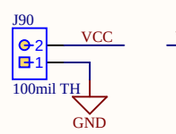
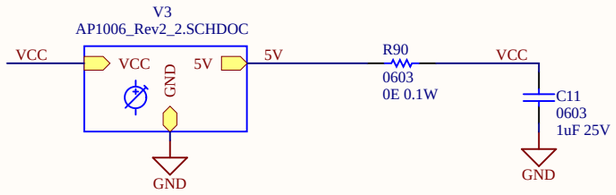
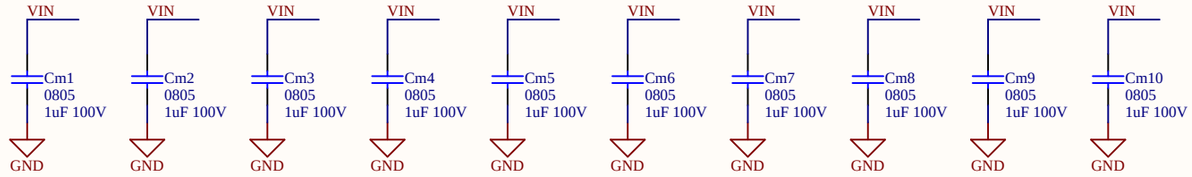


Logic Supply

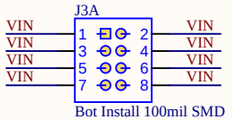
12VDC



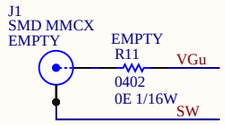
5V Supply



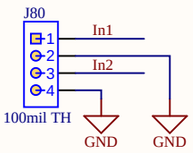
Intermediate Capacitors



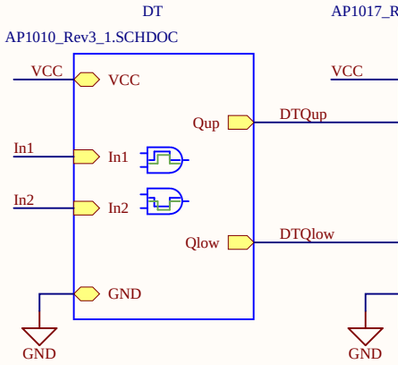
Main Supply Input



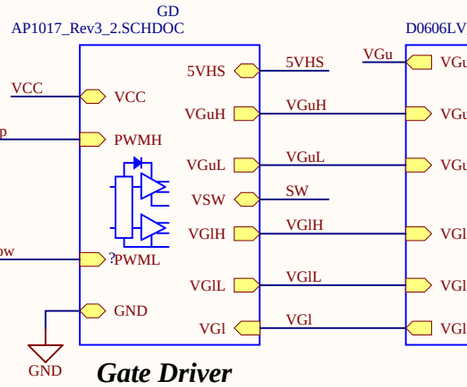
Upper Gate



Signal Inputs

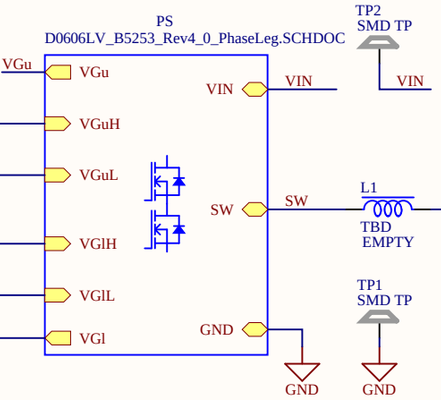


dead-time and buffers



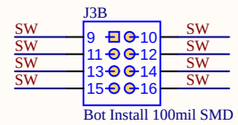
Gate Driver

Gate Driver

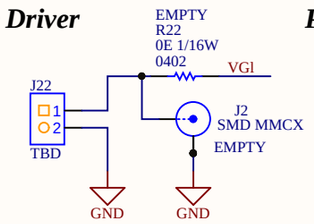


Power Stage

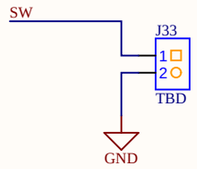
Sync Buck Output



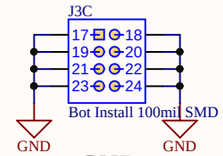
SW Output



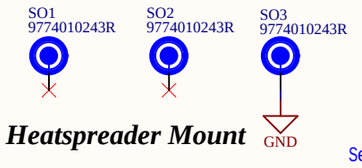
Lower Gate



Switch-node

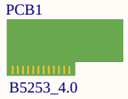


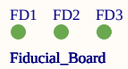
GND



Heatspreader Mount

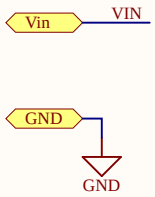
Serial# yyww-nnn



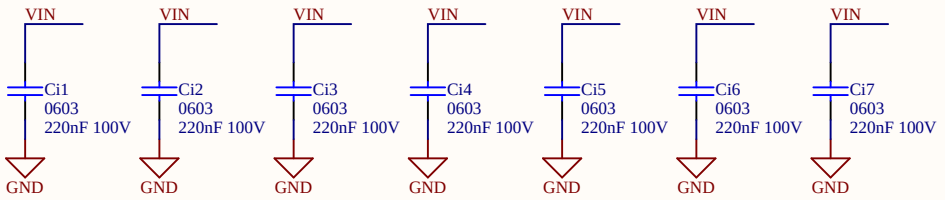


For evaluation only;
not FCC approved for resale

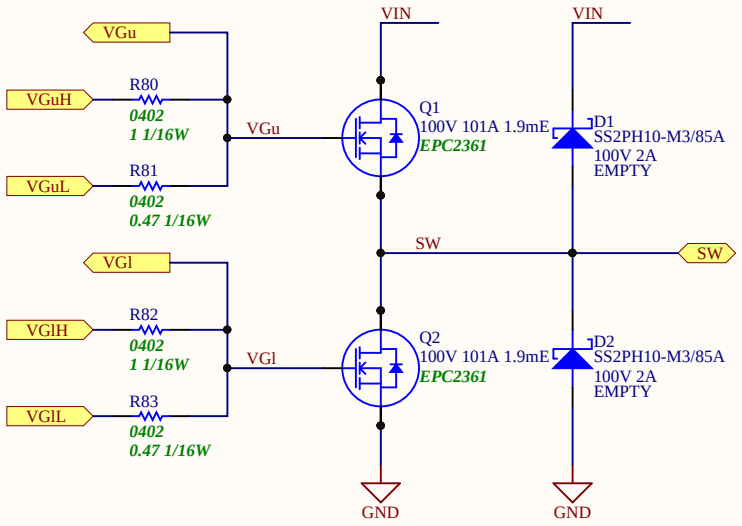
Title: Evaluation Board Main Schematic		© EPC 2024
Design #: EPC90156	PCB #: B5253	Efficient Power Conversion 909 Pacific Coast Hwy. Ste 230 El Segundo, CA 90245 U.S.A. www.epc-co.com
Revision 4.0	Revision: 4.0	
Date: 3/7/2024	Sheet 1 of 5	
File: D0606LV_B5253_Rev4_0.SCHDOC		



DC Input
80 Vmax.



HF loop Capacitors



Power Stage ***Optional Diodes***

Title:	Symmetrical Phase Leg With Synchronous Bootstrap		© EPC 2024
Design #:	Half-Bridge Phase Leg		
Revision	1.0	P/N#:	EPC2361
Date:	3/7/2024	Sheet 2 of 5	
File:	D0606LV_B5253_Rev4_0_PhaseLeg.SCHDOC		

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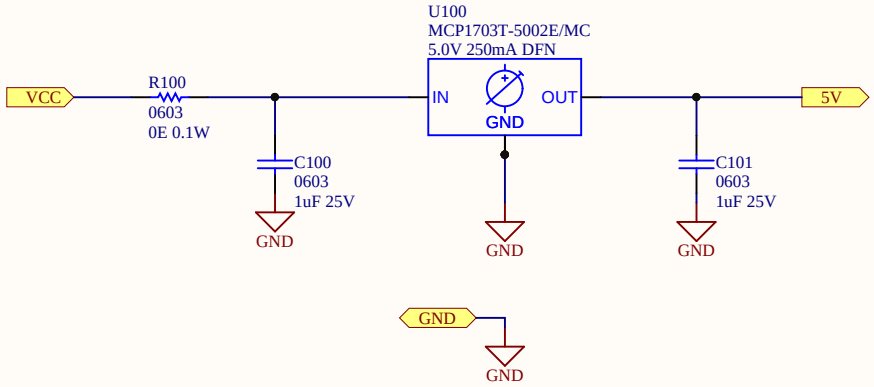
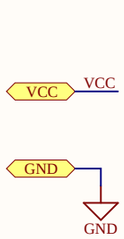
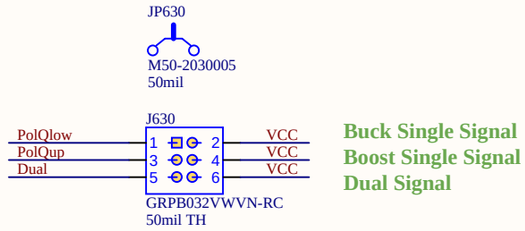


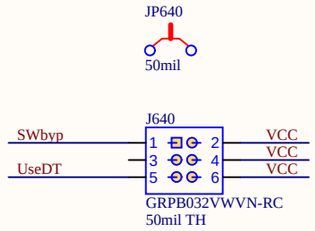
Title:	12 V to 5 V LDO power supply	© EPC 2023
Design #:	AP1006	Efficient Power Conversion 909 Pacific Coast Hwy. Ste 230 El Segundo, CA 90245 U.S.A. www.epc-co.com
Revision	2.2	
Date: 2/19/2024	Sheet 3 of 5	
File: AP1006_Rev2_2.SCHDOC		





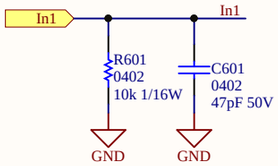
Buck Single Signal
Boost Single Signal
Dual Signal

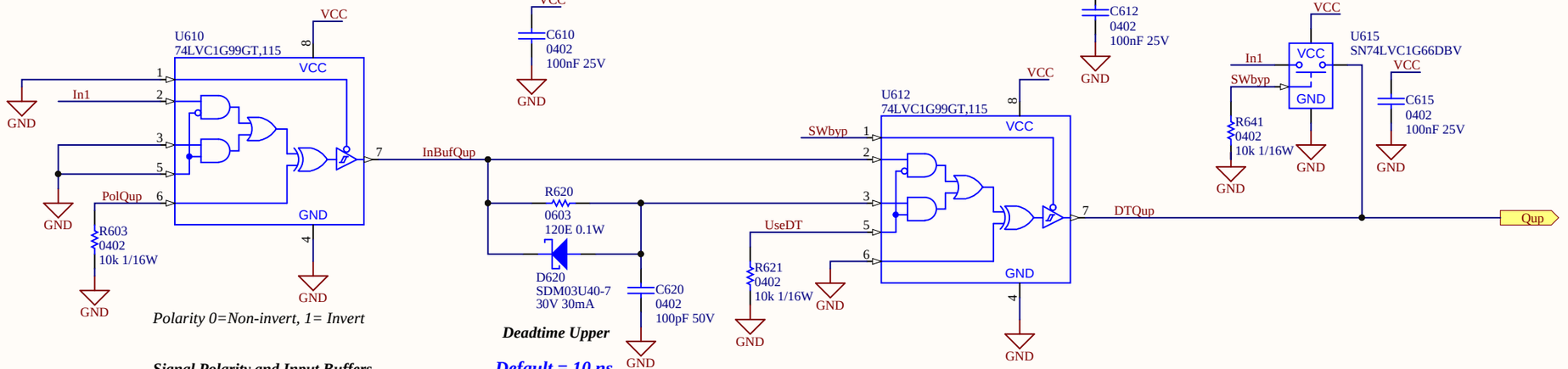
Dual/Single PWM, Buck, and Boost Mode Selector



Full Bypass
DT Bypass
No Bypass

Bypass Mode Select





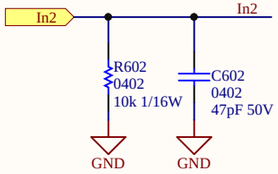
Polarity 0=Non-invert, 1= Invert

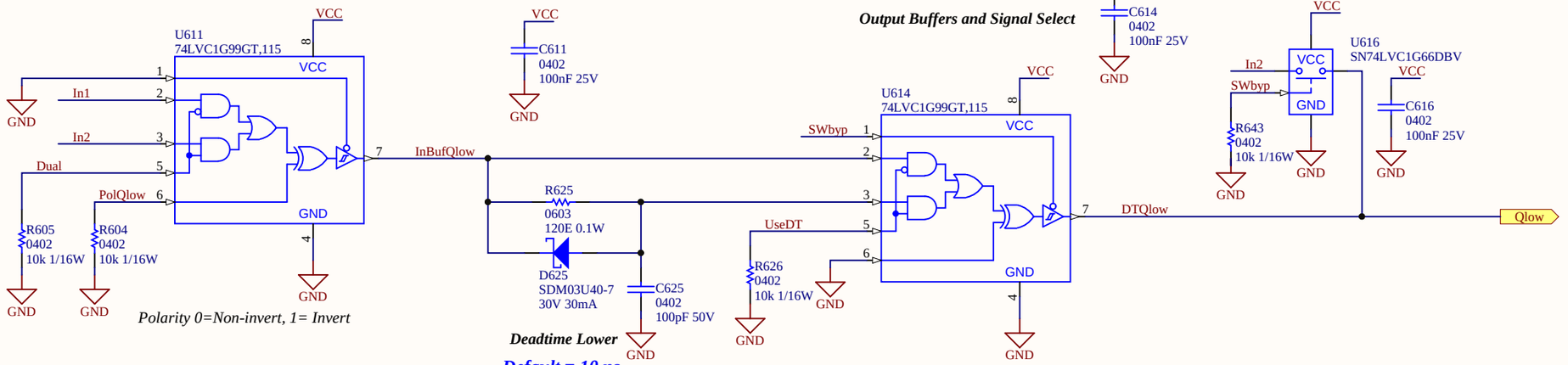
Signal Polarity and Input Buffers

Deadtime Upper

Default = 10 ns

Output Buffers and Signal Select





Polarity 0=Non-invert, 1= Invert

Deadtime Lower

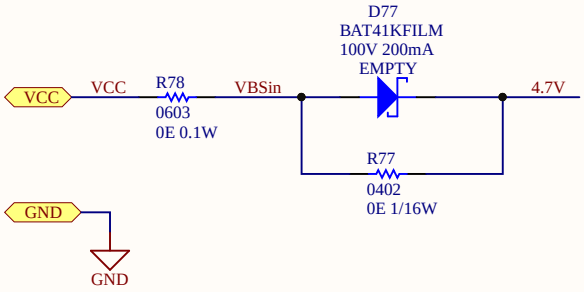
Default = 10 ns

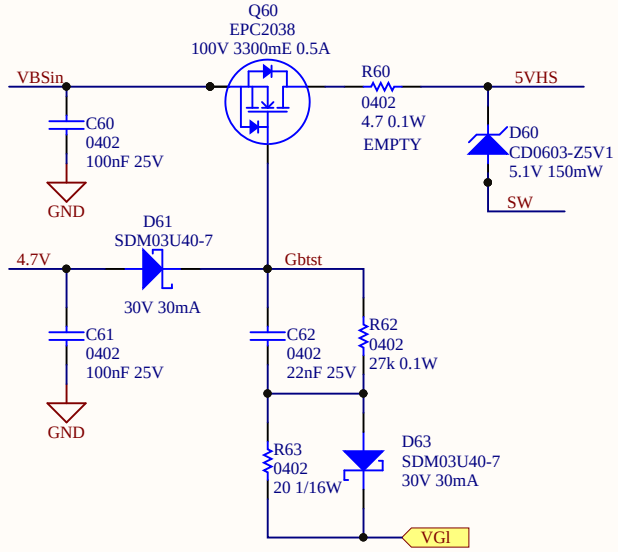
Title:	General Dead-time with Polarity Changer and Bypass		© EPC 2023
Design #:	AP1010	Efficient Power Conversion 909 Sepulveda Blvd. Ste 230 El Segundo, CA 90245 U.S.A. www.epc-co.com	
Revision	3.1		
Date: 2/19/2024	Sheet 4 of 5		
File: AP1010_Rev3_1.SCHDOC			

Sync Boot = Install R60 and D77, remove R77

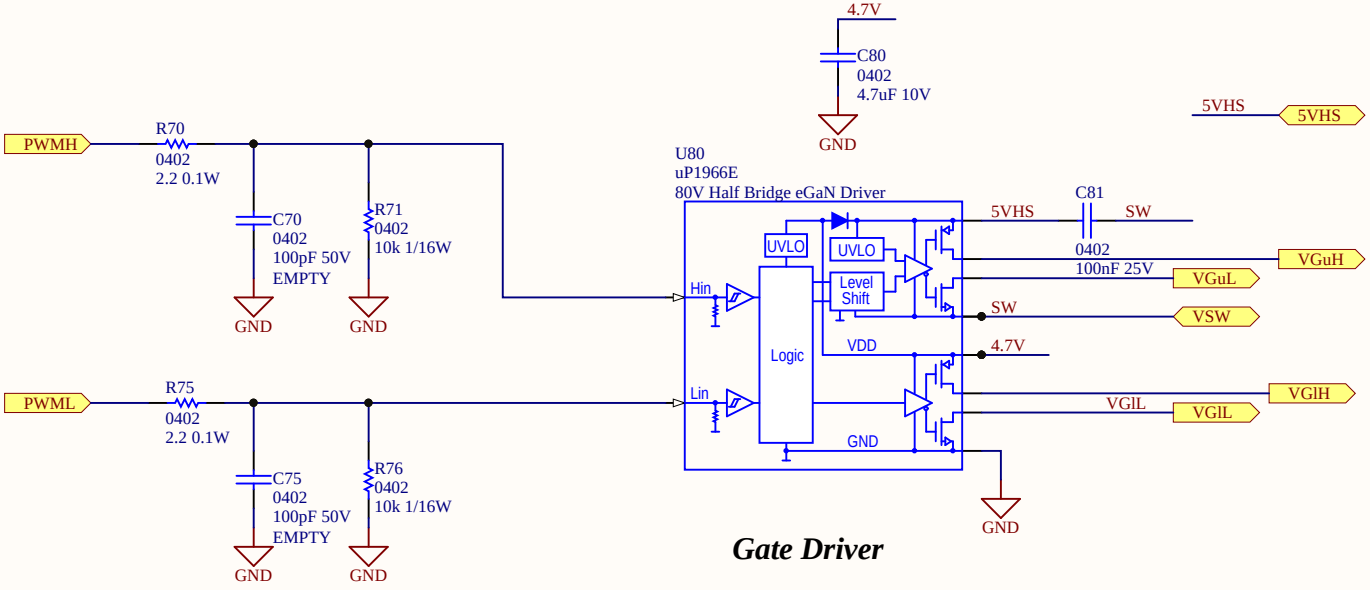
No Sync Boot = Install R77, remove R60 and D77

Default = No Sync Boot





Synchronous Boostrap Power Supply



Gate Driver

Title:	80 V HB Gate Driver with Synchronous Bootstrap	© EPC 2023
Design #:	AP1017	
Revision	3.2	
Date: 2/19/2024	Sheet 5 of 5	
File: AP1017_Rev3_2.SCHDOC		

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