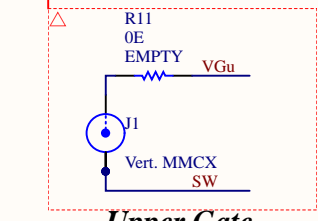
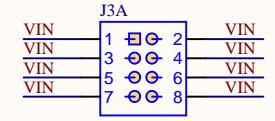


High Voltage

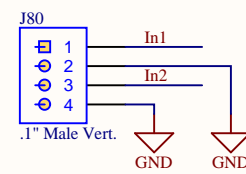
**Intermediate Capacitors**



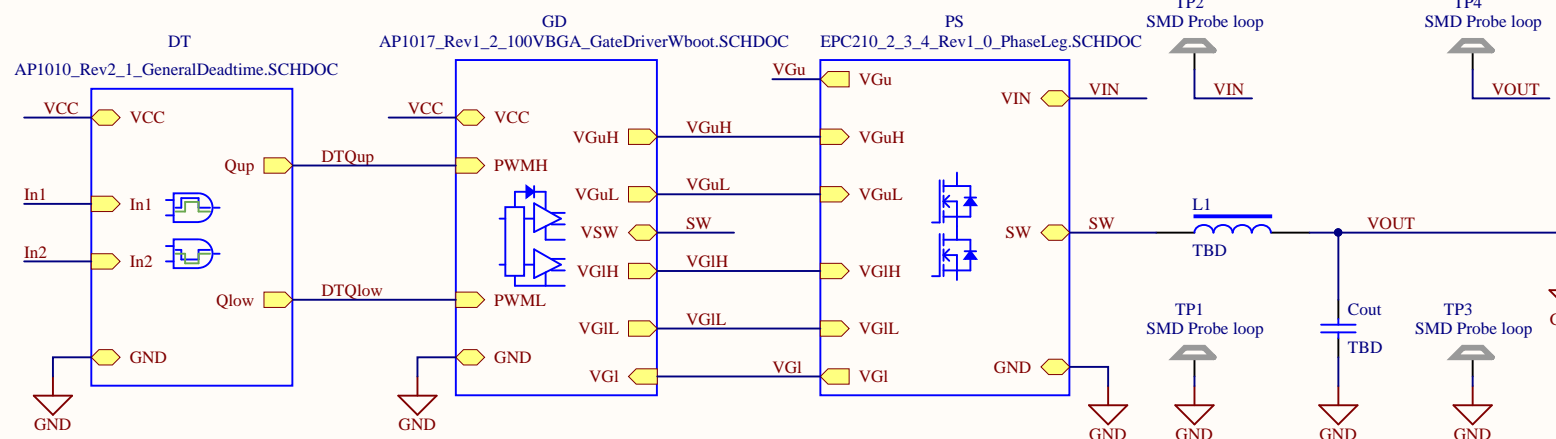
**Upper Gate**



**Main Supply Input**



**Signal Inputs**

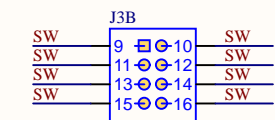


**dead-time and buffers**

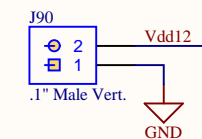
**Gate Driver**

**Power Stage**

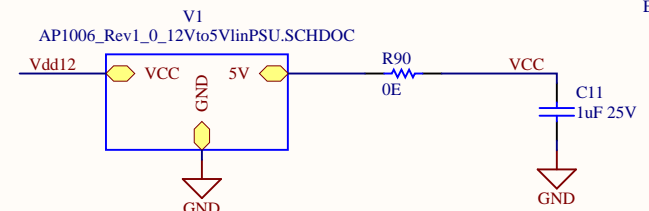
**Sync Buck Output**



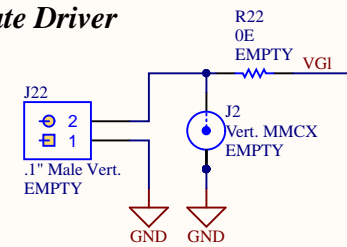
**SW Output**



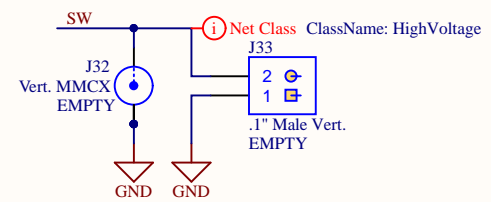
**Logic Supply 12VDC**



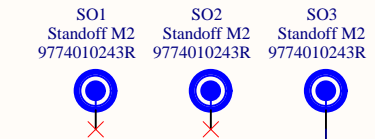
**5 V Logic Regulator**



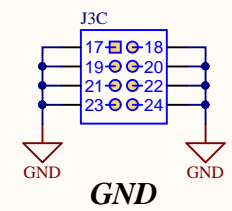
**Lower Gate**



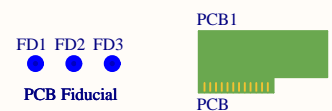
**Switch-node**



**Heatspreader Mount**



**GND**

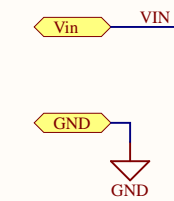


For evaluation only;  
not FCC approved for resale

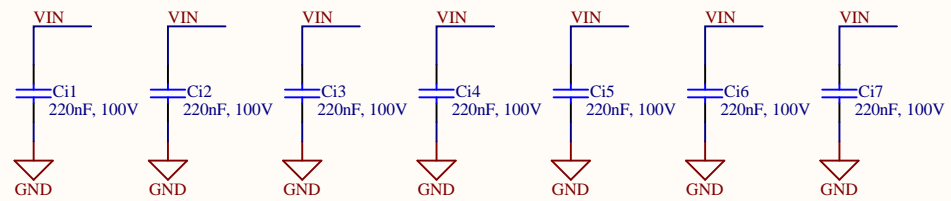
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**Evaluation Board for EPC2102 EPC2103 EPC2104**

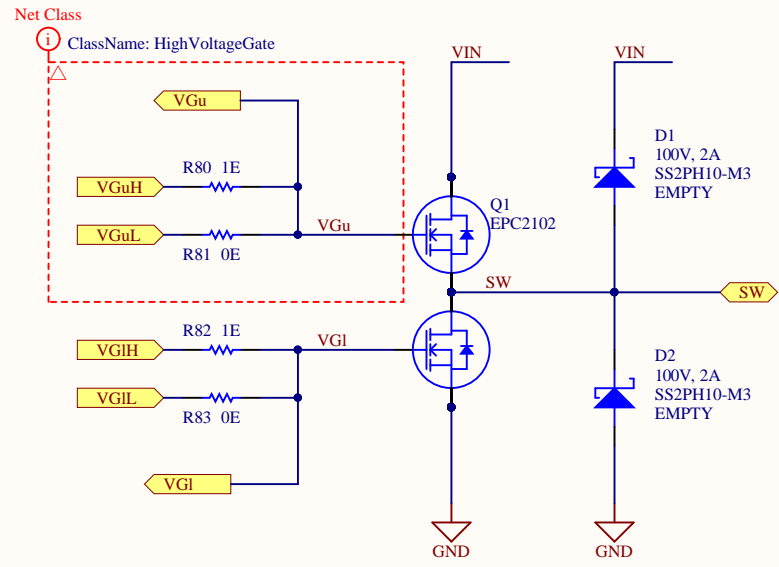
Title: EPC9038 B5001 Rev. 2.0		Efficient Power Conversion		Cannot open file C:\EPC\Library\EPC Library\Logos\EPC_Log oL.jpg EFFICIENT POWER CONVERSION
Size: A	Revision: 1	909 N. Pacific Coast Hwy, Ste. 220 El Segundo, CA 90245 United States		
Date: 8/24/2020	Sheet 1 of 1	www.epc-co.com		
File: EPC9038_B5001_Rev2_0.SCHDOC				



**DC Input**  
 60 Vmax. EPC2102  
 80 Vmax. EPC2103  
 100 Vmax. EPC2104

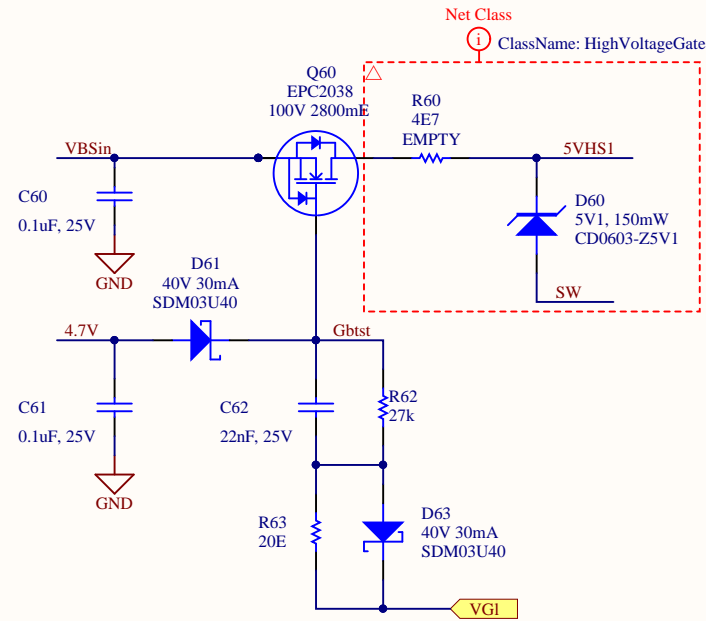
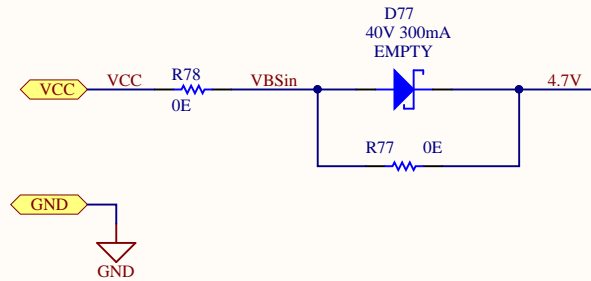


**HF loop Capacitors**

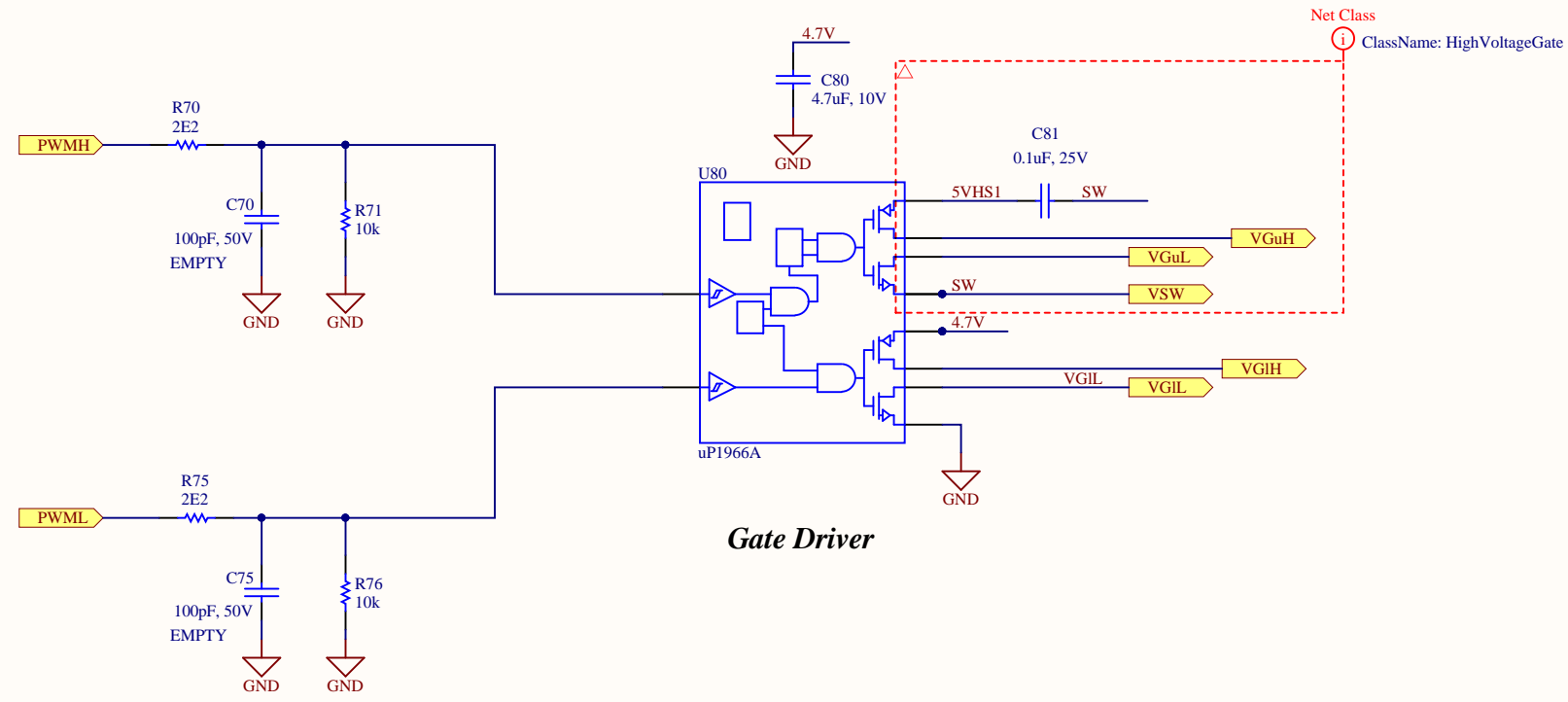


**Power Stage      Optional Diodes**

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




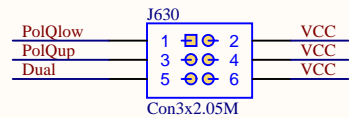
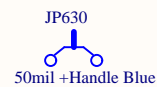
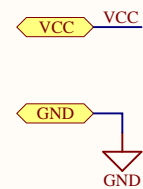
**Synchronous Bootstrap Power Supply**



**Gate Driver**

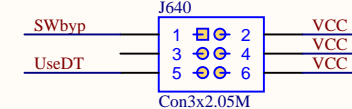
**100 V Gate Driver with Bootstrap**

Title AP1017 Rev. 1.2		Efficient Power Conversion 909 N. Pacific Coast Hwy, Ste. 23 El Segundo, CA 90245 United States <a href="http://www.epc-co.com">www.epc-co.com</a>	
Size: A	*	Revision: 1	
Date: 8/17/2020		Sheet 1 of 1	
File: AP1017_Rev1_2_100VBGA_GateDriverWboot.SCHDOC			



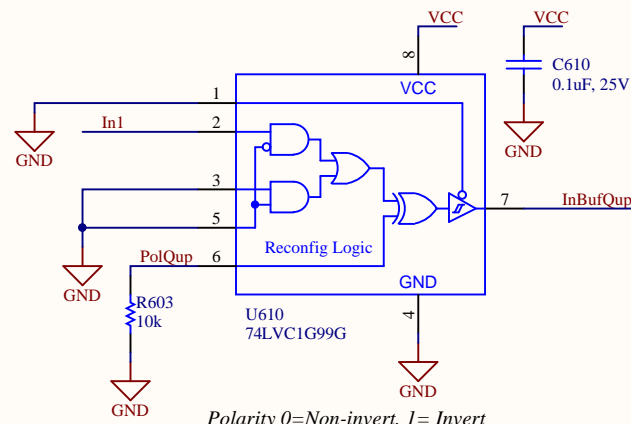
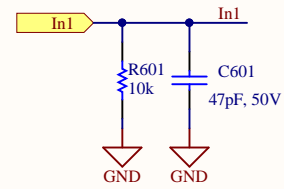
**Buck Single Signal**  
**Boost Single Signal**  
**Dual Signal**

**Dual/Single PWM, Buck, and Boost Mode Selector**



**Full Bypass**  
**DT Bypass**  
**No Bypass**

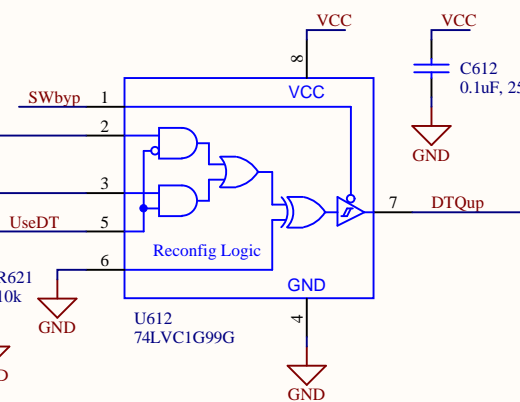
**Bypass Mode Select**



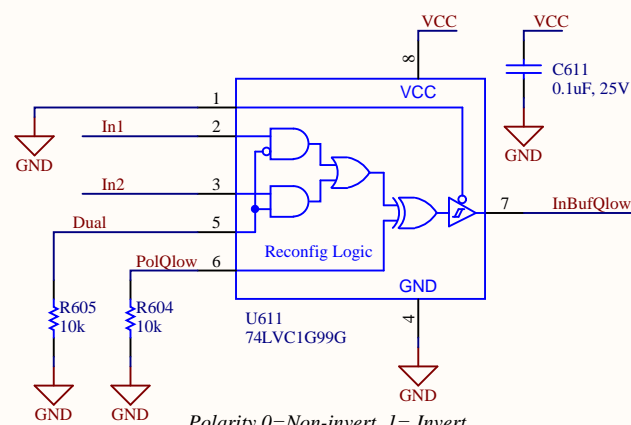
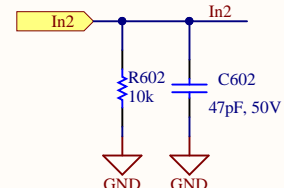
Polarity 0=Non-invert, 1= Invert

**Signal Polarity and Input Buffers**

**Deadtime Upper**  
Default = 10 ns

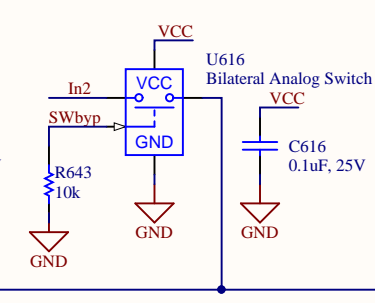
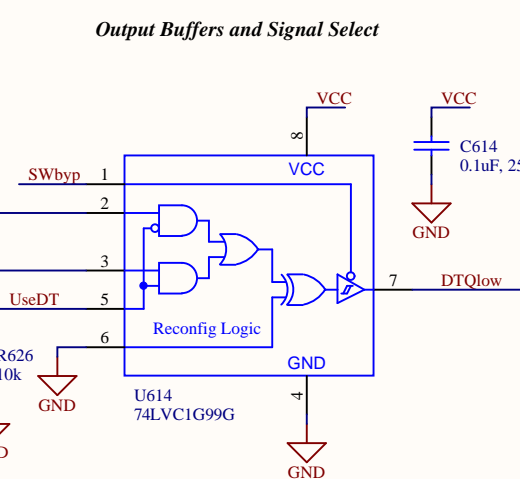


**Output Buffers and Signal Select**



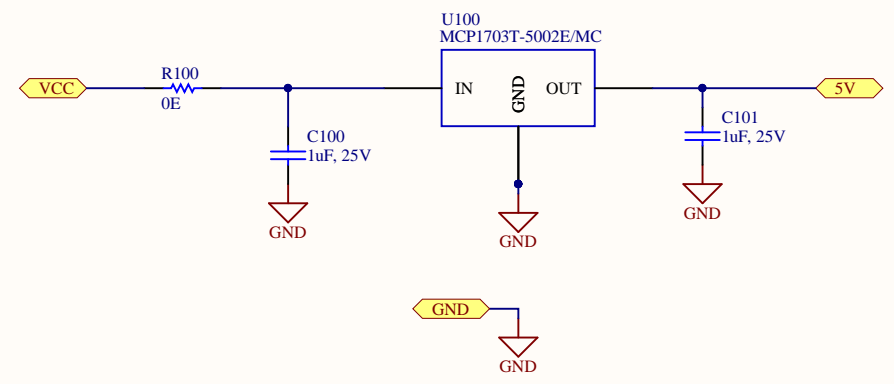
Polarity 0=Non-invert, 1= Invert

**Deadtime Lower**  
Default = 10 ns



**General Dead-time with Polarity Changer and Bypass**

Title AP1010 Rev. 2.1		Efficient Power Conversion 909 N. Pacific Coast Hwy, Ste. 23 El Segundo, CA 90245 United States <a href="http://www.epc-co.com">www.epc-co.com</a>	
Size: A	Revision: 1		
Date: 8/19/2020	Sheet 1 of 1		
File: AP1010_Rev2_1_GeneralDeadtime.SCHDOC			



12 V to 5 V LDO power supply

Title AP1006 Rev. 1.0		Efficient Power Conversion 909 N. Pacific Coast Hwy, Ste. 23 El Segundo, CA 90245 United States <a href="http://www.epc-co.com">www.epc-co.com</a>	
Size: A	*	Revision: 1	
Date: 8/11/2020		Sheet 1 of 1	
File: AP1006_Rev1_0_12Vto5VinPSU.SCHDOC			

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