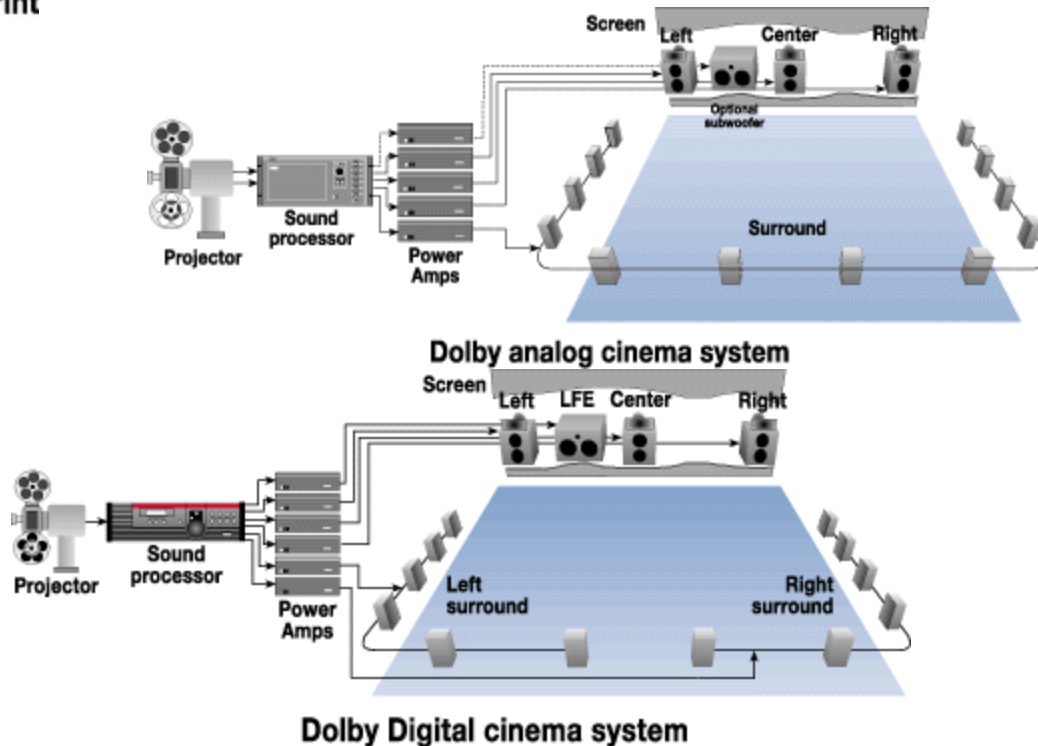


1. What is the difference between Dolby analog and Dolby Digital playback?



2. How is Dolby Digital better than analog?

- Greater dynamic range (soft to loud)
- Wider frequency range (bass to treble)
- Separate left and right surrounds, plus low-frequency effects channel
- Better resistance to print wear and tear
- Added audience attraction
- More memorable entertainment experience

3. Why is the Dolby Digital soundtrack right on the print?

- Sound and picture can never be separated
- The cinema always gets the right soundtrack
- Prints can be rotated easily within a multiplex
- Digital and analog features, trailers, and commercials can be played in any order
- No extra burdens on cinema staff
- No delays while sound and picture synchronize

4. Does it cost more to do a Dolby Digital release?

Not necessarily. While it can take longer, and thus cost more, to mix soundtracks taking

full advantage of the extra channels, some titles don't require the extra channels and their attendant costs.

5. **Does Dolby Digital cost the cinema much more than other digital formats?**  
No. More powerful DSP chips and other advances have lowered the cost of current Dolby Digital processors, and projectors are now available with cost-effective soundheads that read both digital and analog soundtracks.
6. **What about the rest of the system?**  
For a first-time digital installation, the rest of the playback system, such as amplifiers and speakers, may need upgrading to take advantage of the higher performance of digital soundtracks.
7. **What else is important to consider when choosing a digital format?**
  - Long-term prospects
  - Title and print availability
  - Local trained personnel to assist film production
  - Trained personnel available to ensure proper cinema installation worldwide

In these respects, as well as in the number of equipped cinemas worldwide, Dolby Digital is far ahead of any other digital format.

8. **How compatible are Dolby Digital prints?**  
Every Dolby Digital print, because it has an analog Dolby SR track as well as a digital track, can play in any 35 mm cinema regardless of its sound system.
9. **Isn't the sprocket hole area of a print particularly vulnerable?**  
No it is not, as confirmed by extensive testing and thousands of hours of commercial exhibition. And if such damage does occur, the Dolby Digital processor automatically switches playback to the analog SR track, and then back to digital after the damaged area has passed.
10. **Who can make Dolby Digital prints?**  
Almost all laboratories, including facilities in the U.S., Canada, Mexico, South America, western and eastern Europe, Japan, China, India, and Southeast Asia.
11. **How difficult is it to make soundtrack negatives?**
  - A single sound negative is used to print both digital and analog information.
  - Technology for modifying Westrex and Albrecht optical recorders to record both tracks simultaneously is readily available.
  - No change in existing sound negative development practices is required.
  - Optical transfer facilities can be found in all major production centers.
12. **Do prints or soundtrack negatives require special film stock?**  
No. Dolby Digital release prints are made on standard Eastman, Agfa, and Fuji stocks with excellent results.
13. **How do audiences know if a presentation is in Dolby Digital?**  
Free promotional materials are available from Dolby Laboratories, including posters, trailers, marquee signs, and advertising logos. New trailers are issued regularly to help exhibitors maintain audience interest. Cinemas should email [info@dolby.com](mailto:info@dolby.com) for availability.
14. **Does Dolby Digital use "too much" data reduction?**  
No. Just because a coding system uses a lower data rate does not mean it is

automatically inferior to one using a higher rate.

Digital movie soundtracks save space by storing only the data that's necessary to portray the original sound. This technique, called perceptual audio coding, is intended to capture the mix with just enough precision to sound the same as the original.

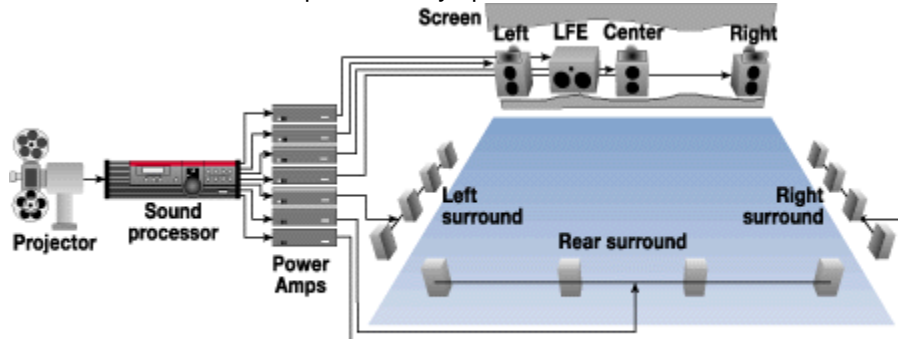
The more powerful and well-designed the coding system, the more precisely it can shave bits without affecting the perceived sound quality. This means that some technologies such as Dolby Digital can sound just as good as others that use from two to four times as much data.

**15. What about Dolby Digital and consumer formats?**

Dolby Digital is now bringing 5.1-channel sound into the home on laser discs, DVD-Video and DVD-ROM discs, digital TV broadcasts, digital cable, and direct satellite broadcasts.

**16. What is Dolby Digital Surround EX?**

Dolby Digital Surround EX adds a third surround channel to the Dolby Digital format. The third channel is reproduced by rear-wall surround speakers, while the left and right surround channels are reproduced by speakers on the side walls.



**Dolby Digital Surround EX cinema system**

**17. What are the benefits of Dolby Digital Surround EX?**

- More realistic flyover and fly-around effects.
- More effective movement of sounds onto screen or off to the sides of the screen.
- More stable image for atmospheres and music.
- More of the audience experiences optimum surround sound.

**18. Isn't Dolby Digital Surround EX just for action films with lots of big effects?**

Dolby Digital Surround EX provides more lifelike atmospheres and quiet effects, as well as "big" effects. With its more precise positioning of all sounds, Surround EX is more like real life, not just louder or bigger.

**19. Have many cinemas equipped for Dolby Digital Surround EX playback?**

Thousands of cinemas have equipped for Dolby Digital Surround EX, making it the most rapidly adopted new sound format in cinema history.

**20. Does it cost more to prepare or release a title in Dolby Digital Surround EX?**

It costs very little, if anything, more:

- There is no increase in the fee charged by Dolby Laboratories.
- Some effects may require some extra time to take advantage of the extra channel, but others may actually take less time to achieve a desired effect.
- There is no change in the optical transfer process or in print manufacturing.

**21. Are separate Surround EX prints necessary?**

No, Dolby Digital Surround EX prints can play in any cinema. The rear surround information is matrix-encoded onto the left and right surround channels, so it is not lost in conventional 5.1 cinemas. Also, as with conventional Dolby Digital prints, Surround EX prints carry a Dolby SR track for compatible playback over all analog systems.

**22. What equipment is required for mixing in Dolby Digital Surround EX?**

- Any 5.1-channel re-recording console can be configured for Surround EX.
- A Dolby EX-EU4 encoder is supplied to the approved mixing facility for the duration of the mix as part of the TSA agreement with Dolby Laboratories.
- Monitoring requires a Dolby SA10 or EX-DU4 decoder and a playback system configured with three surround channels.
- Dolby Laboratories ensures that the mixing facility is properly set up when notified of a production's intent to mix in Surround EX.

**23. Do sound editors need extra time to prepare additional tracks?**

No, because no additional effects tracks are needed for Surround EX mixes. The mixer simply directs the available sounds to the appropriate channels to ensure that the audience hears Surround EX's greater directional precision.