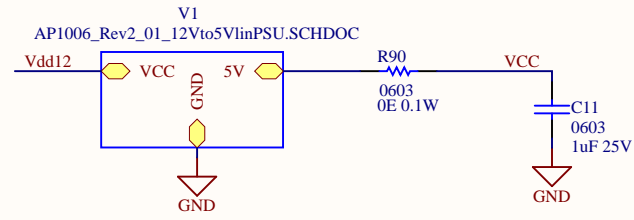
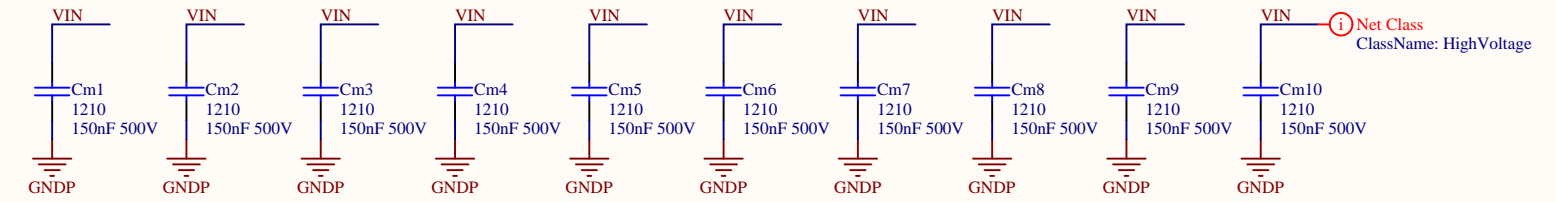


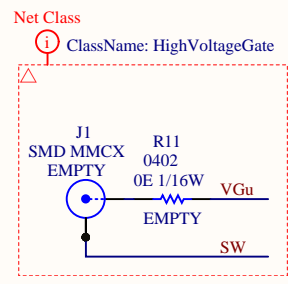
Logic Supply
10-15 VDC



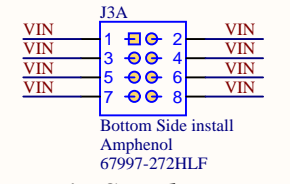
5 V Logic Regulator



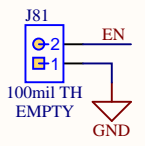
Intermediate Capacitors



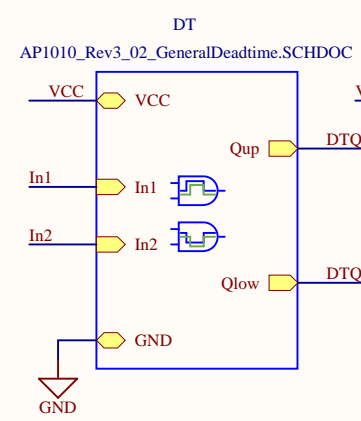
Upper Gate



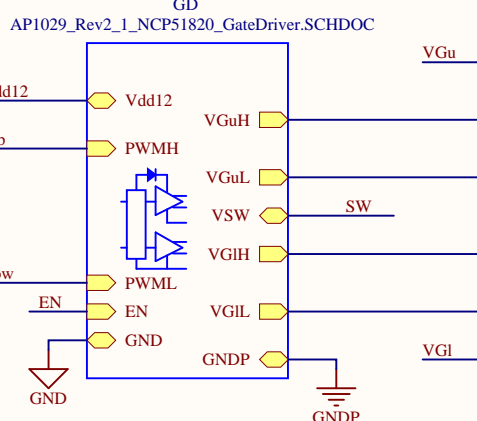
Main Supply Input



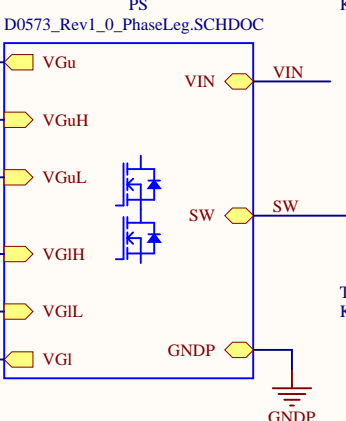
Signal Inputs



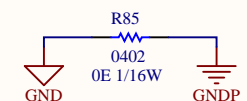
dead-time and buffers



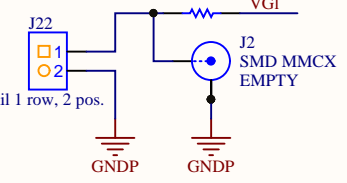
Gate Driver



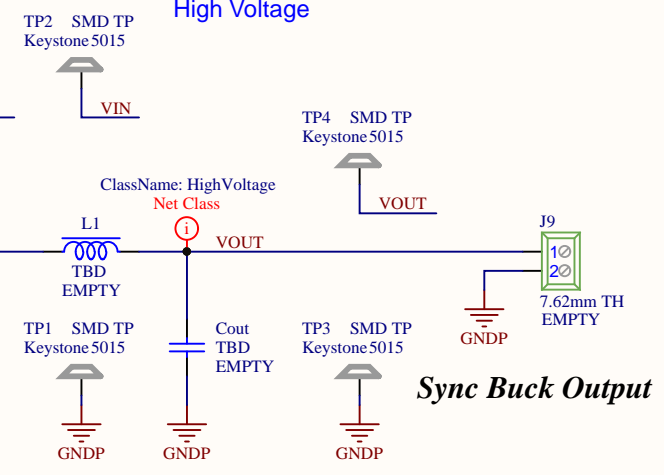
Power Stage



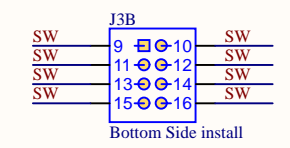
Ground Connect



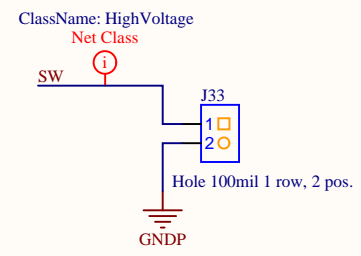
Lower Gate



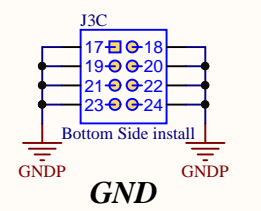
Sync Buck Output



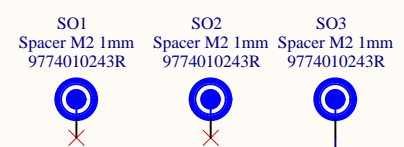
SW Output



Switch-node



GND



Heatspreader Mount

For evaluation only;
not FCC approved for resale

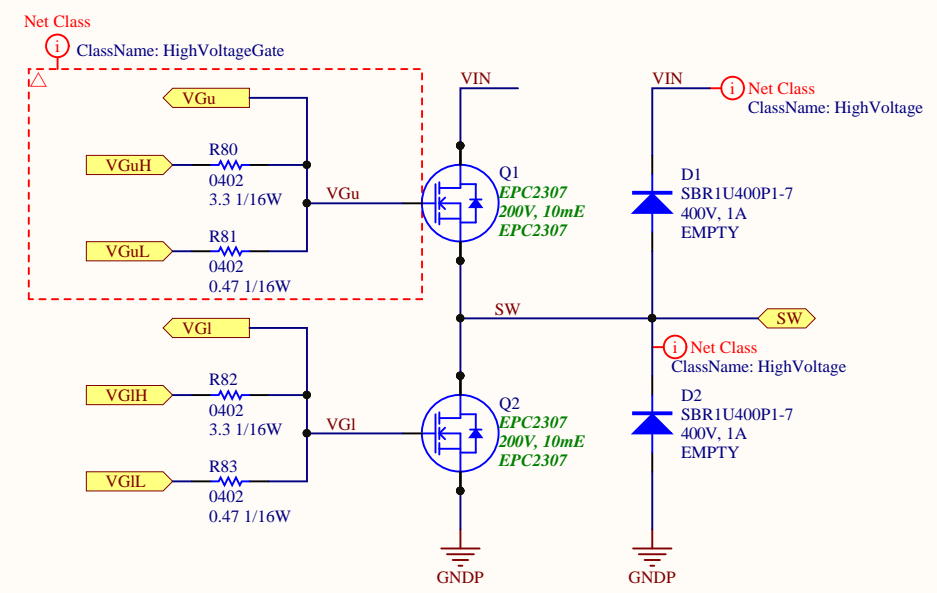
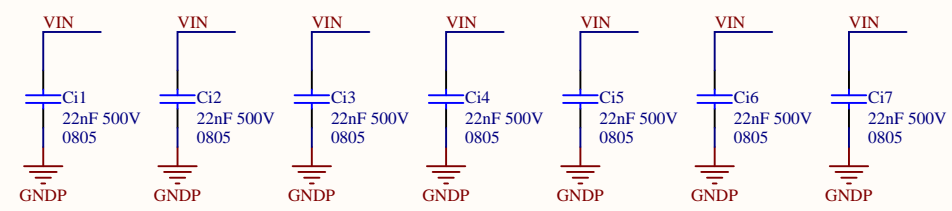
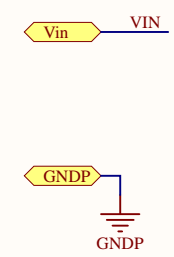


© EPC eGaN® FET
Evaluation Board for Main Schematic

Title: EPC90150_B5343_Rev2_0		Efficient Power Conversion 909 N. Pacific Coast Hwy, Ste. 23 El Segundo, CA 90245 United States www.epc-co.com	
Size: A	1	Revision: 1	
Date: 11/3/2022	Sheet 1 of 5		
File: D0573_B5343_Rev2_0.SCHDOC			

A

A



B

B

C

C

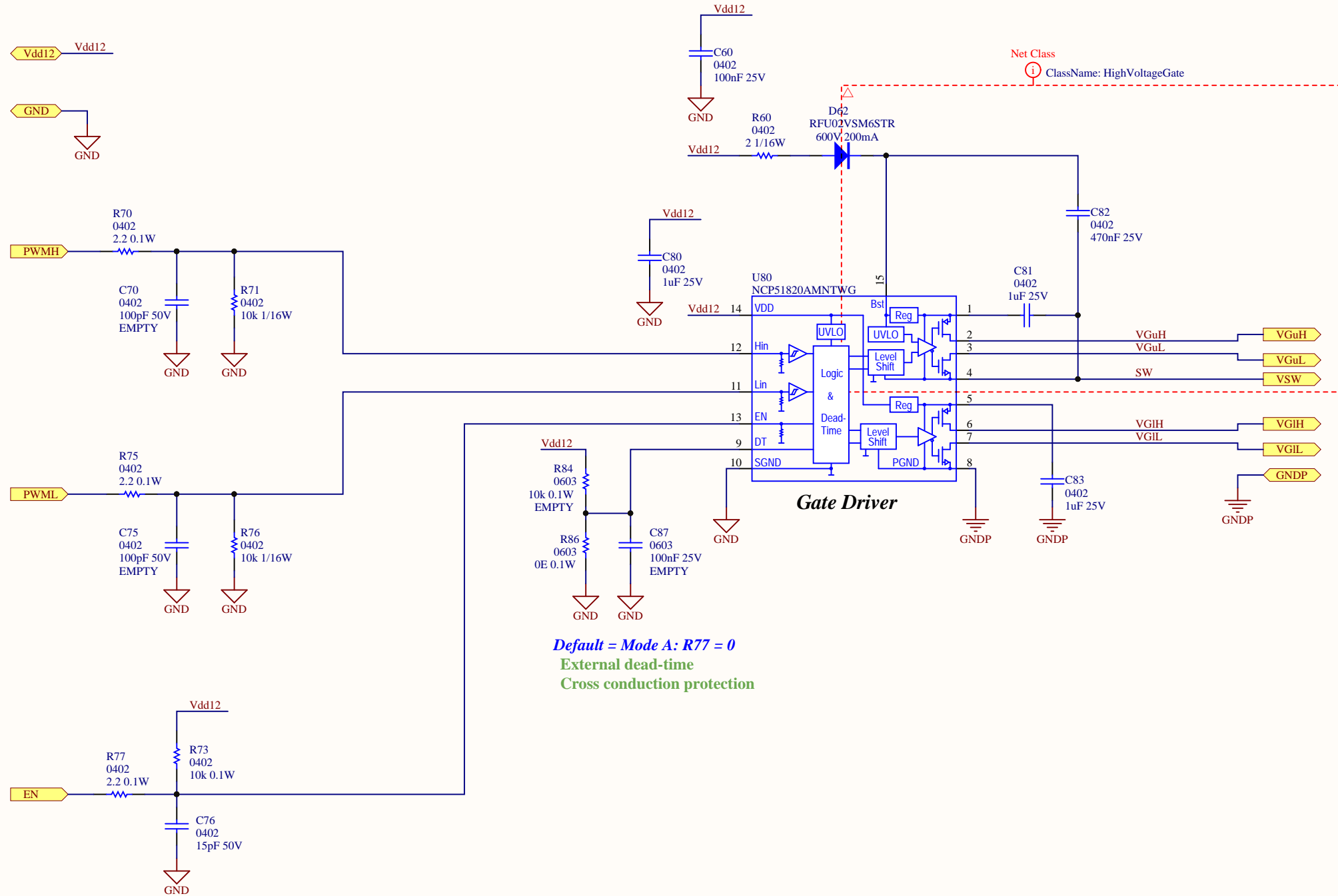
D

D


EPC2307

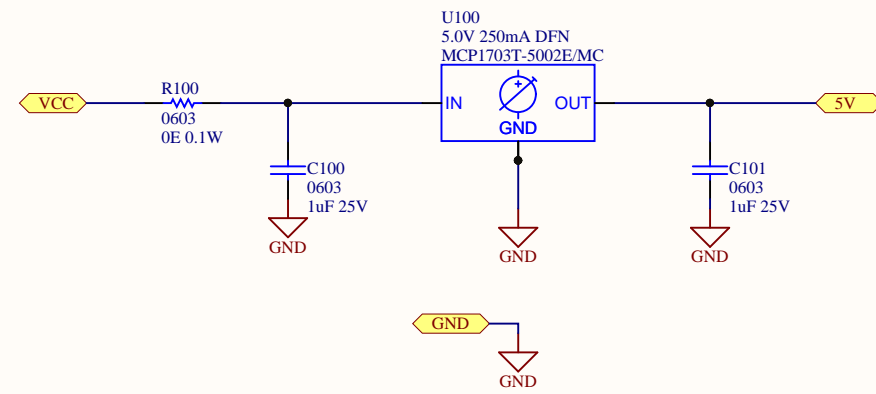
Title D0573 Phase Leg Rev. 1.0		Efficient Power Conversion 909 N. Pacific Coast Hwy, Ste. 23 El Segundo, CA 90245 United States www.epc-co.com		
Size: A	2	Revision: 1		
Date: 10/17/2022		Sheet 2 of 5		
File: D0573_Rev1_0_PhaseLeg.SCHDOC				

© Copyright EPC 2022



650 V Gate Driver using NCP51820

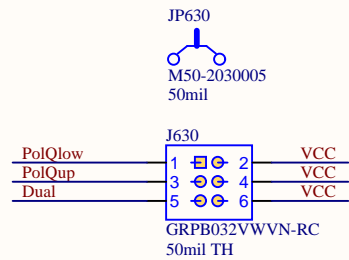
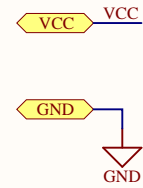
Title AP1029 Rev. 2.0		Efficient Power Conversion 909 N. Pacific Coast Hwy, Ste. 23 El Segundo, CA 90245 United States www.epc-co.com	
Size: A	3	Revision: 2	
Date: 10/18/2022	Sheet 3 of 5		
File: AP1029_Rev2_1_NCP51820_GateDriver.SCHDOC			



12 V to 5 V LDO power supply

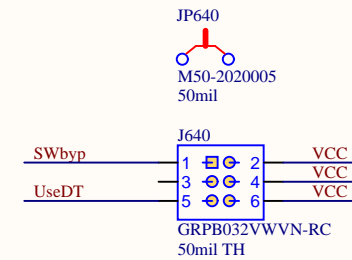
Title AP1006 Rev. 2.0		Efficient Power Conversion 909 N. Pacific Coast Hwy, Ste. 23 El Segundo, CA 90245 United States www.epc-co.com	
Size: A	4	Revision: 1	
Date: 10/17/2022	Sheet 4 of 5		
File: AP1006_Rev2_01_12Vto5VInPSU.SCHDOC			





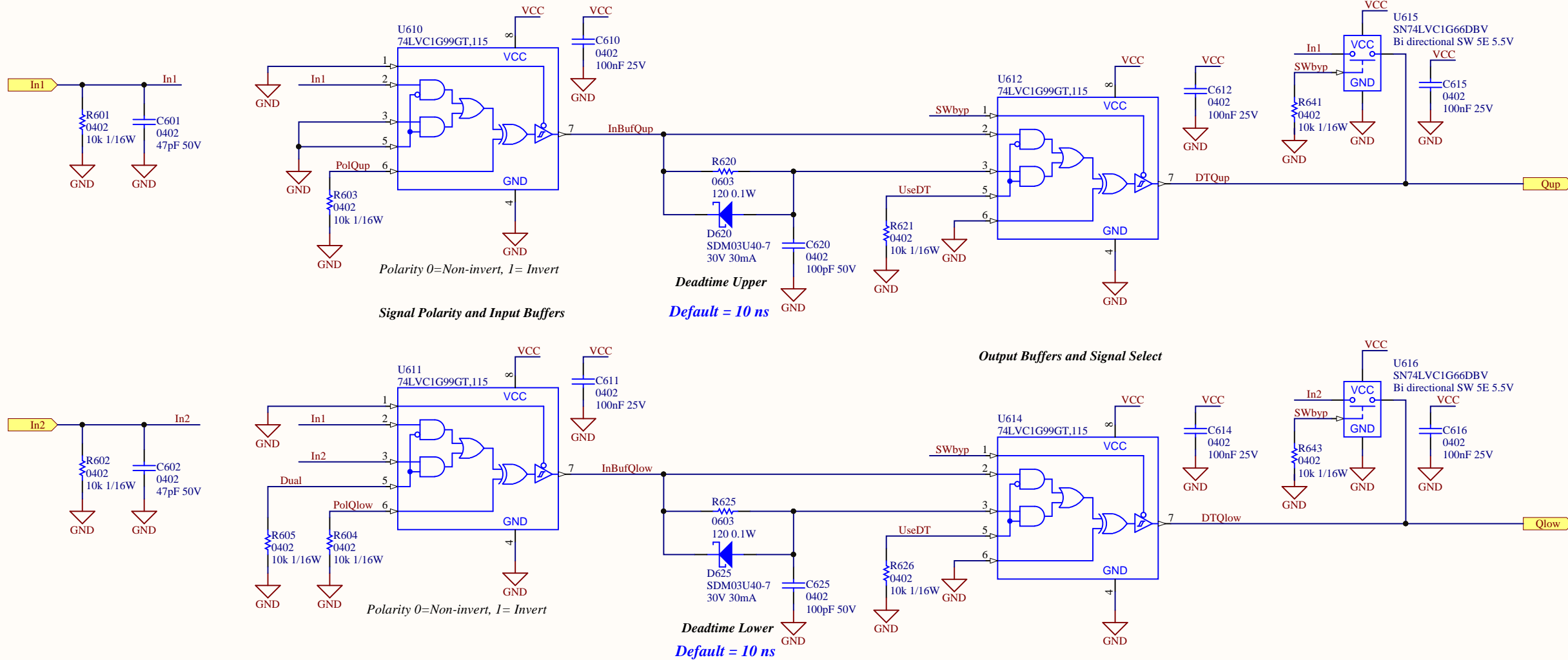
**Buck Single Signal
Boost Single Signal
Dual Signal**

Dual/Single PWM, Buck, and Boost Mode Selector



**Full Bypass
DT Bypass
No Bypass**

Bypass Mode Select



General Dead-time with Polarity Changer and Bypass

Title AP1010 Rev. 3.0		Efficient Power Conversion 909 N. Pacific Coast Hwy, Ste. 23 El Segundo, CA 90245 United States www.epc-co.com	
Size: A	5	Revision: 1	
Date: 10/17/2022	Sheet 5 of 5		
File: AP1010_Rev3_02_GeneralDeadtime.SCHDOC			