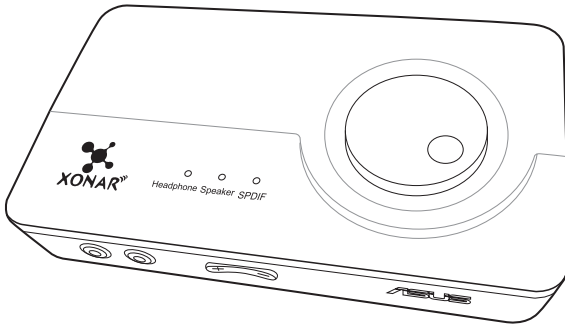




# Xonar U7 MKII

*7.1 USB Soundcard & Headphone  
Amplifier*



## User Manual

E12129  
First Edition  
November 2016

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# 1. Introduction

## 1.1 Package contents

Check your ASUS Xonar™ U7 MKII audio card package for the following items:

- ASUS Xonar™ U7 MKII 7.1-Channel USB Audio Card
- S/PDIF TOSLINK optical adapter x 1
- Quick Start Guide
- USB Cable x 1

## 1.2 System requirements

To ensure a successful installation of the Xonar U7 MKII audio card, make sure that your computer meets the following requirements:

- USB port 2.0 and above
- Microsoft® Windows® 10 / 8.1 / 7 (32/64bit)
- Intel® Pentium® 4 1.4GHz or AMD Athlon 1400 CPU or faster CPU
- More than 256MB system memory
- More than 60MB available storage space for driver installation

## 1.3 General Specification

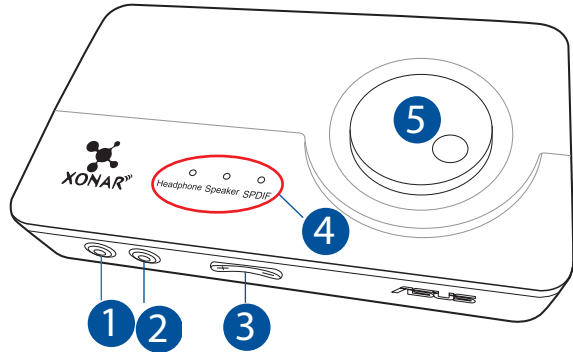
Items	Description
<b>Audio Performance</b>	
Output Signal-to-Noise Ratio (A-Weighted)	up to 114dB
Input Signal-to-Noise Ratio (A-Weighted):	110dB
Output Total Harmonic Distortion + Noise at 1kHz (A-Weighted) :	up to 0.0006% (104dB)
Input Total Harmonic Distortion + Noise at 1kHz (A-Weighted) :	up to 0.0001% (-100dB)
Frequency Response (-3dB, 24-bit/96kHz format):	< 10Hz to 46KHz
Output / Input Full-Scale Voltage	1 Vrms (2.828 Vp-p) for line out 1.3 Vrms (3.677 Vp-p) for headphone out 1 Vrms (3.677 Vp-p) for line in
<b>Bus Compatibility</b>	
USB audio class	- USB audio class 2.0 for all functions - USB audio class 1.0 for playback
<b>Main Chipset</b>	
Audio Processor	Cmedia 6632AX High-Performance Sound Processor (Max. 192KHz / 24bit)
D-A Converter of Digital Sources	Cirrus CS4398* 1 (120dB SNR, Max. 192kHz/24bit) Cirrus CS4362* 1 (114dB SNR, Max. 192kHz/24bit)
A-D Converter for Analog Inputs	Cirrus CS5361* 1 (114dB SNR, Max. 192kHz/24bit)
<b>Sample Rate and Resolution</b>	
Analog Playback Sample Rate and Resolution	44.1K/48K/88.2K/96K/172.4K/192KHz @ 16/24bit
Analog Recording Sample Rate and Resolution	44.1K/48K/88.2K/96K/172.4K/192KHz @ 16/24bit
S/PDIF Digital Output	44.1K/48K/88.2K/96K/172.4K/192KHz @ 16/24bit
ASIO 2.0 Driver Support	44.1K/48K/88.2K/96K/172.4K/192KHz @ 16/24bit

Items	Description
<b>I/O Ports</b>	
Analog Output Jack	RCA (phone) jack * 2 (Front left / Front right) 3.50mm mini jack * 3 for surround (Side/Center-Subwoofer/Rear-out) 3.50mm mini jack * 1 (Headphone out)
Analog Input Jack	3.50mm mini jack * 1 (Shared by Line-In / Mic-In)
Button	Output volume knob/Output selection / Microphone Volume)
Digital S/PDIF Output	High-bandwidth coaxial port supports 192HKz/24bit with one S/PDIF TOSLINK optical adapter
<b>Driver Features</b>	
Operating System	Windows® 10 / 8.1 / 7 (32/64bit)

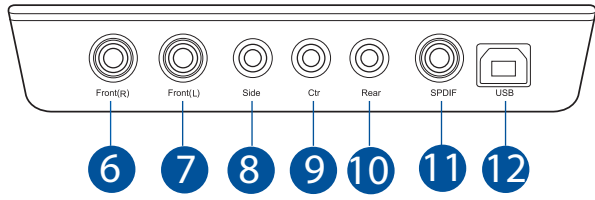
## 2. Hardware

### Xonar U7 MKII Audio Card

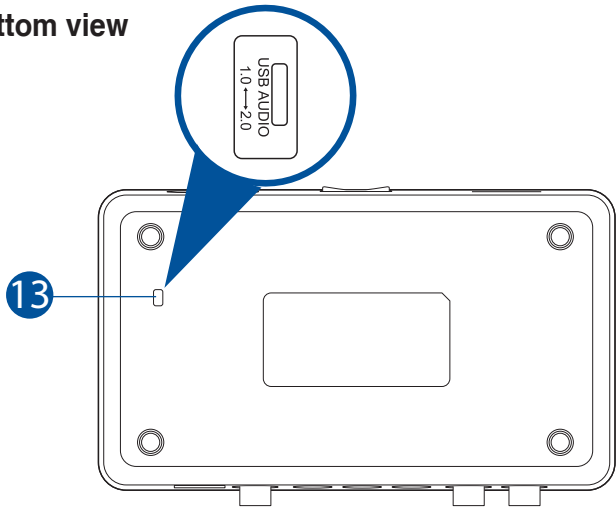
#### Top view



#### Rear view



#### Bottom view



No.	Items	Description
1.	Headphone Out port	Connect your headphone to this port.
2.	Microphone In port	Connect your external PC microphone to this 3.5mm port for voice input.
	Line In port	Connect analog devices like MP3 players, CD players, music synthesizers, and other line-level sound sources to this 3.5mm port for audio recording or processing.
3.	Microphone Volume Control	Press to increase or decrease microphone volume.
4.	Output Selection Indicator	LED indicator indicates different output selection (Headphone/Speaker/S/PDIF).
5.	Output Selection/ Volume Control	Rotate to adjust the playback volume. Press to select an output source.
6.	Front (R) Out port	For 2/4/5.1/7.1 channel speaker systems, connects to the front right input on the powered speakers.
7.	Front (L) Out port	For 2/4/5.1/7.1 channel speaker systems, connects to the front left input on the powered speakers.
8.	Side Surround Out port	Connects to the surround channel input on 7.1 powered analog speakers.
9.	Center/Subwoofer Out port	Connects to the center/subwoofer input on 5.1/7.1 powered analog speakers.
10.	Rear Out port	Connects to the back surround input on 4/5.1/7.1 powered analog speakers.
11.	S/PDIF Out port	Coaxial digital output port. Connects to an external digital decoder or digital speaker systems, Home Theater systems, AV receivers for outputting digital audio including PCM, Dolby Digital, DTS, etc. Connects to the surround channel input on 4/5.1/7.1 powered analog speakers. Through S/PDIF-Out it will deliver stereo PCM and use DDL for 5.1 channel.
12.	USB Port	Connects to your computer using a USB Type B-A lead.
13.	USB Audio 1.0/2.0 switch	Move this switch to toggle between USB Audio 2.0 and USB Audio 1.0 connection. Use USB Audio 1.0 for plug and play. Use USB Audio 2.0 on a mac (Apple computer).



USB Audio 1.0/2.0 switch is located at the bottom side of the audio card. USB Audio 1.0 connection has the following limitations:

- Only supports playback features.
- 7.1 speakers, Headphone, Mic In / Line-In, and SPDIF Out can only support sample rates of 44.1KHz/48KHz @ 16-bit.



## 3. Driver Installation

### Installing the Xonar U7 MKII Card Driver

After installing the Xonar U7 MKII audio card on your computer, you need to install the device driver that enables the Xonar U7 MKII audio card to work with Windows® operating system. Go to ASUS official website [www.asus.com](http://www.asus.com) to download the latest driver.



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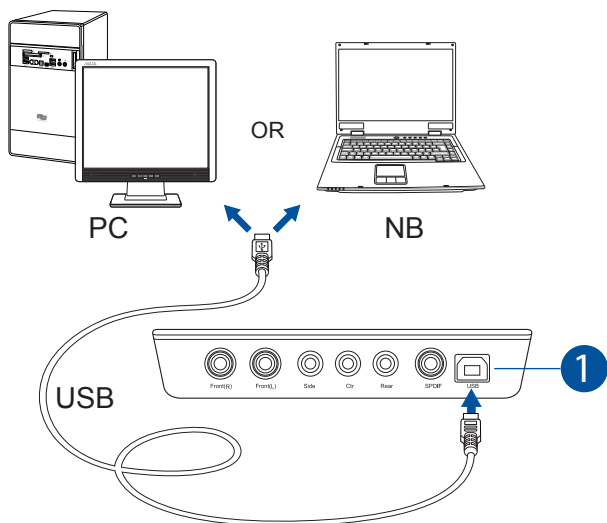
The driver is required only when you connect the Xonar U7 MKII to a PC or notebook.

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## 4. Connecting Speakers and Peripherals

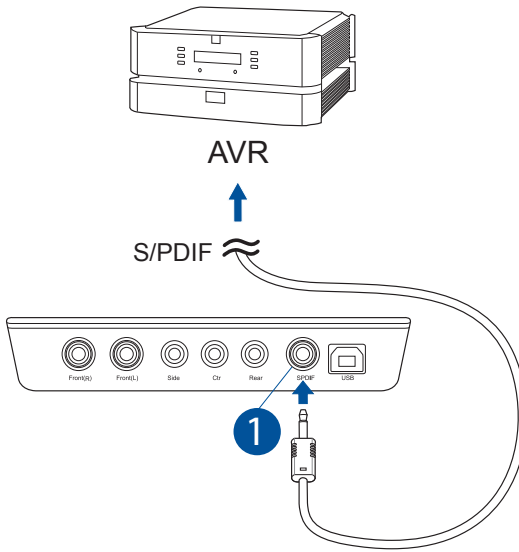
### 4.1 Input connection

#### 4.1.1 Connecting to a USB 2.0 port on your computer



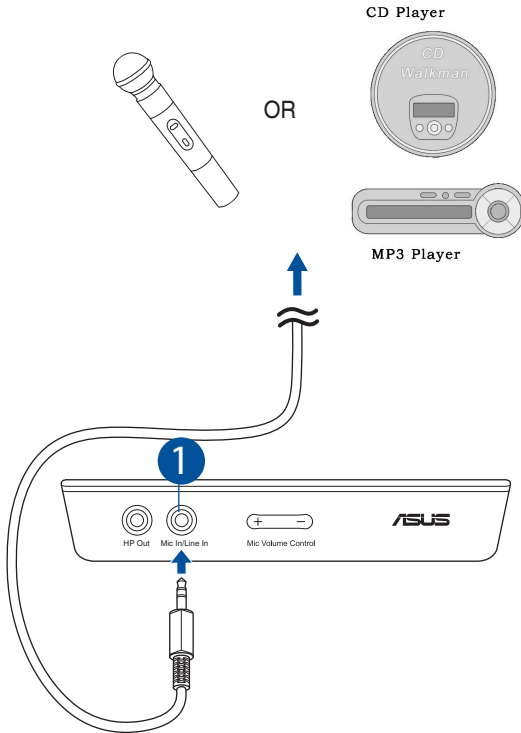
No.	Items	Description
1.	USB Port	Connects to your computer using a USB Type B-A lead.

## 4.1.2 Connecting digital audio systems



No.	Items	Description
1.	S/PDIF Output port	Connect an AVR to this S/PDIF output port.

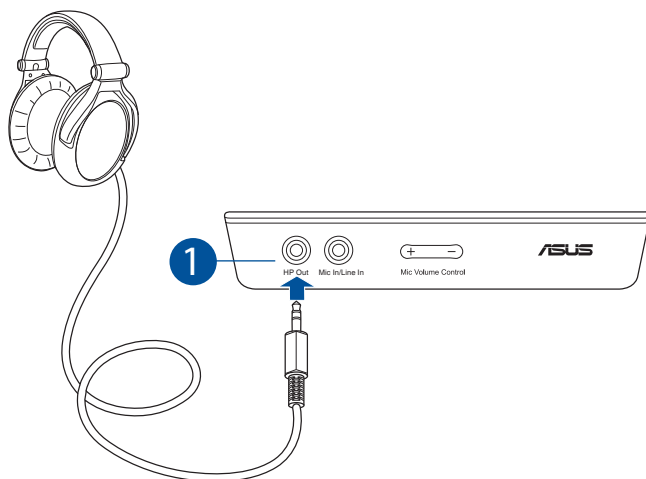
### 4.1.3 Connecting microphone / Line-In



No.	Items	Description
1.	Microphone In / Line In port	<p>Connect the microphone's 3.5mm plug into this Mic-In port for voice communication, recording, or karaoke.</p> <p>Connect the 3.5mm plug of the CD/MP3 Player or any other Line level analog audio sources into this Line-In port for sound recording.</p>

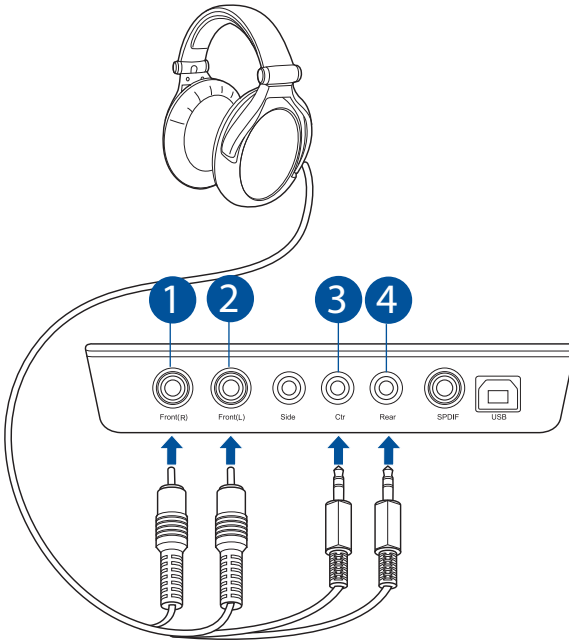
## 4.2 Output connection

### 4.2.1 Connecting Stereo Headphones



No.	Items	Description
1.	Headphone Out Port	The Headphone Out port has a built-in high-quality amplifier to drive headphones. Connect your stereo headphones directly to this port.

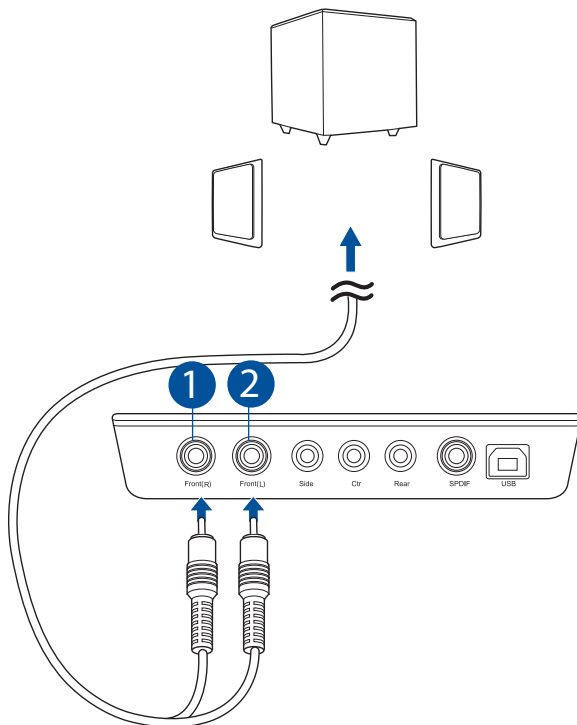
## 4.2.2 Connecting 5.1 channel headphones



No.	Items	Description
1.	Front (R) Out port	Connects to the front right input port of 5.1 channel headphones using the RCA cable.
2.	Front (L) Out port	Connects to the front left input port of 5.1 channel headphones using the RCA cable.
3.	Center/Subwoofer Out port	Connect the Center/Bass-channel 3.5mm plug of your 5.1 channel headphone into this jack.
4.	Rear Surround Out port	Connects to the rear surround input port of your 5.1 channel headphone.

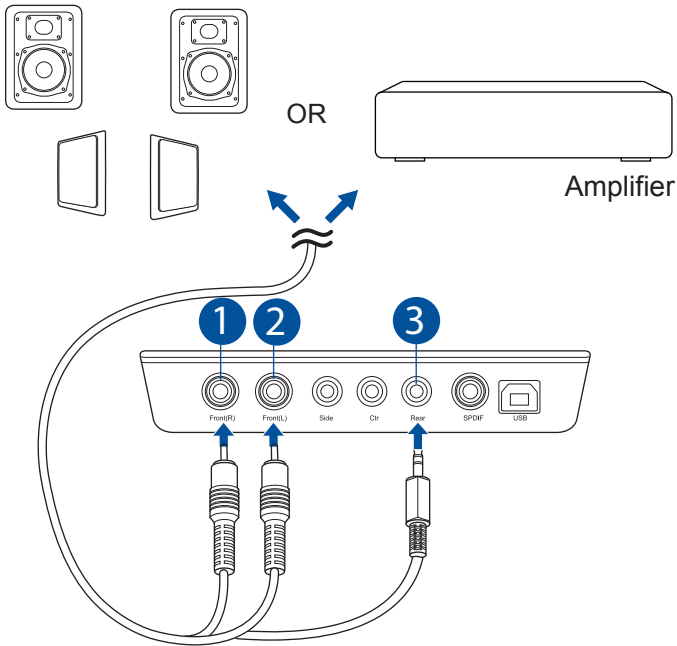
### 4.2.3 Connecting analog speaker systems

#### Connecting 2 channel speakers



No.	Items	Description
1.	Front (R) Out port	Connects to the front right input port of 2 channel speakers using the RCA cable.
2.	Front (L) Out port	Connects to the front left input port of 2 channel speakers using the RCA cable.

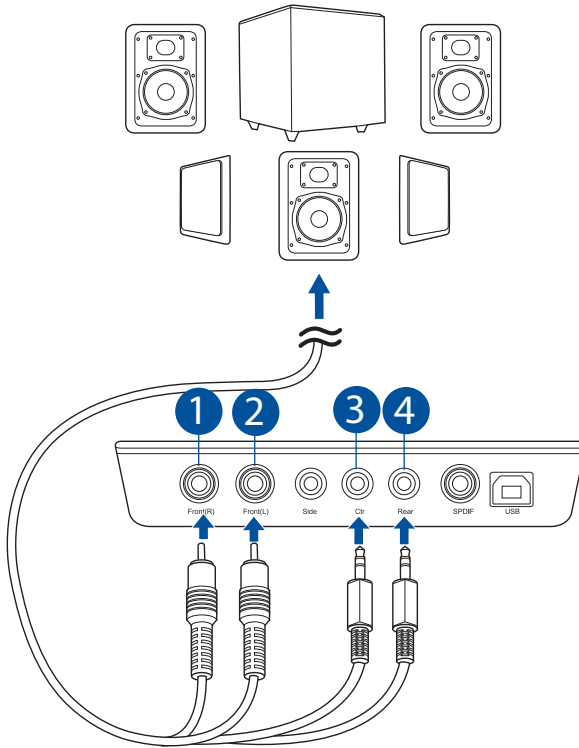
## Connecting 4 channel speakers / power amplifier



No.	Items	Description
1.	Front (R) Out port	Connects to the front right input port of 4 channel speakers.
2.	Front (L) Out port	Connects to the front left input port of 4 channel speakers.
3.	Rear Surround Out port	Connects to the rear surround input port of 4 channel speakers.

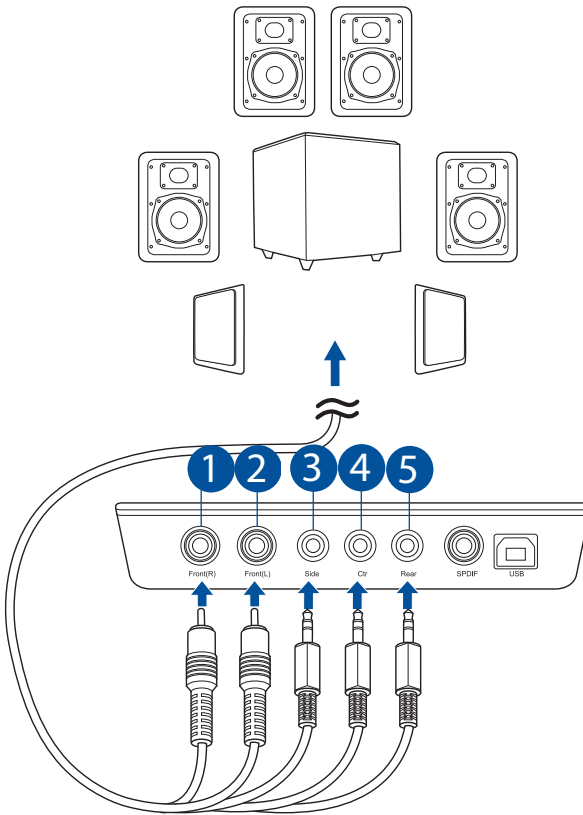


## Connecting 5.1 channel speakers



No.	Items	Description
1.	Front (R) Out port	Connects to the front right input port of 5.1 channel speakers.
2.	Front (L) Out port	Connects to the front left input port of 5.1 channel speakers.
3.	Center/Subwoofer Out port	Connects to the Center and Subwoofer input ports of 5.1 channel speakers.
4.	Rear Surround Out port	Connects to the rear surround input port of 5.1 channel speakers.

## Connecting 7.1 channel speakers



No.	Items	Description
1.	Front (R) Out port	Connects to the front right input port of 7.1 channel speakers.
2.	Front (L) Out port	Connects to the front left input port of 7.1 channel speakers.
3.	Side Surround Out port	Connects to the Left surround and Right surround input ports of 7.1 channel speakers.
4.	Center/Subwoofer Out port	Connects to the Center/Subwoofer input port of 7.1 channel speakers using the mini-jack cable.
5.	Rear Surround Out port	Connects to the rear surround input port of 7.1 channel speakers.

## 5. Troubleshooting

### 1. I cannot install the audio card driver in my PC.

- (1). Ensure that you have switched the USB sound card to USB Audio 2.0 and plugged it to the USB port.
- (2). Make sure that the LEDs light up.
- (3). Ensure that you have the latest driver version.
- (4). Check that the Windows hardware Device Manager has detected the device.
- (5). Restart your computer.
- (6). Try to plug the device into another USB port.

### 2. I cannot find the Xonar U7 MKII Audio Center.

- (1). Make sure you have installed the driver.
- (2). Find the Xonar U7 MKII Audio Center icon in the system tray on the right bottom of the screen. Double click the icon to launch the Xonar U7 MKII Audio Center utility.
- (3). If you cannot find the icon in the system tray, go to the Windows Control Panel and double click the **Xonar U7 MKII Audio Center** icon to make it visible in the system tray again.
- (4). After the driver installation is complete, it's recommended that you reboot your computer to complete the setup. If the icon still doesn't appear, please try installing the driver package again.

### 3. I can't hear any sound from my analog speakers

- (1). Ensure that you have connected speakers properly and have powered on your speakers.
- (2). Ensure that the device master volume or the software player has NOT been muted in the Xonar U7 MKII Audio Center.
- (3). Ensure that the output LED indicator matches the output source configured in the device.

- (4). If you are using Dolby Digital Live encoder through the S/PDIF output, the analog output will be muted to get rid of the interference between your digital speaker system and analog speakers or headphones. Please check if this is the case.
- (5). Please go to the sound and audio device of Windows® Control Panel to check whether the playback default device is set to Xonar U7 MKII Audio Device, instead of other onboard AC97 or HDA codec device. If it's not, please set it to Xonar U7 MKII Audio Device and restart your applications.
- (6). Restart your computer.

#### **4. I can't hear any sound from the S/PDIF output**

- (1). Ensure that you have enabled S/PDIF output in the Audio Center GUI (Main page).
- (2). Ensure that you have connected the correct S/PDIF output jack in the card to the decoder's (AV receiver) S/PDIF input jack.
- (3). You may need to select the correct input and mode of your decoder or AV receiver. For Dolby Digital or DTS output, double check that the AV receiver is in that decoding mode.
- (4). If you are using 192KHz PCM output, make sure that your decoder can support 192KHz decoding. Try changing it to 44.1K or 48KHz first.