Data Recovery From A Dead iPhone X Motherboard

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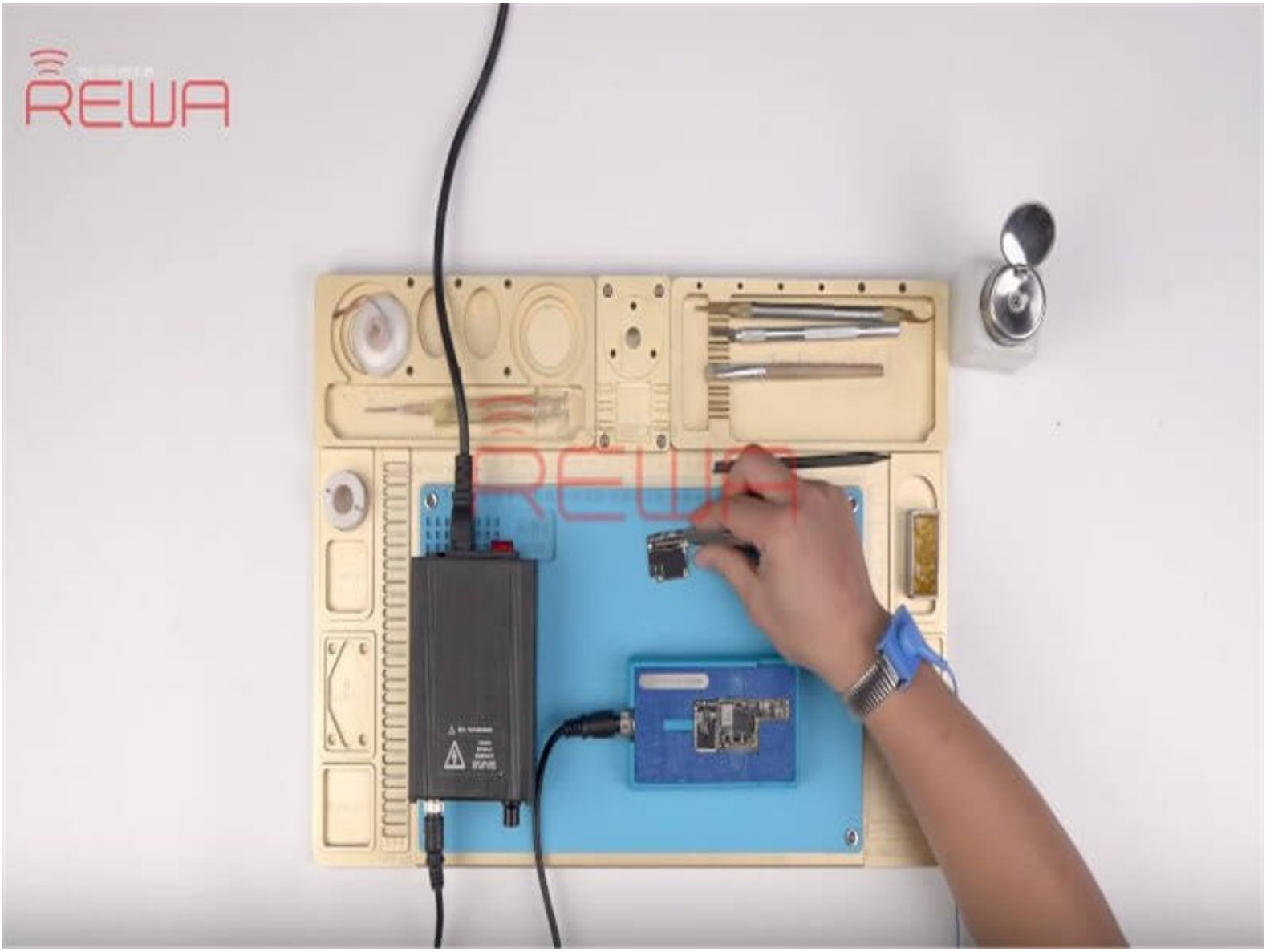
Written By: Phryne



INTRODUCTION

As we all know, it is very difficult for repair technicians to extract data from a logic board that cannot be powered up, which requires precise operation with circumspection. And that's what our iPhone X data recovery case is about today. The iPhone X won't turn on after water damage. And the problem remains the same after several times of logic board repair. Well, let's see what REWA LAB can do...

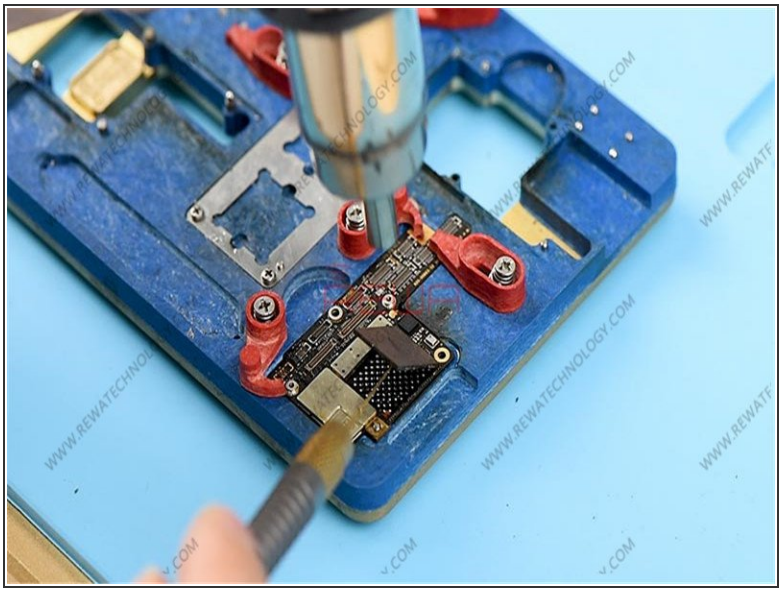
TOOLS:

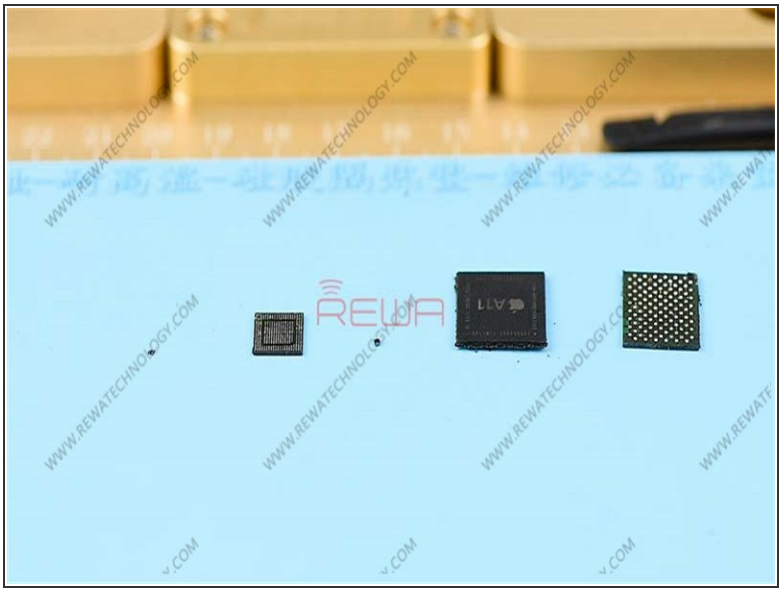
- PCIE NAND Flash Chip Programmer (1)
- Test Fixture (1)
- Motherboard Heating Platform (1)

Step 1 — Diagnosis

- The boot current is abnormal. So the PCB board might have been damaged.
- To recover data, we need to transplant CPU, Baseband CPU, EEPROM, NAND and baseband EEPROM on the original motherboard onto a new motherboard that can turn on the phone normally.

Step 2 — Board Swap



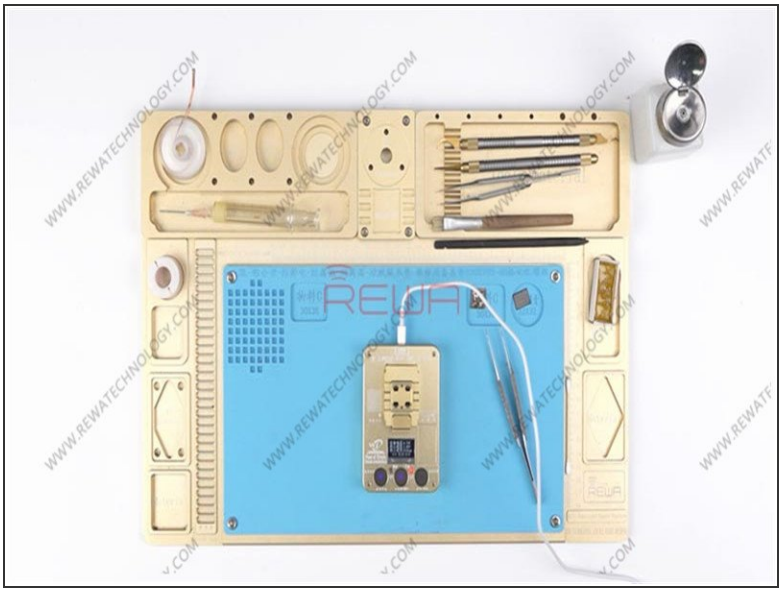


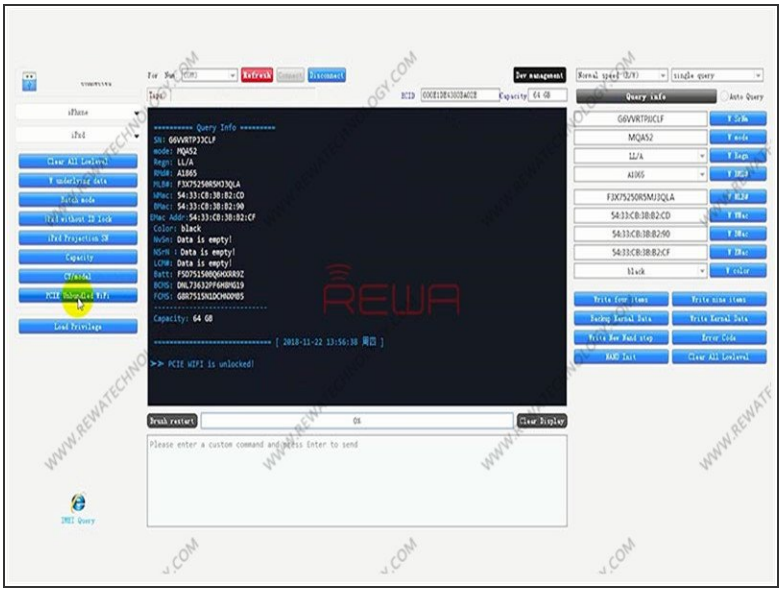
- Attach the upper layer to the PCB Holder. Heat and pry up the NAND flash chip with a specialized knife.
- Next, let’s detach CPU, EEPROM, Baseband CPU and Baseband EEPROM from the board with the same steps.

Step 3 — Board Swap

- Now, we need to reball these detached components. Let's start with the NAND flash chip.
- Clean the NAND flash chip first and then reball the chip. Once done, continue to reball the baseband CPU, CPU, EEPROM and baseband EEPROM with the same steps.

Step 4 — Unbind WiFi

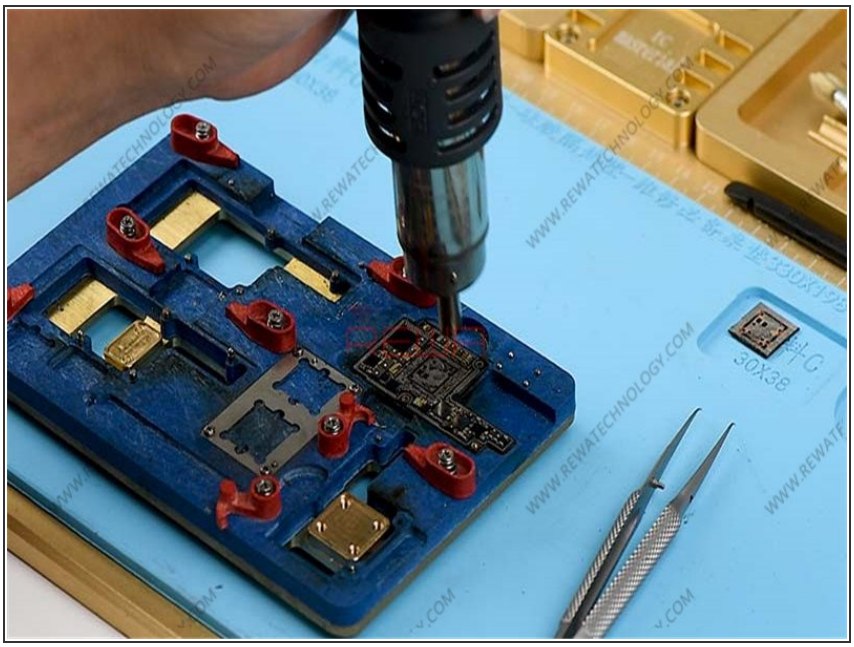




Please be noted that the WiFi module is bound up with WiFi address stored in the NAND flash chip. So our next move is to unbind WiFi.

- Connect the PCIE NAND Flash Chip Programmer with computer and have the WiFi unbound.

Step 5 — Board Swap

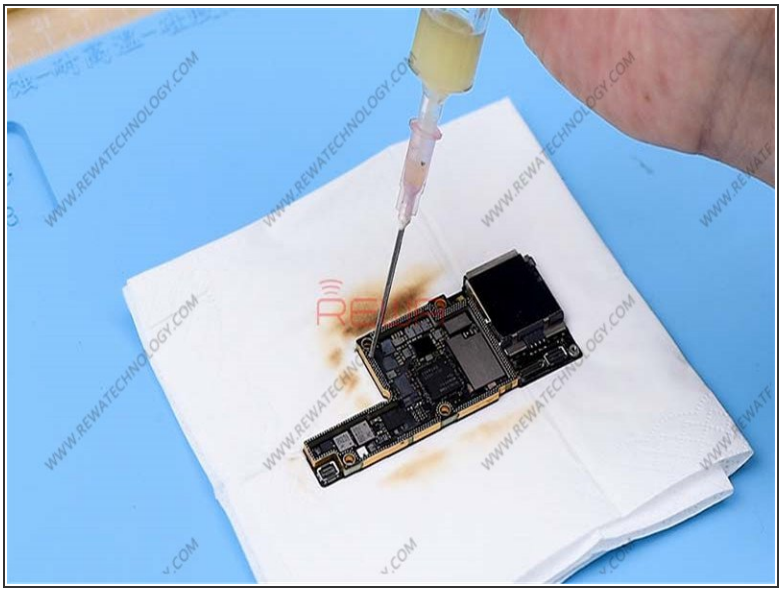


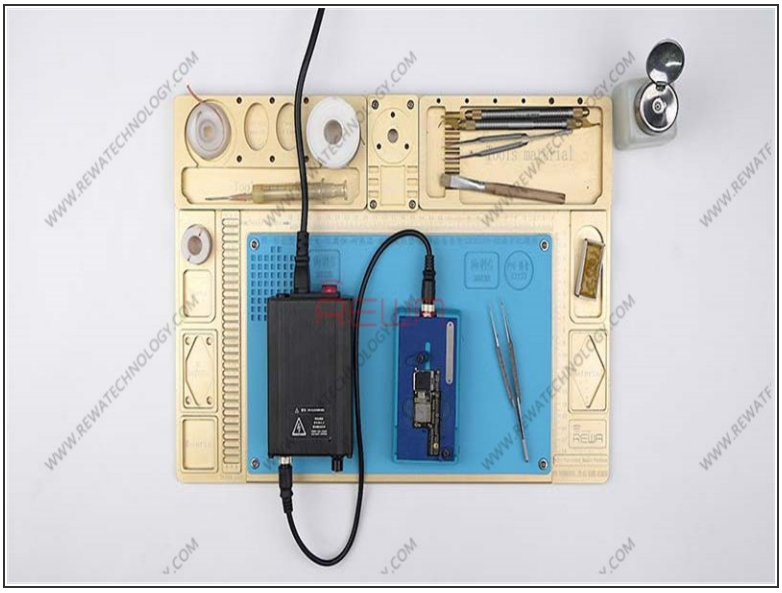
- Now, we need to solder these detached components of the original motherboard to the new motherboard.
- Apply some BGA Paste Flux to the bonding pad of the NAND flash chip and solder the chip with hot air gun.
- Continue to solder CPU, EEPROM, baseband CPU and the baseband EEPROM with the same steps.

Step 6 — Test

- Next thing we do is to solder the two layers back together. Before soldering, attach the upper layer and the lower layer to the test fixture.
- Connect the upper layer and the lower layer with the display assembly and get the board powered on. The phone can get access to the home screen normally.

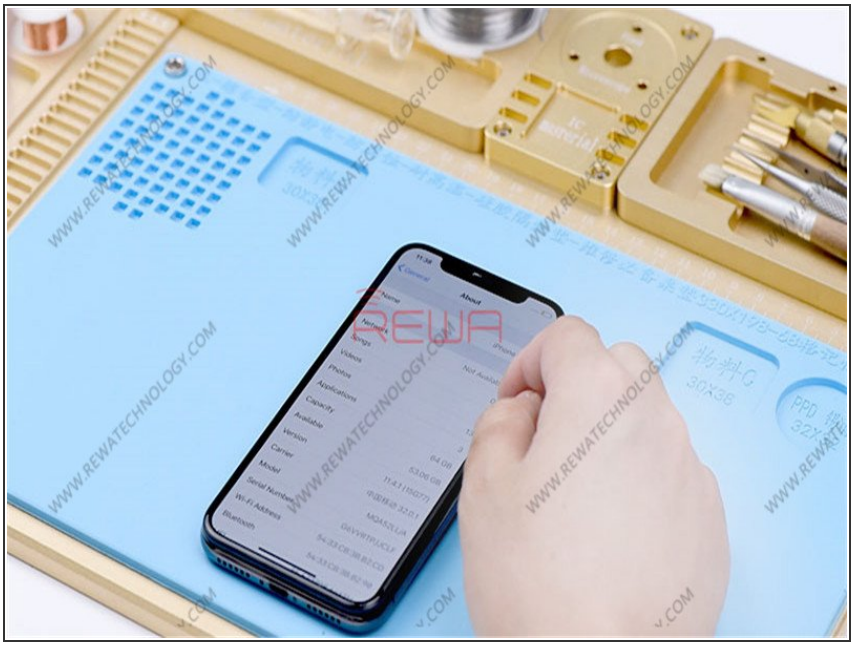
Step 7 — Motherboard Recombining





- Reball the lower layer first. Then apply some BGA Paste Flux to the third space pcb.
- Attach the reball finished lower layer to the heating platform and then solder the upper layer.

Step 8 — Reassemble And Test



- Now we can assemble the phone and test.
- Get the logic board and display assembly installed, connect the battery and press power button, the phone turns on normally. iPhone X data recovery completed successfully.

Step 9 — Video Guide

- Follow instructions in the video and learn how to recover data from a dead iPhone X motherboard.
- For more iPhone repair techniques, please visit REWA YouTube Channel.
- Credit: REWA Technology