

# Install Monterey/Big Sur on any X79 Motherboard Huananzhi Chinese gigabyte etc and PowerManagement

Beitrag von „robcodemax“ vom 16. Dezember 2021, 20:54

First of all a great thanks to [@MaLd0n](#) for all the help that he gave me by editing my DSDT.

This guide is for those who are using X79 Motherboard and are

1. unable to install mac
2. Unable to boot if they enable HYPERTHREADING in thie bios.
3. Having random reboots while booting.
4. Powermanagement Issue.

**You can use this EFI for Mac OS Monterey or Big Sur**

## **Installation:**

1. Download the EFI Folder given in this guide and do the necessary changes mentioned in the **Changes to the Config File** section given below.
2. I am not going to cover how to install Mac. For that you will get lots of guides online.
3. I am Just going to give you my EFI folder. Use it and it will boot and install without any issue.
4. This EFI will work for both Dual CPU and Single CPU Board.

You need to do the following after downloading the EFI.

## Changes to the Config File

1. Please add you own Platform Info
2. Also please add your UTBMap.kext file created using [USBToolbox](#) from windows (Use the windows.exe from from there). Also make sure you are add the [USBToolBox.kext](#) in the kexts folder and add it to the config. **While using the Discover ports option in the USB Tools app, insert the pendrive in all the available ports one by one and then create the kext.**

**OR**

**If you don't want to do USB Mapping then just use the following USBMap.kext and it should work fine. I have added most of the USB ID's in the kext so it should work fine for most of the people.**

[USBMap.kext.zip](#)

3. **SSDT-X79** included in the EFI folder already has everything needed so please don't change any settings in config. It will go smoothly.

4. Reboot

Enjoy....!!!

**Note: For some motherboard using CpuTSCSync.kext causes Kernel Panic,**

**Solution: Use VoodooTSCSync.kext instead**

## Bios Settings:

1. If you still have issue while using my EFI then go into the Bios and Disable EHCI and XHCI Handoff or vice versa.

## For PowerManagement do the following:

1. Create **SSDT-PMC, SSDT-PLUG (Only Needed in Some Cases)** from windows using SSDTTime.exe

2. Create **SSDT-PM** using ssdtprgen method
3. Place these files in ACPI folder and also enable them in the config.plist
4. So you should have SSDT-X79 (See below note) , SSDT-PM, SSDT-PMC, SSDT-PLUG (**Optional**) ACPI.

**Note: For some users SSDT-X79 is breaking power management so disable SSDT-X79 and add SSDT-EC.aml and SSDT-UNC.aml instead)**

**For Sandy Bridge CPU please enable 2 options in the Kernel > Patch Section**

751AB9 to EB13B9

3E7539 to 3E9090

**The entries are already added in my EFI just enable it. This is needed for Sandy Bridge CPU to get PowerManagement Working**

Enjoy your PowerManagement

**Once again please don't change anything in the config other than what is mentioned above**

**Audio:**

**Follow the guide in the link below**

<https://www.insanelymac.com/fo...ith-dsdt-patching-easily/>

**OR**

If you want to get the audio (ALC 892) or any other Audio working then you need to patch DSDT. Mine is working with DSDT Patching. It was not working out of the box.

1. Extract you DSDT file using SSDTTime.exe from windows
2. Download Rehabman's Maclasl in mac and then apply the audio patch and check if Audio is working and if not then Also apply IRQ Fix in DSDT. Copy and paste the following patch after

clicking on the patch button in Rehabman's Maclasi then copy and paste the following codes and then press Apply.

3. Now close that dialog and then press Compile Button and save the DSDT.aml and select ACPI Machine Language in File Format

Code

```
1. # Maintained by: toleda for: github.com/toleda/audio_alc8xx
2. # File: hdef0-add_dsdt/HDEF-1.txt_v2.0
3. # Credit: PikeRAAlpha
4. #
5. # Add_HDEF, for dsdts with no HDEF, set Audio_ID: 1
6. #
7. # 1. Add HDEF, set Audio ID:1/layout-id=1
8. into device name_adr 0x001B0000 set_label begin HDEF end;
9. into device label PCI0 insert
10. begin
11. Device (HDEF)\n
12. {\n
13. Name (_ADR, 0x001B0000)\n
14. Method (_DSM, 4, NotSerialized)\n
15. {\n
16. If (LEqual (Arg2, Zero)) { Return (Buffer() { 0x03 } ) }\n
17. Return (Package())\n
18. {\n
19. "layout-id", Buffer() { 0x01, 0x00, 0x00, 0x00 },\n
20. "PinConfigurations", Buffer(Zero) {},\n
21. "hda-gfx", Buffer() { "onboard-1" },\n
22. }\n
23. }\n
24. }\n
25. end;
26. into definitionblock code_regex . insert
27. begin Store ("hdef0-add_dsdt/HDEF-1.txt_v2.0 dsdt edits, github.com/toleda", Debug) end
```

Alles anzeigen

Code

```
1. #Maintained by: RehabMan
2. #system_IRQ.txt
3.
```

```

4. # This can fix non-working audio and also has an affect on HPET.
5. #
6. # Use this if you have issues with patched AppleHDA (required on almost all laptops)
7. # or if you have issues with HPET (restart after wake).
8.
9. # IRQ fix
10. into device name_hid PNP0000 code_regex IRQNoFlags\s(\)\n\s+\{(\d+)\}
    remove_matched;
11. into device name_hid PNP0100 code_regex IRQNoFlags\s(\)\n\s+\{(\d+)\}
    remove_matched;
12. into device name_hid PNP0B00 code_regex IRQNoFlags\s(\)\n\s+\{(\d+)\}
    remove_matched;
13. into device name_hid PNP0103 code_regex IRQNoFlags\s(\)\n\s+\{.*\}
    removeall_matched;
14. into device name_hid PNP0103 code_regex
    Name\s(\([^,]+),\sResourceTemplate\s(\).*\n\s+\{((?:.|\\n)*)\}\}) replace_matched
15. begin
16. Name (%1, ResourceTemplate()\n
17. {\n
18. IRQNoFlags() { 0, 8, 11, 15 }\n
19. %2
20. })\n
21. end;

```

Alles anzeigen

4. Place that DSDT.aml in ACPI Folder and also add it in config.plist (You can use OpenCore Configurator to do that)

5. Add Boot Args. Your alcid may vary check the [AppleALC guide](#)

Code

```
1. alcid=1
```

6. Reboot and Enjoy your Audio.

OR

You can try to use one of the following SSDT-HDEF Patch. It may or may not work for you. Also you would require SSDT-HPET.aml along with it which you can create using ssdtime app.

[SSDT-HDEF-edited.aml](#) or [SSDT-HDEF.aml](#)

## Downloads:

**If the new EFI Doesn't work then use the old one**

**UPDATED                      EFI                      OC                      0.7.7:**  
**[EFI\\_OC\\_0.7.7\\_X79\\_MOTHERBOARD\\_28-01-2022.zip](#)**

**OLD EFI Folder: [EFIFORX79MOTHERBOARD.zip](#)**

Bonus:

Those who are using Huananzhi-X79 Deluxe board can use the following patched DSDT which has all the necessary patches. Even the Audio patch so no need to use SSDT-HDEF.aml

[DSDT Huananzhi X79 Deluxe.aml](#)

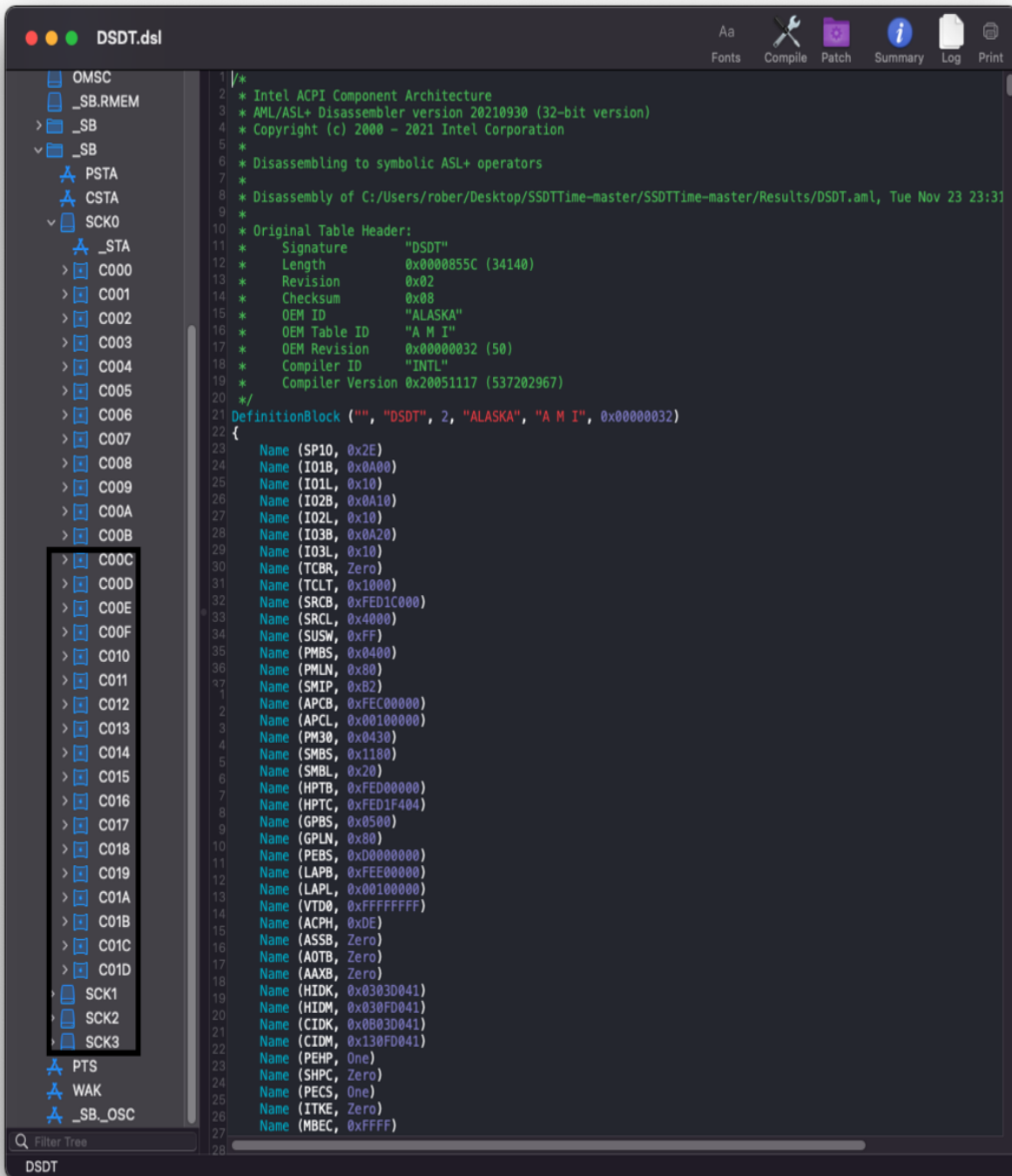
## Troubleshooting:

**Multiple Reboot:** Some times it takes multiple reboots to get into the system. It gets stuck in the following then follow the below given solution.



### Solution:

1. Open your DSDT in [Rehabman's Maclasl](#) and remove SCK1, SCK2 and SCK3
2. Also remove unused Cores. For Eg. If your CPU has 12 threads then only keep the first 12 CPU Cores and delete the rest like this. It depends on how much threads your CPU has and accordingly remove the rest. As my CPU has only 12 threads I have only kept the first 12 and will be removing the rest that I have shown in the image below.
3. Save this file as DSDT.aml



4. Place this DSDT.aml in the ACPI Folder

5. Reboot.



Now there will be no random reboots while rebooting.

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### **Beitrag von „taube111111“ vom 18. Januar 2022, 09:32**

Hey, thanks for your hard work! I had tested out your method, but have still problems to remove the unused cores from the DSDT.aml. If i want to save, i recive an compiling error. My System runs with 10 Cores without HT(Xeon 2650L v2). Is there a Trick#17 for saving without fixing the compiling stuff ? This will fix the 2-5 trys for a successfull booting. The rest of the efi works pretty well 😊

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### **Beitrag von „robcodemax“ vom 18. Januar 2022, 10:02**

#### [Zitat von taube111111](#)

Hey, thanks for your hard work! I had tested out your method, but have still problems to remove the unused cores from the DSDT.aml. If i want to save, i recive an compiling error. My System runs with 10 Cores without HT(Xeon 2650L v2). Is there a Trick#17 for saving without fixing the compiling stuff ? This will fix the 2-5 trys for a successfull booting. The rest of the efi works pretty well 😊

Use Rehabmans Maclasl

If it is not working then send me your Original DSDT.. I will patch it for you.

Also the Hyperthreading should work with my EFI. I have solved the problem of HT which a reddit user had.

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### **Beitrag von „taube111111“ vom 18. Januar 2022, 10:49**

Is Rehabmans Version a special Version of Maclasl ?

Edit: I googled it ... I ll give it a try later 😊 Thanks for the information. If it ll not work, ill send you the dsdt

I disabled Hyperthreating cause some Applications works better with the physical cores only.

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### **Beitrag von „robcodemax“ vom 18. Januar 2022, 10:51**

[Zitat von taube111111](#)

Is Rehabmans Version a special Version of Maclasl ?

Edit: I googled it ... I ll give it a try later 😊 Thanks for the information. If it ll not work, ill send you the dsdt

I disabled Hyperthreating cause some Applications works better with the physical cores only.

If you are only using 10 physical cores make sure you keep only the cores which are used.

Boot into windows and check the name of the physical cores and then keep only those cores.

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### **Beitrag von „taube111111“ vom 18. Januar 2022, 16:12**

Hey I'm a bit too dumbd for it. The software won't open on my M1 MacMini. Could you help me please ? :-o

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### **Beitrag von „robcodemax“ vom 18. Januar 2022, 16:30**

I have kept the first 10 cores...If it doesn't work then we need to keep the first 20 cores..Try this and let me know..

I have added all the necessary patches. The audio should also work with this.

The HT should also work fine

Edit: I have added another DSDT with 20 cores...This is the best error free DSDT you will ever have....Enjoy

If the DSDT\_TAUBE\_PHYSICAL\_CORES\_ONLY.aml is for physical cores only. If that doesn't work then let me know.

The DSDT\_TAUBE\_BEST\_DSDT\_20\_CORES.aml should work even if you enable HT in your bios. It has all the 20 cores enabled.

I have also added the updated EFI along with this, just add your SSDT-PM, SSDT-PLUG and SSDT-PMC. I would suggest using all the 20 cores. It should work.

No need of SSDT-X79.aml with this EFI as I have added all the necessary patches in the DSDT. If this EFI doesn't work then revert back to the previous EFI

[Zitat von taube111111](#)

Hey I'm a bit too dumb for it. The software won't open on my M1 MacMini. Could you help me please ? :-o

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**Beitrag von „taube111111“ vom 18. Januar 2022, 21:55**

It works absolutely fine !!!

Thank you so much !!! Now the shutdown works 😁 The only bug I have is that the Network environment need some minutes to finde my servers and Windows ends up in a BSOD. But I ll take a look tomorrow on it . I am so happy buddy !

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## Beitrag von „robcodemax“ vom 19. Januar 2022, 03:34

[Zitat von taube111111](#)

It works absolutely fine !!!

Thank you so much !!! Now the shutdown works too 😁 The only bug I have is that the Network environment need some minutes to finde my servers and Windows ends up in a BSOD. But I ll take a look tomorrow on it . I am so happy buddy !

Glad to know it works....I mostly boot windows through Bios Boot Manager. I never boot windows through Opencore Bootloader.

Which Motherboard are you using?

The DSDT is heavily edited. If you only want CPU patched, I can do that for you.

What about audio? Was it working without DSDT patch?

Is HT Working now?

Which EFI did you use... This one or the previous one?

Which DSDT are you using?

Were the finding servers working faster before the patch?

You are using single CPU or dual CPU?

I have attached your DSDT with only CPU Patch.

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### **Beitrag von „taube111111“ vom 19. Januar 2022, 08:10**

Glad to know it works....I mostly boot windows through Bios Boot Manager. I never boot windows through Opencore Bootloader.

- this is a nice to have for me 😊

Which Motherboard are you using?

- Hunananzih x79 Dual CPU Board with 1 CPU installed.

The DSDT is heavily edited. If you only want CPU patched, I can do that for you.

- Thank you very much !

What about audio? Was it working without DSDT patch?

- no, but with your patched dsdt it works

Is HT Working now?

- no, but i ll test it late

Which EFI did you use... This one or the previous one?

Which DSDT are you using?

- your DSDT with 10 Cores

Were the finding servers working faster before the patch?

- yes

You are using single CPU or dual CPU?

- Singel

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## Beitrag von „robcodemax“ vom 19. Januar 2022, 08:35

You need to use DSDT 20 Cores to get HT Working

[Zitat von taube111111](#)

Glad to know it works....I mostly boot windows through Bios Boot Manager. I never boot windows through Opencore Bootloader.

- this is a nice to have for me 😊

Which Motherboard are you using?

- Hunananzih x79 Dual CPU Board with 1 CPU installed.

The DSDT is heavily edited. If you only want CPU patched, I can do that for you.

- Thank you very much !

What about audio? Was it working without DSDT patch?

- no, but with your patched dsdt it works

Is HT Working now?

- no, but i ll test it late

Which EFI did you use... This one or the previous one?

Which DSDT are you using?

- your DSDT with 10 Cores

Were the finding servers working faster before the patch?

- yes

You are using single CPU or dual CPU?

- Singel

Alles anzeigen

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## Beitrag von „taube111111“ vom 19. Januar 2022, 09:50

I ll testing the HT DSDT later.

With Hyperthreading Enabled, the Performance is in some Applications on Windows like CyberPunk 2077 not so good. (Setting High with HT - 40 FPS/ without HT 70 -80 FPS)

Maybe some RGB light on the RAM or FANS will increase it 😊 Thats why HT is turned off in my system.

After the 12.2 Beta Update the Bug with Networkenvironment is fixed.

So everything is working for me. WoW i am still impressed.

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### **Beitrag von „robcodemax“ vom 19. Januar 2022, 14:05**

Ok..Cool...Enjoy.

I started this mac project last November. I installed my Mac Monterey using your EFI and then once it got installed I started working on it to perfect the DSDT with help from Mald0n. Learned a lot after that. Now my Huananzhi X79 Deluxe Mac system is perfect.

#### [Zitat von taube111111](#)

I ll testing the HT DSDT later.

With Hyperthreading Enabled, the Performance is in some Applications on Windows like CyberPunk 2077 not so good. (Setting High with HT - 40 FPS/ without HT 70 -80 FPS)

Maybe some RGB light on the RAM or FANs will increase it 😊 Thats why HT is turned off in my system.

After the 12.2 Beta Update the Bug with Networkenvironment is fixed.

So everything is working for me. WoW i am still impressed.

Alles anzeigen

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### **Beitrag von „sultanx“ vom 24. Mai 2023, 10:33**

hello, your efi made my first mac boot. I have manage everying workin imessage, facetime, maps, appleid...etc. i only have 1 problem is the multiple reboots attempts to login. I am



unable to edit or delete the extra cores in dsdt with rehabman's maciasl. please help

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## Beitrag von „langbianiam“ vom 2. August 2023, 08:19

Hi Robcodemax

Can you help me remove "SCK1, SCK2 and SCK3"

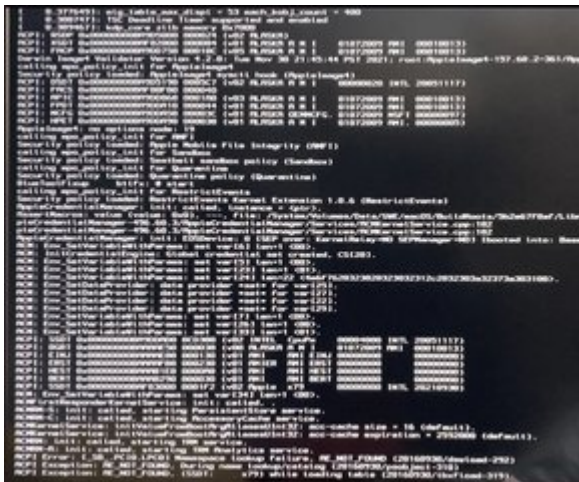
I do it but always errors last line

Thank in advance

[Zitat von robcodemax](#)

### Troubleshooting:

**Multiple Reboot:** Some times it takes multiple reboots to get into the system. It gets stuck in the following then follow the below given solution.

The image shows a terminal window with a black background and white text. It displays the output of a system boot process, including kernel messages and system initialization logs. The text is dense and includes various system identifiers and error messages. The errors mentioned in the text are visible in the logs, particularly those related to the SCK1, SCK2, and SCK3 cores.

### Solution:

1. Open your DSDT in [Rehabman's Maciasl](#) and remove SCK1, SCK2 and SCK3

2. Also remove unused Cores. For Eg. If your CPU has 12 threads then only keep the first 12 CPU Cores and delete the rest like this. It depends on how much threads your CPU has and accordingly remove the rest. As my CPU has only 12 threads I have only kept the first 12 and will be removing the rest that I have shown in the image below.

3. Save this file as DSDT.aml

4. Place this DSDT.aml in the ACPI Folder

5. Reboot.

Now there will be no random reboots while rebooting.

Alles anzeigen

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### Beitrag von „waltervianacom“ vom 9. Juni 2024, 20:46

Hello, congratulations on the excellent work. I'm installing on an x-79 with E5 2697 V2 12 cores, but I'm getting a compilation error when trying to save the file. Could you be so kind as to edit it for me?

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### Beitrag von „robcodemax“ vom 11. Juni 2024, 18:17

[Zitat von waltervianacom](#)

Hello, congratulations on the excellent work. I'm installing on an x-79 with E5 2697 V2 12 cores, but I'm getting a compilation error when trying to save the file. Could you be so kind as to edit it for me?

Try this patch instead of Editing DSDT

<https://www.insanelymac.com/fo...ndComment&comment=2789659>