

Sound Formats and Speakers for Cinema

DOLBY
DIGITAL • PLUS

DIGITAL
dts
SURROUND

LUCASFILM
THX



Sound Formats and Speakers for Cinema

Choosing the right sound format to use in a cinema situation is just as important as the projection of the movie itself. Customers now expect a higher level of experience from cinema and they will notice if the sound system is not up to par. With the major push toward fully digital systems, more and more cinemas are choosing to switch to this technology, opening the door to better enhanced sound, a better customer experience, and of course, more customers to experience it. Here is the information on the most popular speakers and sound systems available for professional cinema.

Sound Formats

To begin with, there is a need for a certain sound format. These formats are film based and they provide the basic sound recording and projection of the movie or film. The sound formats available to cinemas now are almost 100% digital, and that means that cinemas will need to make the decision to switch to digital technology.

Dolby has been in the market for a long time, providing numerous different sound formats that cinemas will need to be familiar with. Because Dolby is an older company, they offer what they refer to as "transitional sound". This means that their sound formats are still digital, but they are designed to be easier to use for those cinemas that are just now switching to the technology. Dolby sound formats include the following:

- Dolby Cinema
- Dolby Digital
- Dolby Surround
- Dolby Digital Surround EX
- Dolby 3D

DTS is another well known maker of cinema sound formats. However, DTS has made the full leap into high tech options that leave anything non digital in the dust. The company does offer a number of different sound systems, providing variety and flexibility depending on the cinema set up, situation and sound need.

(continued overleaf)

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The professional DTS systems available include the following:

- DTS Surround Sensation
- DTS Neural Surround
- DTS Neural Loudness Control
- DTS Symmetry
- DTS Neo-X
- DTS Boost
- DTS Enhance
- DTS Envelo

Smart Devices is a company that used to provide cinema audio equipment, but they stopped production in 2008 due to high overheads that the company could no longer meet according to their own website. However, for older movie theatres or cinemas that already had audio equipment still in place, it could be that Smart Systems sounds are still being used. The company still offers repair for their sound systems to any professional cinemas still using the audio equipment.

A company like Sony seems to have their hands in almost anything that involves technology, so it is no wonder that Sony does offer professional cinema sound systems. Offering one format, Sony has put everything into providing a high tech system called the SDDS (Sony Dynamic Digital Sound.) The SDDS sound recording provides sound in 8 different channels, which Sony indicates, will provide a better, clearer sound experience to viewers of the film. Films recorded in SDDS do require specific Sony designed playback hardware, including a SDDS reader and SDDS cinema processor.

Unlike Dolby, DTS and Sony, USL provides sound processors and speakers but not an actual sound format used in recording film. USL works to provide enough different audio equipment to fully cover the needs of the theater, including sound processors, digital testers, sound monitors, audio converters, crossovers, and digital to analog converters.

Because today's cinema needs to be prepared for any type of sound format recorded for movies, they will need the right equipment in order to properly play that sound. Without the proper equipment, the sound could not be fully appreciated and this could hinder customer experience. Because of this, it is important to understand the different professional cinema sound formats and make sure that you have the needed equipment to manage that format in your cinema.

Amplifiers

Of course, in order to provide enhanced customer experience in a cinema situation, amplifiers will be needed. When customers go to the theatre, they do not expect the same sound that they would hear coming from their television. Instead, they expect rich, dramatic, clear, realistic sound. There are a number of different manufacturers of cinema amplifiers. These companies include the following:

- BGW Systems
- Crest Audio
- Smart Devices
- QSC Audio Products
- Crown International

As mentioned in the sound systems section above, Smart Devices is no longer manufacturing any type of sound equipment. However, prior to 2008, they did provide a full line of amplifiers and cinema speakers. Cinemas that are still making use of Smart Devices equipment can still get it maintained and repaired through the company, but no new branded equipment can be purchased.

Krix and THX Sound

There are two types of cinema sound that have come to be expected of high tech cinemas today. They would include Krix and THX sound. Krix Sound works to provide what they refer to as a "house" sound and this means simply a sound system that is not generic but that is designed for each movie theatre itself, taking into consideration the size of the theatre, the seating layout and the structure of it for the best sound experience available to moviegoers. THX, which has been making headlines for a few years now indicates that they can provide sound as close as possible to what each movie director wanted for their film. THX works to make the whole sound experience as if each moviegoer is actually sitting on set while the film is being made. Both sound systems do require their own equipment, and in the case of THX, a cinema cannot indicate that they offer movies in THX until the cinema has been inspected and certified by the sound company.

Customers expect much more than just a movie when they go to the cinema. They expect an experience that they will not forget. Because of this, it is vital to understand the role of sound in the cinema setting. It is also vital to understand new and cutting edge technologies that will allow each cinema to offer a top of the line customer experience.

For further information please contact Specialty Cinema or an authorised Specialty Cinema dealer.

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