

SP520 5KW 09 flaut code checking guide

1. Unit disassemble Step

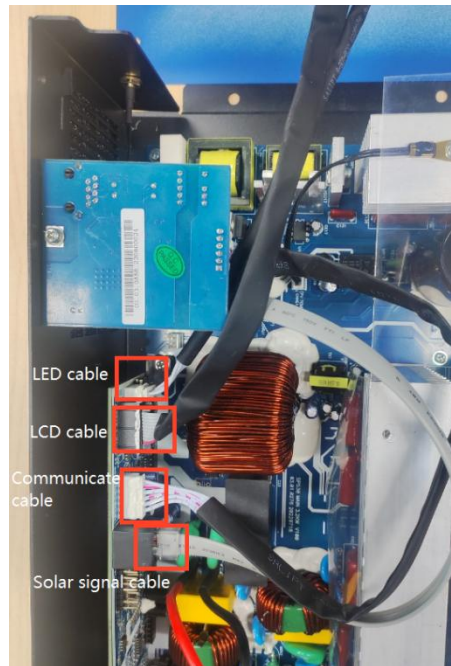
- ① Remove the screws of top cover and wire cover.



- ② Take out wire cover and open the top cover.



- ③ Unplug LCD&LED&communication&Solar sampling signal cables from control board.



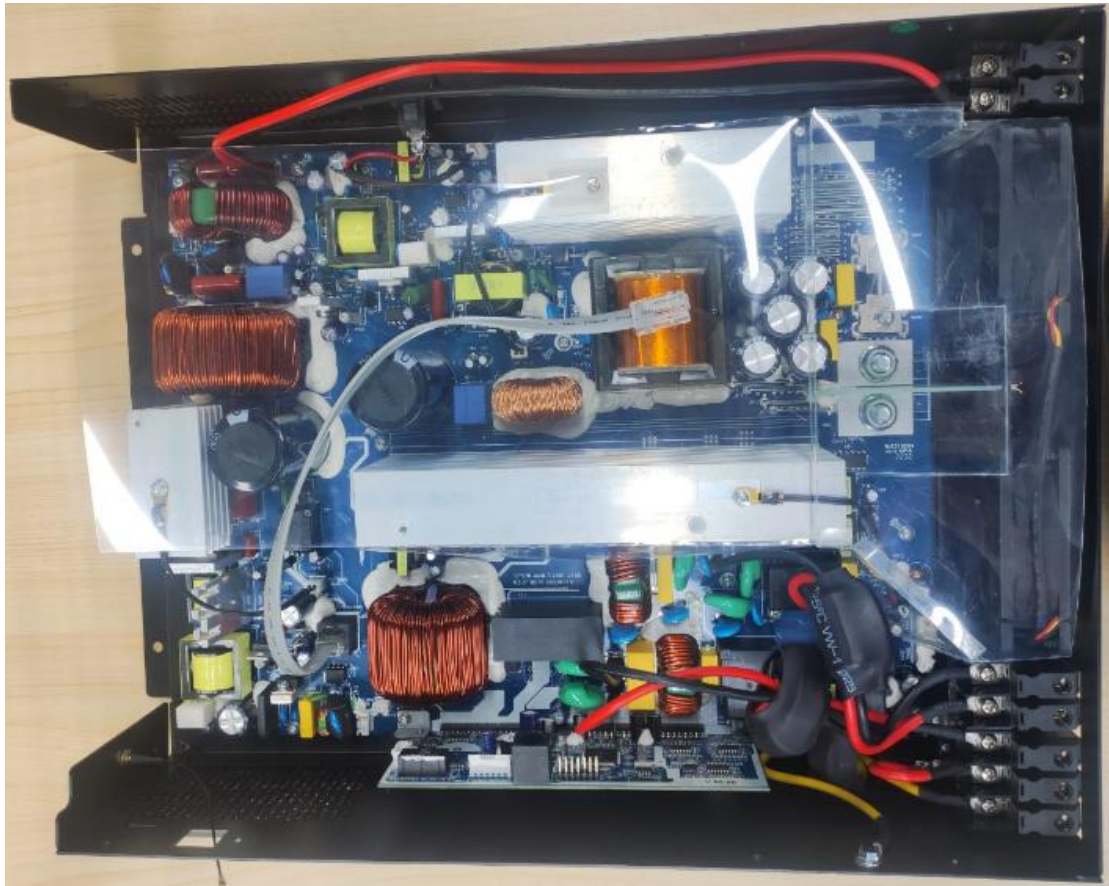
④ Remove the screws of communication board



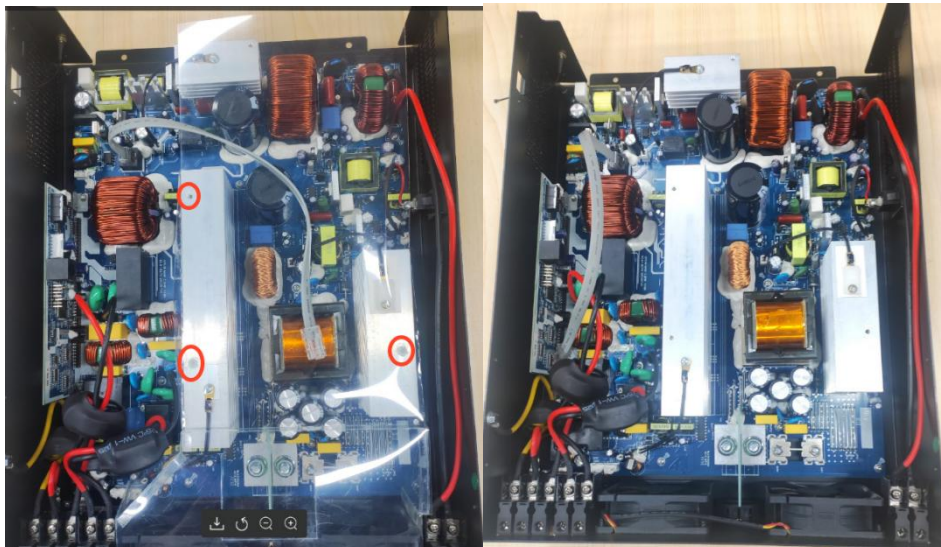
⑤ Remove the antenna, Then take out the communication board.



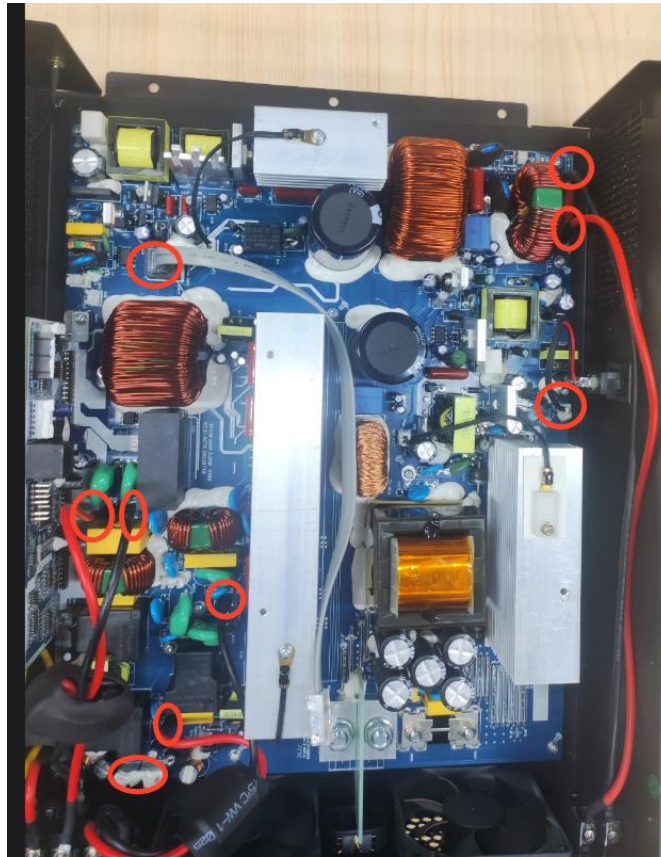
⑥ Take out top cover.



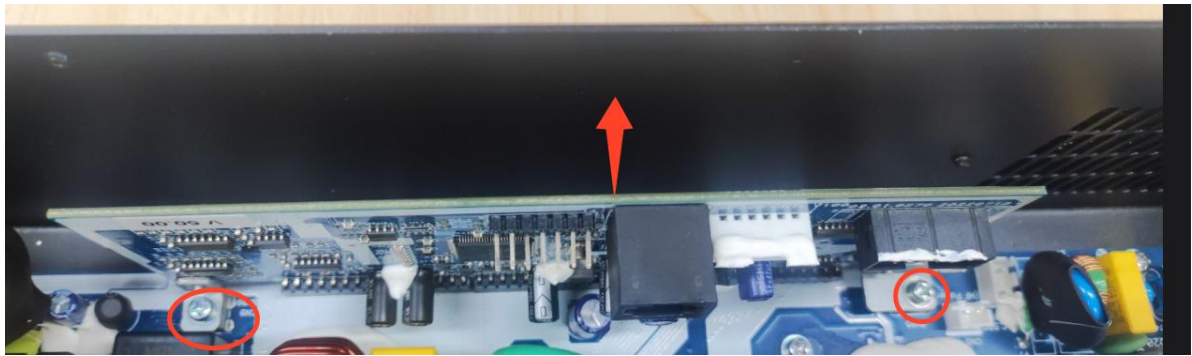
⑦ Take out the plastic nails and PVC mylar



- ⑧ Remove these cables from the main board.



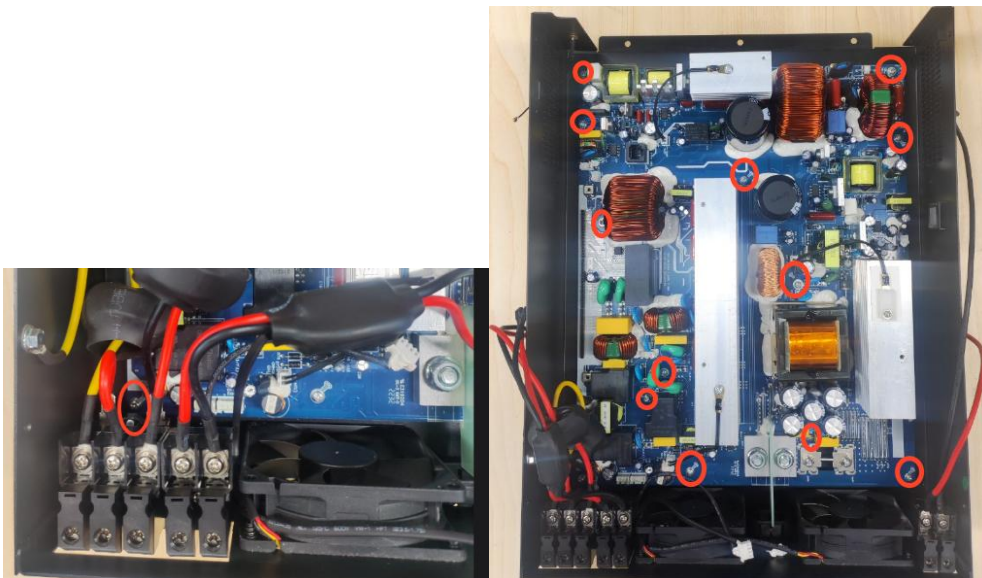
- ⑨ Remove 2 screws as below; Then take out the control board



⑩ take out main switch



⑪ Remove 13 screws from main board.



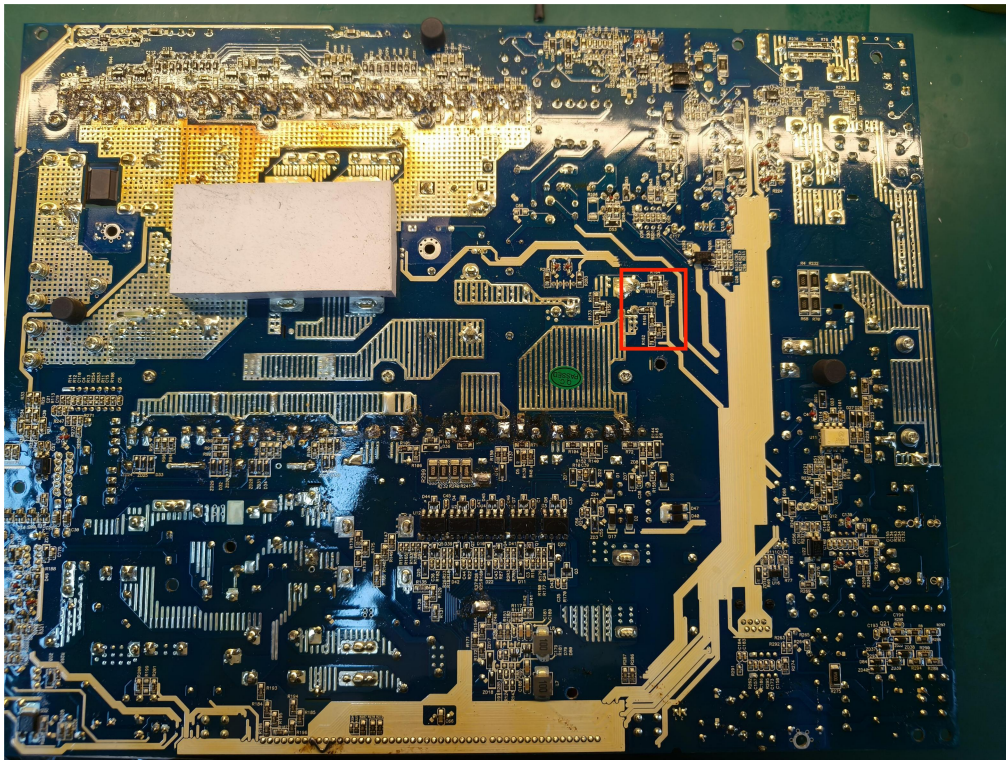
⑫ Take out main board.

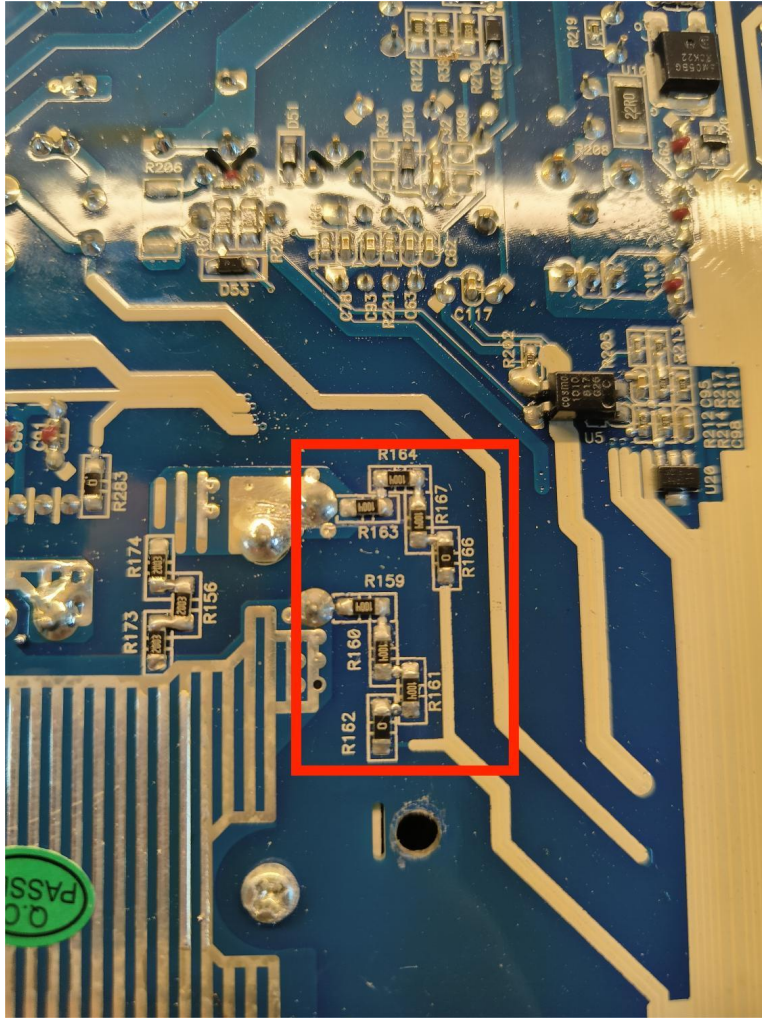


2. 09 flaut caused by bus soft start fail

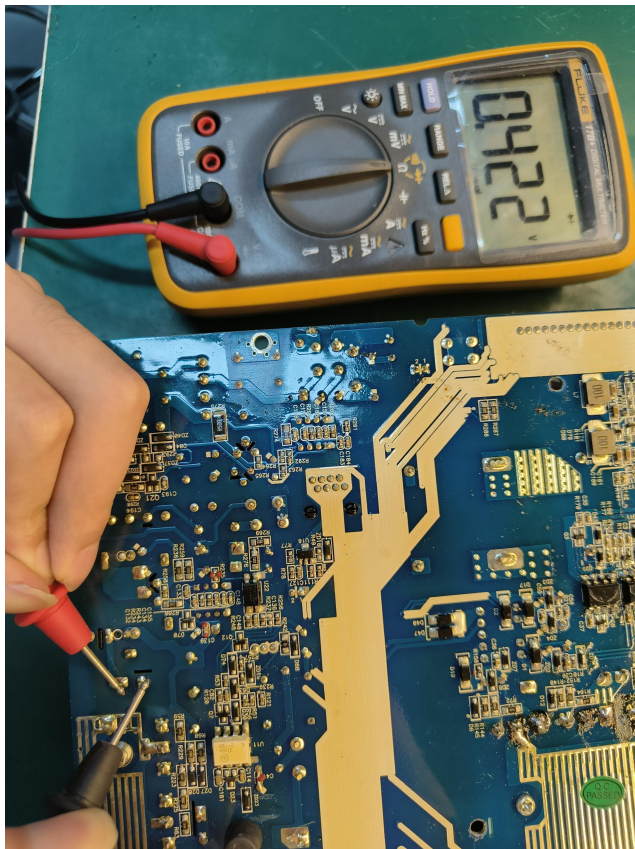
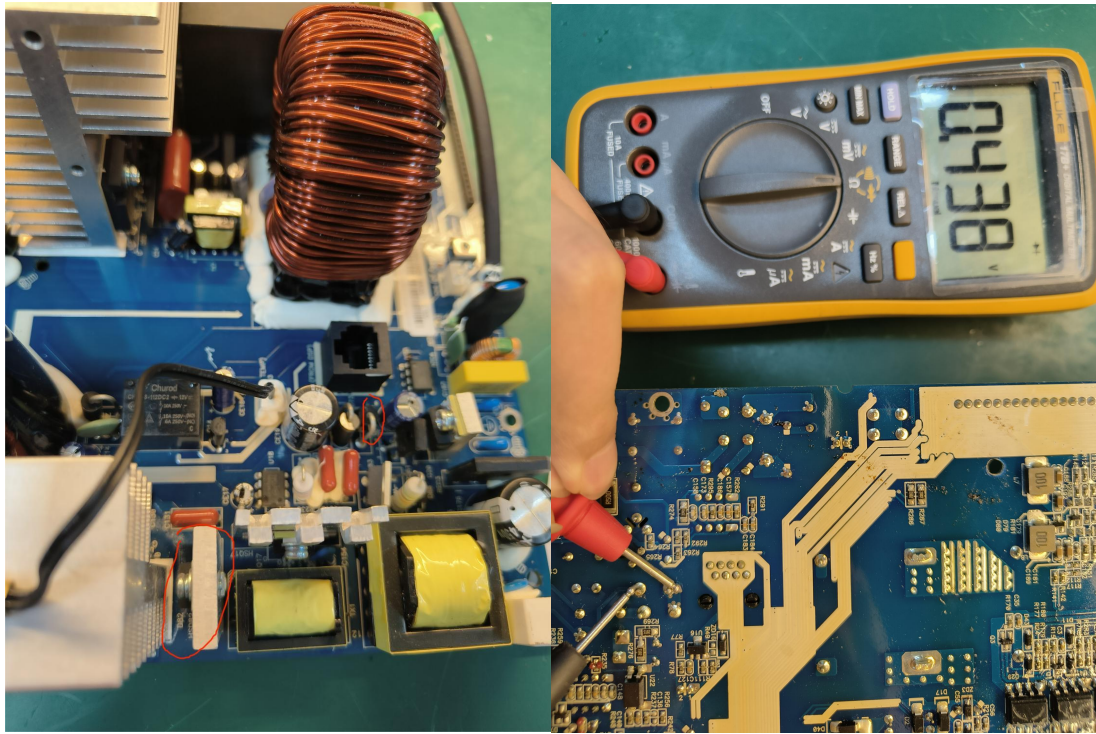
2.1 Resistors and Pads checking.

Position	Value	Remark
R159,R160,R161, R163,R164,R167	1M Ω /1206J	1.Make sure those that the pads of those resistors are ok, re-solder and test again. 2.If those resistors are broken, need to be replaced as the same specifications.
R162,R166	0 Ω /1206J	

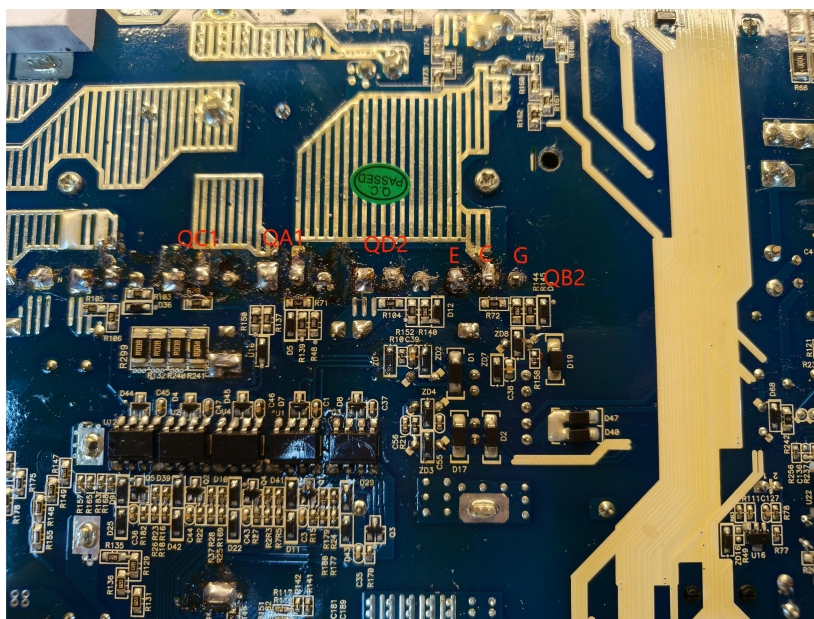
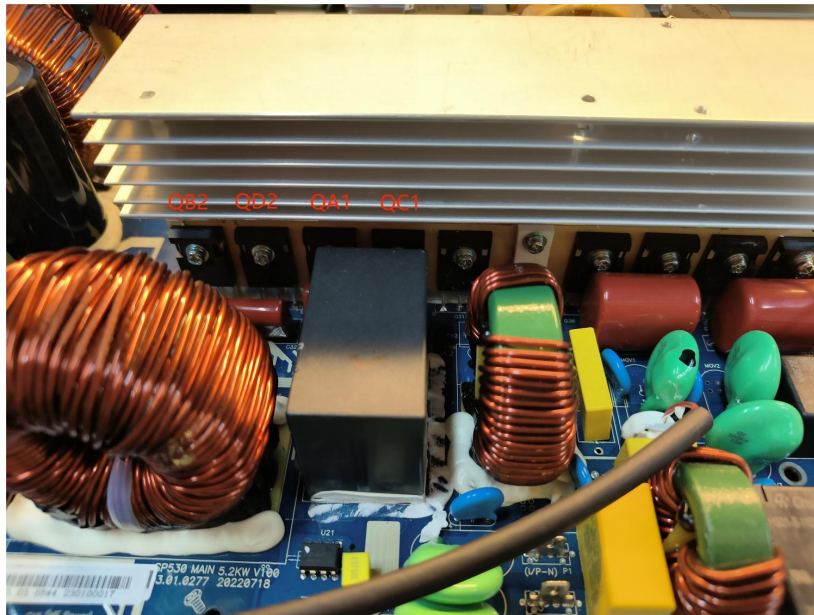


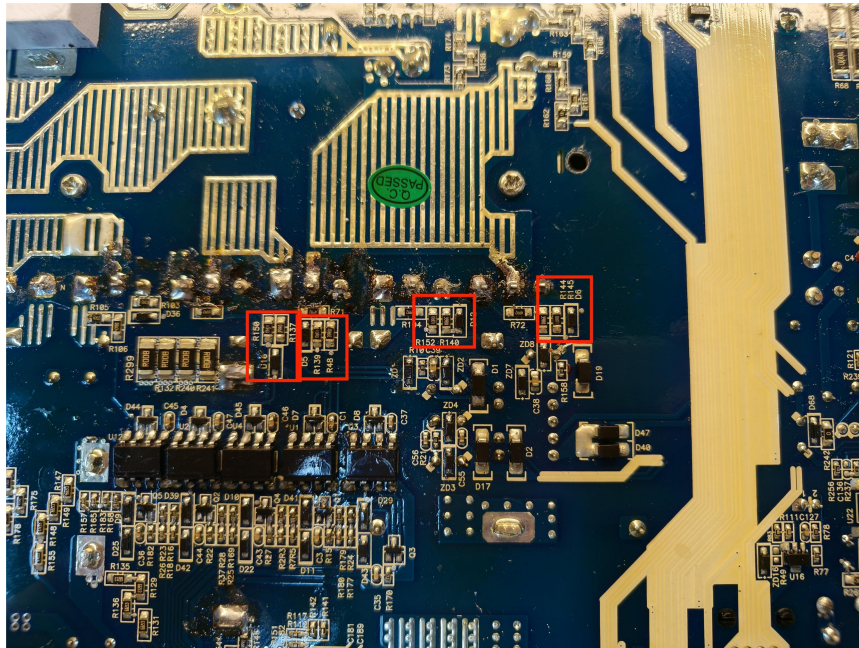


2.2 Bus soft start diode checking, $V_F \approx 0.422V$ should be ok.



2.3 Inverter IGBTs checking





Components	Normal range (Value)	Remark
QB2,QD2,QA1,QC1 IGBT SL/SGT75T65SDM1P7 75A 650V TO-247 for 5.5KW IGBT SL/SGT50T65SDM1P7 50A 650V TO-247 for 3.5KW	$V_{EC} = 0.372V$ $V_{GC} = 1.93V$	Multi meter diode position
R48,R144,R137,R140 39Ω/1206J	39Ω/1206J	
R139,R145,R150,R152 10Ω/1206J	10Ω/1206J	
D5,D6,D16,D12 DIODE PAJ 1N4148W 0.15A 75V SMD	Resistance P-N=59 Ohm REF	