



No Audio Devices - Realtek ALC AppleHDA [Guide]

Realtek ALC/Desktop: 269(1), 283(1), 885, 887, 888, 892, 898 and 1150 on board
audio (1) BRIX/NUC only
Supports OS X: 10.11, 10.10, 10.9 and 10.8

A successful audio installation is required for working OS X/Realtek audio. Of all the audio choices available, only one choice enables Realtek ALC audio for a specific system. The many wrong choices always result in audio failure. The correct choice results in working audio

Change Log

1. v2.0 - 1/20/16 - El Capitan/10.11.x
2. v1.0 - 12//20/14 - Yosemite/10.10.x, Mavericks/10.9.x and Mountain Lion/10.8.x

If System Preferences/Sound/Output shows audio output devices, see [audio_ALC_guides/No Sound](#)

Note: OS X/AppleHDA.kext does not support specific hardware, see **Unsupported/Non working Realtek ALC AppleHA**, Post #1, Realtek ALC AppleHDA.pdf for workarounds.

Audio success questions (1 correct answer for each question)

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

Example Audio Solutions

- A. New User: H97N-WiFi/892 onboard audio
 - ALC892, 1, Clover
- B. Advanced: Maximus VII Impact/1150/HD4600/HD 7750 onboard with Intel/Nvidia HDMI audio
 - ALC1150, 2, ssdt

Realtek ALC AppleHDA Installation

- A. See Post #1, Realtek ALC AppleHDA.pdf
- B. Confirm Audio codec/ALC Injection, see **Tools 3**.
- C. Native AppleHDA (all methods/10.11 - hidden) see [Restore native AppleHDA \[Guide\].pdf](#)
- D. Select one method, remove method to try/install a different method

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.

Contents

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

I. No Audio Output Devices Found

- A. OS X Version
 - 1. El Capitan/10.11.x (Disable SIP)
 - a. Clover/config.plist/
 - RtVariables/CsrActiveConfig/0x3 (add)
 - ACPI/DSDT/Fixes/NO (all or remove)
 - Boot/Arguments/npci=0x3000 (remove)
 - b. Chameleon/Extra/org.chameleon.Boot.plist
 - CsrActiveConfig=3
 - Kernel Flag/npci=0x3000 (remove)
 - 2. Yosemite/10.10.x (Allow unsigned kexts)
 - Boot flagKernel Flag: kext-dev-mode=1 (add)
 - Boot flagKernel Flag/npci=0x3000 (remove)
 - 3. Mavericks/10.9.x
 - 4. Mountain Lion/10.8.x
- B. Audio/ALC Injection (**Tools 3**)
 - 1. Double click/Downloads/audio_codecdetect.command
 - 2. Terminal/Shell/File/Export Text As. .

- C. HDEF Verification/IORegistryExplorer see **Tools 3**.
1. IOReg/Search: HDEF
 2. If no IOReg/HDEF
 - a. IOReg/Search: @1B
 - If no IOReg/@1B, see **II. No Codec**, below
 - b. Add dsdt/HDEF, select one method and implement
 - [\[Guide\]-Add_or_Edit_HDEF-dsdt.pdf](#)
 - [ssdt_hdef](#), select ssdt-hdef (1, 2 or 3) no_ioreg/hdef
 - [\[Guide\]-Add_HDEF-kext.pdf](#)
 - [\[Guide\]-Add_HDEF-Clover.pdf](#)
 - More info, see [Realtek ALC AppleHDA](#)
 - d. Restart, repeat Step 2. HDEF Verification/
 - e. If no IOReg/HDEF, goto **III. Problem Reporting**
- D. Audio_ID verification/IORegistryExplorer see **Tools 3**.
1. Search: HDEF
 2. Locate: layout-id (right pane, scroll down)
 3. Verify layout-id:
 - a. <01 00 00 00> valid, all supported codecs
 - b. <02 00 00 00> valid, except ALC885
 - c. <03 00 00 00> valid, except ALC885 and ALC1150
 - d. <00 00 00 00> not valid, select one method and implement
 - [\[Guide\]-Add_or_Edit_HDEF-dsdt.pdf](#)
 - [ssdt_hdef](#), select ssdt-hdef (1, 2 or 3) with_ioreg/hdef
 - [\[Guide\]-Add_HDEF-kext.pdf](#)
 - [\[Guide\]-Add_HDEF-Clover.pdf](#)
 - Chameleon, Chameleon Installer/Custom/Settings/HDEF/LayoutID
 - Chimera, see [How to Use HDAEnabler module with Chimera](#)
 - Restart, repeat Step 2. HDEF Verification/
- E. Audio Codec Verification/DPCIManager see **Tools 2**.
1. See Status/Codec ID and Revision
 2. Note Codec ID
 - a. If Codec ID is empty, see **II. No Codec**, below
 3. Verify
 - a. 10ec0269 - ALC269
 - b. 10ec0283 - ALC283
 - c. 10ec0885 - ALC885
 - d. 10ec0887 - ALC887
 - e. 10ec0888 - ALC888
 - f. 10ec0889 - ALC889
 - g. 10ec0892 - ALC892
 - h. 10ec0899 - ALC898
 - i. 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
 - a. install the ALC version that matches the Codec ID
 - See **Realtek ALC AppleHDA.kext Installation**, above
- F. 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
 - a. ALC269
 - c. ALC283
 - d. ALC885
 - e. ALC887
 - f. ALC888
 - g. ALC889
 - h. ALC892
 - i. ALC898
 - j. 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.
- G. 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 **III. Problem Reporting**
- H. 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. 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 **III. Problem Reporting**

III. **Problem Reporting,**

A. See Problem Reporting

1. Links: **Problem Reporting**/12. Post to
2. Attached requested files

toleda

https://github.com/toleda/audio_ALC_guides