Inject EDID, let Intel 500 series motherboard + 10th generation U Black Apple support nuclear display output

Due to the changes in the interface definition of Intel 500 series motherboards (H510, B560, Z590), various forums and black fruit bosses have asserted that Intel 500 series motherboards with I3-10100 10th generation U black Apple core graphics cannot output, and must be used with independent graphics . I happen to have a Thin-ITX motherboard powered by MSI H510ti-s01 DC. The motherboard has a built-in LVDS interface and an HDMI 2.0 interface, and I3-10100 CPU. After continuous exploration, by injecting the buffer frame of the core display and adding the EDID parameters of the display, the output of the core display can finally be realized. Now I will share the specific process.

Required

software: Windows side: EDID_Manager_v1.0

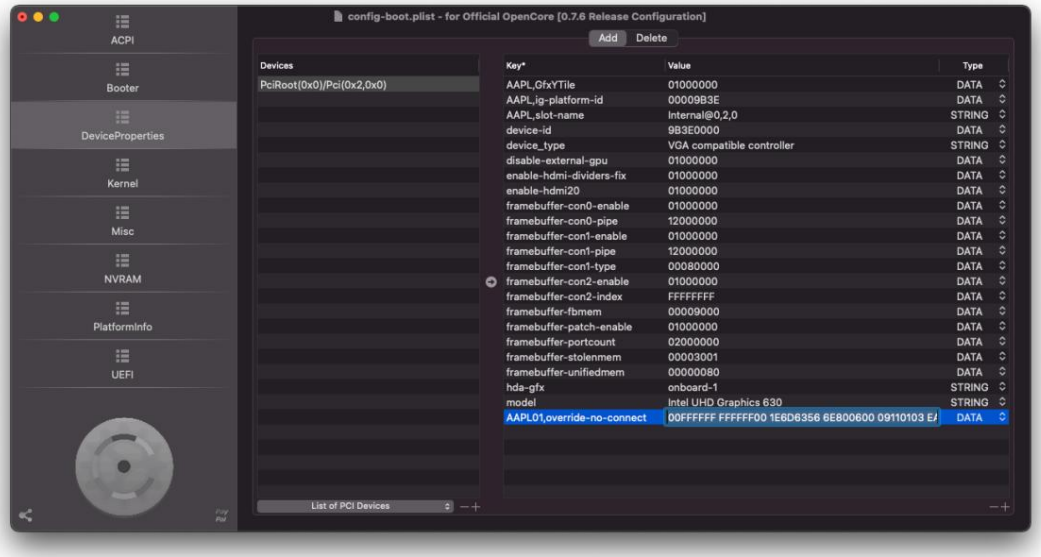
mac side: OpenCoreConfigurator 2.55;

Hackintool v3.8.0

System version: Big Sur 11.2.1 (OC version: 0.7.6); Windows10.

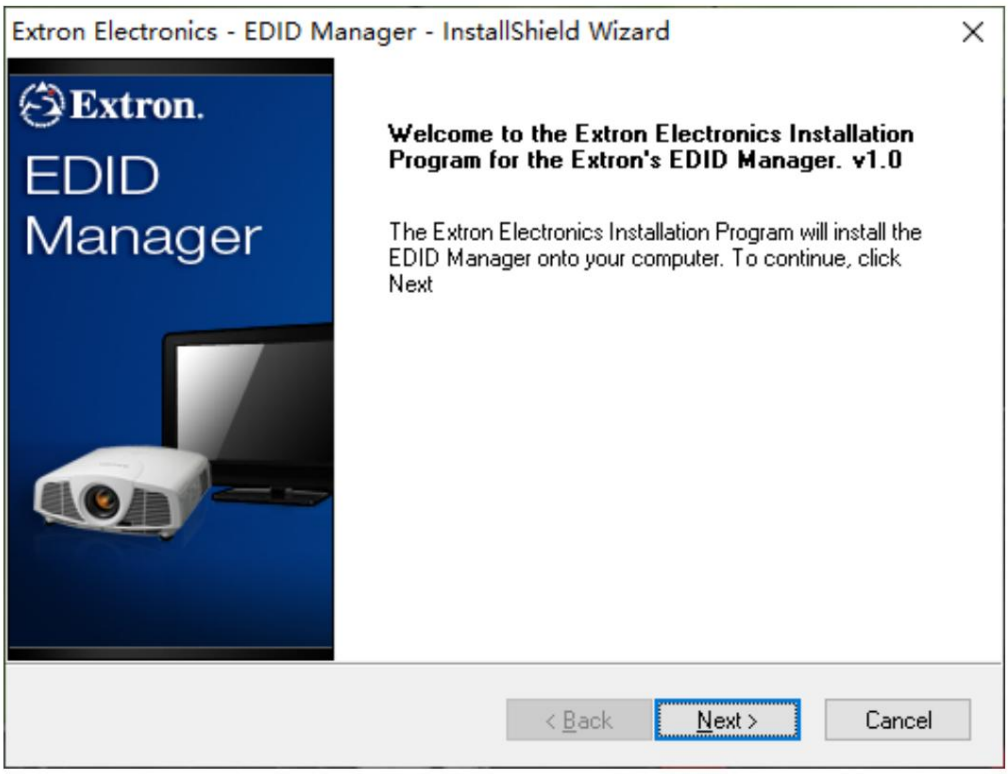
Written in the

front: This tutorial is applicable to the msi h510ti-s01 motherboard and all-in-one computers and small hosts using this motherboard. Other Intel 500 series motherboards can also be used as a reference. Github provides EFI download, first use the config.plist that does not drive the core display to install the system, rename and open the config-boot.plist after installation, and replace the EDID parameters with your own motherboard.

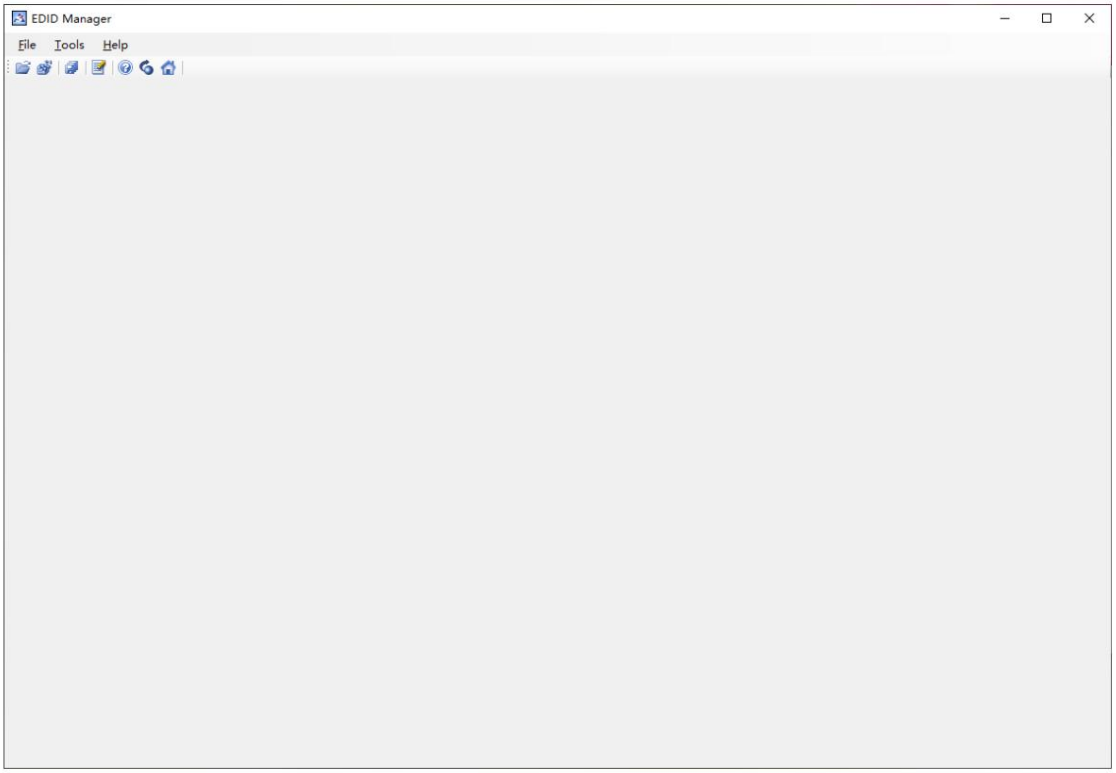


1. Extract the display EDID parameters

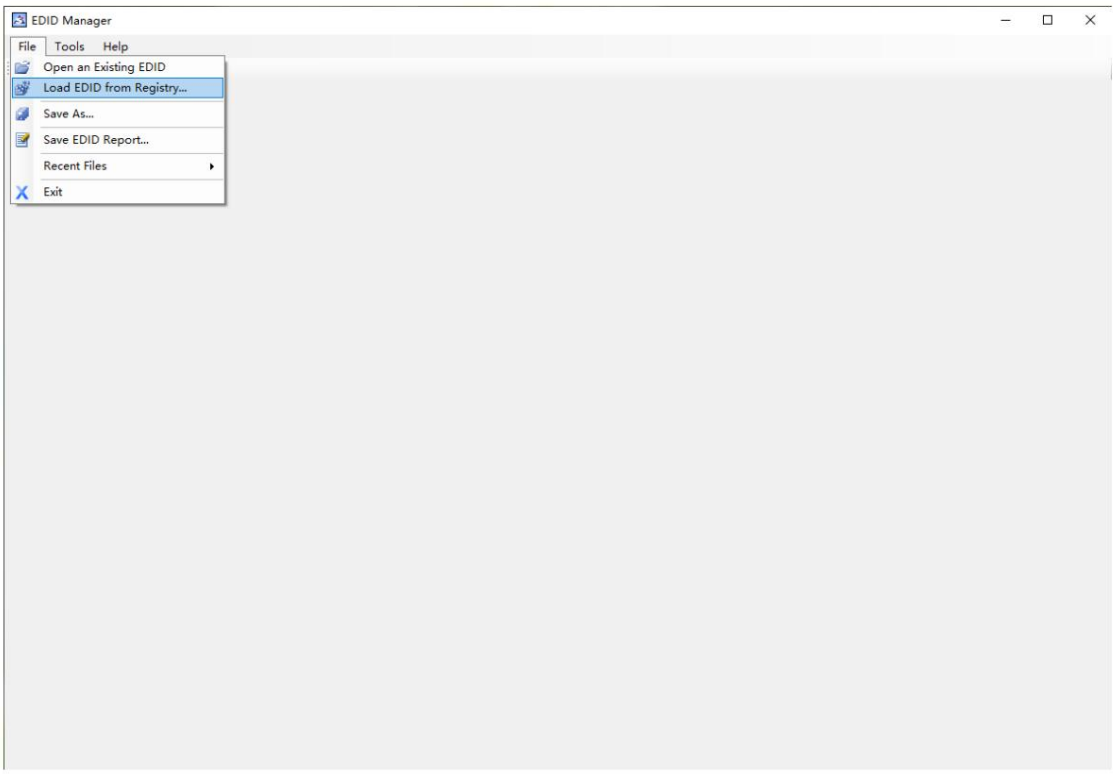
Enter the Windows system and install EDID_Manager_v1.0;



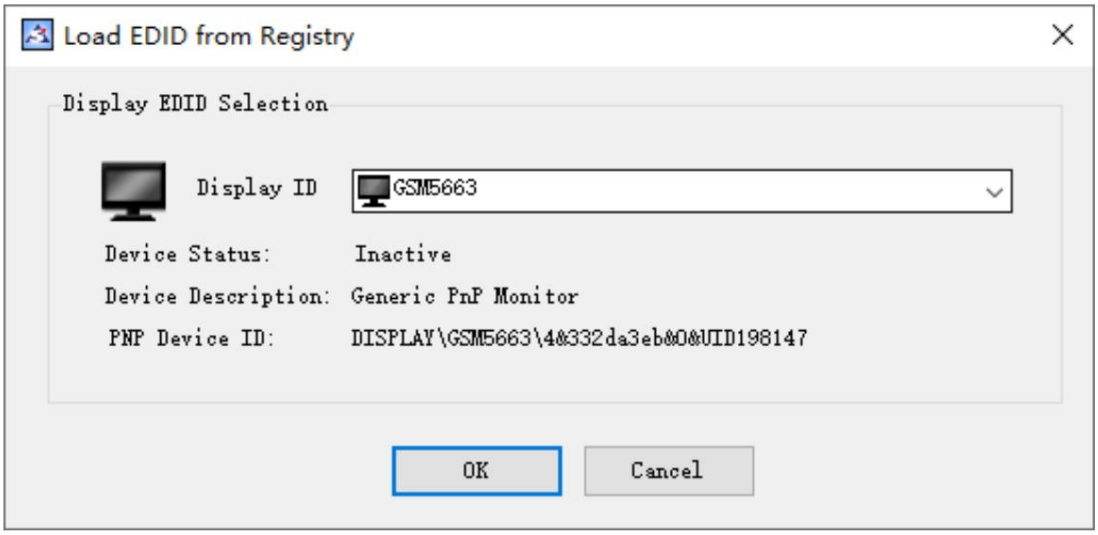
After installation, start EDID_Manager_v1.0;



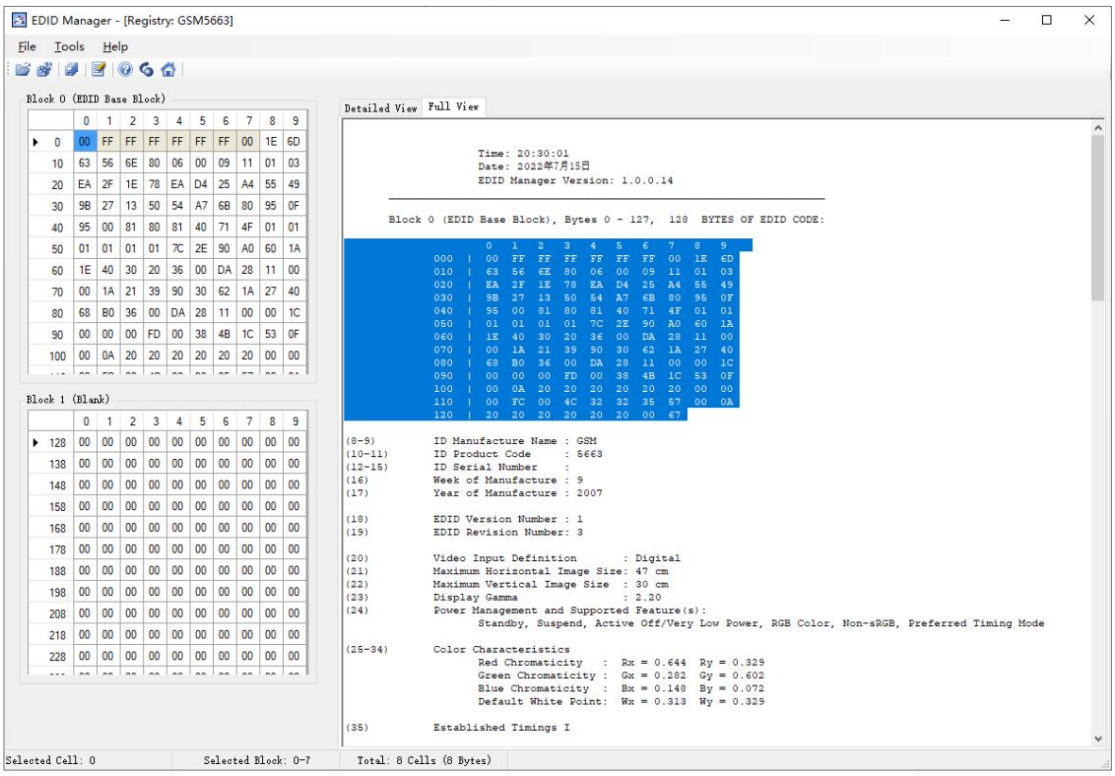
Open the File menu and click Load EDID from Registry;



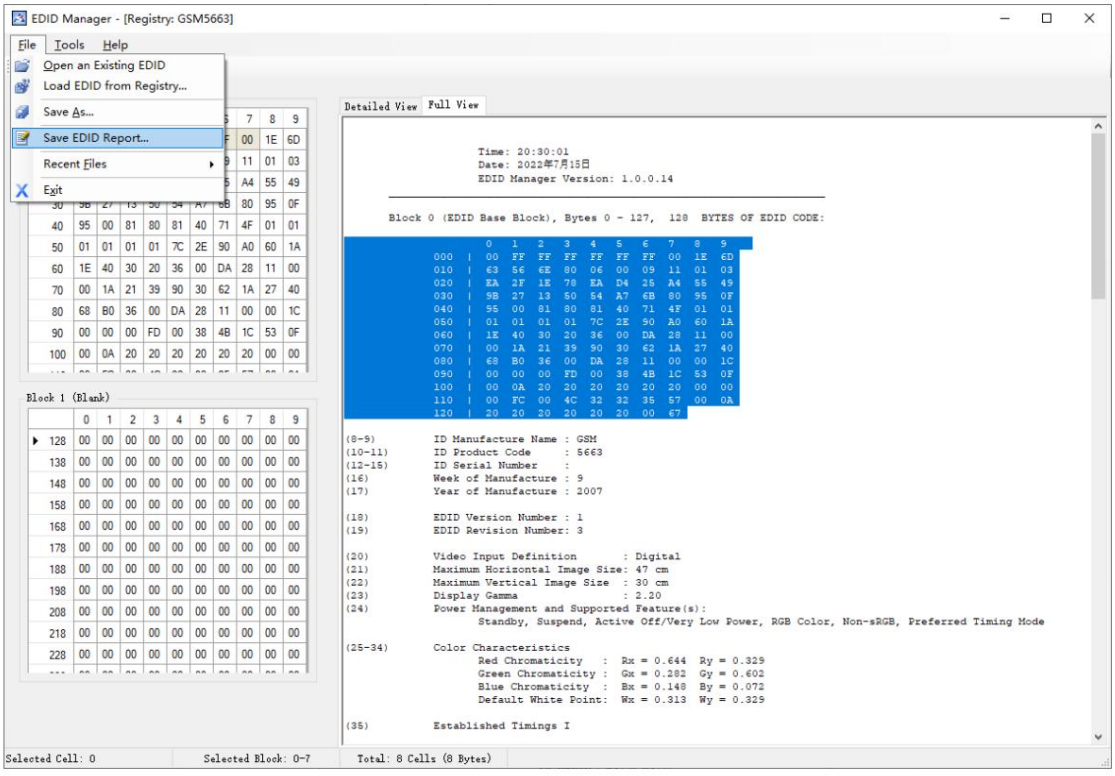
Select the corresponding ID of the display connected to the HDMI interface, and click OK;



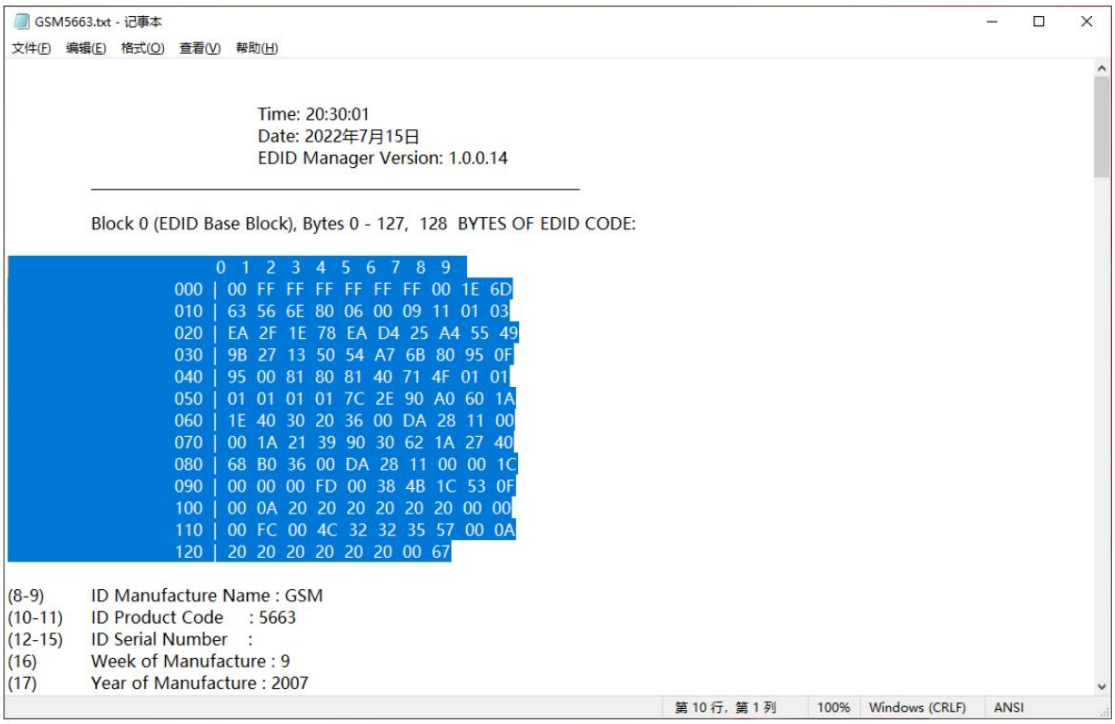
You can view the display EDID CODE;



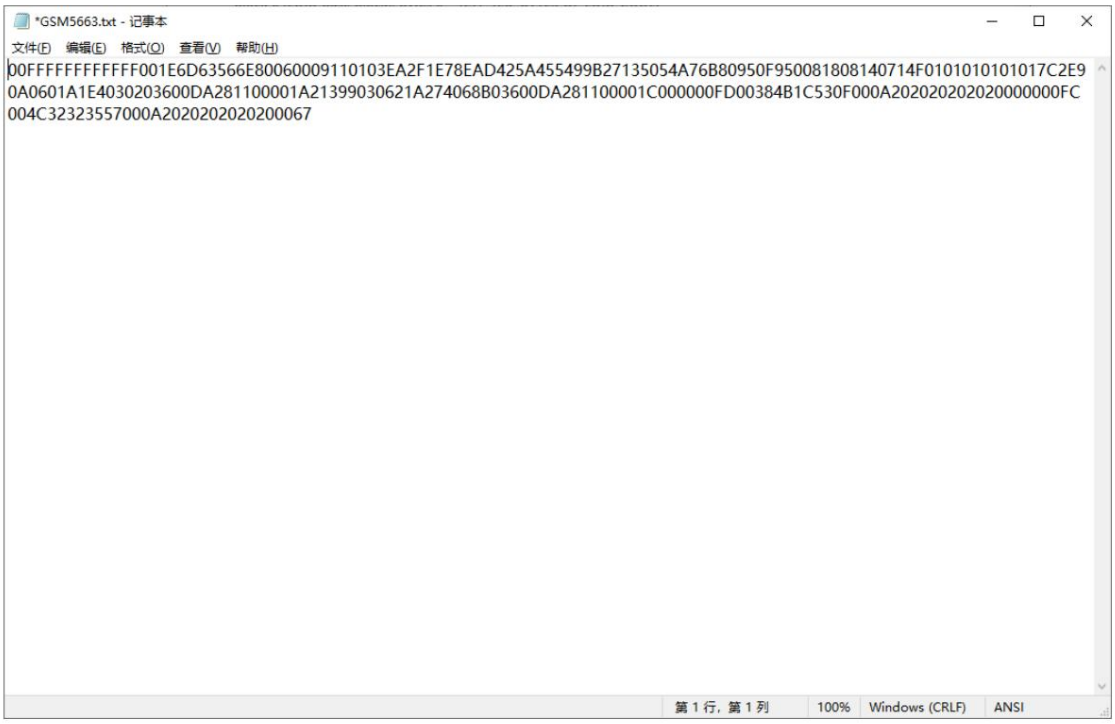
Open the File menu, click Save EDID Report, and save it as a txt file.



Open the saved txt document, keep only the code behind the vertical line, and delete the redundant content;

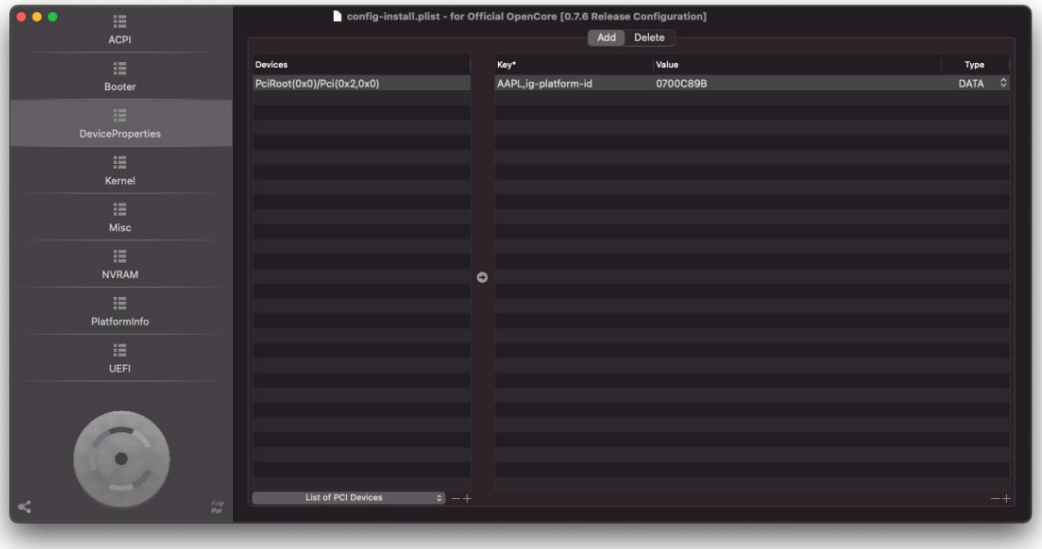


Delete newlines and spaces, and edit them into a continuous line. Save it for later use.



2. Install the macOS system To install

the macOS system, the config.plist first uses the platform-id that does not drive the core display (such as 0700C89B, 12345678);



At this time, the graphics card shows 6M, and the core display is not driven.

3. Inject graphics card buffer frame parameters

After installing and entering the mac system, open Hackintool v3.8.0, click "Apply Patch" in the upper left corner; select Coffee Lake for "CPU Architecture", and select 0x3E9B0000 for "Platform ID".

Switch to "Interface", you can see that the type of index number 0 is LVDS, and it is displayed in red. This interface is not connected to monitor, so the display is not accurate.

Because this motherboard has an HDMI interface, change the index 1, type from DP to HDMI. index 2 also

Can be changed as such.

Then switch to "Apply Patch" - "General", check the following options;

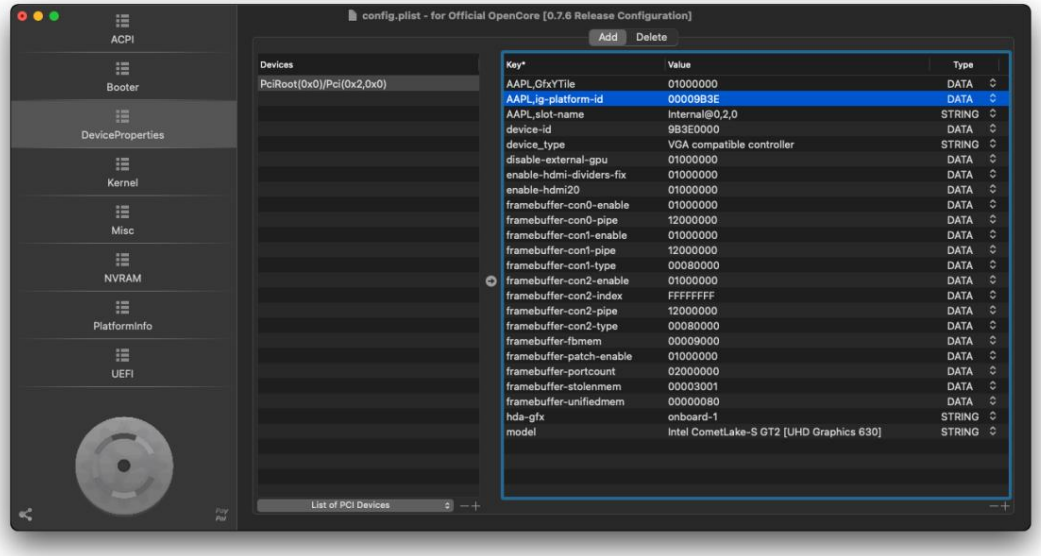
Then switch to "Advanced" and check the following options; select 0x3E9B for the counterfeit graphics card ID.

Finally click "Generate Patch" at the bottom, then select "File-Export-Boottool config.plist" from the top menu,

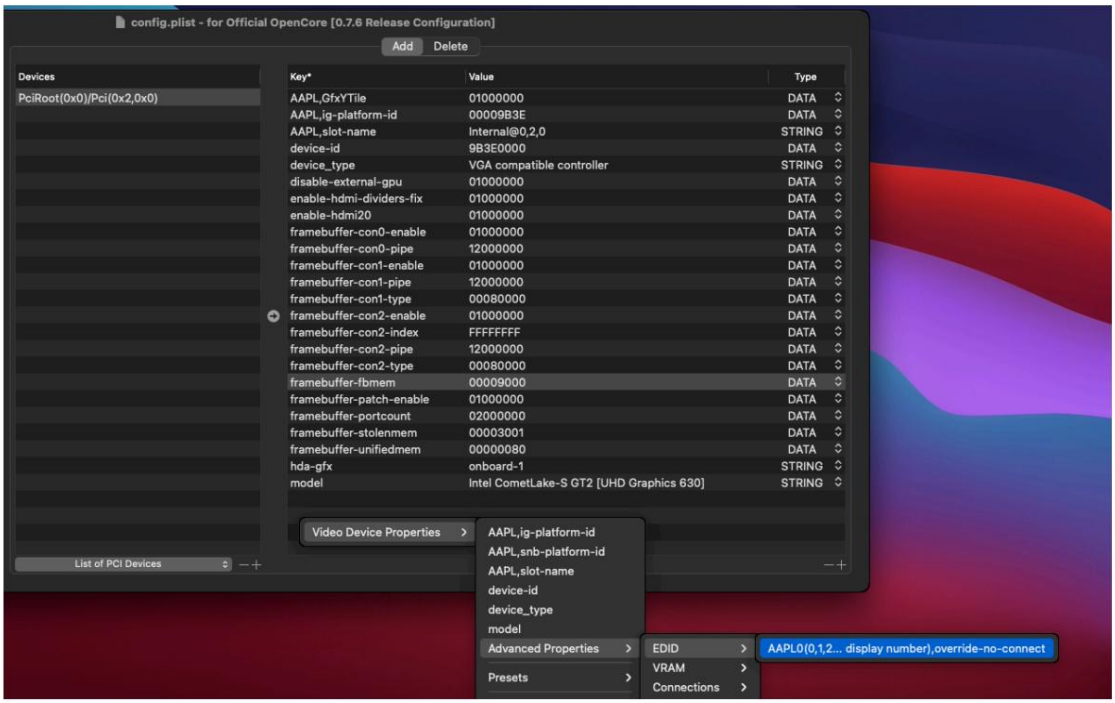
You will be prompted to mount the EFI partition, follow the prompts to complete the replacement of config.plist. Don't reboot yet!

Fourth, inject the EDID parameters of

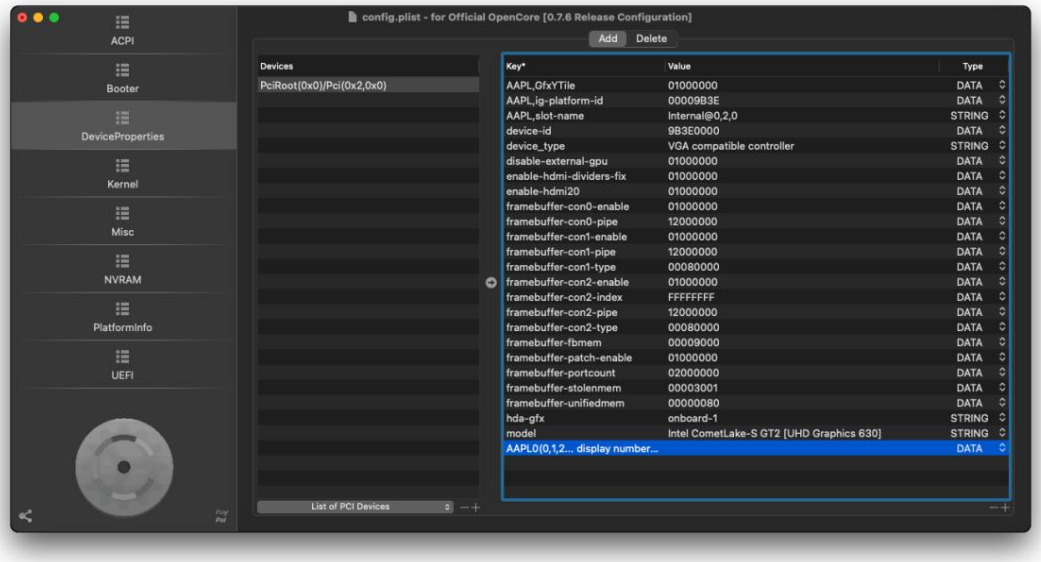
the display and do not restart! Enter the EFI partition, open config.plist, and you can see the buffer frame information under the DeviceProperties sub-item.



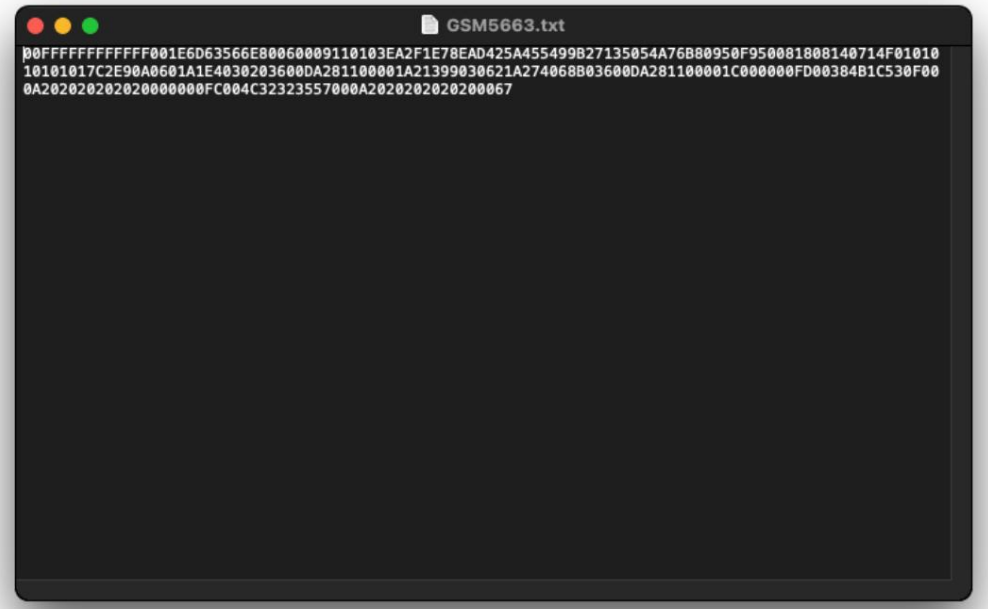
Right-click in the blank area of the right pane, and add "AAPL0(0,1,2...),override-no-connect" as shown in the figure.

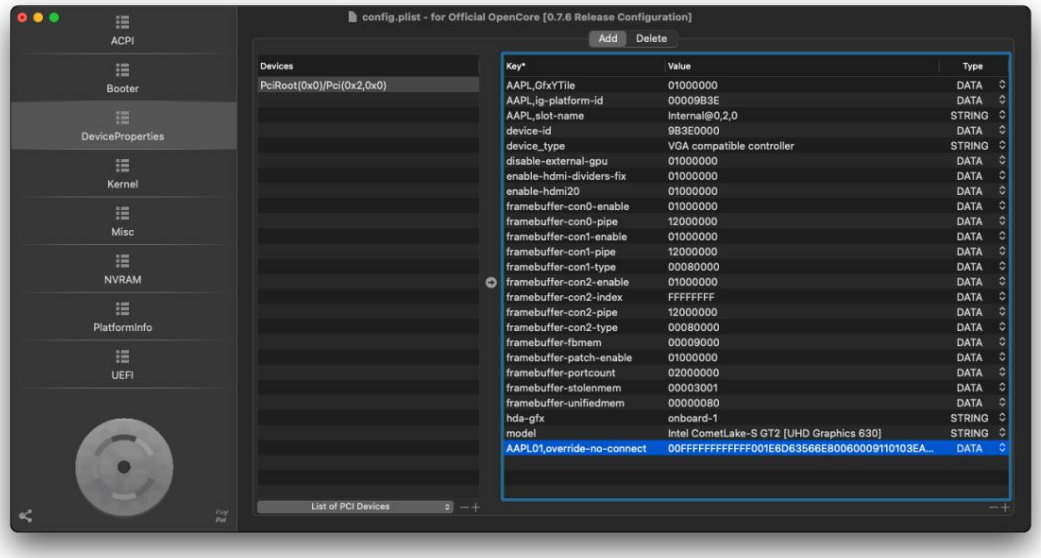


Change the number in brackets to the index number corresponding to the previous HDMI interface, such as 1. Complete as: AAPL01, override no-connectÿ



In the Value value on the right, fill in the EDID parameter of the monitor obtained before. As shown in the picture.





Save the config.plist file and restart the computer to drive the core display and support output. In case of a black screen, change back to the original config.plist file, and try to change the HDMI index number such as AAPL00, AAPL01.