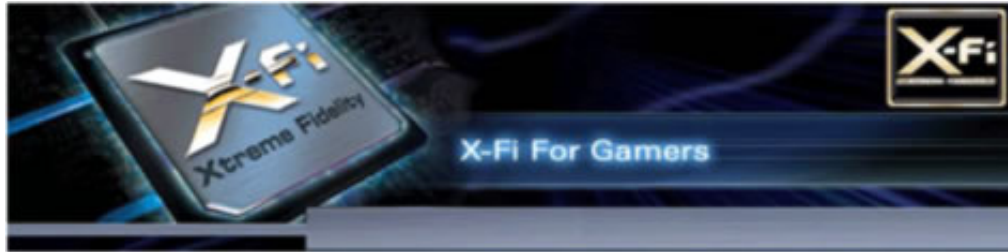


## Sound Blaster X-Fi - Information Guide

Keywords / Key Phrases: creative, Sound Blaster, X-Fi, product information



### Product Information:

There are three main uses of the the sound blaster X-Fi:

- About Audio Creation mode

#### Xtreme Fidelity Audio Creation Mode Features

Sound Blaster X-Fi's Audio Creation Mode optimizes the processor for a flexible and high performance and quality experience. This means that any of the resources required for Xtreme Music/Movie Entertainment or gaming are leveraged to deliver an Xtreme Fidelity Audio Creation experience. It should be noted however that in this mode one can still play music, movies and games, however some of the Xtreme Fidelity features/quality levels for those uses will not be available in this mode.



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#### Sound Blaster X-Fi features for Audio Creation

- Sound Blaster X-Fi supports up to eight different 24-bit hardware effects, all of which are accessible through the special Audio Creation Mode Interface and usable through any of the inputs.
- You will also enjoy unprecedented hardware synthesis capabilities with 24-bit SoundFont sampling.
- You will be able to create multi-channel MIDI content for the first time with 3DMIDI.

## Connectivity



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With SPDIF I/O, Optical I/O, Analog I/O and MIDI I/O connectors, users have all the connectors they need for recording and mastering. For users who want more professional connectivity options, they can choose the Sound Blaster X-Fi Elite Pro. This model comes with an external I/O Console that includes Hi-Z and Phono analog connectivity, full-size MIDI connectors and multiple analog and digital I/O options.

- About Gaming mode

## Xtreme Fidelity Gaming Mode Features

Sound Blaster X-Fi's Gaming Mode optimizes the processor for the fastest most realistic gaming audio you can experience. This means that any of the resources required for Xtreme Music/Movie Entertainment or Audio Creation are leveraged to deliver an Xtreme Fidelity Gaming experience. It should be noted however that in this mode you can still play music or movies and record audio, however some of the Xtreme Fidelity features/quality levels for those uses will not be available in this mode.



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## Sound Blaster X-Fi features for Gaming

- A completely re-engineered game audio processing engine utilizing the Creative X-Fi audio processor allows **Sound Blaster X-Fi Fatal1ty FPS** to deliver the fastest gaming performance ever seen, providing more than a 15% performance boost over motherboard audio solutions while simultaneously delivering full audio effects.
- X-RAM allows developers to deliver even higher quality audio samples that can be loaded into dedicated **X-RAM** (Xtreme Fidelity RAM) rather than system RAM, which would affect overall performance. In certain implementations it can further boost performance beyond the standard Sound Blaster X-Fi technology.

### Note:

**X-RAM** is only available on **Sound Blaster Fatal1ty FPS** and **Sound Blaster Elite Pro** products.

- Sound Blaster X-Fi Technology takes your gaming experience to a new level with **X-Fi CMSS®-3D** (Creative Multi-Speaker Surround 3D). If you use anything from headphones to 7.1 speakers, Sound Blaster X-Fi delivers the ultimate surround-sound experience.
- With **EAX® ADVANCED HD™ 5.0** the Sound Blaster X-Fi delivers the most realistic gaming audio. For the first time it can do so while providing maximum performance. Features like **128 voice** support, **EAX MacroFX**, **EAX PurePath & Environment FlexiFX** set a new standard for EAX and realism available in game audio.
- **Sound Blaster X-Fi 24-bit Crystalizer** makes games sound better than ever before. Gaming audio is typically recorded at **16-bit/22kHz**, this means that the audio you hear is lower than CD quality. This compromise makes sound files smaller and easier to process for less powerful audio solutions, but obviously means that the sound is often poor. The X-Fi created the world's most powerful audio processor that actually enhances gaming audio in real-time and makes your games sound extremely rich.

The dynamic range is enhanced for added depth, while transients (sounds with sharp attack) like gunfire, or 'hi-hats' in a music track, have more

definition. This is what gaming audio would sound like if game developers could create games in 24-bit quality.

- About Entertainment mode

The goal for the new architecture used on the Sound Blaster X-Fi is to advance users' expectations of music and movie audio experience.

The Sound Blaster X-Fi system architecture offers a new level of audio processing for entertainment. The Sound Blaster X-Fi system architecture can render all the important compressed and high precision audio formats such as **AC3**, **DTS**, and **DVD-Audio**. See ([Sound Blaster Audio Technologies Glossary](#)) It also renders audio at up to 192 kHz sample rate, as well as supporting up to 7.1 speaker configuration.

What is new about the **Sound Blaster X-Fi** is **Active Premium Audio Processing**. This optimizes and improves the audio quality for your particular speaker system and listening environment. This approach is vastly different to the **Passive Premium Audio** of today's best audio systems.

**Passive Premium Audio** means that the solution is capable of handling high bit-depth, high sample-rate content in a very precise way, but because it is passive it can only do this when it receives premium quality content. When a Passive Premium Audio system receives standard quality content, such as CD-Audio or compressed audio the user experience is limited by the system's inability to enhance that content.

However, **Active Premium Audio** system is capable of enhancing any content to derive multi-channel premium quality audio even from stereo compressed audio content to give a **DVD-Audio** like experience. This **Active Premium Audio** capability has been branded as **24-bit Crystalizer** and implemented as a feature of X-Fi products.

What is important, is the fact that because of the **Active Modal Architecture**, when in entertainment mode, the card dedicates the whole Sound Blaster X-Fi processor to premium audio rendering experience.

### **Creative X-Fi Entertainment Mode Features**



[Click to enlarge](#)

Sound Blaster X-Fi's Entertainment Mode optimizes the processor for Music and Movie playback. This means that any of the resources required for Xtreme Gaming or Audio Creation are leveraged to deliver an Xtreme Fidelity Entertainment experience. It should be noted, however, that in this mode, one can still play games and record audio, however some of the Xtreme Fidelity features/quality levels for those uses will not be available in this mode.

### **Creative Sound Blaster X-Fi features for music playback**

- **Sound Blaster X-Fi 24-bit Crystalizer** enhances MP3s to sound better than they do on their original CD

Utilizing the Creative X-Fi Xtreme Fidelity audio processor, your music is put through a two-step quality enhancement process. First the processor converts the audio into **24-bit/96kHz** quality using its virtually transparent SRC (Sample Rate Converter) engine. Then it re-masters and selectively enhances the audio by analyzing and identifying which parts of the audio stream have been restricted/damaged during the dynamic compression stage to 16-bit (in the studio) and then the data compression stage when converting to MP3.

The overall benefit to your music is that low and high frequencies are enhanced while the dynamics are also improved.

- **Sound Blaster X-Fi CMSS-3D** allows users to enhance their MP3 music to surround sound over headphones or multi-channel speakers

Instead of performing a basic upmixing of stereo content, the Creative X-Fi audio processor intelligently re-mixes the audio into surround sound to match the speaker system you have (including headphones). It also uses advanced techniques to extract specific audio elements, like voice to the center channel and ambience to the surrounding channels, so your music sounds more alive. The outcome for stereo music over speakers or even headphones is that you will be able to enjoy a high quality, virtually zero artifact surround sound experience. For multi-channel music you will be able to enjoy the same thrilling surround sound experience over headphones as you would on multi-channel speakers.

- **SuperRip** allows users to save their MP3s or CDs in Xtreme Fidelity

The X-Fi 24-bit Crystalizer and X-Fi CMSS-3D features, when combined, allow you to **SuperRip** CDs into Xtreme Fidelity quality so you can now enjoy permanently enhanced music instead of low-quality MP3 files. There are many options when SuperRipping your CDs. You can save your music to basic MP3 and WMA files (with the Xtreme Fidelity Enhancements included), or to WMA Pro (24-bit/96kHz, 5.1 Surround Sound format) or at the highest end you can even save your enhanced music to WMA Pro Lossless (24-bit/96kHz, Stereo, using a lossless compression algorithm).

If you want maximum enjoyment and portability you should choose the basic option, whereas for the maximum quality experience you should choose the **WMA Pro Lossless** format.

### **DVD-Audio playback up to 24-bit/192kHz in stereo and 24-bit/96kHz in 5.1 surround**

DVD-Audio delivers more brilliance and clarity during playback, while preserving the depth, warmth and presence of the original recording.

### **Discrete DTS-ES 6.1 Support**

DTS-ES offers 6.1 sound for supporting DVD titles. DTS-ES is the only format that supports discrete 6.1 sound for movies. This means that unlike Dolby Digital EX, the 6th channel (Rear Center) is actually encoded into the movie soundtrack like all the other channels. This provides far greater control to the movie producers in delivering to you a fully immersive movie experience.

### **Certified Dolby Digital EX 6.1 support**

The best known, most highly supported movie audio format is provided by Dolby. Sound Blaster X-Fi is a fully certified Dolby Digital EX playback platform. Compared to Dolby Digital 5.1, this technology adds a matrix-encoded rear center channel, which provides better positioning of audio and effects coming from behind the listener. The additional rear speaker also creates a better overall effect of fly-bys and fly-overs making the audio experience more enveloping and immersive.

### **Bass Management Support**

Bass Management support allows a user to adjust the crossover frequency to eliminate distortion that can occur when the satellite speakers fail to handle deeper frequencies. Therefore users can attach a subwoofer module to boost the bass effect or connect Sound Blaster X-Fi to a full home-theater speaker system and amplifier/receiver with confidence that their audio experience will be second-to-none!

## **System requirements:**

## Basic Requirements

- Genuine Intel® Pentium® III 1 GHz, AMD® 1 GHz processor or faster
- Intel, AMD or 100% compatible motherboard chipset
- Microsoft® Windows® XP Service Pack 2 (SP2)
- 256 MB RAM
- 600 MB of free hard disk space
- Available PCI 2.1 slot for the audio card
- Headphones or amplified speakers (available separately)
- CD-ROM/CD-RW or CD/DVD-ROM required for software installation
- Available USB port for the IR Receiver\*
- Available 5 1/4-inch drive bay for the X-Fi I/O Drive\*

## Additional Requirements (where applicable)

### Gaming

DirectX® 9 and OpenGL® compliant 3D graphics accelerator with at least 32 MB of texture RAM

### DVD-Video and DVD-Audio Playback

6x or faster DVD-ROM drive with one of the following recommended software DVD players: InterVideo WinDVD or CyberLink PowerDVD (latest version recommended)  
5.1, 6.1 or 7.1 speakers for optimal listening experience

### Entertainment Center and Remote Control Usage

Graphics card with DirectX 9 compatible video drivers to ensure proper interaction between Entertainment Center and software DVD players

Microsoft Office PowerPoint® 97 or later to control PowerPoint presentations wirelessly using the remote control

### Audio Creation

256 MB RAM and above is required for loading 24-bit SoundFont banks

### Note

Other applications, especially games, may have higher system requirements. Refer to the applications' documentation for details.

\*Available with some models of your audio device, or as an upgrade accessory in some regions.

### More Help:

Visit [www.soundblaster.com](http://www.soundblaster.com) for the latest Sound Blaster news and products. The site also includes information on making purchases, technical help, and the latest driver updates.

## Installing Sound Blaster X-Fi Software:

### Installing Drivers and Applications

You need to install device drivers and applications before using your Sound Blaster X-Fi. The instructions below apply to all supported Windows operating systems.

1. After you have placed your audio card in a PCI slot, turn on your computer. Windows automatically detects your audio card and searches for device drivers.
2. When prompted for the audio drivers, click the **Cancel** button.
3. Insert the Installation and Applications CD into your CD/DVD-ROM drive. Your CD should start automatically. If it does not, follow the steps below:
  - Start Windows Explorer.
  - On the left pane, click the **My Computer** icon.
  - Right-click the **CD-ROM/DVD-ROM drive** icon, and then click **AutoPlay**.
4. Follow the instructions on the screen to complete the installation. It may take up to around 10 minutes for the installation procedure to complete.
5. When prompted, restart your computer.

Using Creative Software AutoUpdate Locating, downloading and installing updates for your Creative products is now simpler and faster with the new web-based Creative Software AutoUpdate system.

When you connect to Creative Software AutoUpdate via the Internet, the web site will analyze your computer system to determine what operating system (OS), language and Creative products are installed in your system.

After the online analysis, you will be able to select from a list of only the most relevant software and driver updates. The files will then be retrieved and installed on your system for you.

### Note:

- Ensure that the power cable is connected to the I/O Drive if you have one.
- First-time users of Creative Software AutoUpdate may be prompted to authorize the download of a browser component required for system inspection. Ensure that the content is signed by Creative Labs, Inc., and then click the Yes button.
- Ensure that all your Creative products are connected and installed on the same computer running Creative Software AutoUpdate.

## Uninstalling Sound Blaster X-Fi Software:

### Uninstalling all Audio Drivers and Applications

1. Click **Start - Settings - Control Panel** or **Start- Control Panel**.



2. Double-click the **Add/Remove Programs** icon.
3. Select the **Sound Blaster X-Fi** entry, and then click the **Add/Remove** (or **Change/Remove**) button.
4. In the InstallShield Wizard dialog box, select the **Remove All** option.
5. Click the **Yes** button.
6. Restart your computer when prompted.
7. You may now install the original or updated Sound Blaster X-Fi device drivers or applications.

Last Updated: June 30th, 2010