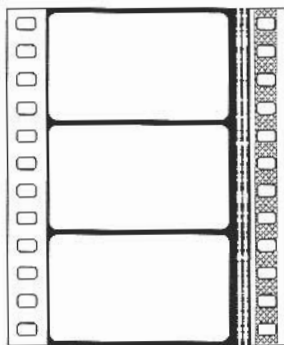


35mm DIGITAL SOUND FORMATS

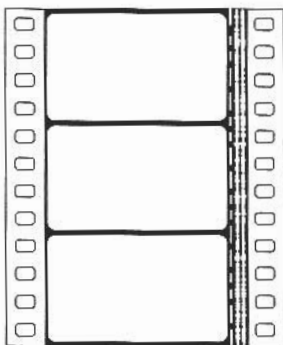
DOLBY SR-D (digital)



ANALOG
2-track optical stereo

**DOLBY SR-D
DIGITAL TRACK**
located between the
perforations

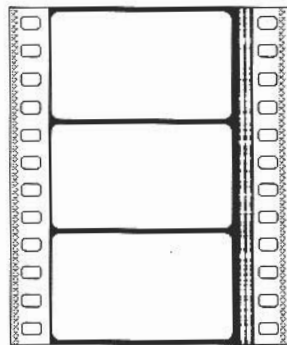
DIGITAL D.T.S.



ANALOG
2-track optical stereo

Location for
dtS TIMECODE TRACK
Sync pulse to maintain interlock
between the film projector and
the digital audio CD-ROM player
in nearby gear rack. Note the
location is between the analog
2-track and the picture frame.

DIGITAL S.D.D.S.



ANALOG
2-track optical stereo

**S.D.D.S.
DIGITAL TRACK LOCATION**
on the outer edges of the film

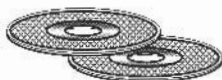


Figure 19.7 The various 35mm digital soundtrack formats: Dolby SR-D, digital DTS, and digital SDDS.

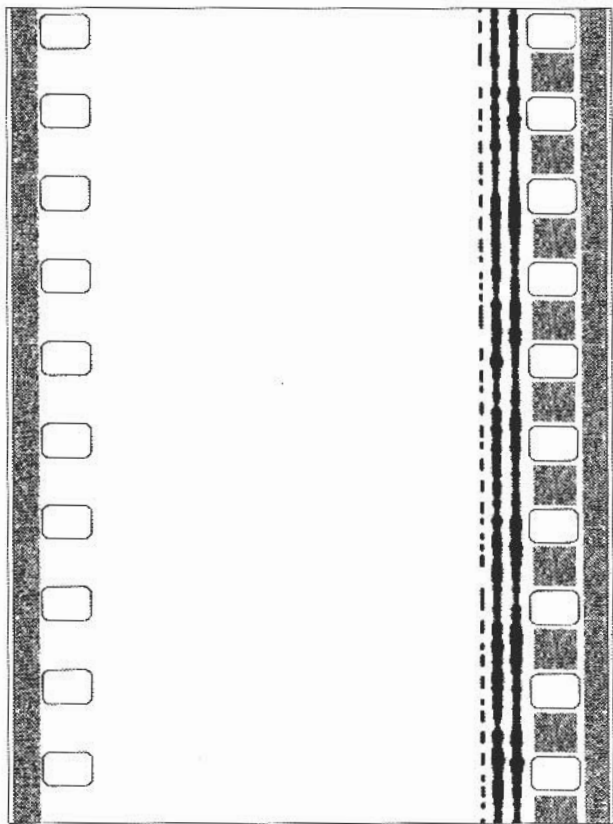


Figure 19.8 Actual image of various 35mm digital sound formats on one print.

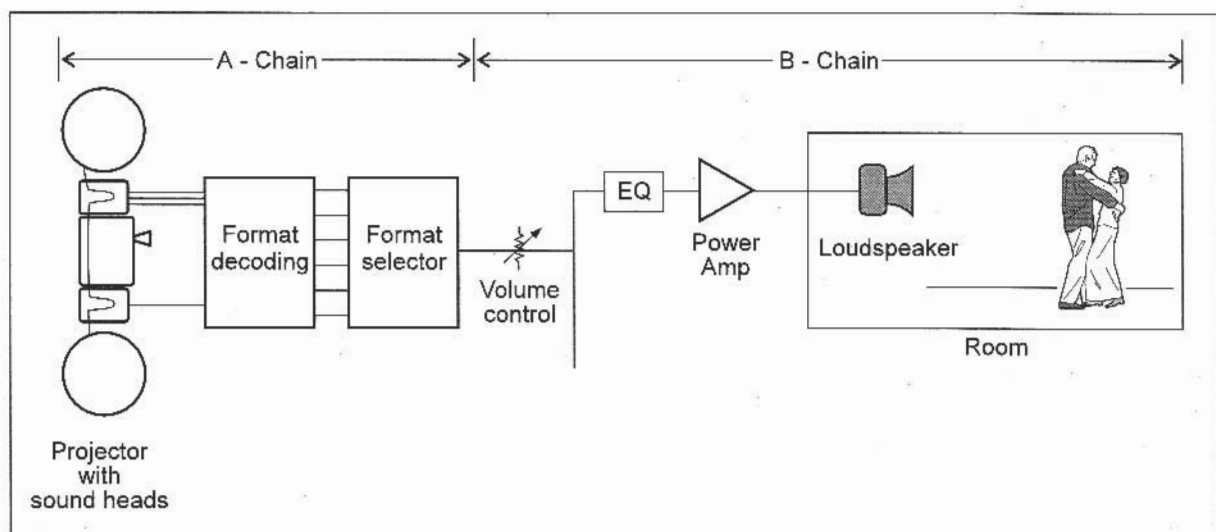


Fig. 11.2 The A- and B-chain of a motion-picture theater sound system. The A-chain consists of the print, the projector and its sound head(s), electronic decoding of the format, and selection of the format. The B-chain constitutes that part of a theater sound system that is common for all of the various formats, from the volume control, progressing through room and speaker equalization, power amplifiers, loudspeakers, and the effects of the motion-picture screen and room acoustics of the theater.

Table 11.3: A-Chain Format Devices

Trade or common name:	Dolby SR	Dolby Digital	DTS®	SDDS®
On release print	Stereo variable area optical sound track with SR-type signal processing	Digital AC-3-coded 5.1-channel sound recorded between the perforations on the sound track side; variant is Dolby Digital Surround EX which adds a matrix process to the surround channels to derive three surround channels from two.	Custom time code recorded between sound track and picture areas. The DTS ES variant provides 6.1 channels.	Digital ATRAC-coded 5- or 7.1-channel sound recorded outside the perforations on both sides of the print
On projector	Optical sound head with stereo pickup	Proprietary digital sound head	Proprietary time code pickup head	Proprietary digital sound head
A-chain preamplifier	Stereo optical preamplifier	Release print	CD-ROM follower	Release print
+	Dolby SR decoder	Proprietary processor	Proprietary processor	Proprietary processor
+	4:2:4 matrix decoder			