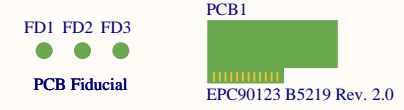
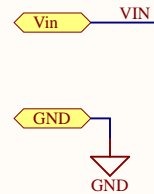


For evaluation only;
not FCC approved for resale

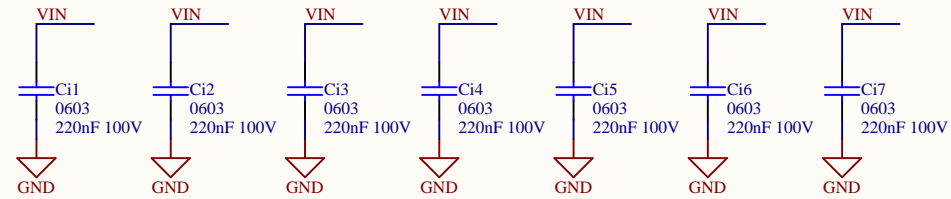


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Evaluation Board for EPC2218

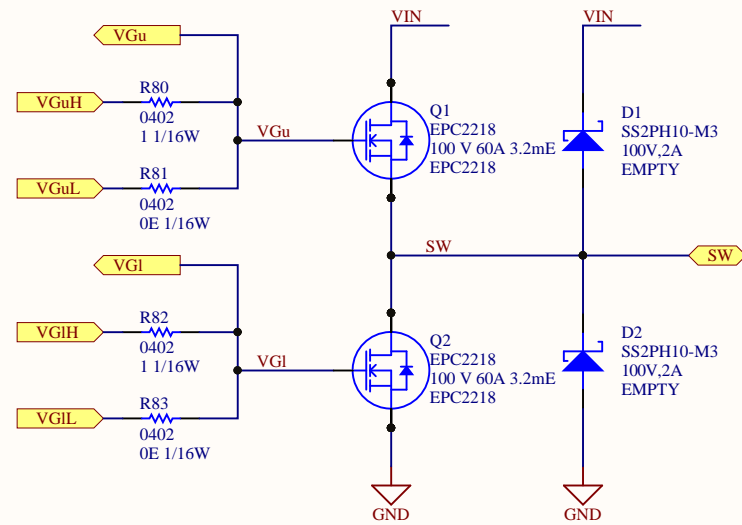
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|------------------------------------|--------------|--|--|-------------|
| Title EPC90123 B5219 Rev. 2.0 | | Efficient Power Conversion 909 N. Pacific Coast Hwy, Ste. 23 El Segundo, CA 90245 United States www.epc-co.com | | |
| Size: A | 1 | | | Revision: 1 |
| Date: 9/20/2022 | Sheet 1 of 5 | | | |
| File: EPC90123_B5219_Rev2_0.SCHDOC | | | | |



DC Input
80 Vmax.



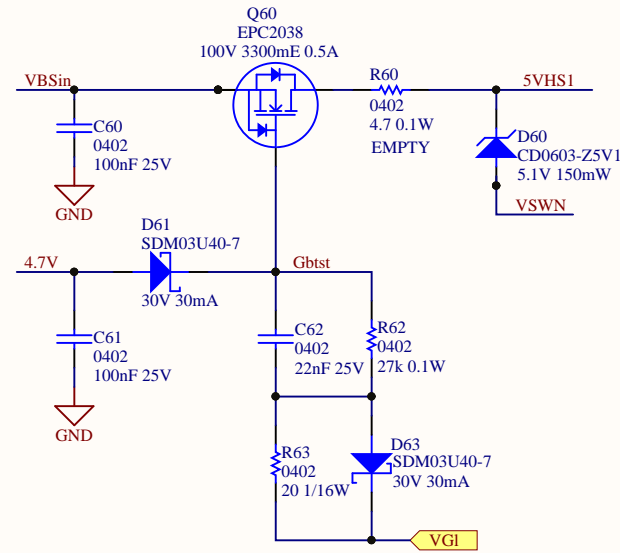
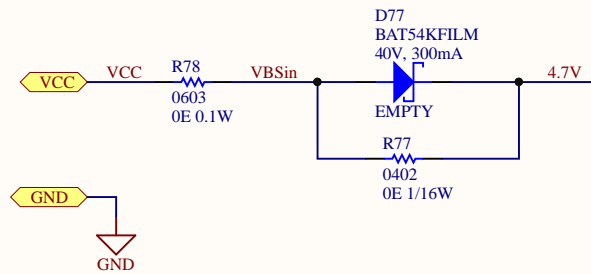
HF loop Capacitors



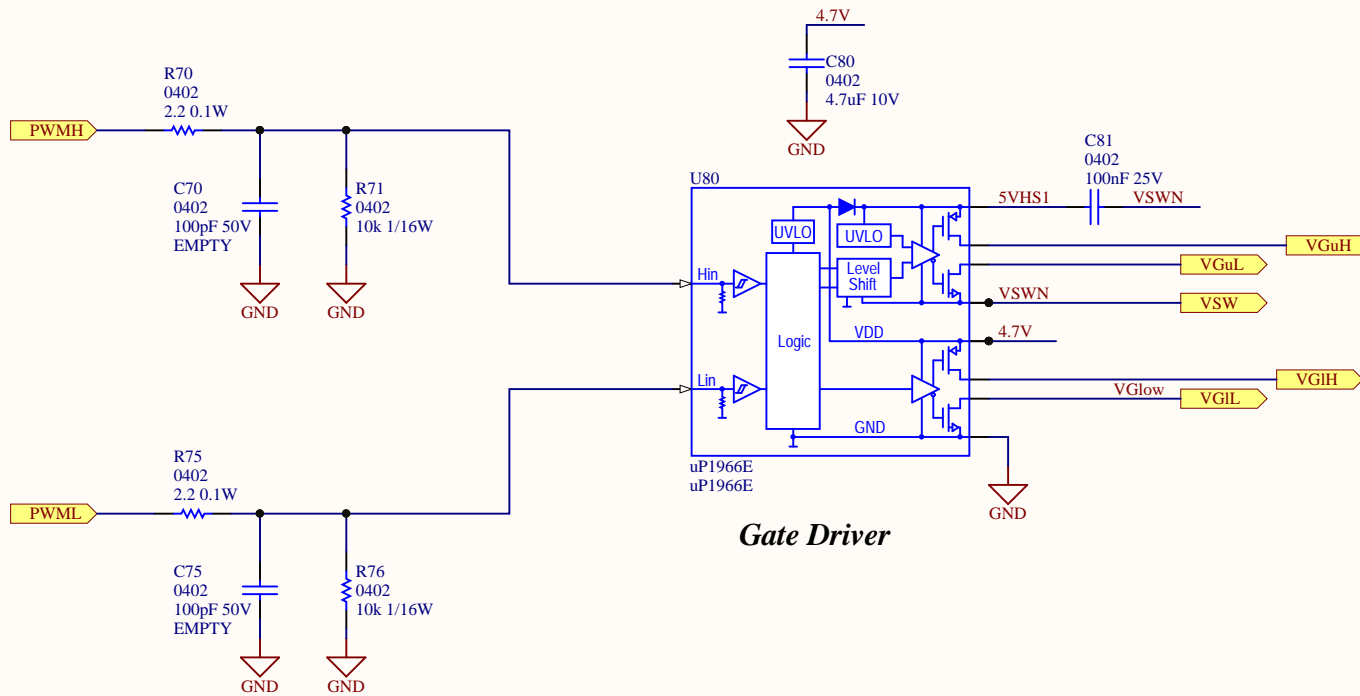
Power Stage

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

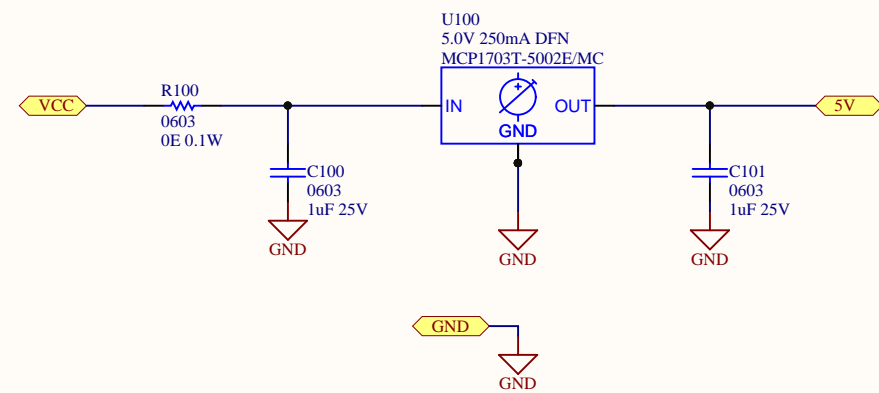


Gate Driver

100 V Gate Driver with Bootstrap

| | | | |
|--|--------------|--|--|
| Title AP1017 Rev. 2.1 | | Efficient Power Conversion 909 N. Pacific Coast Hwy, Ste. 23 El Segundo, CA 90245 United States www.epc-co.com | |
| Size: A | 3 | Revision: 1 | |
| Date: 9/20/2022 | Sheet 3 of 5 | | |
| File: AP1017_Rev2_1_100VBGA_GateDriverWboot.SCHDOC | | | |

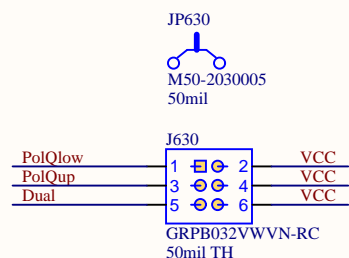
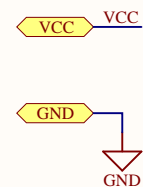




12 V to 5 V LDO power supply

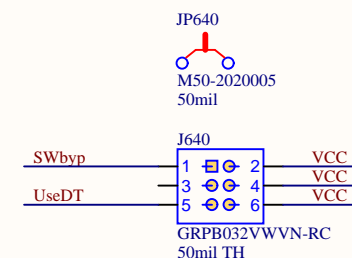
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| Title AP1006 Rev. 2.0 | | Efficient Power Conversion 909 N. Pacific Coast Hwy, Ste. 23 El Segundo, CA 90245 United States www.epc-co.com | |
| Size: A | 4 | Revision: 1 | |
| Date: 9/20/2022 | Sheet 4 of 5 | | |
| File: AP1006_Rev2_01_12Vto5VinPSU.SCHDOC | | | |





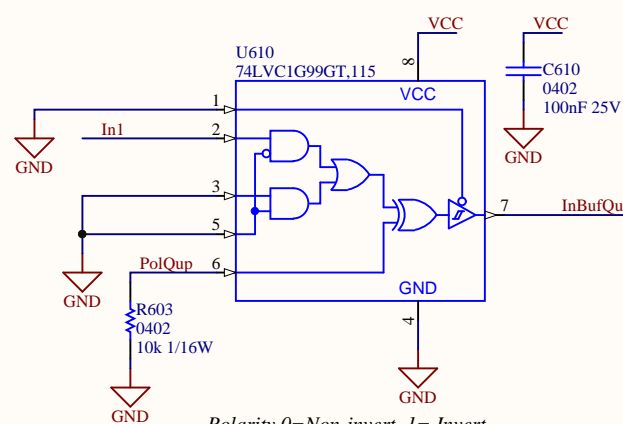
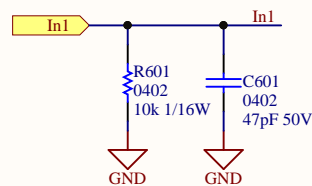
**Buck Single Signal
Boost Single Signal
Dual Signal**

Dual/Single PWM, Buck, and Boost Mode Selector



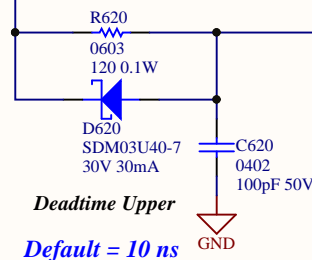
**Full Bypass
DT Bypass
No Bypass**

Bypass Mode Select

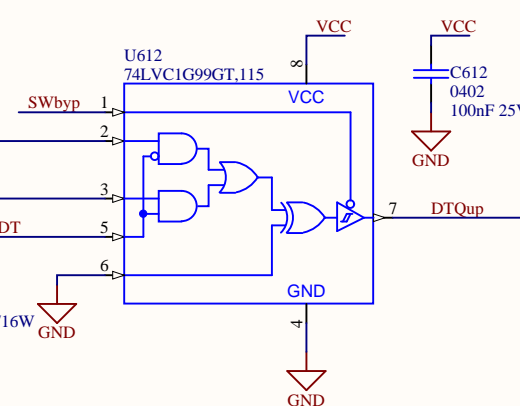


Polarity 0=Non-invert, 1= Invert

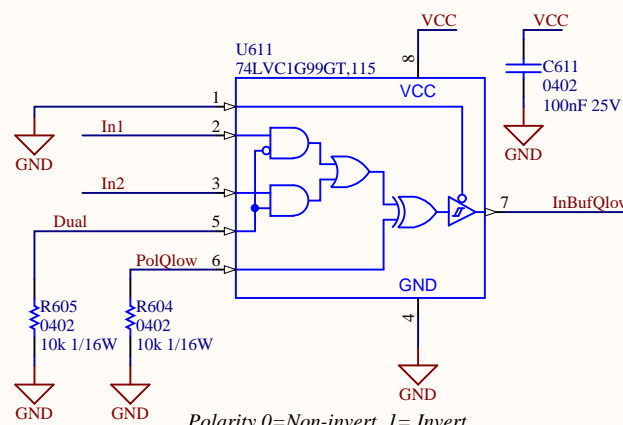
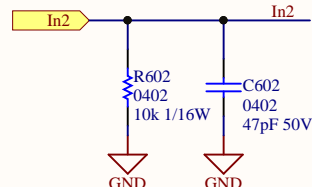
Signal Polarity and Input Buffers



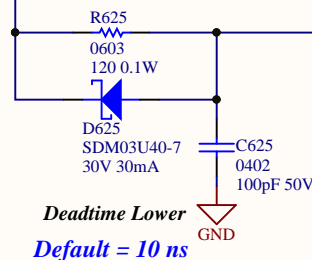
**Deadtime Upper
Default = 10 ns**



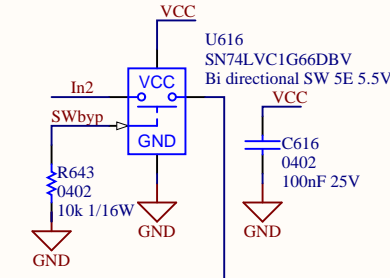
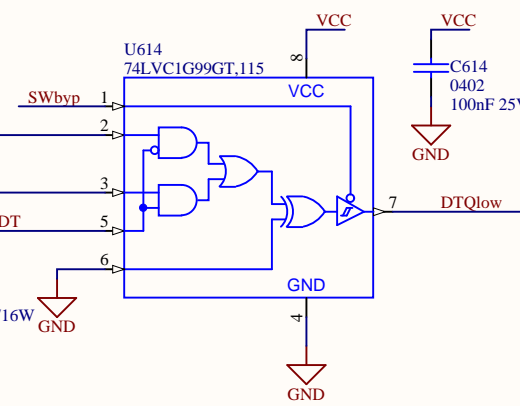
Output Buffers and Signal Select



Polarity 0=Non-invert, 1= Invert



**Deadtime Lower
Default = 10 ns**



General Dead-time with Polarity Changer and Bypass

| | | | | |
|---|---|--|--|--|
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| Size: A | 5 | Revision: 1 | | |
| Date: 9/20/2022 | | Sheet 5 of 5 | | |
| File: AP1010_Rev3_02_GeneralDeadtime.SCHDOC | | | | |