# Xonar U5

## 5.1-Channel USB Audio Card



# User Guide

E11117
Revised Edition v2
November 2015

# Contents

# 1.	Introduction

## 1.1	Package contents

Check your ASUS Xonar™ U5 audio card package for the following items:

- ASUS Xonar™ U5 5.1-Channel USB Audio Card x1
- Driver CD x1
- S/PDIF TOSLINK optical adapter x1
- Quick Start Guide x1
- Type B to A USB Cable x1

## 1.2	System requirements

To ensure a successful installation of the Xonar U5 audio card, make sure that your computer meets the following requirements:

- IBM compatible PC with one USB1.1 (or higher) compatible port for the USB audio device
- 32/64bit Microsoft® Windows® 7 / 8 / 8.1 / 10 (32/64bit)
- Intel® Pentium® 4 1.4GHz, AMD Athlon 1400 CPU, or faster CPU
- 256MB system memory
- 60MB available storage space for driver installation
- CD-ROM drive (or DVD-ROM drive) for software installation
- High-quality headphones, powered analog speakers, or a Dolby Digital decoder

## 1.3 General Specification

| Items | Description |
|-------|-------------|
| **Audio Performance** | |
| Output Signal-to-Noise Ratio (A-Weighted) | Up to 104dB |
| Input Signal-to-Noise Ratio (A-Weighted) | Up to 94dB |
| Output Total Harmonic Distortion + Noise at 1kHz (A-Weighted) | Up to 0.005% (-86dB) |
| Input Total Harmonic Distortion + Noise at 1kHz (A-Weighted) | Up to 0.005% (-86dB) |
| Frequency Response (-3dB, 24-bit/96kHz input) | < 10Hz to 44kHz |
| Output / Input Full-Scale Voltage | 1 Vrms (2.828 Vp-p) for rear output (Speaker) |
| | 1.3 Vrms (3.677 Vp-p) for headphone out |
| | 1 Vrms (3.677 Vp-p) for line in |
| **Bus Compatibility** | |
| USB audio class | USB audio class 2.0 for all functions; |
| | USB audio class 1.0 for playback |
| **Main Chipset** | |
| Audio Processor | Cmedia 6631A High-Performance Sound Processor (Max. 192kHz / 24bit) |
| D-A Converter of Digital Sources | Cmedia CM9882A x1 (108dB SNR, Max. 192kHz/24bit) |
| A-D Converter for Analog Inputs | Cmedia CM9882A x1 (104dB SNR, Max. 192kHz/24bit) |
| **Sample Rate and Resolution** | |
| Analog Playback Sample Rate and Resolution | 44.1k/48k/88.2k//96k/192kHz @ 16/24bit |
| Analog Recording Sample Rate and Resolution | 44.1k/48k/88.2k//96k/192kHz @ 16/24bit |
| S/PDIF Digital Output | 44.1k/48k/88.2k//96k/192kHz @ 16/24bit |
| ASIO 2.0 Driver Support | 44.1k/48k/88.2k//96k/192kHz @ 16/24bit |

| Items | Description |
|---|---|
| **I/O Ports** | |
| Analog Output Jack | 3.50mm mini jack x3 for surround (Front/Center-Subwoofer/Rear-out) |
| | 3.50mm mini jack x1 (Headphone out) |
| Analog Input Jack | 3.50mm mini jack x1 (Shared by Line-In / Mic-In) |
| Button | Output volume / Output selection / Microphone Volume) |
| Digital S/PDIF Output | High-bandwidth coaxial / optical port supports 192kHz/24bit |
| **Driver Features** | |
| As SW specifications | Version 1.01 |

## 2.    Hardware

### Xonar U5 Audio Card

### Top view
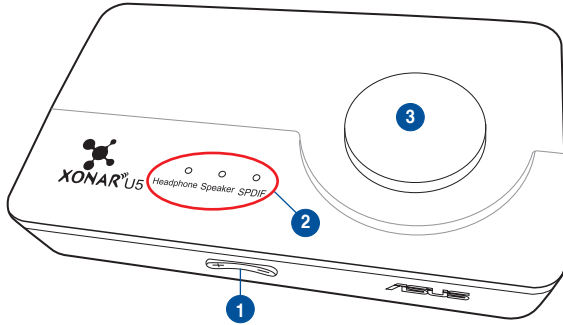
### Rear view



### Bottom view

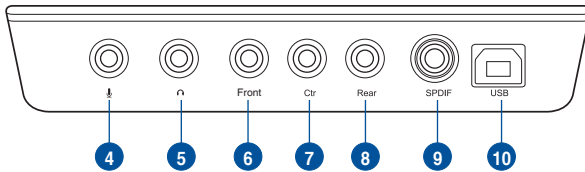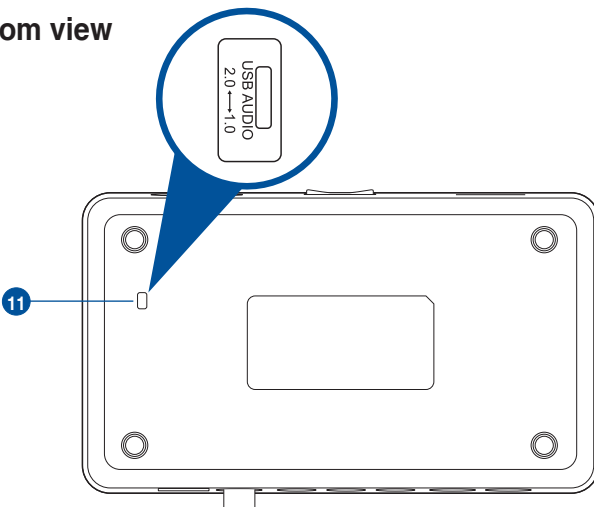| No | Item | Description |
|---|---|---|
| 1 | **Microphone Volume Control** | Press to increase or decrease microphone volume. |
| 2 | **Output Selection Indicator** | LED indicator indicates different output selection (Headphone/Speaker/S/PDIF). |
| 3 | **Output Selection/ Volume Control** | Rotate to adjust the playback volume. Press to select an output source. |
| 4 | **Microphone In port** | Connect your external PC microphone to this 3.5mm port for voice input. Built-in high-quality Microphone pre-amplifier. |
| 5 | **Headphone Out port** | Connect your headphone to this port. |
| 6 | **Front Out port** | For 2/4/5.1 channel speaker systems, connects to the front input on the powered speakers. |
| 7 | **Center/Subwoofer Out port** | Connects to the center/subwoofer input on 5.1 powered analog speakers. |
| 8 | **Rear Out port** | Connects to the rear/subwoofer input on 5.1 powered analog speakers. |
| 9 | **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, WMA-Pro, etc. Connects to the surround channel input on 4/5.1 powered analog speakers. |
| 10 | **USB Port** | Connects to your computer using a USB Type B-A lead. |
| 11 | **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). |

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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.

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

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# 3. Driver Installation

## 3.1 Installing the Xonar U5 Card Driver

After connecting the Xonar U5 audio card to your computer, you need to install the device driver that enables the Xonar U5 audio card to work with Windows operating system.

> The version and content of the support CD are subject to change without notice.

To install the device driver:

1. Insert the ASUS Xonar U5 support CD into your optical drive. If Autorun is enabled, the ASUS Xonar Card Driver screen appears automatically. Go to step 4. If Autorun is not enabled in your computer, perform step 2.
2. Click **Computer** on your desktop and double-click the optical drive icon.
3. Double-click **setup.exe** located on the optical drive.
4. Click **Driver** to start the installation.
5. Follow the on-screen instructions to complete the installation. Read, understand, and accept the **END USER LICENSE AGREEMENT** before continuing the installation.
6. When the installation finishes, you may be prompted to restart your computer. You can choose to restart the computer at a later time.

## 3.2 Uninstalling or Reinstalling the Xonar U5 Card Driver

### 3.2.1 Uninstalling the Xonar U5 Card Driver

To uninstall the Xonar U5 card driver:

1. Click **Start** > **Control Panel** > **Programs and Features**.
2. Right-click the driver you want to remove, and then click **Uninstall**.
3. In the **InstallShield Wizard** dialog box, select **Remove**.
4. Restart your computer when prompted.
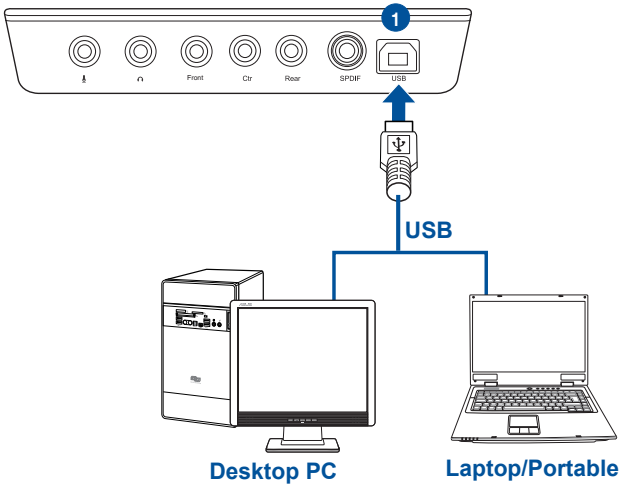
### 3.2.2 Reinstalling the Xonar U5 Card Driver

To reinstall the Xonar U5 card driver:

1. Uninstall the existing software or driver.
2. Follow the installation process to reinstall the driver.

# 4. Connecting Speakers and Peripherals

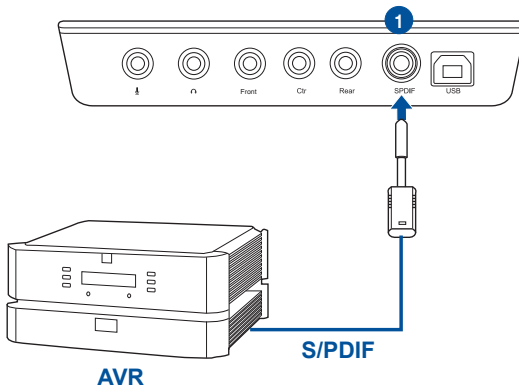## 4.1 Input connection

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



**Desktop PC**　　**Laptop/Portable**

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

## 4.1.2    Connecting digital audio systems

**S/PDIF**

**AVR**

| No | Item | Description |
|----|------|-------------|
| 1 | **S/PDIF Out port** | Connect an AVR (Audio/Video Receiver) to this S/PDIF output port. |

### 4.1.3 Connecting microphone / Line-In
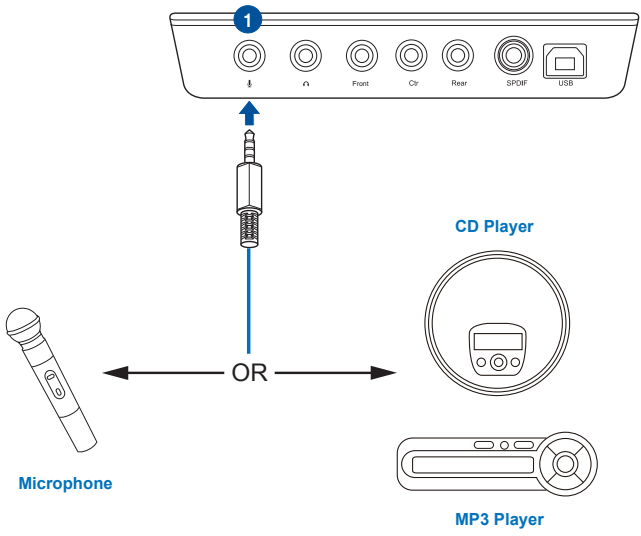


| No | Item | Description |
|----|------|-------------|
| 1 | **Microphone In / Line In port** | Connect the microphone's 3.5mm plug into this Mic-In port for voice communication, recording, or karaoke.<br><br>Connect the 3.5mm plug of the CD/MP3 Player or any other Line level analog audio sources into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

## 4.2 Output connection

### 4.2.1 Connecting Stereo Headphones
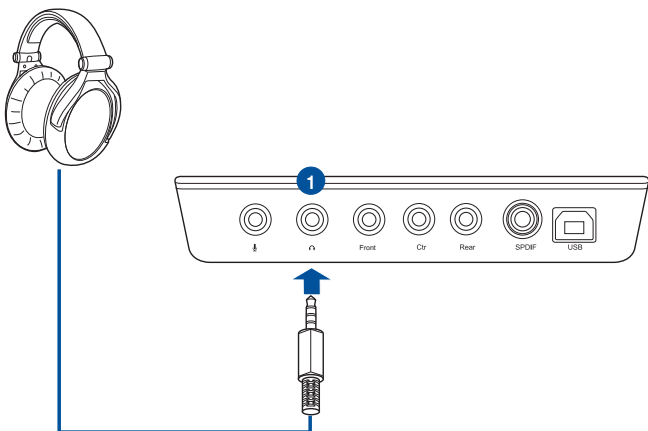


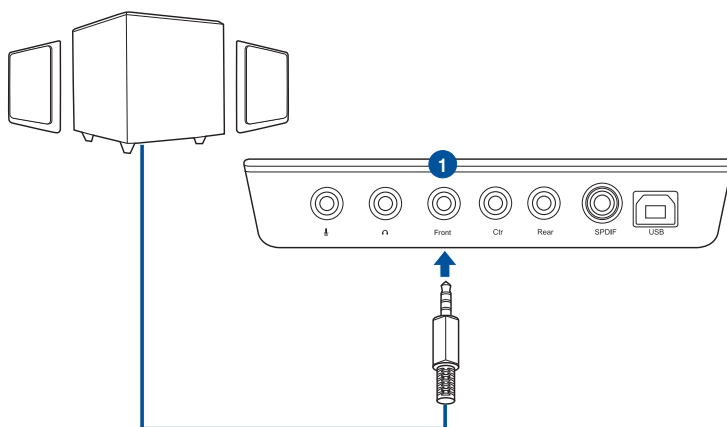| No | Item | Description |
|----|------|-------------|
| 1 | **Headphone Out Port** | The Headphone Out port has a built-in high-quality amplifier to drive headphones. Connect your stereo headphones directly to this port. |

## 4.2.2    Connecting 5.1 channel headphones
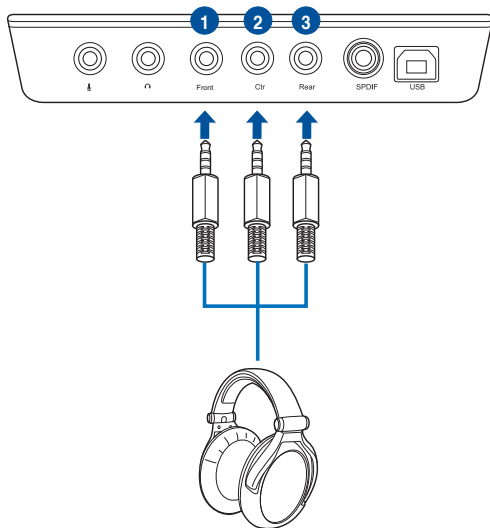


| No | Item | Description |
|----|------|-------------|
| 1 | **Front Out port** | Connect the Front-channel 3.5mm plug of your 5.1 channel headphone into this jack. |
| 2 | **Center/Subwoofer Out port** | Connect the Center/Bass-channel 3.5mm plug of your 5.1 channel headphone into this jack. |
| 3 | **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 | Item | Description |
|----|------|-------------|
| 1 | **Front Out port** | Connect the Front-channel 3.5mm plug of 2 channel speakers using a 3.5mm cable. |

**Connecting 4.1 channel speakers / power amplifier**



**Speaker**

OR

**AV Receiver/Amplifier**

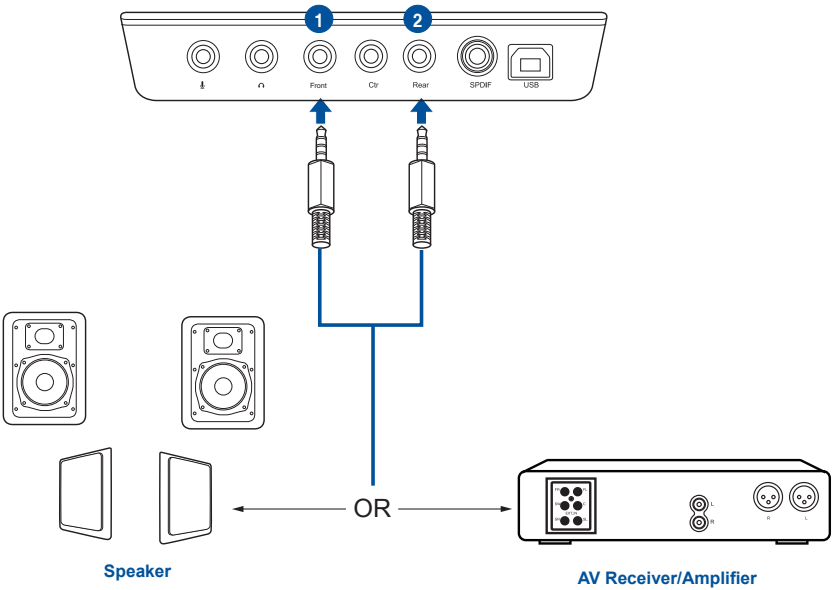| No | Item | Description |
|----|------|-------------|
| 1 | **Front Out port** | Connect the Front-channel 3.5mm plug of your 5.1 channel headphone into this jack. |
| 2 | **Rear Surround Out port** | Connects to the rear surround input port of 4.1 channel speakers. |

**Connecting 5.1 channel speakers**
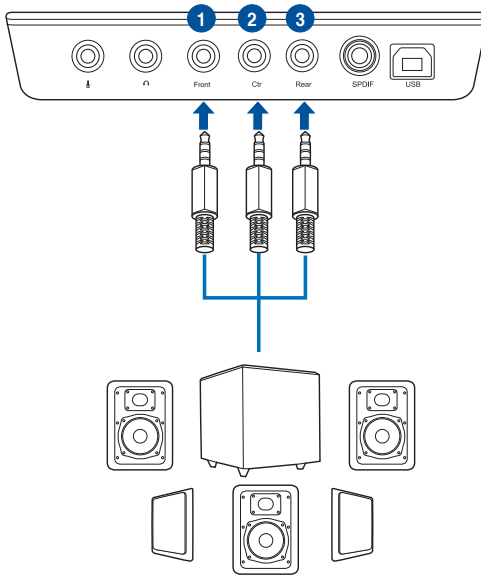
| No | Item | Description |
|---|---|---|
| 1 | **Front Out port** | Connect the Front-channel 3.5mm plug of your 5.1 channel headphone into this jack. |
| 2 | **Center/Subwoofer Out port** | Connects to the Center and Subwoofer input ports of 5.1 channel speakers. |
| 3 | **Rear Surround Out port** | Connects to the rear surround input port of 5.1 channel speakers. |

# 5.    Software Utilities

## Sonic Studio overview

Sonic Studio comes with advanced sound algorithms and virtual surround effects to enhance your gaming and entertainment experience.



For more details about using Sonic Studio, refer to the Sonic Studio manual.