

## ML\_Optimized\_AppleHDA\_v2.3.1 (OS X 10.8.2) For Realtek ALC8xx

### Requirements

1. Realtek ALC8xy\*, one of the following Device\_IDs:

\*See Notes below for ALC 8xy

a. 10ec0885

b. 10ec0887

c. 10ec0888

d. 10ec0889

e. 10ec0892

f. 10ec0898

2. Mountain Lion 10.8.2 or later -

3. dsdt w/HDEF/Layout-id is 0x01 0x00 0x00 0x00

a. For 3 port motherboard audio; dsdt w/HDEF/layout-id is 0x02 0x00 0x00 0x00

b. For HD3000/HD4000 HDMI audio; dsdt w/HDEF/layout-id is 0x03 0x00 0x00 0x00

4. Chimera 1.2 or later

5. KextBeast

### Configuration

Device	Port	Location	Notes	Audio ID: 1	Audio ID: 2	Audio ID: 3
1. Mic	Pink	Rear	1 & 2 Linked	Yes	Line Out (Center/Sub)	Yes
2. Mic (LineIn)	Pink	Front	2 Mutes 1	Yes	Yes	Yes
3. LineIn	Blue	Rear		Yes	LineOut (Rear)	Yes
4. SPDIFIn	Yellow	Rear	Optional			
5. Speakers (Front)	Green	Rear	5 & 6 Linked	Yes	Yes	Yes
6. Headphones	Green	Front	6 Mutes 5	Yes	Yes	Yes
7. LineOut (Center/Sub)	Orange	Rear		Yes	Not Available	No
8. LineOut (Rear)	Black	Rear		Yes	Not Available	Yes
9. LineOut (Side)	Grey	Rear		Optional	Not Available	No
10. SPDIFOut	Orange	Rear	Stereo/DD/DTS	Yes	Yes	Yes
11. HDMI		Rear	Edits Required	AMDNvidia	AMD/Nvidia	HD3000/HD4000

### No dsdt/HDEF?

Important - Use layout-ids below

[EasyGuide] How to add HDEF to your dsdt

### Audio ID/layout-id Table

Audio ID    LayoutID    layout-id    dsdt layout-id Injection

(dec)        (dec)        (hex)        (hex)

1            1            1            0x01, 0x00, 0x00, 0x00

2            2            2            0x02, 0x00, 0x00, 0x00

3            3            3            0x03, 0x00, 0x00, 0x00

### dsdt/HDEF edits

Device (HDEF)

{

  Name (\_ADR, 0x001B0000)

  Method (\_PRW, 0, NotSerialized)

{

    Return (Package (0x02)

```

    {
        0x0D,
        0x05
    })
}

Method (_DSM, 4, NotSerialized)
{
    Store (Package (0x04)
    {
        "layout-id",
        Buffer (0x04)
        {
            0x01, 0x00, 0x00, 0x00 /* Example, use table below for correct layout-id */
        },
        "PinConfigurations",
        Buffer (Zero) {}
    }, Local0)
    DTGP (Arg0, Arg1, Arg2, Arg3, RefOf (Local0))
    Return (Local0)
}
}

```

### Installation - MultiBeast

1. Backup S/L/E/AppleHDA.kext
2. Verify dsdt/HDEF/layout-id
3. **tonymacx86 Downloads - Downloads - tonymacx86**
- 3a. MultiBeast 5.2.1 or newer - Select/Drivers & Bootloaders/Drivers/Audio/Realtek ALC8xx/With DSDT/ALC8...
4. Restart

### Speakers

1. Audio ID: 1 and 3, match connector color to same motherboard/case port color
2. Audio ID: 2 (3 port motherboard audio)
  - a. Plug black connector into blue motherboard port for rear speakers
  - b. Plug green connector into green motherboard port for front speakers
  - c. Plug orange connector into pink motherboard port for center/sub speakers
  - d. Front panel: Match connector color to same case port color

### Audio Input Level Setting

1. Mic (Pink/Motherboard), Line In (Pink/Chassis) and Line In (Blue/Motherboard) levels are the same
2. Three Amplifiers
  - a. Source (mic, player, etc.): set volume high
  - b. OS X Input Amp (System Preferences/Sound/Input/device): set volume 50%
  - c. OS X Output Amp (System Preferences/Sound/Output/device, keyboard): set volume to personal preference

### Optional Installs

1. Configure 5.1 Surround Sound Aggregate Device (Not available with Audio ID: 3)
  - a. Applications/Utilities/Audio MIDI Setup
  - b. tonymacx86 - How to enable 5.1-channel analogue audio in OS X
2. Install Line In - <http://www.rogueamoeba.com/freebies/>

### Customization

See Mountain Lion: Customizing the Optimized AppleHDA

## Notes

1. ALC8xy can be:
  - a. ALC885, 889a
  - b. ALC887, 888b
  - c. ALC888, 888s,
  - d. ALC889
  - e. ALC892
  - f. ALC898

## Kexts

1. AppleHDA\_v2.3.1
  - a. Audio ID: 1
    - i. ALC8xy on board
    - ii. HDMI audio - discrete graphics
  - b. Audio ID: 2 (3 port motherboard audio)
    - i. ALC8xy on board
    - ii. HDMI audio - AMD/Nvidia discrete graphics
  - c. Audio ID: 3 (HD3000/HD4000 HDMI audio only)
    - i. ALC8xy on board
    - ii. HDMI audio - HD3000/HD4000 integrated graphics

## ALC8xy\_ML\_AppleHDA Uninstall

1. Copy AppleHDA.kext backup to Desktop (backup from Installation, Step 1, above)
2. Run KextBeast
3. Restart

## Troubleshooting

1. Shutdown/Pull power cord/Press power button twice/Wait 30 seconds/Plug power in/Boot
2. System Preferences/Sound/Output - No Audio Devices
  - a. Delete ALC8xxHDA, ALC8xx, 8xxHDAEnabler HDAEnabler... and any other audio enablers from S/L/E
  - b. Verify 10ec 08xx (IOReg/AppleHDAControllerIOHDACodecDevice/IOHDACodecVendorID)
  - c. Reinstall Reinstall Multibeast/Audio/Realtek ALC8xx/
3. System Preferences/Sound/Output/Audio Devices present - No Sound
  - a. Check Mute
  - b. Check Volume
  - c. Reinstall Multibeast/Audio/Realtek ALC8xx/
4. System Preferences/Sound/Input/Audio Devices present - No Sound
  - a. Check Mute
  - b. Check Volume
  - c. Reinstall Multibeast/Audio/Realtek ALC8xx/
5. Center/Sub - No sound
  - a. Audio MIDI Setup/5.1 Surround Sound Aggregate Device/Configure Speakers
  - b. Line In/Select Input/Select Output (5.1 Surround)/Select Pass Thru
  - c. Verify Center/Sub working in Audio MIDI Setup
6. Internal Microphone/Line In - No sound
  - a. Audio MIDI Setup/5.1 Surround Sound Aggregate Device/Configure Speakers
  - b. Line In/Select Input/Select Output (5.1 Surround)/Select Pass Thru
  - c. Select a speaker in Audio MIDI Setup/verify test tone
7. Headphone static
  - a. Check green front port connection (chassis)
  - b. Check green rear port connection (motherboard)
8. Mic static
  - a. Check pink front port connection (chassis)
  - b. Check pink rear port connection (motherboard)