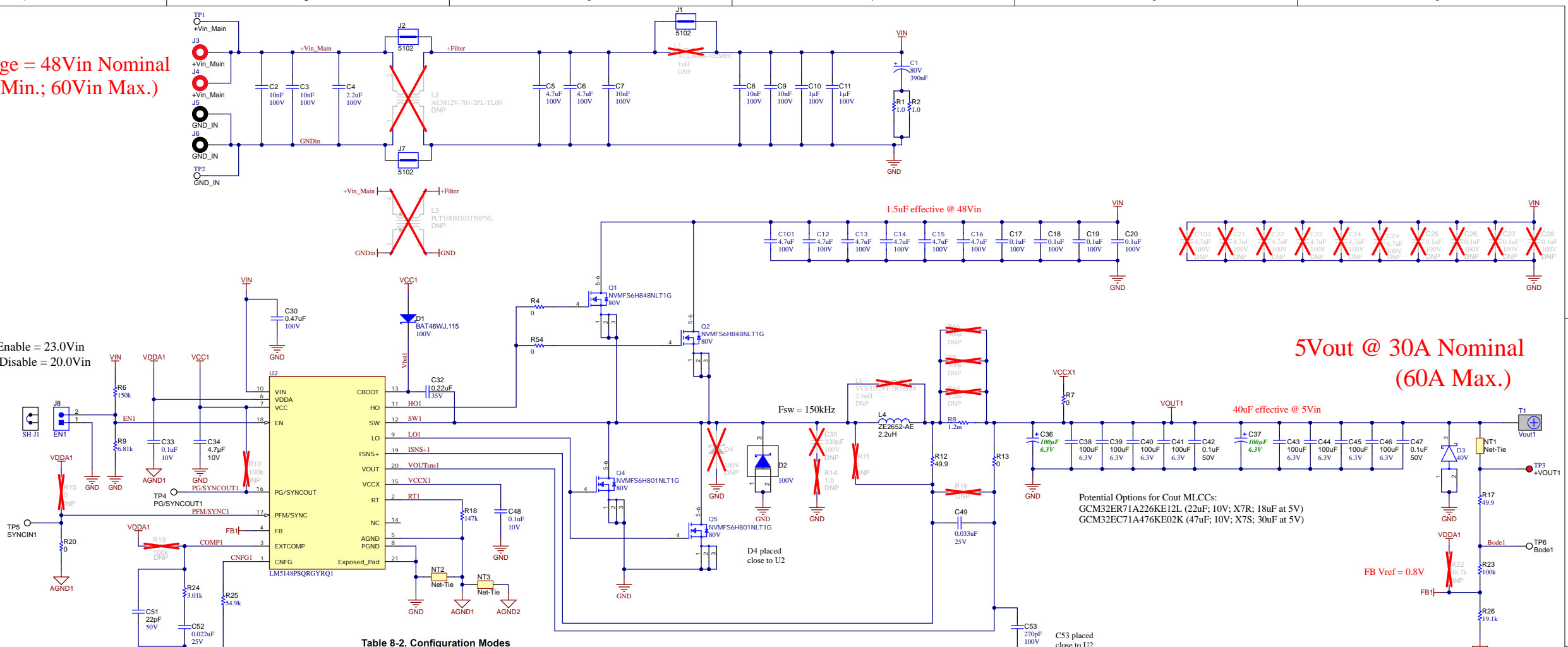


Input Voltage = 48Vin Nominal  
(24Vin Min.; 60Vin Max.)

UVLO Rising/Enable = 23.0Vin  
UVLO Falling/Disable = 20.0Vin

5Vout @ 30A Nominal  
(60A Max.)



**Table 8-2. Configuration Modes**

R <sub>CNFg</sub>	PRIMARY/ SECONDARY	SPREAD SPECTRUM	DUAL PHASE
29.9 kΩ	Primary	OFF	Disabled
41.2 kΩ	Primary	ON	Disabled
54.9 kΩ	Primary	OFF	Enabled
71.5 kΩ	Primary	ON	Enabled
90.9 kΩ	Secondary	N/A	Enabled

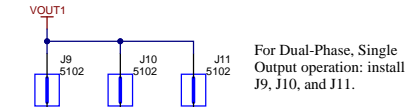
Some Schottky Options for D2 and D6 (if needed):  
-STPS3H100UFY  
-PMEG100T50ELP-QX  
-PDS5100HQ-13D

**\*NOTES:**

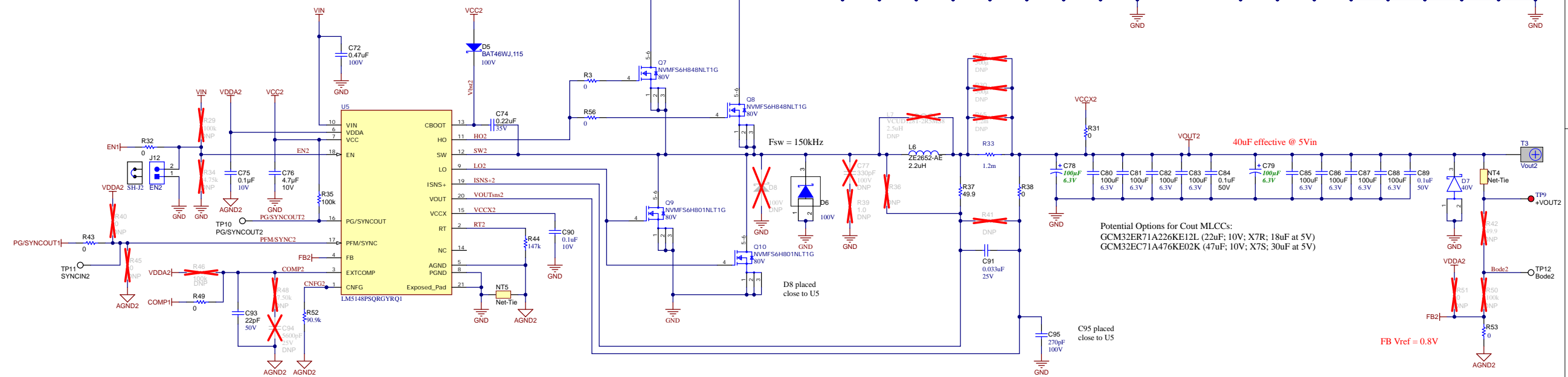
- D1 and D5 can be removed. The LM5148-Q1 contains internal bootstrap diodes.
- D2 and D6 are NOT absolutely necessary, though they improve negative-going voltage spikes on the switch nodes.
- D3 and D7 protect the circuit from potential large negative voltages caused by short circuit applications using long lead wires on the output. These diodes may be omitted on a final system design.

Potential Options for Cout MLCCs:  
GCM32ER71A226KE12L (22µF; 10V; X7R; 18µF at 5V)  
GCM32EC71A476KE02K (47µF; 10V; X7S; 30µF at 5V)

Potential Options for Cout MLCCs:  
GCM32ER71A226KE12L (22µF; 10V; X7R; 18µF at 5V)  
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For Dual-Phase, Single Output operation: install J9, J10, and J11.



H1 NY PMS 440 0025 PH  
 H2 NY PMS 440 0025 PH  
 H3 NY PMS 440 0025 PH  
 H4 NY PMS 440 0025 PH

H5 1902C  
 H6 1902C  
 H7 1902C  
 H8 1902C

FID1  
 FID2  
 FID3  
 FID4  
 FID5  
 FID6

PCB Number: PMP23420  
 PCB Rev: A



PCB LOGO  
 FCC disclaimer

PCB LOGO  
 WEEE logo

Variant/Label Table

Variant	Label Text
001	

LBL1  
 PCB Label  
 THT-14-423-10  
 Size: 0.65" x 0.20 "

Orderable: <a href="#">ChangeMe in variant</a>	Designed for:	Mod. Date: 2/8/2024
TID #: PMP23420	Project Title: LM5148-Q1 2-PH Buck Converter Using Si FETs	
Number: PMP23420	Rev: -1	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 2 of 2
Drawn By:	File: PMP23420_Hardware.SchDoc	Size: B
Engineer: Hrag Kasparian	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	

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