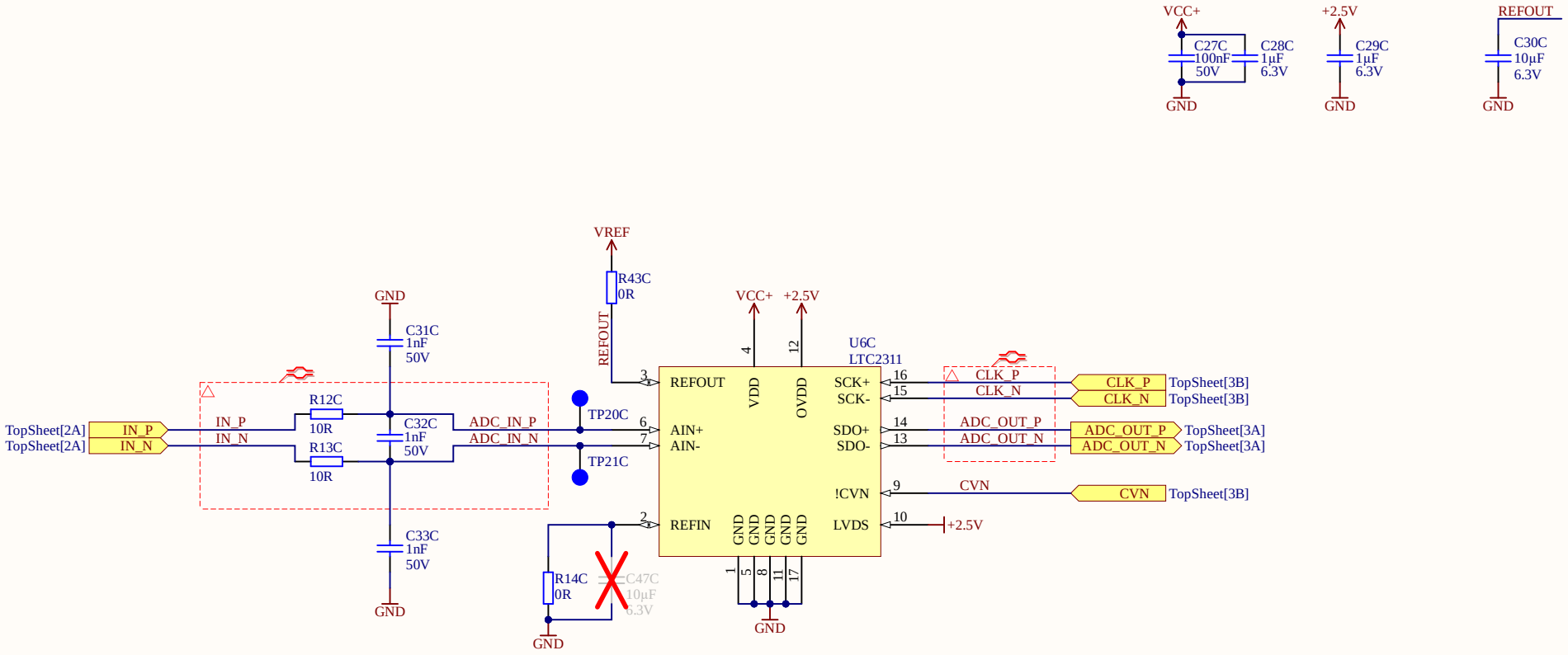
Title ADC.SchDoc		UltraZohm www.ultrazohm.com	
Revision: Rev06	Design Engineer: E. Liegmann		
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022	
		Sheet 7.1 of 22	

ADC can provide internal 4.096V reference. For that purpose R14 has to be replaced by 10u capacitor



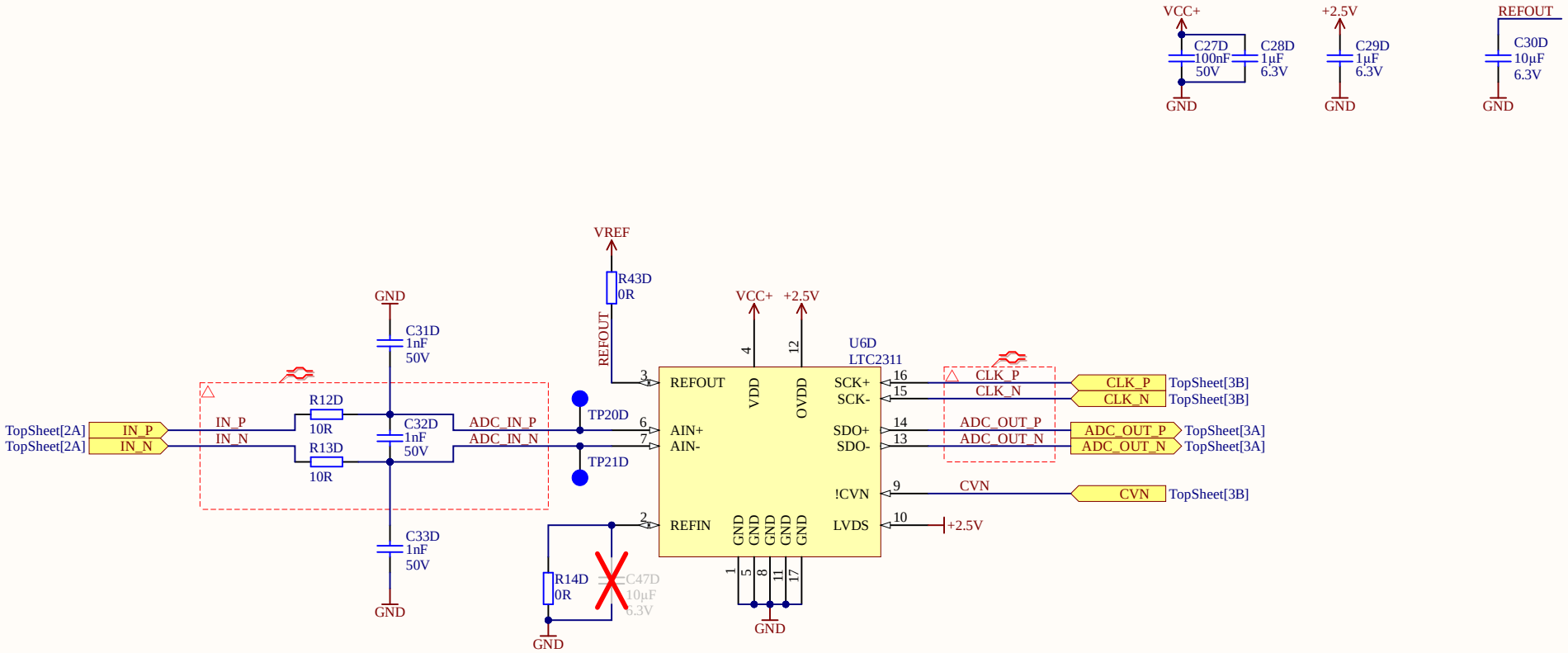
Title ADC.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022 Sheet 7.2 of 22

ADC can provide internal 4.096V reference. For that purpose R14 has to be replaced by 10u capacitor



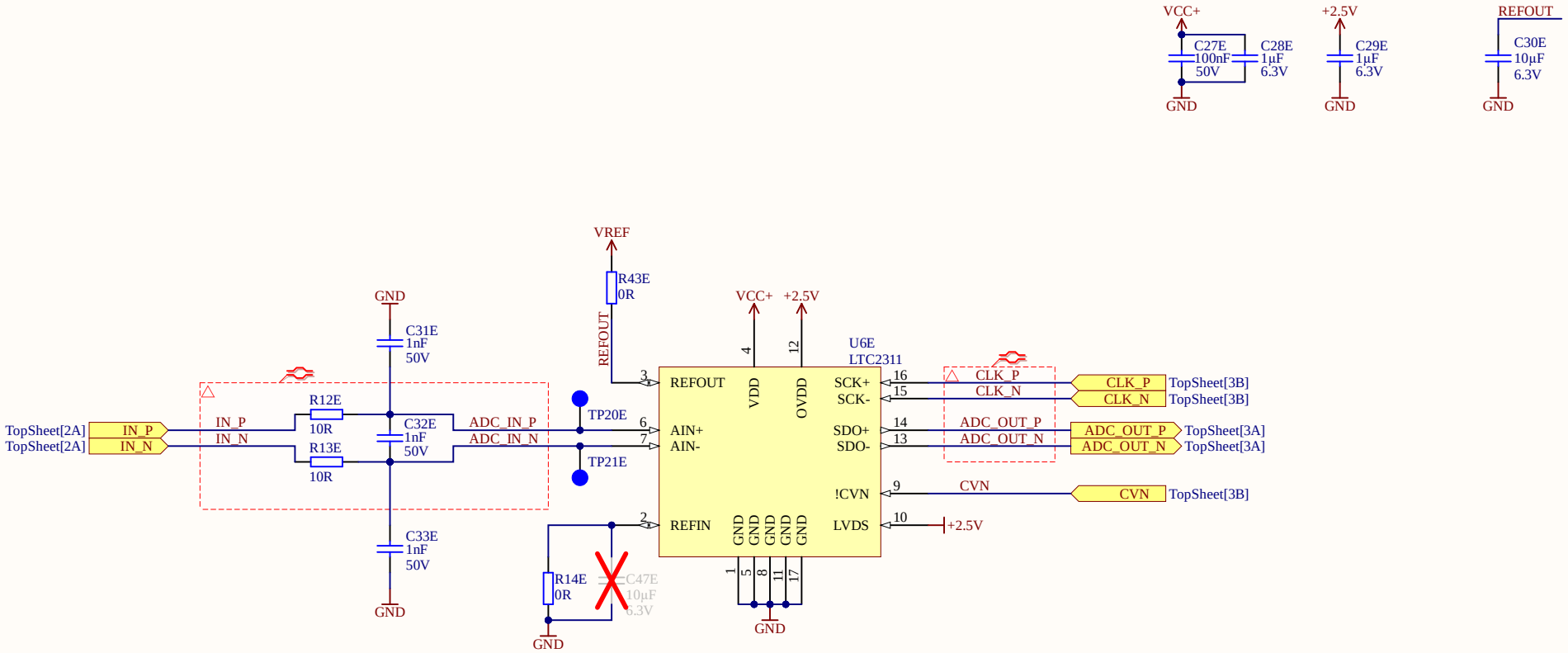
Title ADC.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022 Sheet 7.3 of 22

ADC can provide internal 4.096V reference. For that purpose R14 has to be replaced by 10u capacitor



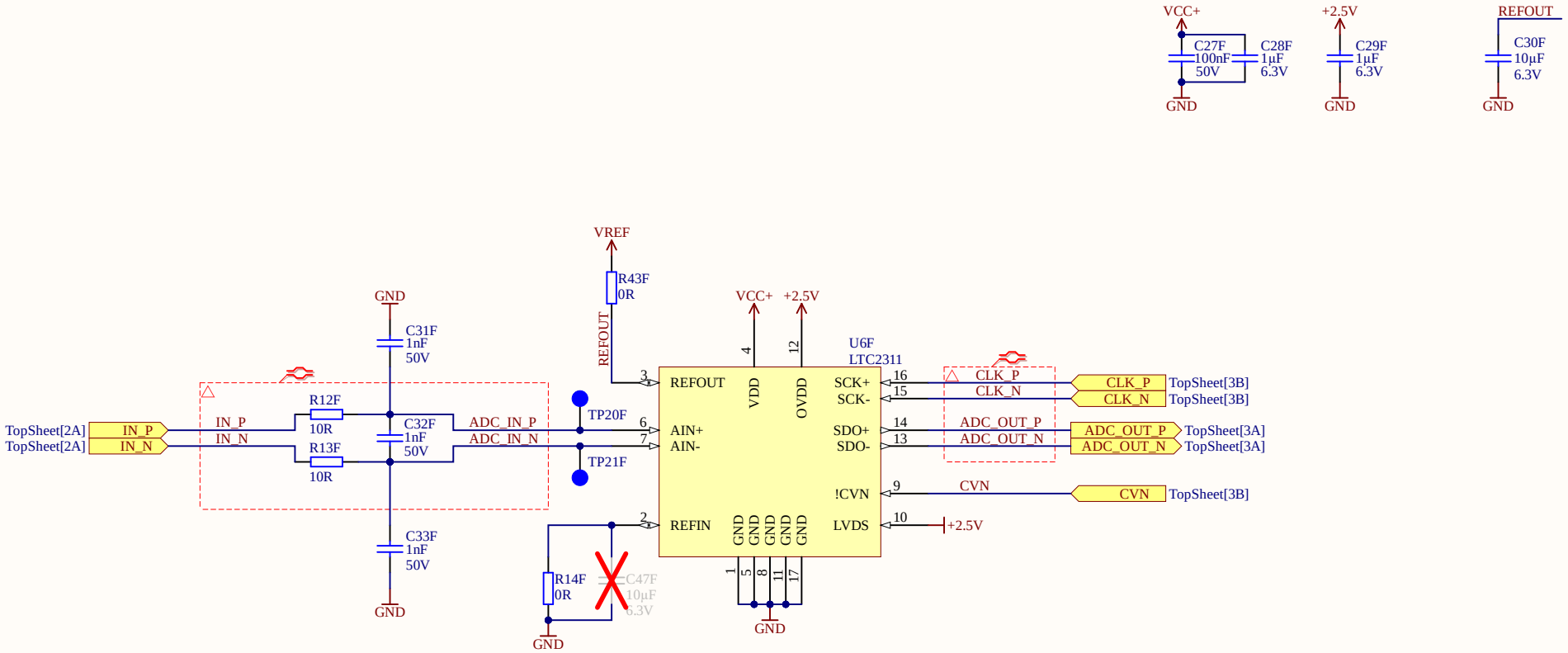
Title ADC.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022 Sheet 7.4 of 22

ADC can provide internal 4.096V reference. For that purpose R14 has to be replaced by 10u capacitor



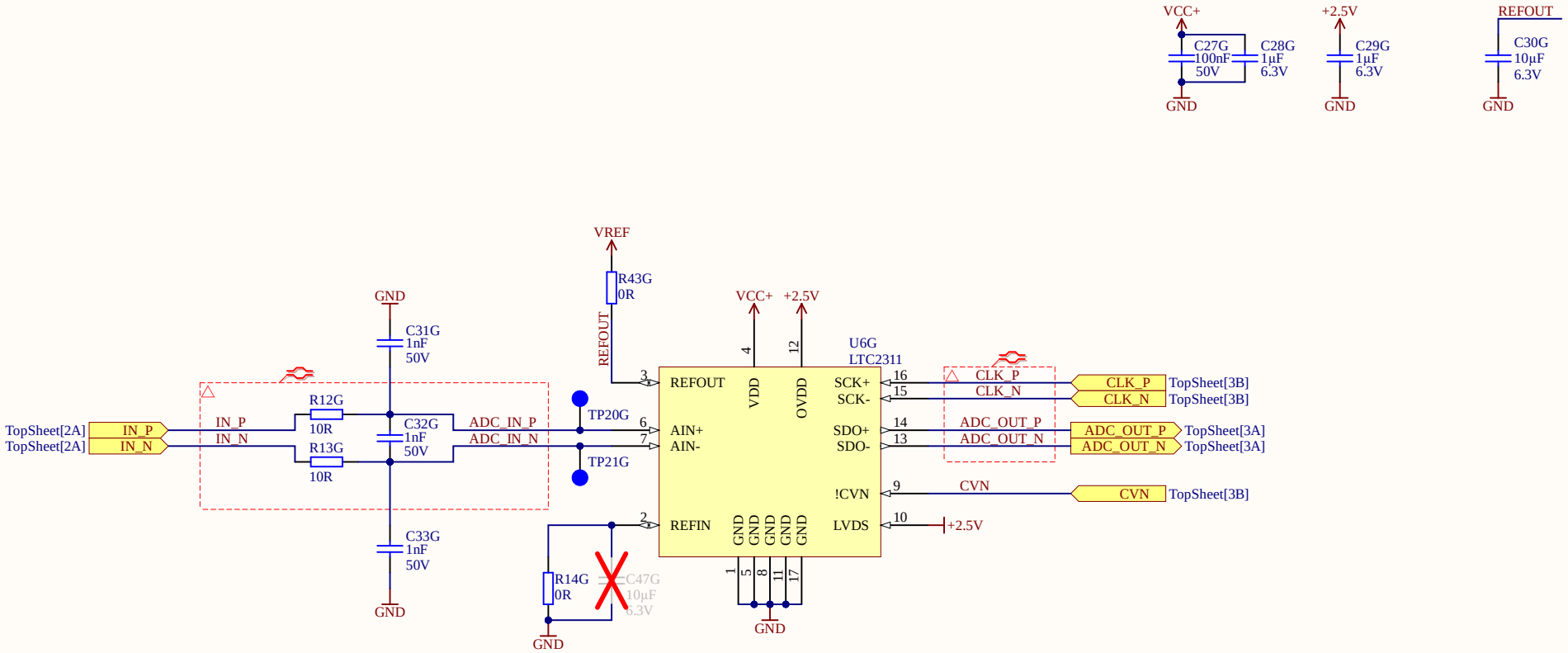
Title ADC.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022 Sheet 7.5 of 22

ADC can provide internal 4.096V reference. For that purpose R14 has to be replaced by 10u capacitor



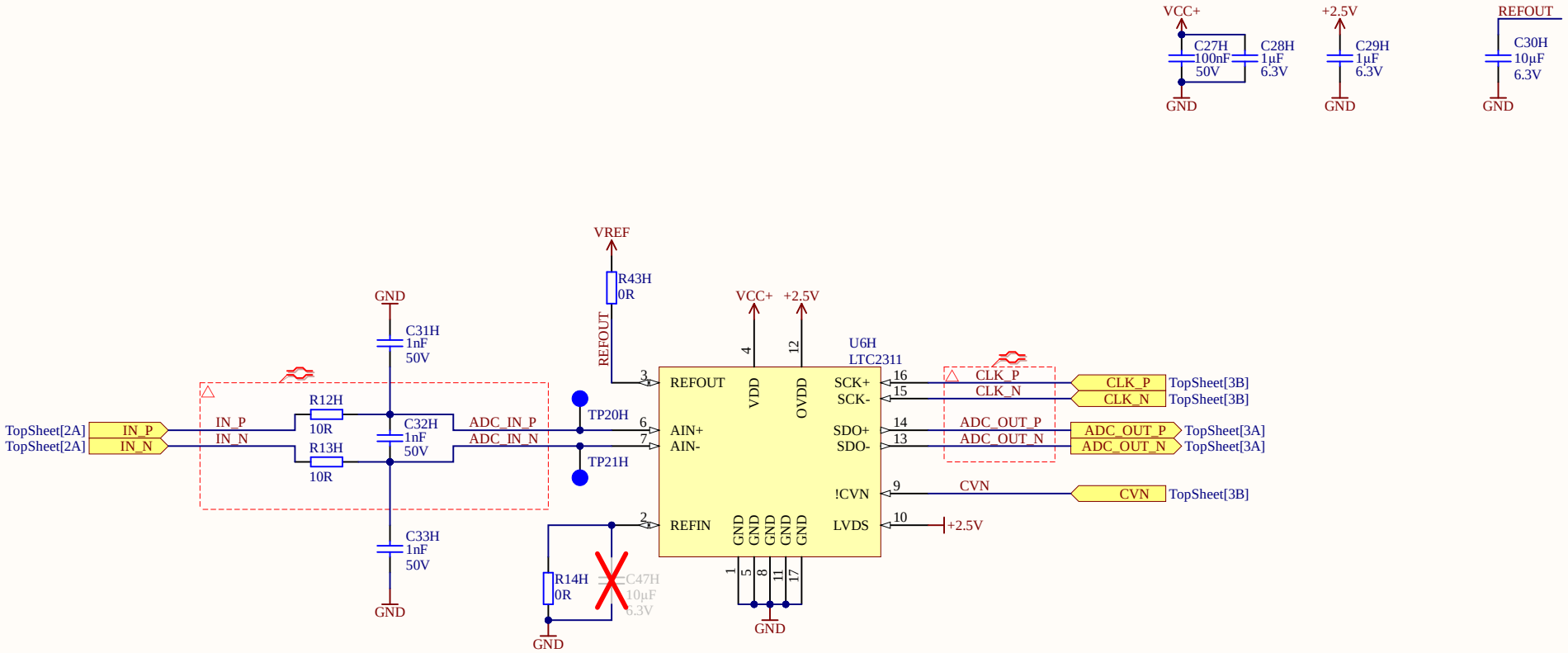
Title ADC.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022 Sheet 7.6 of 22

ADC can provide internal 4.096V reference. For that purpose R14 has to be replaced by 10u capacitor



Title ADC.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022 Sheet 7.7 of 22

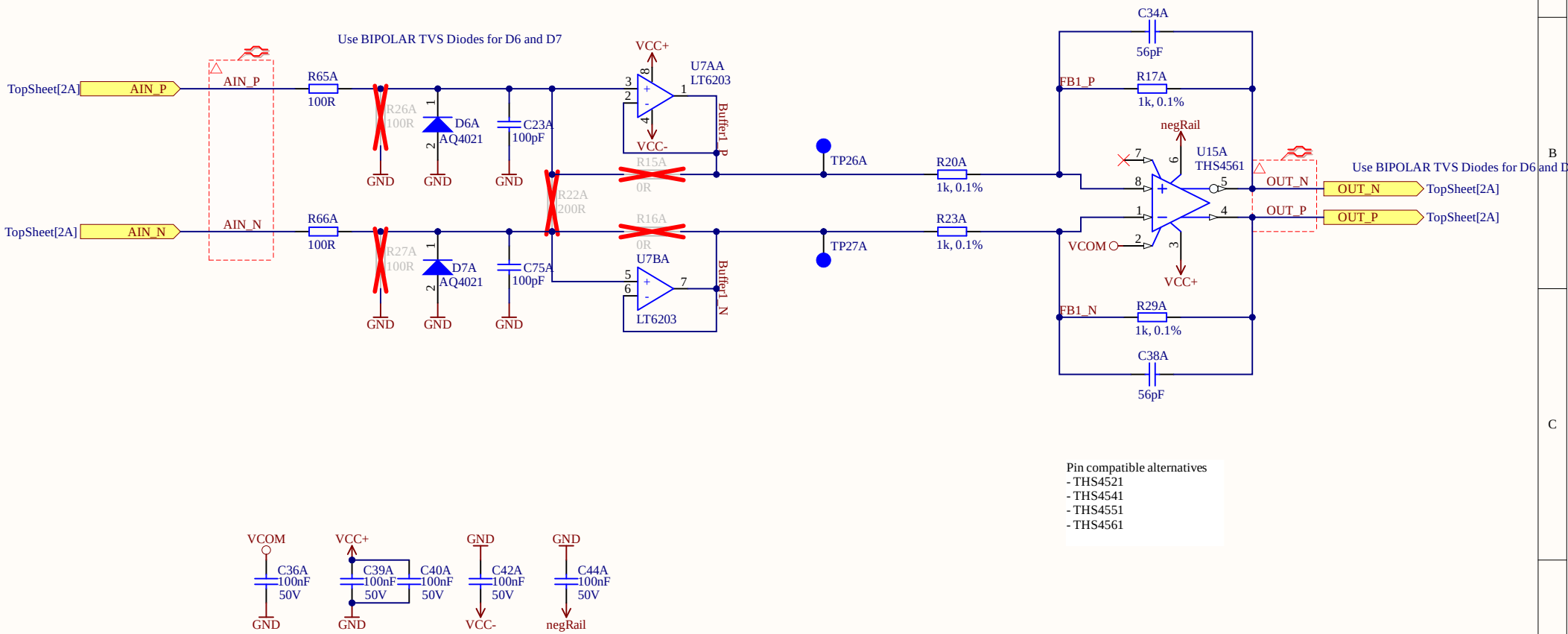
ADC can provide internal 4.096V reference. For that purpose R14 has to be replaced by 10u capacitor



Title ADC.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022 Sheet 7.8 of 22

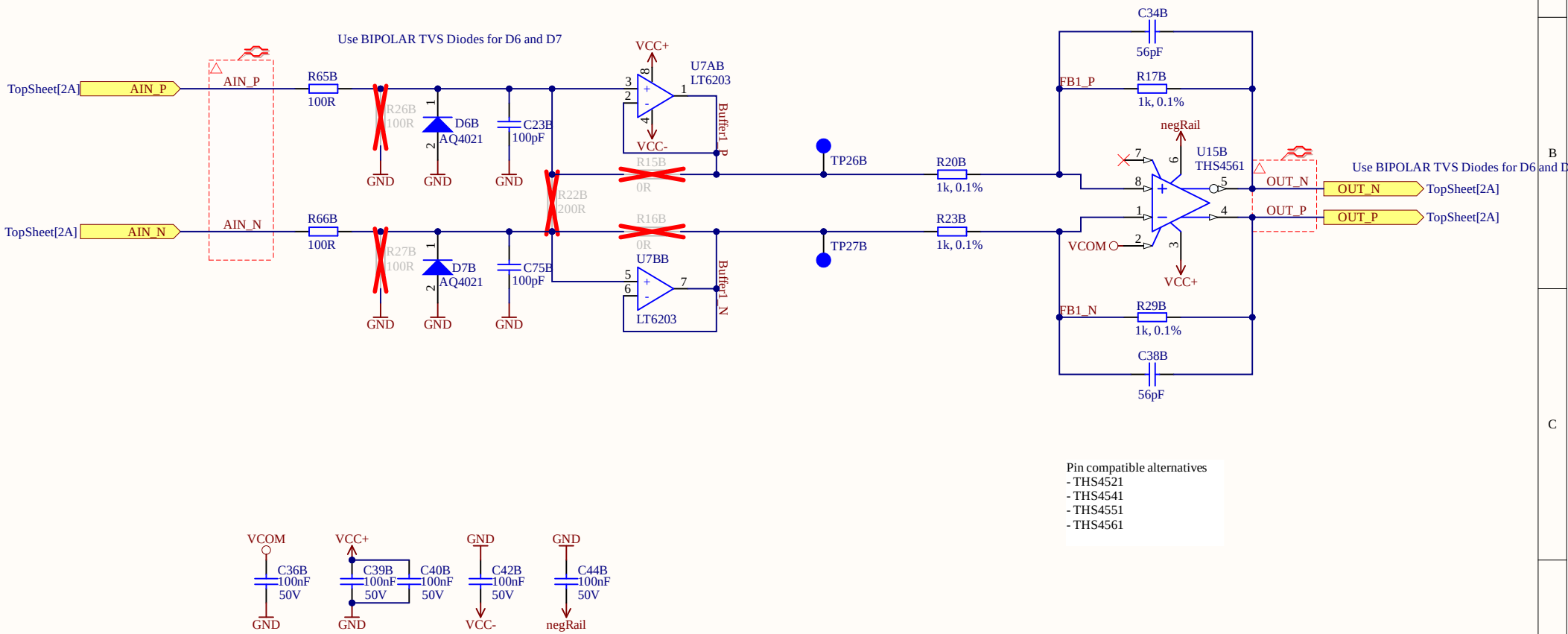
to map 5V -> 4.096V
gains needs to be 4.096V/5 = 0.8192
with R20 = 1k and R17 = 820R , resulting in a gain of g=0.82
we get a gain accuracy of 0.1%
this would allow to use 0V and 5V as rails with Vcom = 2.5V

https://jansson.us/resistors.html



Pin compatible alternatives
- THS4521
- THS4541
- THS4551
- THS4561

Title OpAmp_CH1.SchDoc		UltraZohm	
Revision: Rev06	Design Engineer: E. Liegmann	www.ultrazohm.com	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022	
		Sheet 8.1 of 22	

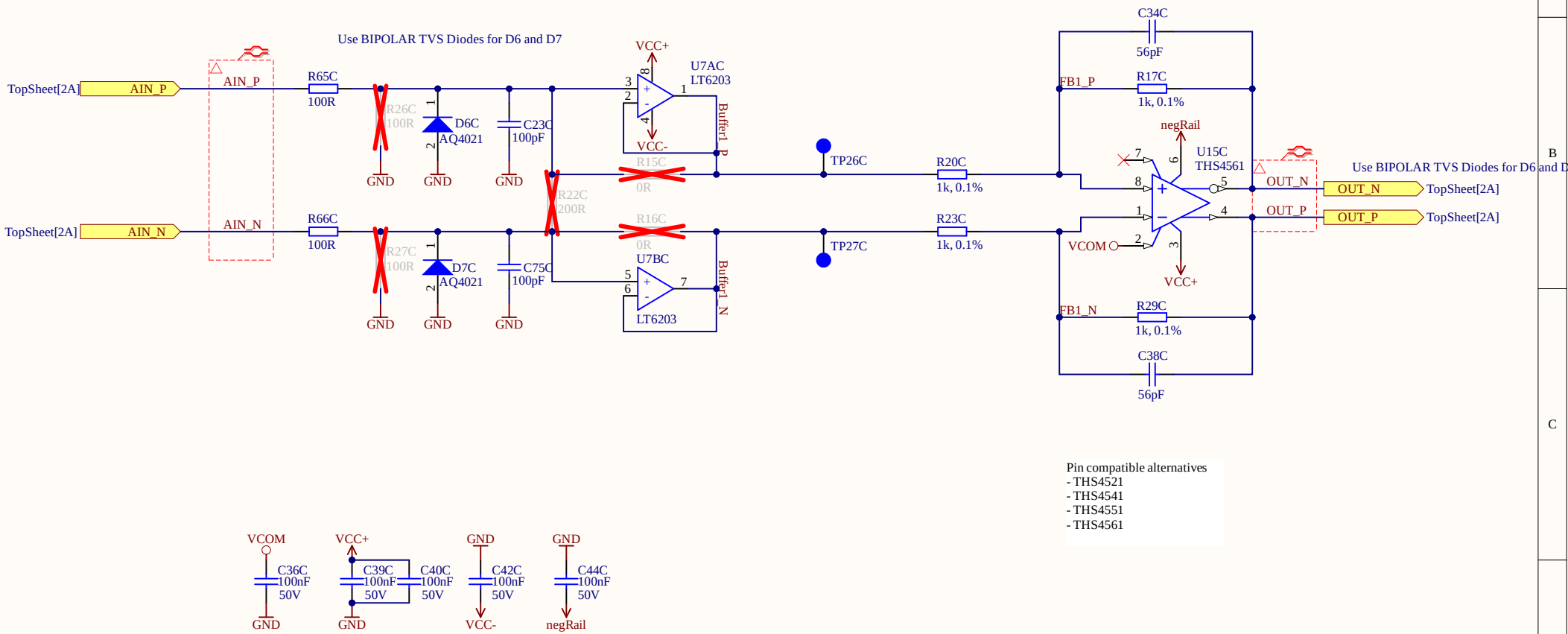


to map 5V -> 4.096V
gains needs to be 4.096V/5 = 0.8192
with R20 = 1k and R17 = 820R , resulting in a gain of g=0.82
we get a gain accuracy of 0.1%
this would allow to use 0V and 5V as rails with Vcom = 2.5V

https://jansson.us/resistors.html

Pin compatible alternatives
- THS4521
- THS4541
- THS4551
- THS4561

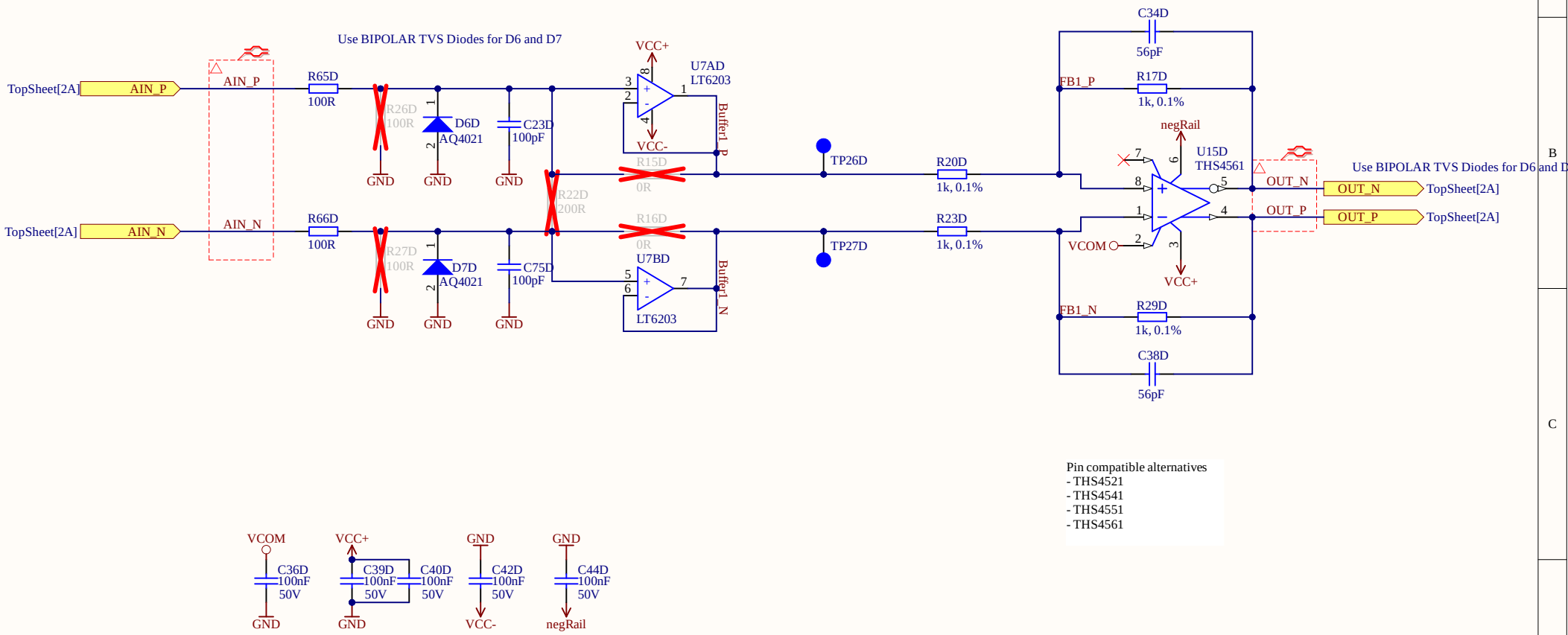
Title OpAmp_CH1.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	Date: 25.01.2022
Project: UZ_A_LTC2311.PrjPCB		Sheet 8.2 of 22



Title OpAmp_CH1.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	Date: 25.01.2022
Project: UZ_A_LTC2311.PrjPCB		Sheet 8.3 of 22

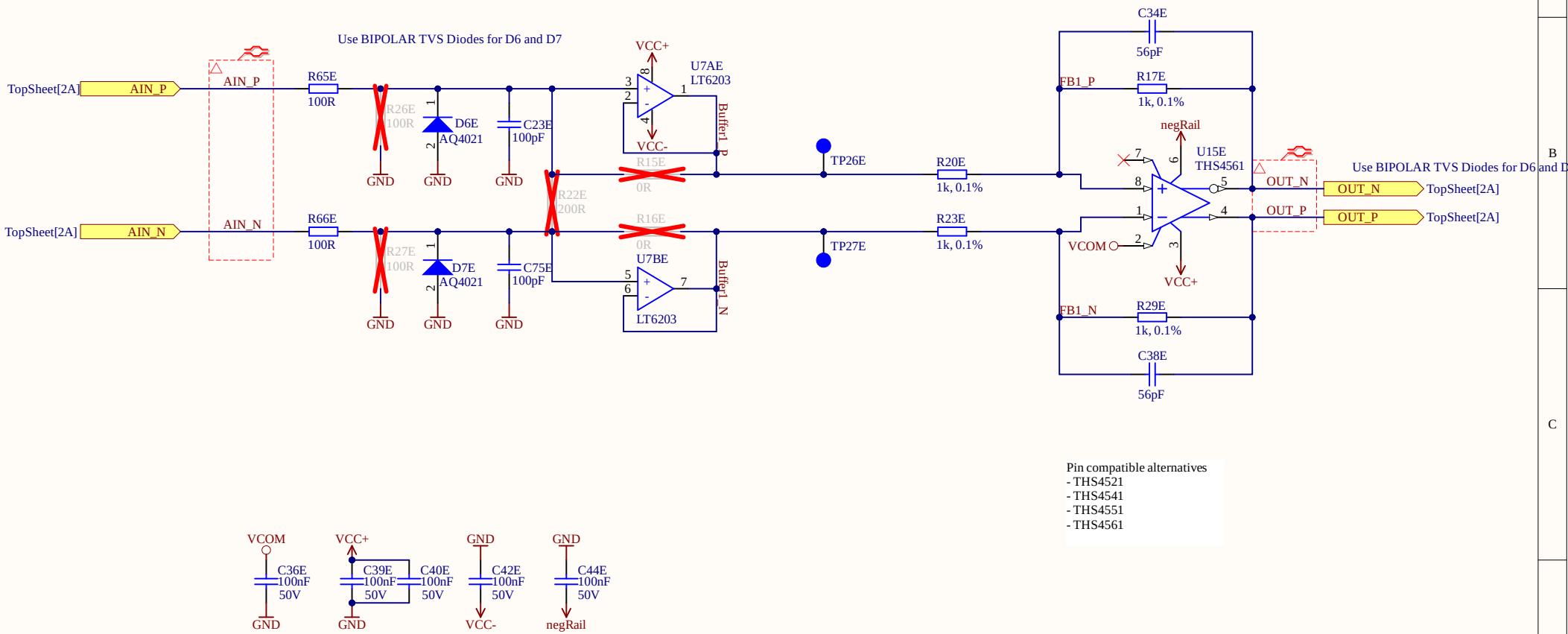
to map 5V -> 4.096V
gains needs to be 4.096V/5 = 0.8192
with R20 = 1k and R17 = 820R , resulting in a gain of g=0.82
we get a gain accuracy of 0.1%
this would allow to use 0V and 5V as rails with Vcom = 2.5V

https://jansson.us/resistors.html



Pin compatible alternatives
- THS4521
- THS4541
- THS4551
- THS4561

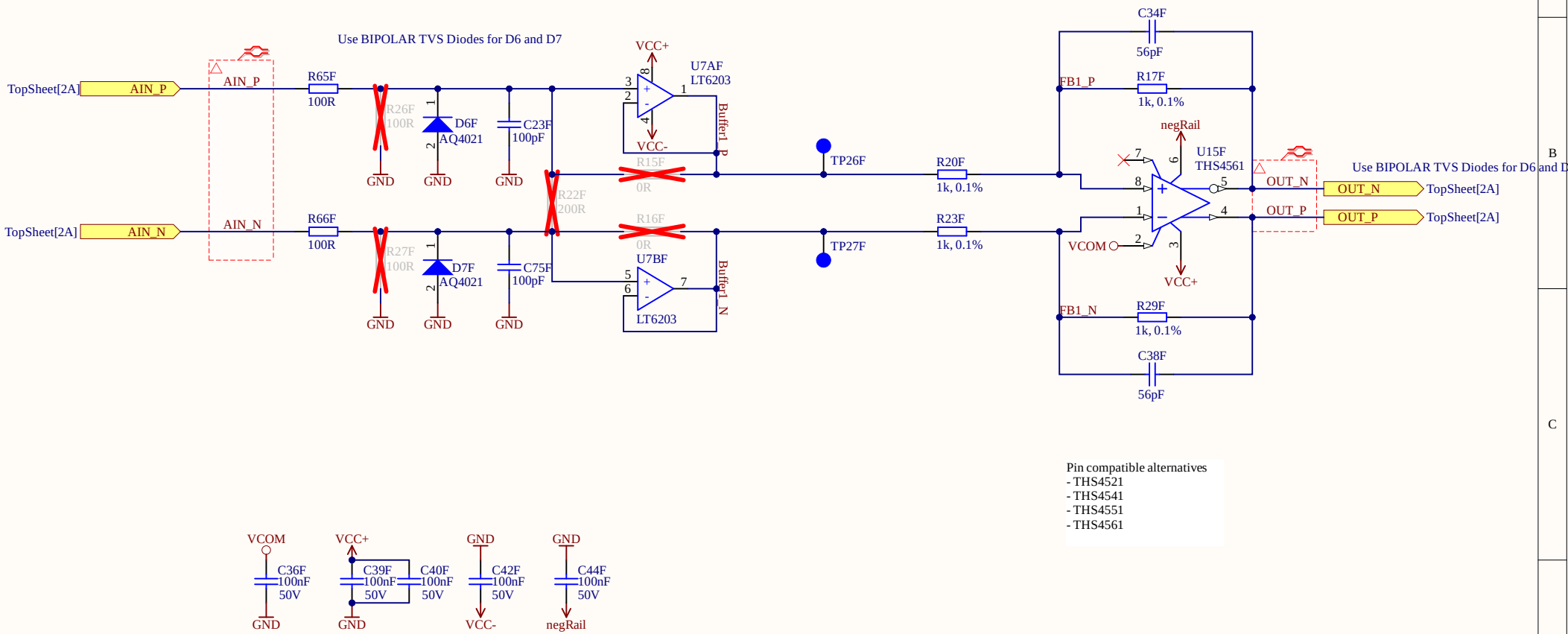
Title OpAmp_CH1.SchDoc		UltraZohm www.ultrazohm.com
Revision: Rev06	Design Engineer: E. Liegmann	Date: 25.01.2022
Project: UZ_A_LTC2311.PrjPCB		Sheet 8.4 of 22



Title OpAmp_CH1.SchDoc		UltraZohm	
Revision: Rev06	Design Engineer: E. Liegmann	www.ultrazohm.com	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022	
		Sheet 8.5 of 22	

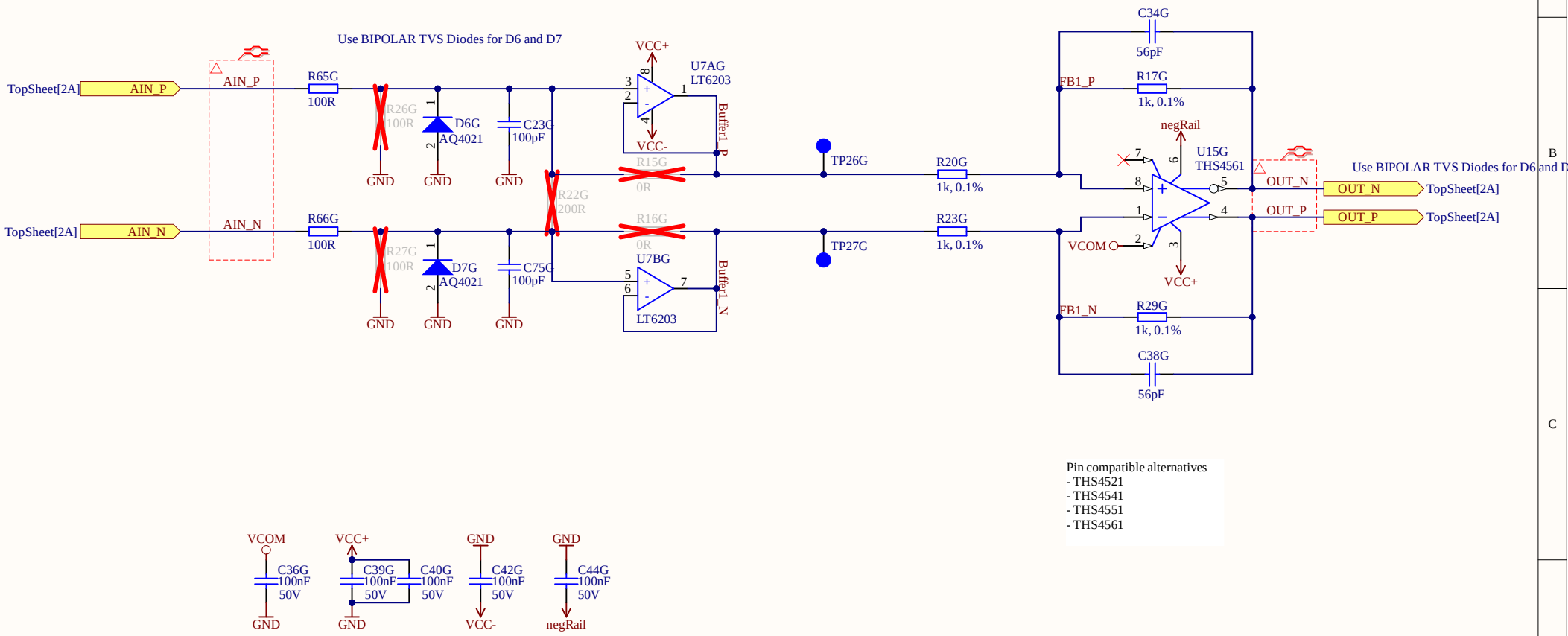
to map 5V -> 4.096V
gains needs to be 4.096V/5 = 0.8192
with R20 = 1k and R17 = 820R , resulting in a gain of g=0.82
we get a gain accuracy of 0.1%
this would allow to use 0V and 5V as rails
with Vcom = 2.5V

https://jansson.us/resistors.html

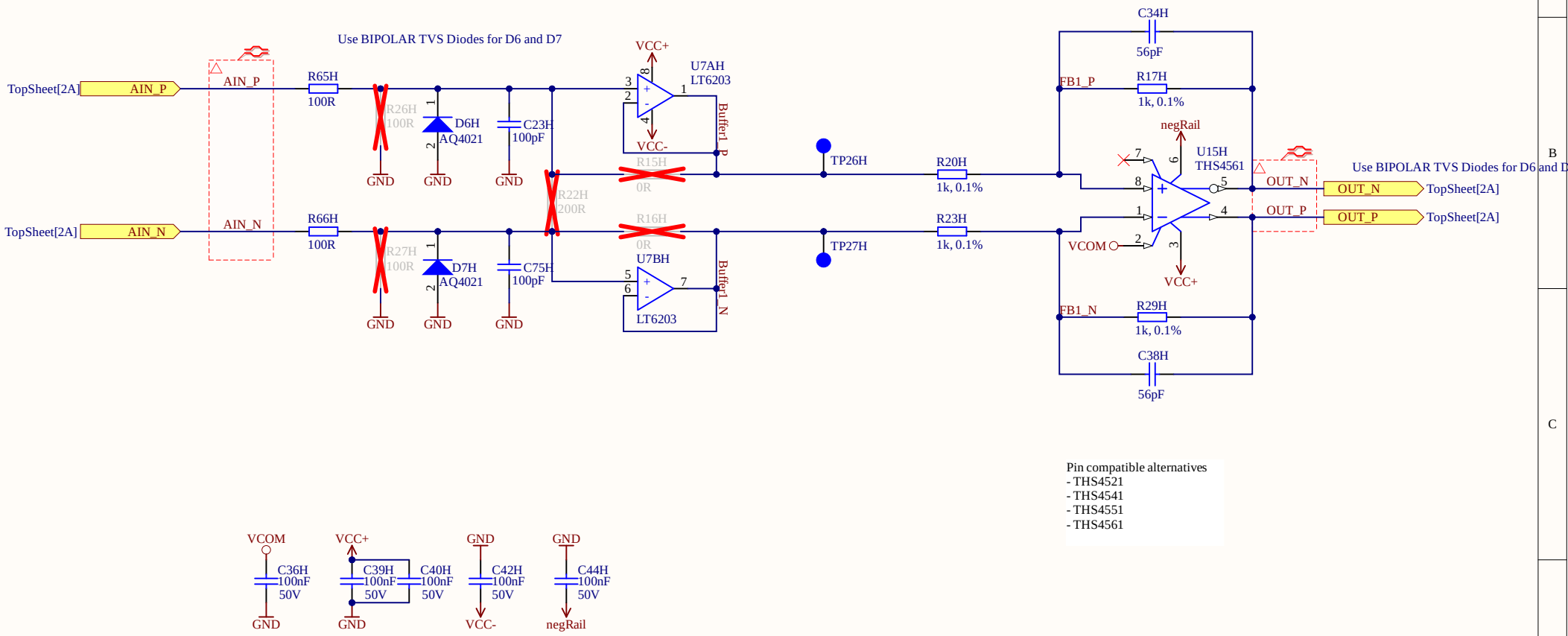


Pin compatible alternatives
- THS4521
- THS4541
- THS4551
- THS4561

Title OpAmp_CH1.SchDoc		UltraZohm	
Revision: Rev06	Design Engineer: E. Liegmann	www.ultrazohm.com	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022	
		Sheet 8.6 of 22	



Title OpAmp_CH1.SchDoc		UltraZohm	
Revision: Rev06	Design Engineer: E. Liegmann	www.ultrazohm.com	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022	
		Sheet 8.7 of 22	



Title OpAmp_CH1.SchDoc		UltraZohm	
Revision: Rev06	Design Engineer: E. Liegmann	www.ultrazohm.com	
Project: UZ_A_LTC2311.PrjPCB		Date: 25.01.2022	
		Sheet 8.8 of 22	