

- MAX6338 (U1003): I added the required 0.1 μ F capacitor close the Vcc pin. I calculated values of the resistors R1020, R1021, R1022 according the formula: $(R1020+R1021)= R1022(\frac{V_{in}}{1.23}-1)$. Assume R1022=1k Ω , R1020+R1021=1683 Ω . The formula is provided by the datasheet of MAX6338.
- PM300DVA120 (U1012): I changed the capacitor required by the IPM and changed the power supplies for top and bottom switches.
- -HCPL-4504 (U1010 and U1011): I connected the capacitors C1009 and C1010 to pins 5 and 8 of respectively U1010 and U1011 and changed the values of resistor R1029 and R1030. The component HCPL-4504 has SMD version.
- -SN74AC244 (U1009): I think the logic problem can be easily resolved in software. In the connection you suggested, whatever the pin 18 is high or low, there is power dissipation. In current connection, when the pin 18 is high, there is no power dissipation.
- -PC817 (U1013): I removed the unnecessary resistor R1031 and R1032, changed the values of R1033 and R1034 and added two capacitor in the output of them.
- -MAX6315 (U1008): according the datasheet of it, the current connection is correct.
- -LA200P-P (U4000): according to the datasheet, the maxim values of measure resistor are 60 Ω at 70 $^{\circ}$ C and 56 Ω at 85 $^{\circ}$ C.
- Because the space of HM is very stringent, I think the software filter is much better.
- As for the sizes of power supplies, I searched many manufacturers. Due the requirements of out system, 5V input and isolated, it is very difficult to find some smaller ones.