

Xonar Essence STX

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- ## Audio Performance

Output Signal-to-Noise Ratio (A-Weighted):

124dB for Front-out, 117dB for Headphone-out (600ohms) dB

Input Signal-to-Noise Ratio (A-Weighted):

118 dB

Output THD+N at 1kHz:

0.0003% (-110dB) for Front-out, 0.001% (-100dB) for Headphone-out

Input THD+N at 1kHz:

0.0002% (-113dB) for Line-in

Frequency Response (-3dB, 24-bit/192kHz input):

<10Hz to 90KHz

Output/Input Full-Scale Voltage

2 Vrms (5.65 Vp-p)

- ## Bus Compatibility

PCI Express:

-PCI Express Rev. specification compatible

-Compatible with X1, X4, X8, X16 PCI Express slots

- ## Main Chipset

High Fidelity Headphone Amplifier:

Texas Instruments 6120A2*1 (120dB SNR, 100dB THD+N @ $V_{cc} \pm 12V$, $R_L = 600\Omega$, $f = 1kHz$) **Audio**

Processor:

ASUS AV100 High-Definition Sound Processor (Max. 192KHz/24bit)

24-bit D-A Converter of Digital Sources:

Texas Instruments PCM1792A*1 for Front-Out (127dB SNR, Max. 192kHz/24bit)

24-bit A-D Converter for Analog Inputs:

Cirrus-Logic CS5381* 1 (120dB SNR, Max. 192kHz/24bit)

- ## Sample Rate and Resolution

Analog Playback Sample Rate and Resolution:

44.1K/48K/96K/192KHz @ 16/24bit

Analog Recording Sample Rate and Resolution:

44.1K/48K/96K/192KHz @ 16/24bit

S/PDIF Digital Output:

44.1K/48K/96K/192KHz @ 16/24bit, Dolby Digital

ASIO 2.0 Driver Support:

Supports 44.1K/48K/96K/192KHz @16/24bit with very low latency

- I/O Ports

Analog Output Jack:

RCA jack *2 (Front R / Front L), 6.30mm jack*1 (Headphone out)

Analog Input Jack:

6.30mm jack *1 (Shared by Line-In/Mic-In)

Other line-level analog input (for CD-IN/TV Tuner):

Aux-In (4-pin header on the card)

Digital S/PDIF Output:

High-bandwidth Coaxial/TOS-Link combo port supports 192KHz/24bit

Front-Panel Header:

Shared by Headphone out / 2 channels out /

Microphone in

S/PDIF Header: Connects to compatible graphic cards for HDMI output

- Driver Features

Operation System:

Windows Vista/XP(32/64bit)/MCE2005

Dolby® Technologies:

Dolby® Digital Live

Dolby Digital Live encodes any audio signal on PC in real-time to Dolby Digital (AC3) 5.1 surround sounds to your home theater environment through one single S/PDIF connection

Dolby® Headphone

Dolby Headphone technology allows users to listen to music, watch movies, or play games with the dramatic 5.1-channel surround or realistic 3D spacious effects through any set of stereo headphones.

Dolby® Virtual Speaker

Dolby Virtual Speaker technology simulates a highly realistic 5.1-speaker surround sound listening environment from as few as two speakers.

Dolby® Pro-Logic II

Dolby Pro-Logic II is the well-known technology to process any native stereo or 5.1-channel audio into up to 6.1 channel output, creating a seamless, natural surround soundfield.

Smart Volume Normalizer™:

Smart Volume Normalizer™

Normalizes the volume of all audio sources into a constant level and also enhances your 3D sound listening range and advantages in gaming

Xear 3D™ Virtual Speaker Shifter:

Virtual 7.1 speaker positioning

Magic Voice™:

Xonar Essence STX provides VocalFX, the latest vocal effect technologies for gaming and VoIP, including: -VoiceEX: produces vivid environmental reverberation for your voice in EAX games - ChatEX: emulates different background environment effects when you chat online -Magic Voice: changes your voice pitch to different types (Monster/Cartoon...) for disguising your real voice or just for fun in online chatting

Karaoke Functions:

Music Key-Shifting and Microphone Echo effects like professional Karaoke machine

FlexBass™:

Professional Bass Management/Enhancement system

3D Sound Engines/APIs:

Vista: DirectSound3D® GX 2.5, DirectSound® HW, DirectSound SW, A3D® 1.0, OpenAL generic modes, 128 3D sounds processing capability

XP: DirectSound2.5 SW, A3D® 1.0, OpenAL generic modes, 128 3D sounds processing capability

- **Bundled Software Utility**
- **Accessories**

1 x 3.5mm-to-RCA adaptor cable (8ch)

1 x S/PDIF optical adaptors

- **Note**



- All specifications are subject to change without notice. Please check with your supplier for exact offers. Products may not be available in all markets.
- PCB color and bundled software versions are subject to change without notice.
- Brand and product names mentioned are trademarks of their respective companies.

