

How to find device\_ids for your graphics cards (AMD/Nvidia only)

Lion HDMI Audio Required Device\_IDs

### I. Your Graphics Card

Manufacturer:

Name	Description	Device_ID
Hardware Device_ID		
HDMI Audio Device_ID	HDAU/Device_ID	
HDMI Codec IDevice_ID	IOHDACodecVendor_ID	

### II. Summary

Example: HD 6870 Vapor-X OC - Sapphire

Name	Description	Device_ID	Source	Condition
Hardware Device_ID	HD 6870	1002 6738	Sustem Profiler/ Graphics/Display	Successful Boot
HDMI Audio Device_ID	HDAU/Device_ID	1002 aa88	IOReg/HDAU/device-id	Successful DSDT edits for GFX0 and HDAU
HDMI Codec IDevice_ID	IOHDACodecVendor_ID	1002 aa01	IOReg/HDAU/ AppleHDAController/ IOHDACodecVendor/ IOHDACodecVendorID	Default value, always the same

Example: GTX 570 HD - EVGA

Name	Description	Device_ID	Source	Condition
Hardware Device_ID	GTX 570 HD	de10 0186	Sustem Profiler/ Graphics/Display	Successful Boot
HDMI Audio Device_ID	HDAU/Device_ID	de10 0e09	IOReg/HDAU/device-id	Successful DSDT edits for GFX0 and HDAU
HDMI Codec IDevice_ID	IOHDACodecVendor_ID	de10 0018	IOReg/HDAU/ AppleHDAController/ IOHDACodecVendor/ IOHDACodecVendorID	Successful AppleHDA- Controller binary patched with HDAU/device-id

### III. Details

#### A. AMD Example:

1. Device\_ID

Source: About this Mac/More Info.../System Report.../Graphics/Displays

Example:

▼ Hardware	<b>AMD Radeon HD 6870 Series:</b>
ATA	Chipset Model: AMD Radeon HD 6870 Series
Audio (Built In)	Type: GPU
Bluetooth	Bus: PCIe
Card Reader	Slot: PCIEX16_1
Diagnostics	PCIe Lane Width: x16
Disc Burning	VRAM (Total): 1024 MB
Ethernet Cards	Vendor: ATI (0x1002)
Fibre Channel	Device ID: 0x6738
FireWire	Revision ID: 0x0000
Graphics/Displays	Displays:
Hardware RAID	iMac:
Memory	Resolution: 2560 x 1440
PCI Cards	Pixel Depth: 32-Bit Color (ARGB8888)
Parallel SCSI	Main Display: Yes
Power	Mirror: Off
Printers	Online: Yes
SAS	Rotation: Supported
Serial-ATA	Connection Type: DisplayPort
Thunderbolt	<b>DTR-40.2:</b>
USB	Resolution: 1920 x 1080 @ 60 Hz
▼ Network	Pixel Depth: 32-Bit Color (ARGB8888)
Firewall	Mirror: Off
Locations	Online: Yes
Modems	Rotation: Supported
Volumes	Television: Yes
	<b>Display Connector:</b>
	Status: No Display Connected
	<b>Display Connector:</b>
	Status: No Display Connected

## 2. HDMI Audio Device\_ID

Source: IOREg/Search HDAU/HDAU/device-id

Example:

The screenshot shows the IORegistry Explorer window with the search filter 'hdau'. The selected device is 'HDAU@0,1' under the path 'IOService:/AppleACPIPlatformExpert/PCI0@0/AppleACPIPCI/PEGP@1/IOPCI2PCIBridge/HDAU@0,1'. The device's class inheritance is 'IOPCIDevice : IOService : IORegistryEntry : OSObject'. The bundle identifier is 'com.apple.iokit.IOPCIFamily'. The device is registered, matched, and active. The properties table shows the 'device-id' as '<88 aa 00 00>'. Other properties include 'class-code', 'compatible', 'DigitalAudioCapabilities', 'hda-gfx', 'IOChildIndex', 'IODeviceMemory', 'IOInterruptControllers', 'IOInterruptSpecifiers', and 'IOName'.

Property	Type	Value
class-code	Data	<00 03 04 00>
compatible	Data	<"pci174b,aa88", "pci174b,aa88" "nciclass.0403">
device-id	Data	<88 aa 00 00>
DigitalAudioCapabilities	Dictionary	2 values
hda-gfx	Data	<"onboard-1">
IOChildIndex	Number	0x2
IODeviceMemory	Array	1 value
IOInterruptControllers	Array	2 values
IOInterruptSpecifiers	Array	2 values
IOName	String	pci1002,aa88

## 3. HDMI Codec IDDevice\_ID

Source: IOREg/Search IOHDACodecDevice@0/IOHDACodecDeviceID

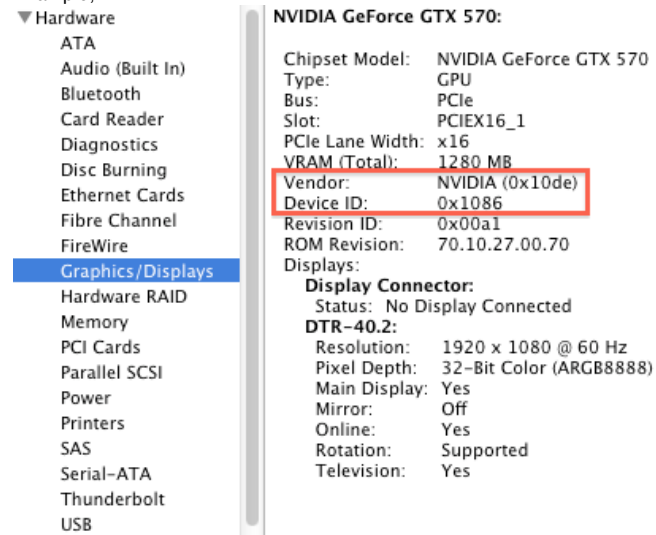
Example:

## B. Nvidia Example:

### 1. Device\_ID

Source: About this Mac/More Info.../System Report.../Graphics/Displays

Example;



▼ Hardware

- ATA
- Audio (Built In)
- Bluetooth
- Card Reader
- Diagnostics
- Disc Burning
- Ethernet Cards
- Fibre Channel
- FireWire
- Graphics/Displays**
- Hardware RAID
- Memory
- PCI Cards
- Parallel SCSI
- Power
- Printers
- SAS
- Serial-ATA
- Thunderbolt
- USB

**NVIDIA GeForce GTX 570:**

Chipset Model: NVIDIA GeForce GTX 570  
Type: GPU  
Bus: PCIe  
Slot: PCIEX16\_1  
PCIe Lane Width: x16  
VRAM (Total): 1280 MB  
Vendor: NVIDIA (0x10de)  
Device ID: 0x1086  
Revision ID: 0x00a1  
ROM Revision: 70.10.27.00.70

Displays:

**Display Connector:**  
Status: No Display Connected

**DTR-40.2:**  
Resolution: 1920 x 1080 @ 60 Hz  
Pixel Depth: 32-Bit Color (ARGB8888)  
Main Display: Yes  
Mirror: Off  
Online: Yes  
Rotation: Supported  
Television: Yes

## 2. HDMI Audio Device\_ID

Source: IOReg/Search HDAU/HDAU/device-id

Example:

## 3. HDMI Codec IDDevice\_ID

Source: IOReg/Search IOHDACodecDevice@0/IOHDACodecDeviceID

Example: