



How to Fix iPhone 7 No Service

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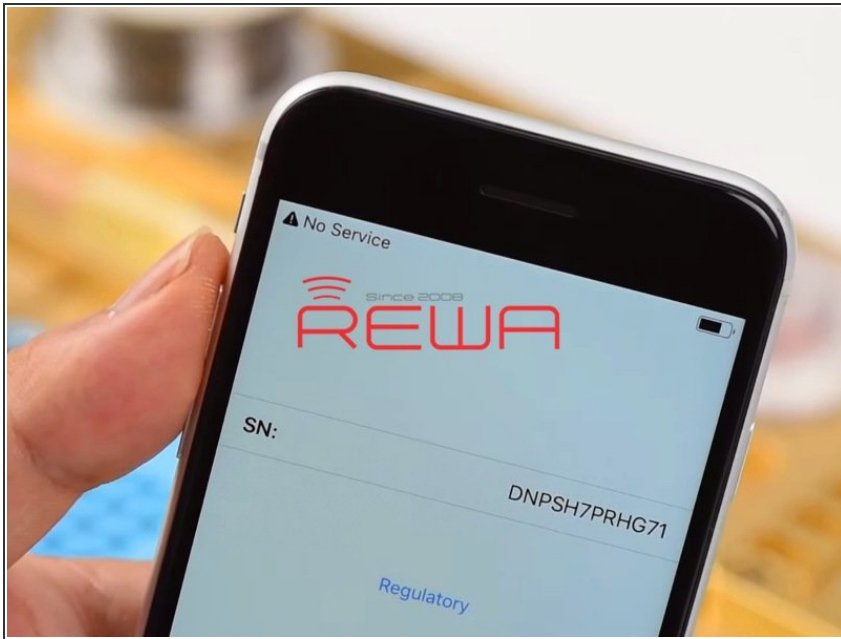
Written By: Phryne



INTRODUCTION

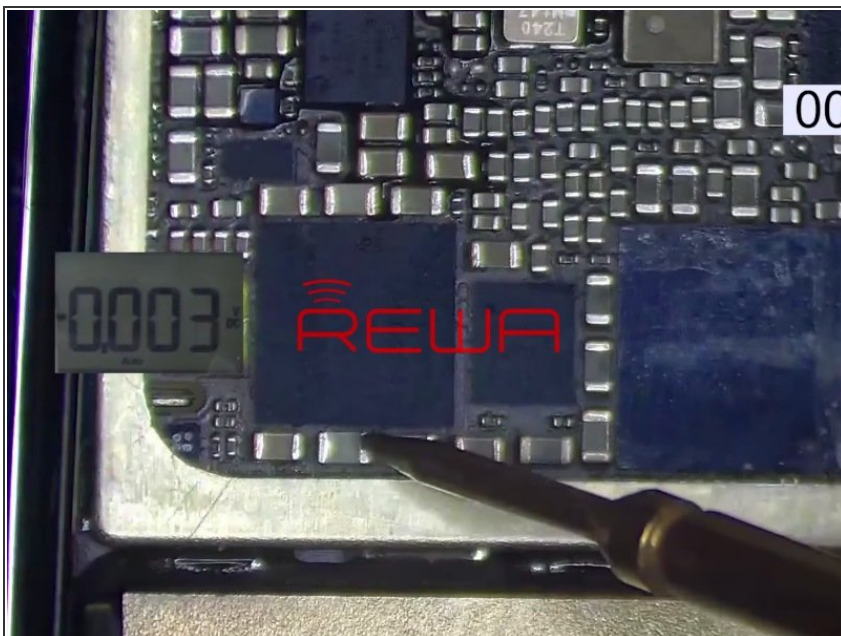
As a common issue of iPhone 7, No Service is mainly caused by two reasons. The baseband PMU has been pseudo soldered. Or, the baseband CPU has shorted. For pseudo soldering problem, we can fix it by re-soldering the baseband PMU. As for the shorted baseband CPU, since the baseband CPU cannot be replaced alone, we need to replace CPU, baseband CPU, and baseband PMU at the same time. Or, we can just replace the logic board.

Step 1 — Fault Analyzing



- Hold the power button to turn on the phone. The phone goes with activation process.
- Click the icon at the bottom right corner. Serial number displays normally on the screen. No IMEI number on the screen. The phone shows a No Service error in the upper-left corner.
- Judging by this, the baseband circuit has malfunctioned.

Step 2 — Repair Thoughts Of A Beginner



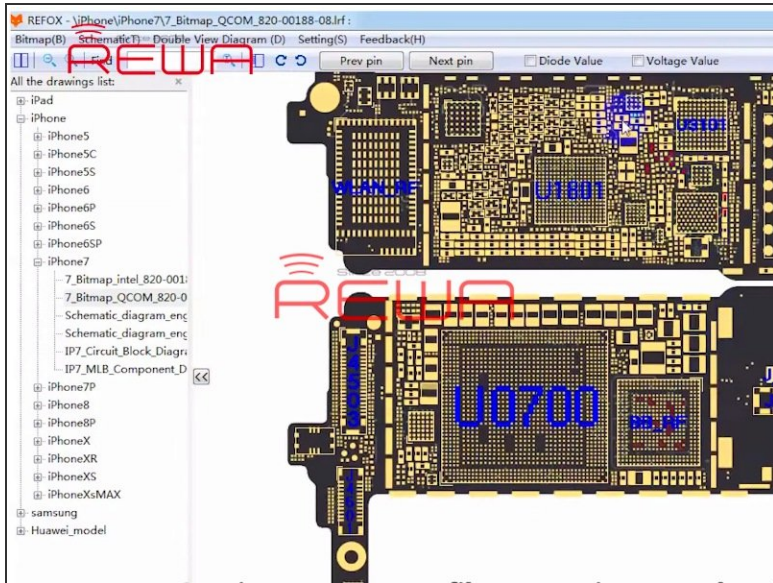
- Measure the boot current. Current reading on the ammeter is normal.
- First, let's measure the power supply of baseband PMU. There is no voltage value measured on C5630 and C5703. Which indicates that the power supply of baseband PMU is abnormal.

Step 3



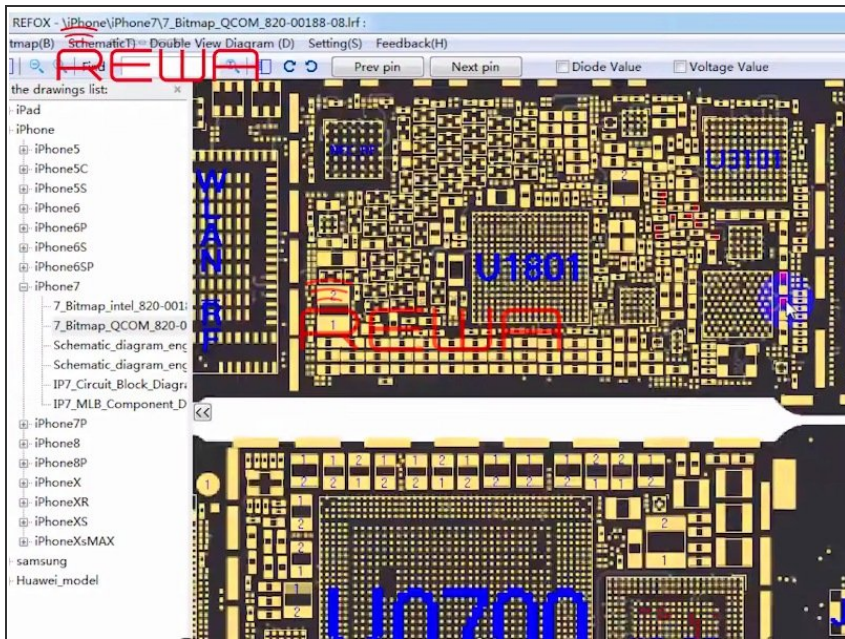
- Continue to run diode mode measurement of C5630 and C5703.
- Judging by the measured value, C5630 and C5703 have shorted.

Step 4



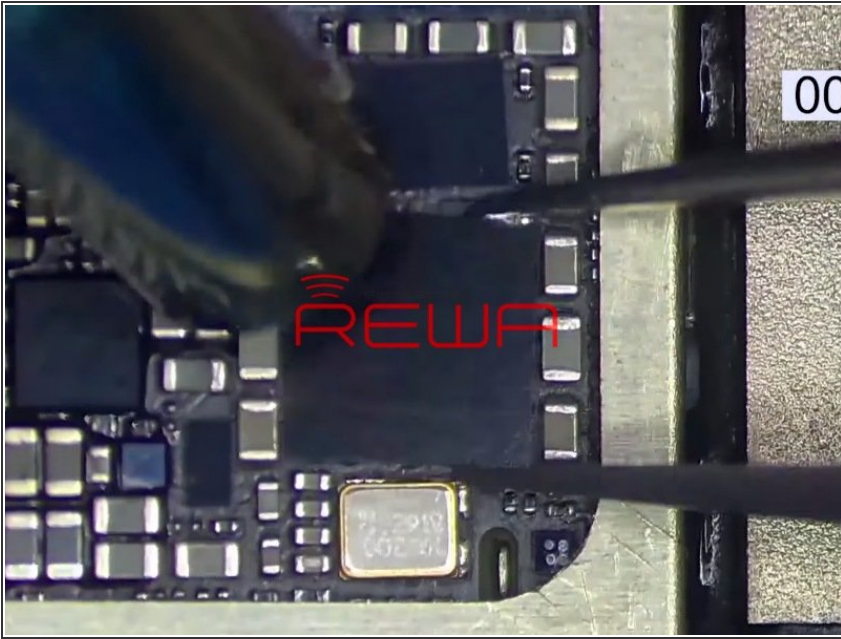
- Refer to [Refox](#). We can see that the circuit related to C5630 and C5703 consists of the baseband PMU, the baseband CPU and multiple filter capacitors.
- Let's start with the baseband PMU.
- Remove the baseband PMU with Hot Air Gun. Again, run diode mode measurement of C5630. Judging by the measured value, C5630 has shorted.
- Which indicates that the baseband PMU is not the faulty component.

Step 5



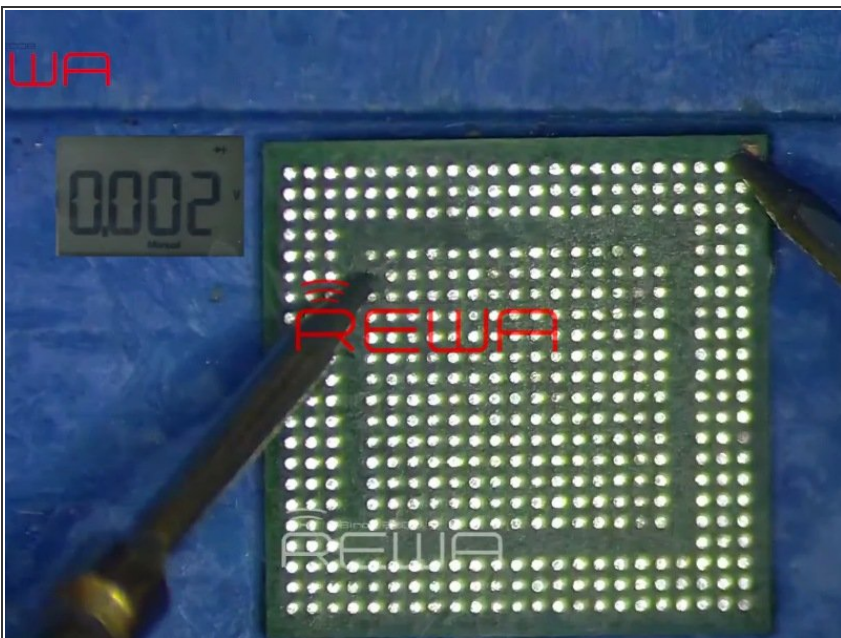
- Continue to remove filter capacitors on the circuit with Hot Air Gun and run diode mode measurement of C5630's bonding pad.
- The measured value indicates a shorted condition.
- So these filter capacitors also have nothing to do with the fault.

Step 6



- Continue to remove the baseband CPU with Hot Air Gun. Then run diode mode measurement of C5630's bonding pad. The measured value is OL, which is normal.
- We can confirm now that the fault is related to the baseband CPU.

Step 7



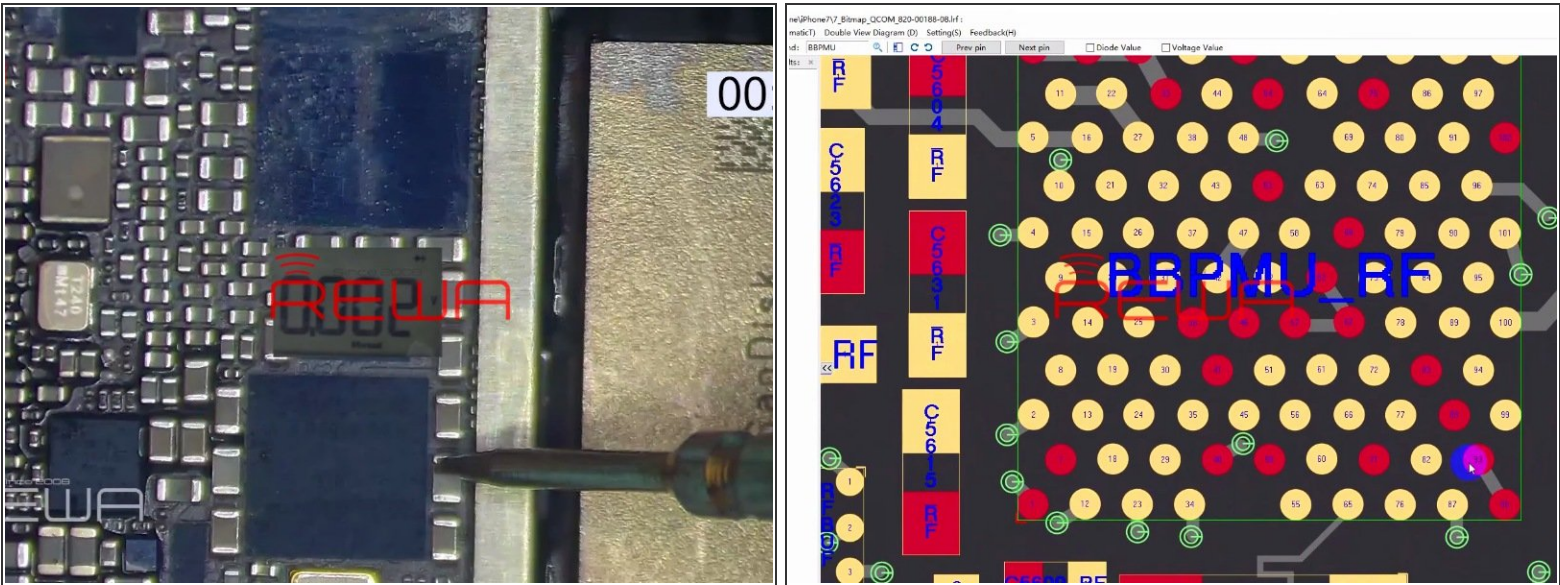
- Run diode mode measurement of the detached baseband CPU. Judging by the measured value, the baseband CPU has shorted.
- ① As we all know, the baseband CPU cannot be replaced alone once damaged. We need to replace CPU, baseband CPU, and baseband PMU at the same time.
- ① Or we can fix the problem by replacing the logic board. In this case, there is no need to proceed with the repair.

Step 8 — Repair Thoughts Of An Experienced Technician



- First, confirm the version of the logic board.
- We are dealing with a Qualcomm version logic board.

Step 9



- Run diode mode measurement of C5630 or C5703. The measured value is 0. Judging by this, the baseband CPU has shorted.
- ⚠ Due to the PCB design defect of iPhone 7 Qualcomm logic board, bonding pads of Pin 93 and Pin 98 of baseband PMU are easy to fall off. Which results in the abnormal voltage and large current flowing outputted from the baseband PMU to the baseband CPU and then the burnout of the baseband CPU.
- In this case, there is no need to proceed with the repair. You can just replace the logic board.

Step 10 — Video Guide



- For more iPhone repair cases, please visit [REWA YouTube Channel](#).
- Credit: [REWA Technology](#)