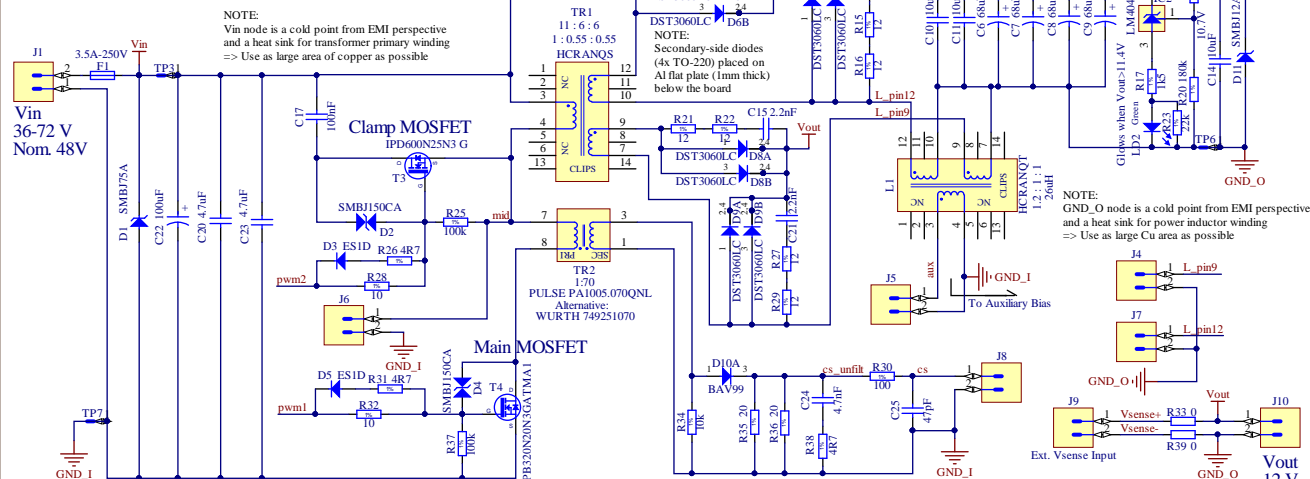
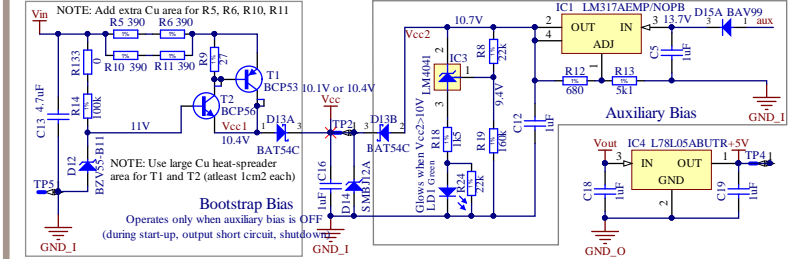


## Active Clamp Forward Converter

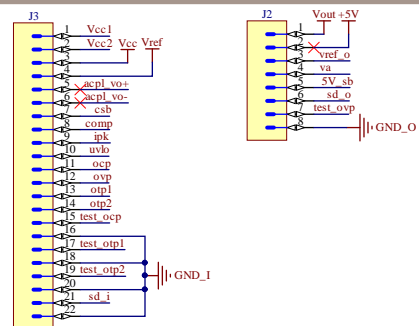
Input: 36-72V (Nominal 48V)  
Output: 12V, 8.33A, 100W



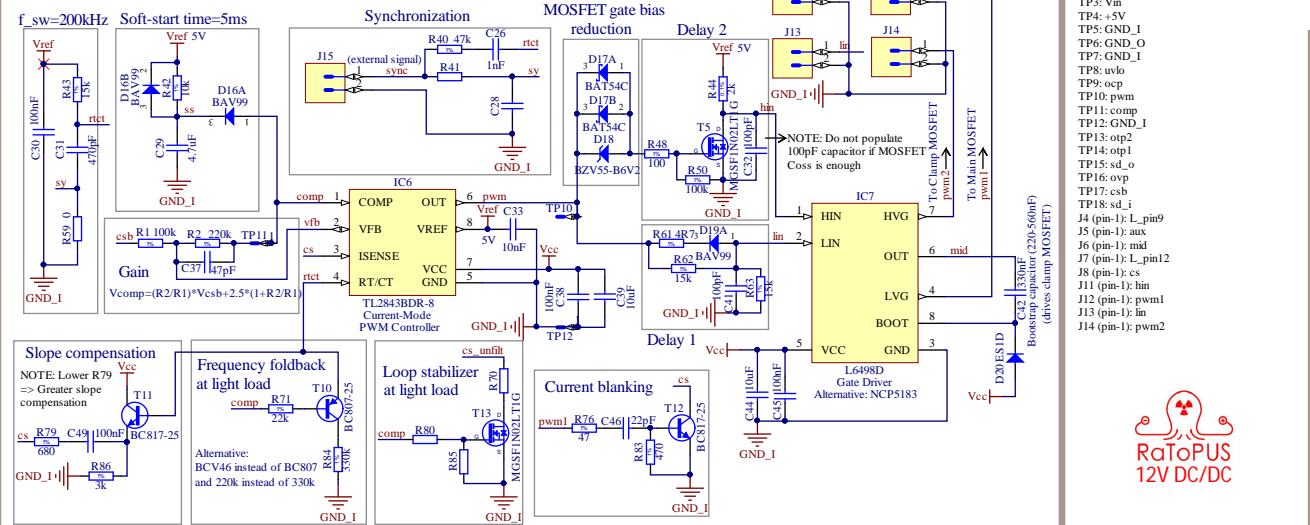
## Auxiliary Power Supply (50mA)



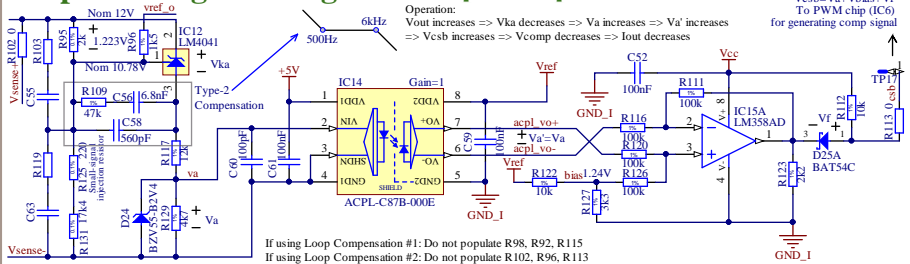
DESCRIPTION OF NODE NAMES:  
SV\_sb = 5V standby (external input) required for external shutdown  
comp = comp pin of PWM controller chip (IC6: TL2843)  
cs = Current sense  
cs\_unfilt = Current sense (unfiltered)  
csb = Current-share bus (connect to csb of other DC/DC)  
GND\_1 = Input-side (primary-side) ground  
GND\_2 = Output-side (secondary-side) ground  
ipk = Peak current value (used for ocp)  
mid = Node between main and clamp MOSFETs  
ocp = Over-current protection  
ovp = Over-voltage protection (power off when Vout>14.4V)  
otp = Over-temperature protection  
pwm1 = PWM pulses for main MOSFET  
pwm2 = PWM pulses for clamp MOSFET  
sd\_o = Shutdown referenced to o/p side gnd (external signal, 5V active high)  
sd\_i = Shutdown referenced to i/p side gnd (external signal, 5V active high)  
ss = Soft-start capacitor node  
sync = Synchronisation (external signal)  
test\_ocp = Test node for OCP (short to gnd\_i to simulate over-current)  
test\_otp = Test node for OTP #1 (short to gnd\_i to simulate over-temperature)  
test\_ovp = Test node for OVP (short to gnd\_o to simulate over-voltage)  
uvs = Under-voltage protection (power off when Vin<36V)  
vref\_o = Ref. voltage of sec-side controller (IC12/IC13: LM4041 on GND\_O)



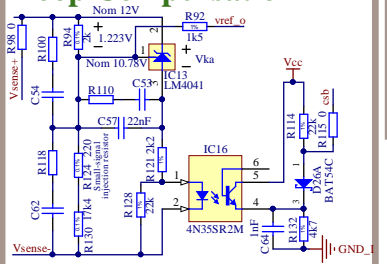
## PWM Controller and MOSFET Driver



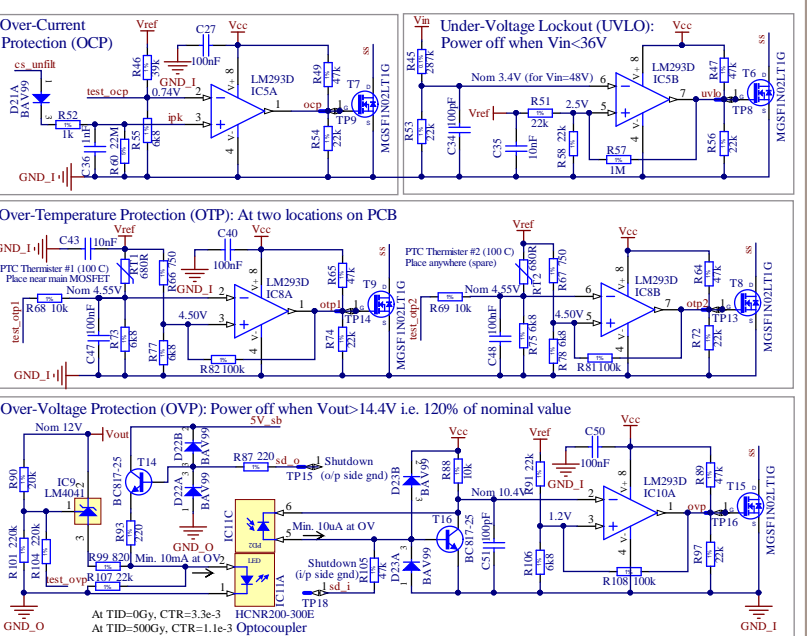
## Output Voltage Sensing and Loop Compensation #1



## Loop Compensation #2



## Protection Circuits



MOUNTING HOLES: B1: B2: B3: B4: B5: B6: B7: B8: B9: B10: B11: B12: B13: B14: B15: B16: B17: B18: B19: B20: B21: B22: B23: B24: B25: B26: B27: B28: B29: B30: B31: B32: B33: B34: B35: B36: B37: B38: B39: B40: B41: B42: B43: B44: B45: B46: B47: B48: B49: B50: B51: B52: B53: B54: B55: B56: B57: B58: B59: B60: B61: B62: B63: B64: B65: B66: B67: B68: B69: B70: B71: B72: B73: B74: B75: B76: B77: B78: B79: B80: B81: B82: B83: B84: B85: B86: B87: B88: B89: B90: B91: B92: B93: B94: B95: B96: B97: B98: B99: B100: B101: B102: B103: B104: B105: B106: B107: B108: B109: B110: B111: B112: B113: B114: B115: B116: B117: B118: B119: B120: B121: B122: B123: B124: B125: B126: B127: B128: B129: B130: B131: B132: B133: B134: B135: B136: B137: B138: B139: B140: B141: B142: B143: B144: B145: B146: B147: B148: B149: B150: B151: B152: B153: B154: B155: B156: B157: B158: B159: B160: B161: B162: B163: B164: B165: B166: B167: B168: B169: B170: B171: B172: B173: B174: B175: B176: B177: B178: B179: B180: B181: B182: 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