


Title: <b>Power_Path</b>			Author:	Alcatraz	<div>DHNLAB PVT LTD</div> <div>DHANBAD</div> <div>JHARKHAND</div> <div>INDIA</div> <div>ASIA</div> <div></div>
Size: A4	Prj: USB-UART-ISO-CP2102		Approved:	Alcatraz	
Date: 23-11-2024	03:06:28	Sheet 1 of 7	Edited:	22-11-2024	
Git Hash: 426			Variant:	[No Variations]	
File: C:\Users\desktop\Documents\Project Files\Altium\Projects\Project - Development\USB-UART-ISO-CP2102\1_Power_Path.SchDoc			SW Version:	24.10.1.45	

SGM2019-ADJ  
Populate R0L, R1L and R2L

SGM2019-3.3  
Only Populate R2L With 100nF  
Cap  
DNP - R0L, R1L

HT7833  
DNP - R0L, R1L and R2L

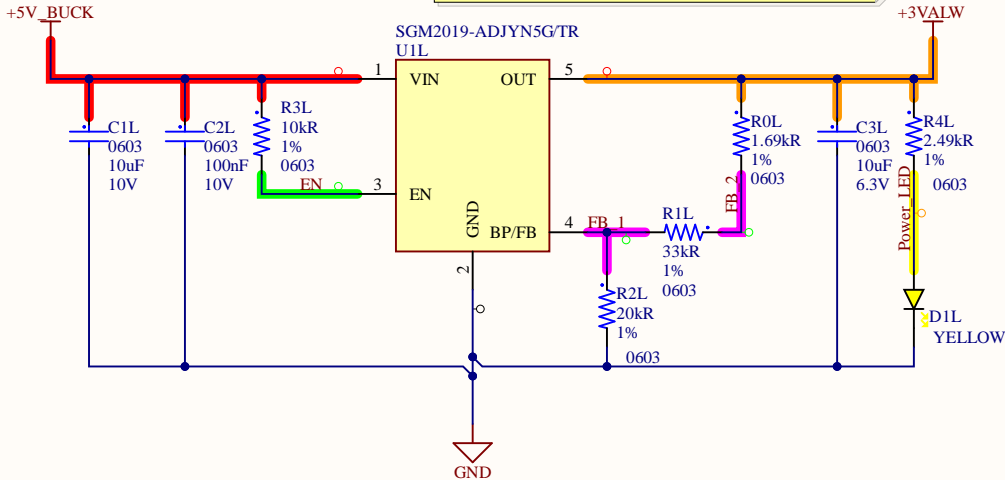
SGM2019-ADJYN5G/TR  
Vout = 3.3V  
Register Values For  
R0L, R1L and R2L  
 $R1L = R0B + R1L$

Values From Datasheet

Standard 1% Resistor Values for Common Output Voltages of Adjustable Voltage Version

V <sub>OUT</sub> (V)	R <sub>1</sub> (kΩ)	R <sub>2</sub> (kΩ)
1.2	0	63.4
1.5	10.5	42.2
1.8	34	63.4
2.8	84.5	63.4
3.0	63.4	42.2
3.3	73.2	42.2
3.6	84.5	42.2
4.2	105	42.2

NOTE:  $V_{OUT} = (R_1 + R_2) R_2 \times 1.207$

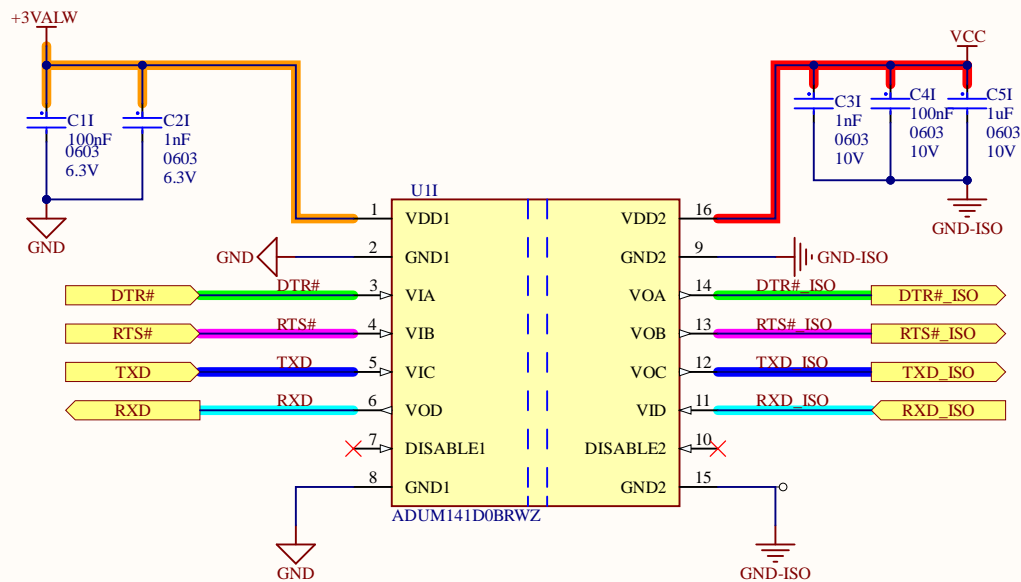


Here are the calculated values of R1L (in kΩ) for VOUT= 3.3 V with different R2L values:  
IF R0L= 0Ω  
R2L=10kΩ: R1L≈17.34kΩ  
R2L=20kΩ: R1L≈34.68kΩ  
R2L=30kΩ: R1L≈52.02kΩ  
R2L=40kΩ: R1L≈69.36kΩ  
R2L=50kΩ: R1L≈86.70kΩ  
R2L=60kΩ: R1L≈104.04kΩ  
R2L=70kΩ: R1L≈121.38kΩ  
R2L=80kΩ: R1L≈138.72kΩ  
R2L=90kΩ: R1L≈156.06kΩ  
R2L=100kΩ: R1L≈173.41kΩ

Title: <b>LDO</b>			Author: Alcatraz		DHNLAB PVT LTD DHANBAD JHARKHAND INDIA ASIA	
Prj: USB-UART-ISO-CP2102			Approved: Alcatraz			
Size: A4			<b>PUBLIC</b>			
Date: 23-11-2024 03:06:28			Edited: 22-11-2024			
Sheet 2 of 7			Variant: [No Variations]			
Git Hash: 426			SW Version: 24.10.1.45			
File: C:\Users\desktop\Documents\Project Files\Altium\Projects\Project - Development\USB-UART-ISO-CP2102\2_LDO.SchDoc						

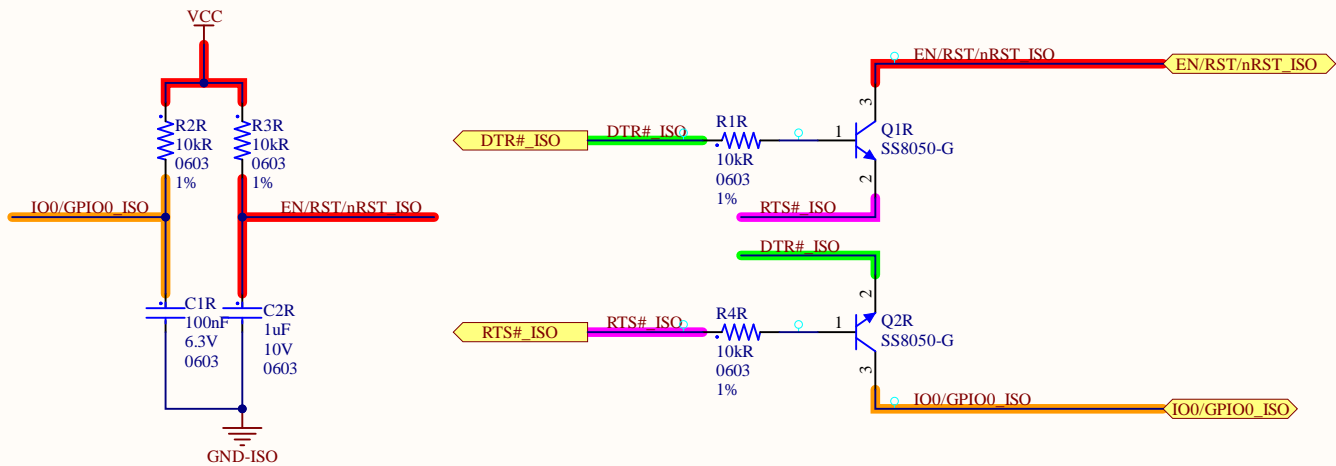






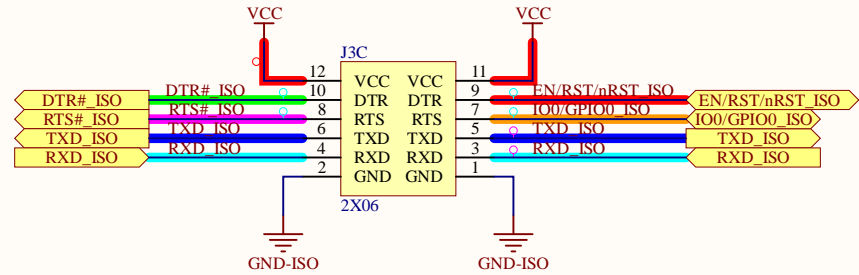
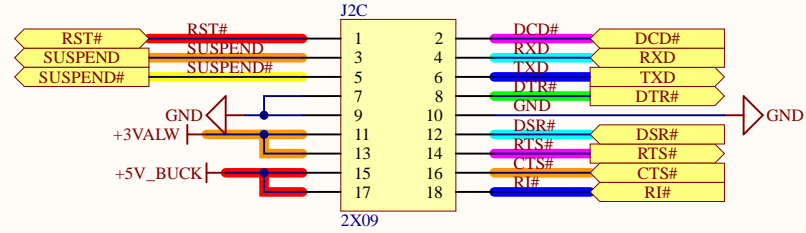
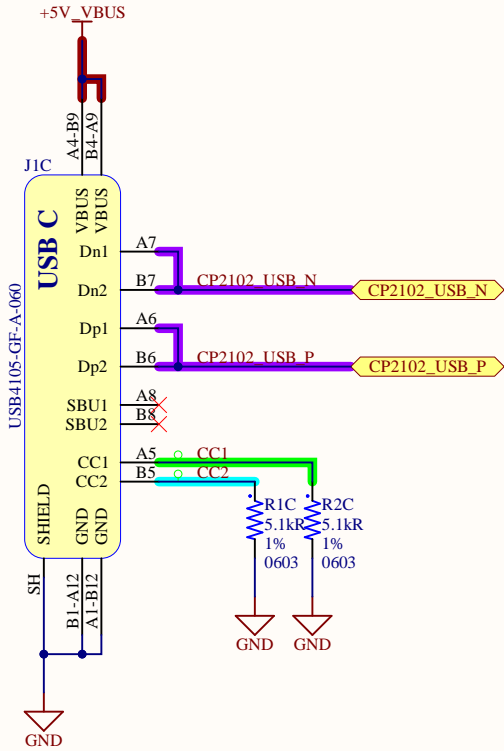
Title: <i>Digital_Isolator</i>			Author:	Alcatraz	DHNLAB PVT LTD DHANBAD JHARKHAND INDIA ASTA		
Size: A4			Prj: USB-UART-ISO-CP2102	Approved:		Alcatraz	
				<b>PUBLIC</b>			
Date: 23-11-2024			03:06:28	Sheet 4 of 7		Edited:	22-11-2024
Git Hash: 427			Variant:			[No Variations]	
File:			C:\Users\desktop\Documents\Project Files\Altium\Projects\Project - Development\USB-UART-ISO-CP2102\4_Digital_Isolator.schDoc			SW Version:	24.10.1.45





Title: <b>Auto_Reset</b>			Author:	Alcatraz	DHNLAB PVT LTD DHANBAD JHARKHAND INDIA ASIA
Prj: USB-UART-ISO-CP2102			Approved:	Alcatraz	
Size: A4			<b>PUBLIC</b>		
Date: 23-11-2024    03:06:28    Sheet 5 of 7			Edited:	17-11-2024	
Git Hash: 394			Variant:	[No Variations]	
File: C:\Users\desktop\Documents\Project Files\Altium\Projects\Project - Development\USB-UART-ISO-CP2102\5_Auto_Reset.SchDoc			SW Version:	24.10.1.45	






Title: <b>Connector</b>			Author: Alcatraz	DHNLAB PVT LTD DHANBAD JHARKHAND INDIA ASIA
Size: A4	Prj: USB-UART-ISO-CP2102		Approved: Alcatraz	
Date: 23-11-2024	03:06:28	Sheet 6 of 7	Edited: 17-11-2024	
Git Hash: 394			Variant: [No Variations]	
File: C:\Users\desktop\Documents\Project Files\Altium\Projects\Project - Development\USB-UART-ISO-CP2102\6_Connector.SchDoc			SW Version: 24.10.1.45	





Title: <b>MountingHoles</b>			Author:	Alcatraz	<div>DHNLAB PVT LTD DHANBAD JHARKHAND INDIA ASIA</div> 
			Approved:	Alcatraz	
Size: A4	Prj: USB-UART-ISO-CP2102			<b>PUBLIC</b>	
Date: 23-11-2024	03:06:28	Sheet 7 of 7	Edited:	19-11-2024	
Git Hash: 404			Variant:	[No Variations]	
File: C:\Users\desktop\Documents\Project Files\Altium\Projects\Project - Development\USB-UART-ISO-CP2102\7_MountingHoles.SchDoc			SW Version:	24.10.1.45	