



No Audio Devices - Realtek ALC AppleHDA

For Realtek ALC885 through ALC1150 on board audio codecs

Change Log

1. v1.0 - 12//20/2014 - Yosemite/10.10.x, Mavericks/10.9.x and Mountain Lion/10.8.x

[toleda/audio_ALC_guides](https://github.com/toleda/audio_ALC_guides)

A successful audio installation is required for working Mavericks audio. Of all the audio choices available, only one choice enables Realtek ALC audio for a specific system. The wrong choice, any other choice but the correct choice, will result in audio failure. This Guide applies to Yosemite, Mavericks and Mountain Lion, all versions.

Audio success questions (1 correct answer for each question)

- A. What Codec? ALC885, 887, 888, 889, 892, 898 or 1150
- B. Which Audio ID? 1, 2 or 3
- C. What Injection? kext, dsdt, ssdt, Chameleon, Chimera or Clover

Example Audio Solutions

- A. New User: H87N-WiFi/892 onboard audio
 1. ALC892, 1, kext
- B. Advanced: Z87I-Deluxe/1150/HD4600/GTX 770 onboard with Intel/Nvidia HDMI audio
 1. ALC1150, 2, ssdt

Realtek ALC AppleHDA.kext Installation, see https://github.com/toleda/audio_ALC_guides

- A. Capabilities - Realtek ALC AppleHDA_v2 [Guide].pdf

No Audio?

- A. For your system, what are the answers to the 3 questions above?
- B. Did you use those same answers when you installed audio that is not working?
 - 1. If no, install audio with the correct selections
 - 2. If you used the correct selections, proceed

Works as Designed, Not Considered an Audio Problem

- A. System Preferences/Sound/Output "The selected device has no output controls"
 - 1. OS X does not provide digital/aggregate audio device control
 - a. No volume, no mute, no balance, etc.
 - 2. The connected audio device provides any and all audio control
 - a. TV, receiver, etc.

Unsupported/Non working Realtek ALC AppleHDA

- A. 887_v100202 and earlier
 - 1. Workaround: alternate Platforms.xml.zlib
- B. 888_v100202 and earlier
 - 1. Workaround: alternate Platforms.xml.zlib
- C. Asus P67H67 3xxx BIOS: Phantom codec
 - 1. Workaround: 2xxx BIOS downgrade, 7/8 Series upgrade
- D. MSI motherboards, pre Sandy Bridge
 - 1. Workaround: 6/7/8 Series upgrade
- E. AC97
 - 1. Workaround: HD Audio

Contents

- I. No Audio Devices**
- II. Problem Reporting**
- III. No Codec**

I. No Output Devices Found

- A. 10.10 and newer/Boot flags
 - 1. Clover/config.plist
 - a. Mandatory Add: config.plist/Boot/Arguments/kext-dev-mode=1
 - b. Remove: Boot/Arguments/npci=0x3000
 - 2. Chimera/Chameleon/Extra/org.chameleon.Boot.plist
 - a. Mandatory:, Add: Kernel Flags//kext-dev-mode=1
 - i. Chimera/MultiBeast 7.0 and newer Drivers/Customize/Boot Options/Kext Dev Mode
 - b. Remove Kernel Flags/npci=0x3000
- B. HDEF Verification/IORRegistryExplorer see **Tools 3.**
 - 1. IOReg/Search: HDEF
 - 2. If no IOReg/HDEF
 - a. IOReg/Search: @1B
 - i. If no IOReg/@1B, see **III. No Codec**, below
 - b. Add dsdt/HDEF, select one method and implement
 - i. [\[Guide\]-Add_or_Edit_HDEF-dsdt.pdf](#)
 - ii. [\[Guide\]-Add_HDEF-ssdt.pdf](#)

- iii. [\[Guide\]-Add_HDEF-kext.pdf](#)
 - iv. [\[Guide\]-Add_HDEF-Clover.pdf](#)
 - v. More info, see
 - 1. [Realtek ALC AppleHDA](#)
 - 2. [Realtek ALC AppleHDA](#)
 - c. Restart, repeat Step 2. HDEF Verification/
 - d. If no IOREg/HDEF, goto **II. Problem Reporting**
- C. Audio_ID verification/IORRegistryExplorer see **Tools 3.**
 - 1. Search: HDEF
 - 2. Locate: layout-id (right pane, scroll down)
 - 3. Verify layout-id:
 - 1. <01 00 00 00> valid, all supported codecs
 - 2. <02 00 00 00> valid, except ALC885
 - 3. <03 00 00 00> valid, except ALC885 and ALC1150
 - 4. <00 00 00 00> not valid, select one method and implement
 - i. [\[Guide\]-Add_or_Edit_HDEF-dsdt.pdf](#)
 - ii. [\[Guide\]-Add_HDEF-ssdt.pdf](#)
 - iii. [\[Guide\]-Add_HDEF-kext.pdf](#)
 - iv. [\[Guide\]-Add_HDEF-Clover.pdf](#)
 - v. Chameleon, Chameleon Installer/Custom/Settings/HDEF/ LayoutID
 - vi. Chimera, see [How to Use HDAEnabler module with Chimera](#)
 - vii. Restart, repeat Step 2. HDEF Verification/
- D. Audio Codec Verification/DPCIManager see **Tools 2.**
 - 1. See Status/Codec ID and Revision
 - 2. Note Codec ID
 - 1. If Codec ID is empty, see **III. No Codec**, below
 - 3. Verify
 - 1. 10ec0885 - ALC885
 - 2. 10ec0887 - ALC887
 - 3. 10ec0888 - ALC888
 - 4. 10ec0889 - ALC889
 - 5. 10ec0892 - ALC892
 - 6. 10ec0899 - ALC898
 - 7. 10ec0900 - ALC1150
 - 4. If your Codec ID is not listed, your codec is not compatible
 - 5. If your Codec ID is different than the codec name
 - 1. install the ALC version that matches the Codec ID
 - i. See **Realtek ALC AppleHDA.kext Installation**, above
- E. System/Library/Extensions/AppleHDA.kext Verification
 - 1. AppleHDA.kext can be the same as or earlier than the installed OS X version
 - 2. AppleHDA.kext does not work if newer than the installed OS X version
 - 3. Verify AppleHDA.kext version and codec name
 - 1. ALC885
 - 2. ALC887
 - 3. ALC888

4. ALC889
5. ALC892
6. ALC898
7. ALC1150
4. If codec is native, go to 3. Audio Codec Verification, below
5. If your codec name is not listed, your codec is not compatible.
- F. If S/L/E/AppleHDA.kext is the correct codec name, correct Codec ID and correct layout-id
 1. Try reinstall, see **Realtek ALC AppleHDA.kext Installation**, above
 2. If reinstall fails, goto **II. Problem Reporting**
- G. If the above verifies correct and no audio devices
 1. **Unsupported/Non working Realtek ALC AppleHDA**, below
 2. No OS X audio solutions, consider USB or HDMI audio

II. Problem Reporting

- A. Post to [toleda/audio_RealtekALC/README/Problem Reporting/link](#)
- B. Description of audio problem
- C. OS X version/motherboard model/BIOS version/processor/graphics
- D. Procedure/Guide Used
- E. Copy of IOReg or IOJones (see **Tools B**, select one)
 1. IOReg/File/Save a Copy As..., verify file (no ioreg.txt)
 2. IOJones/Save..
- F. System/Library/Extensions/AppleHDA.kext
- G. System/Library/Extensions/AppleHDAxxx.kext (if installed)
- H. Console/All Messages/Sound Assertions - select/Save Selection As:
- I. Screen shots:
 1. DPCIManager/Status (**Tools 1.**)
 2. System Information/Hardware/Audio/Intel High Definition Audio (not Devices)
- J. Terminal/Shell/Export Test As. . . (if script used)
 1. audio_realtekALC-100.command
 2. AppleHDA8Series.sh
 3. audio_cloverALC-100.command
- K. Chimera/Chameleon (if installed)
 1. Extra/org.chameleon.Boot.plist
 2. DPCIManager/Misc/Boot Log
 3. Extra/dsdt.aml (if installed)
 4. Extra/ssdt.aml (if installed)
- L. Clover (if installed)
 1. EFI/CLOVER/config.plist
 2. EFI/CLOVER/misc/debug.log (Set config.plist/Boot/Debug/YES)
 - a. or DPCIManager/Misc/Boot Log
 3. EFI/CLOVER/ACPI/patched/dsdt.aml (if installed)
 4. EFI/CLOVER/ACPI/patched/ssdt.aml (if installed)

III. No Codec

- A. Verify

1. Boot flag: -x?, disables audio
2. Boot Installer USB?, disables audio
3. BIOS/Peripherals/HD Audio/disabled?, disables audio
4. Reset codec
 - a. Shutdown
 - b. Pull power cord
 - c. Press power button twice
 - d. Wait 30 seconds
 - e. Plug power cord in
 - f. Boot
5. Defective codec?
6. Linux/Windows audio?
7. RMA mother board?
- B. DPCIManager/Status/Codec ID and Revision
 1. If Codec ID is blank, OS X audio is not possible
 2. See **II. Problem Reporting**

Tools

- A. [DPCIManager](#)
- B. IORegistry Explorer (choose one)
 1. [IORegistryExplorer_v2.1.zip](#)
 2. [IOJones](#)

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