Ipad Air2Electricity consumption too fast repair

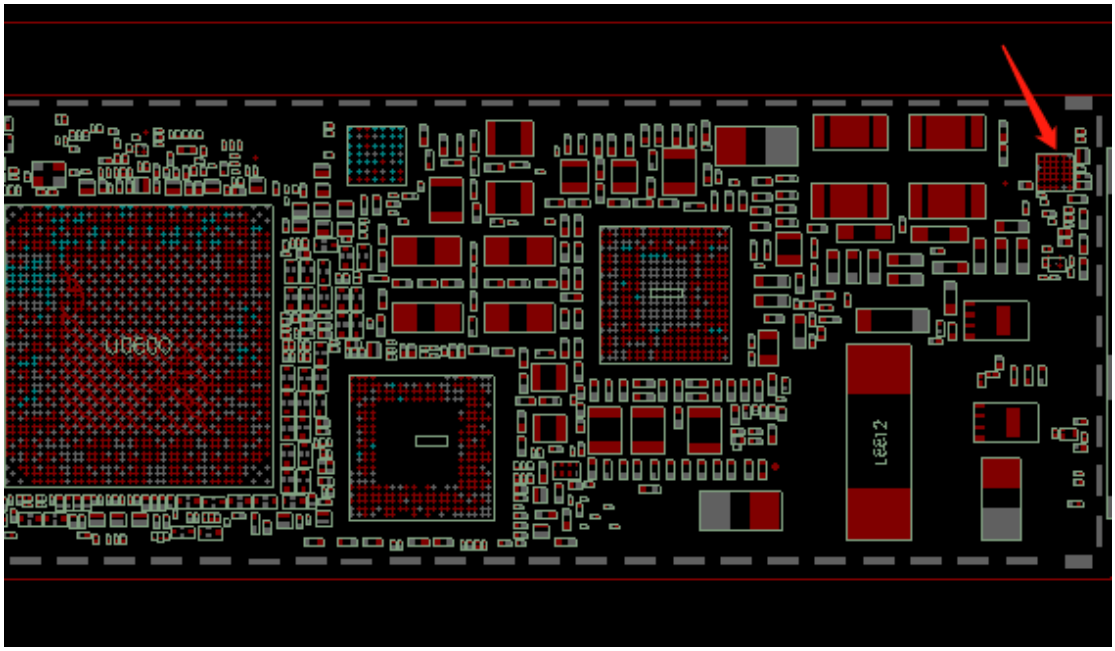
[Faulty model] ipad Air2 16G

[Fault phenomenon] ipad Air2 consumes very fast power. Basically, watching TV for more than an hour will be out of power.Standby consumes power even when not in use.

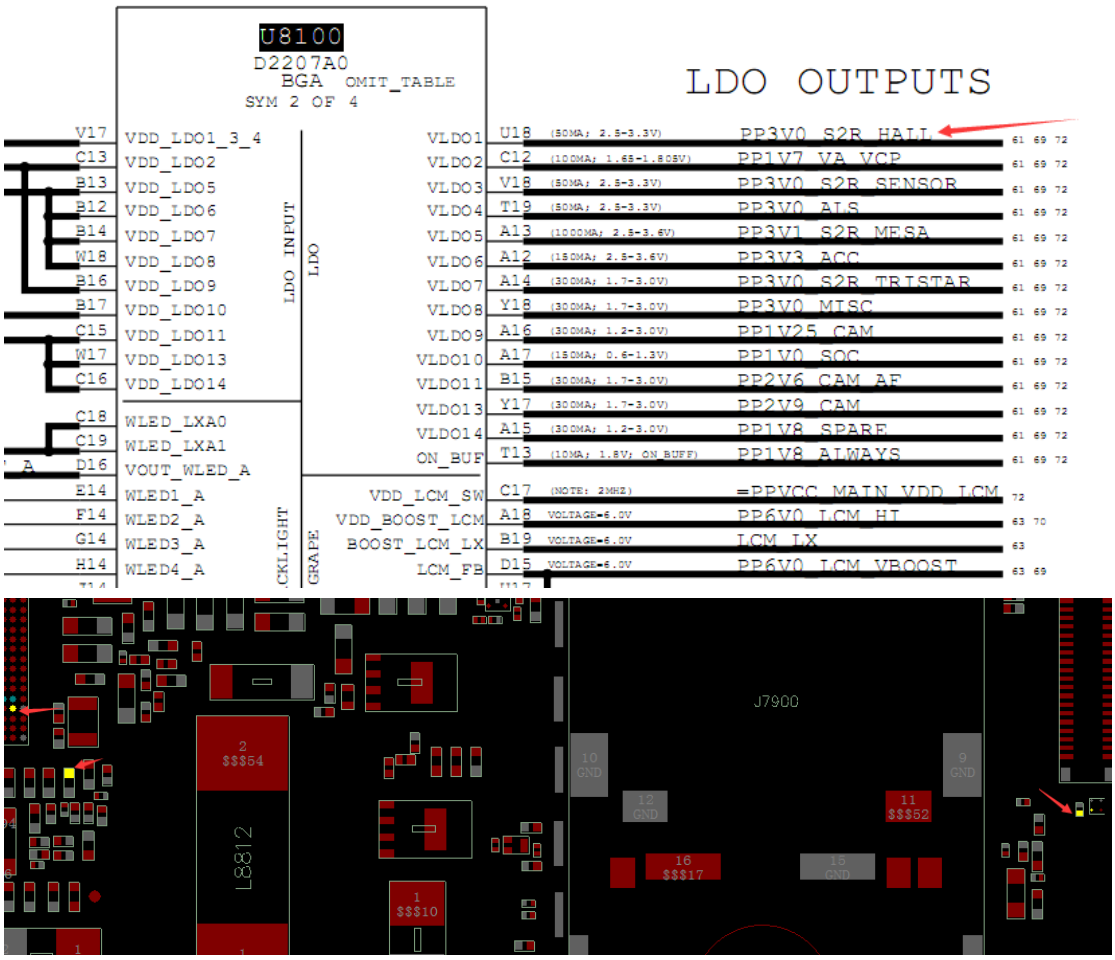
[Fault Analysis] This situation is definitely caused by the leakage of electricity(battery abnormal consumption) or external damage on the motherboard. It is suspected that the USB management chip is damaged.

[Maintenance process] ipad AIR2 We are commonly known as ipad6, because ipad6 is different from other ipads, its internal Screen Outer Layer Glass is one, so we must be very careful when disassembling, after opening the screen, we remove the motherboard, directly take a look at the power Ipad standby current and boot current, after the trigger current directly on the 300mA like this current, it is very likely that the USB management chip is damaged, so we directly find the ipad6 point on the Xinzhi drawings and then find the location of the USB management.

Because the drawings only have the ipad card version, but the layout is basically the same, so we found the USB management chip against this drawing.



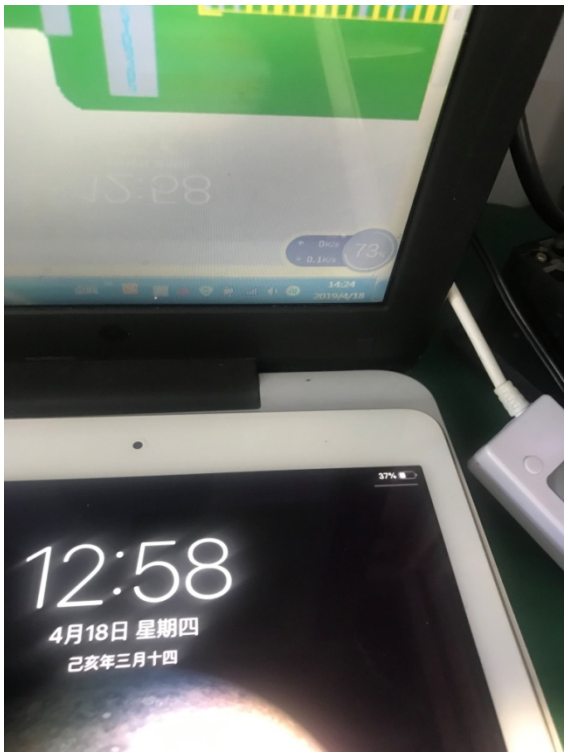
After disassembling the USB management chip, the power is triggered to find that the current is still the same. It seems that this is not related to the USB management chip. We first put the USB chip back, and the system test function did not find any abnormality.In this case, we can only measure one VCC, because the trigger 300 is not too big, so we first check from LDOVCC.After measuring, it was found that the PP3V0_S2R_HALL road VCC Test Diode Value(Multimeter uses diode gear, red pen connect GND, black measurement test point) has only about 80 places that have been pulled down.



Using Adjustable Power supply to add a 2.5V VCC to the connected capacitor is directly short, and then the Test Diode Value(Multimeter uses diode gear, red pen connect GND, black measurement test point) is completely shorted. 0. Using the method of smoking Colophony (Solder) to find out that the capacitor of c2260 is damaged and directly removed.Then the power-on trigger current returns to normal.

Installed test to see if the power consumption is normal.

[Maintenance result] Charging to 37%, standby for 2 hours and then observe the change in power, or 37, the fault is repaired.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4月18日 星期四
己亥年三月十四