

Logic Supply
12VDC

5 V Logic Regulator

Intermediate Capacitors

Upper Gate

High Voltage

Main Supply Input

Signal Inputs

dead-time and buffers

Gate Driver

Power Stage

Sync Buck Output

SW Output

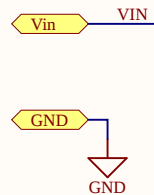
Lower Gate

Switch-node

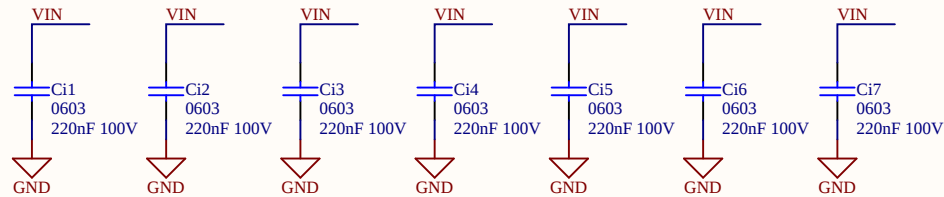
Heatspreader Mount

Serial# yyww-nnn

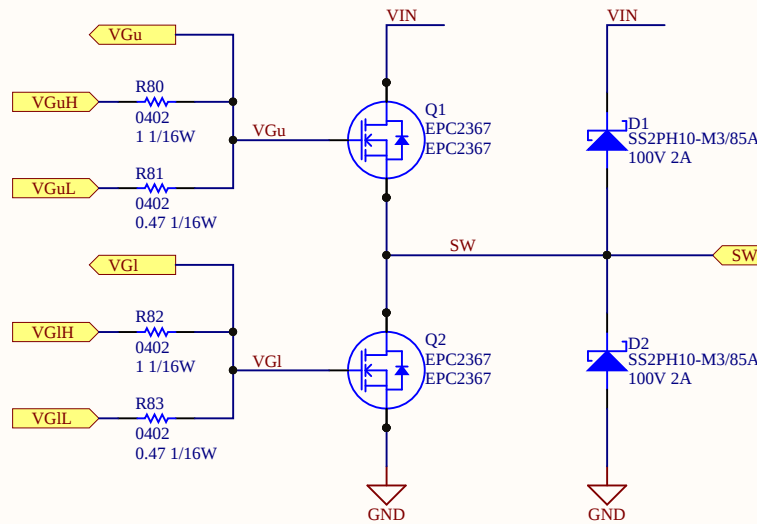
For evaluation only;
not FCC approved for resale



DC Input
80 Vmax.



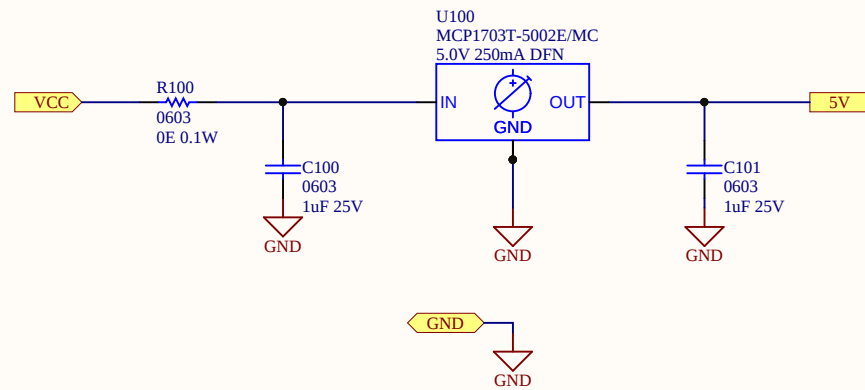
HF loop Capacitors



Power Stage

Optional Diodes

Title: HB Sub Schematic - Phase Leg		© EPC 2024	
Design #: EPC90164 Phase Leg		Efficient Power Conversion 909 Pacific Coast Hwy, Ste 230 El Segundo, CA 90245 U.S.A. www.epc-co.com	
Revision 1.0	P/N#: EPC2367		
Date: 11/1/2024	Sheet 2 of 5		
File: EPC2367_Rev1_0_PhaseLeg.SCHDOC			



Title: 12 V to 5 V LDO power supply

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Design #: AP1006

Revision 2.2

Date: 11/1/2024

File: AP1006_Rev2_2.SCHDOC

Sheet 3 of 5

Efficient Power Conversion

909 Pacific Coast Hwy. Ste 230

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U.S.A.

www.epc-co.com



A

B

C

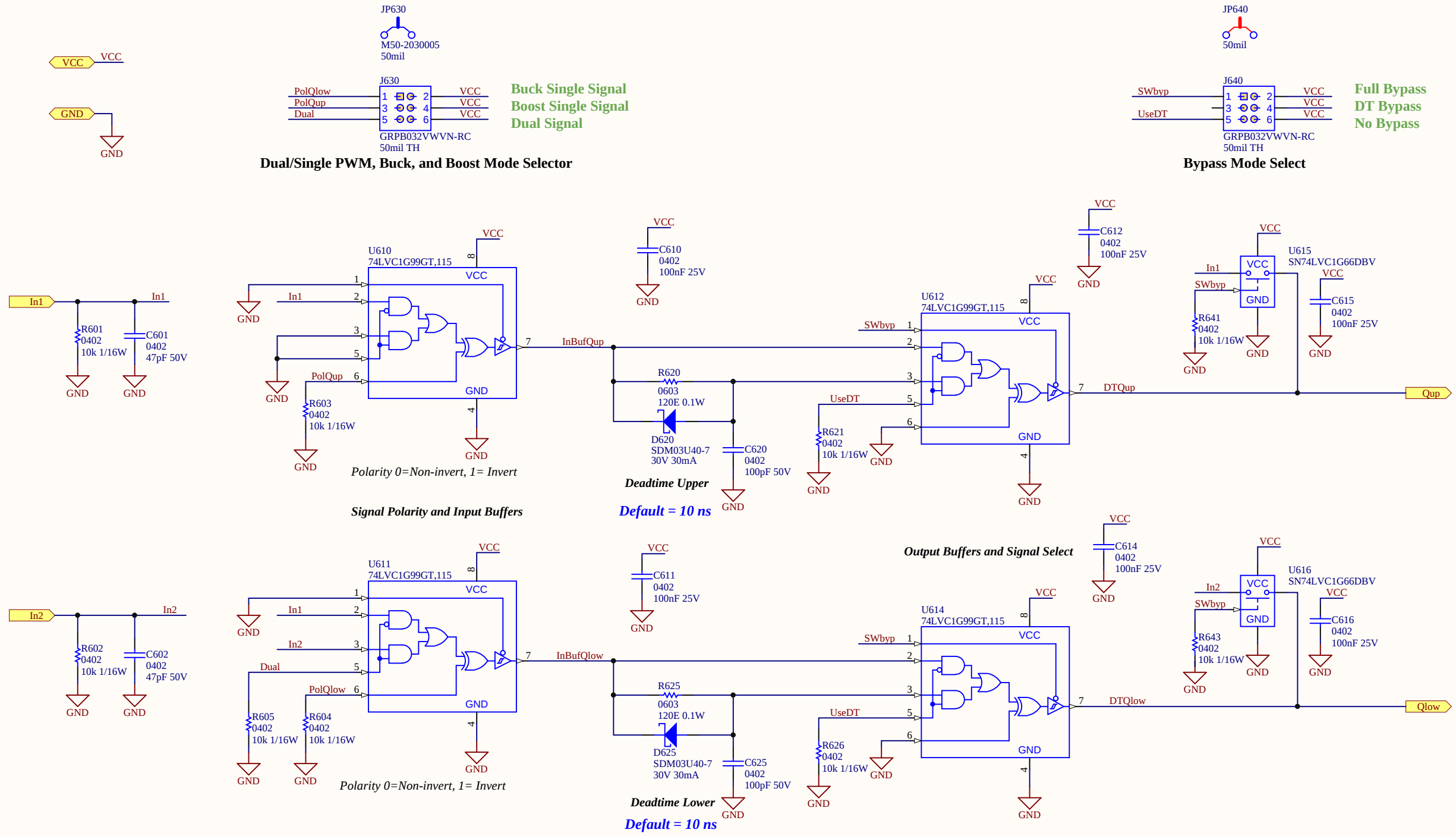
D

A

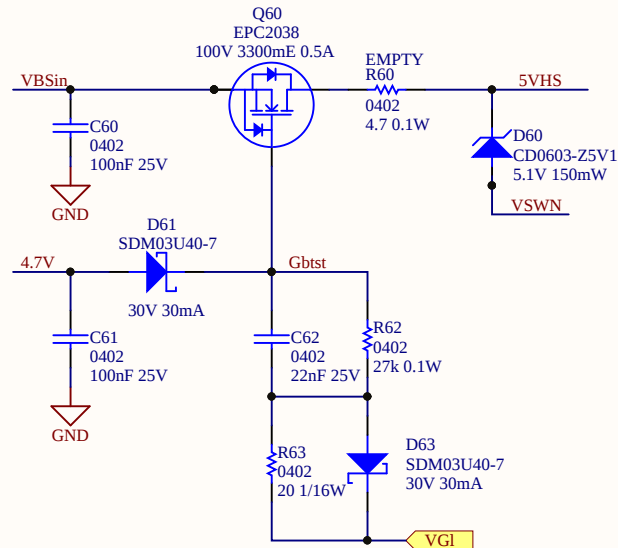
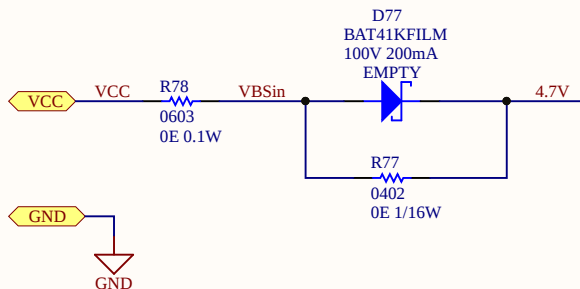
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C

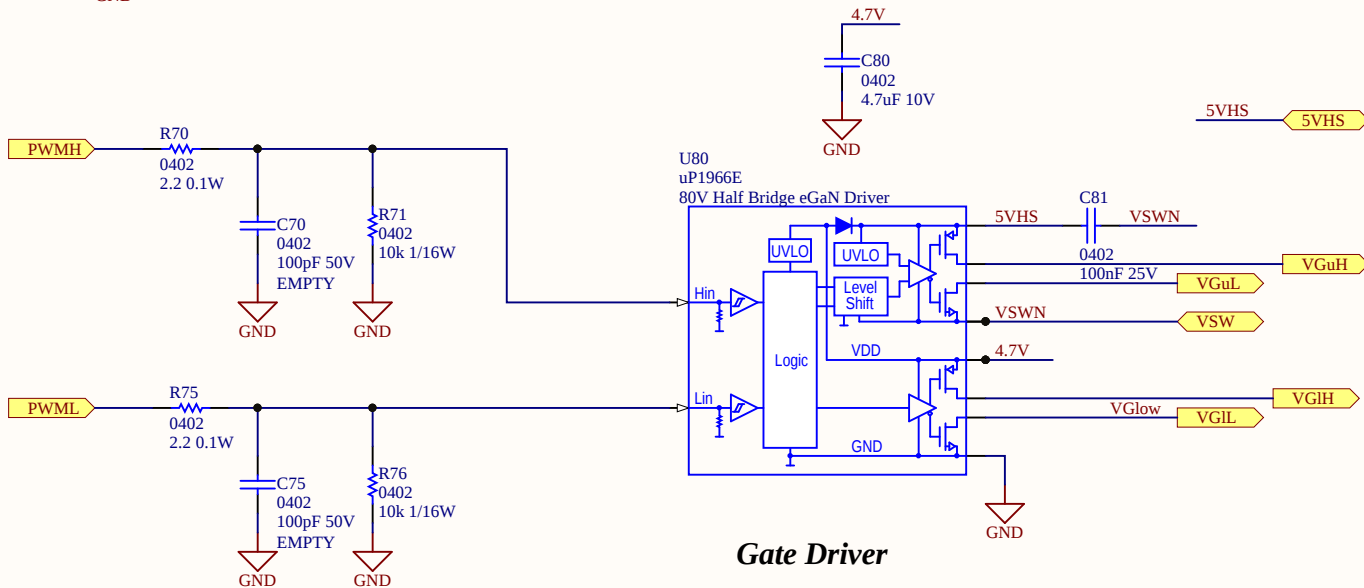
D



Sync Boot = Install R60 and D77, remove R77
 No Sync Boot = Install R77, remove R60 and D77
 Default = No Sync Boot



Synchronous Bootstrap Power Supply



Gate Driver

Title: 80 V HB Gate Driver with Synchronous Bootstrap		© EPC 2023	
Design #: AP1017		Efficient Power Conversion	
Revision 3.2		909 Pacific Coast Hwy. Ste 230	
Date: 11/1/2024		El Segundo, CA 90245	
File: AP1017_Rev3_2.SCHDOC		U.S.A.	
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