



DOLBY® BROADCAST TECHNOLOGIES: ESSENTIAL FOR EVOLVING ENTERTAINMENT

Broadcast delivery requirements are in transition, and television transmission is no longer limited to signals sent to TV sets and home theater systems. Consumers now watch their favorite programs and movies on multiple devices: on PCs via the Internet, or by using cell phones, portable media players, and more. Dolby's portfolio of technologies is evolving right alongside today's new broadcast landscape.

Dolby® broadcast technologies work together as a seamless, integrated solution—they are involved at every stage, from content creation all the way to consumers. Dolby helps content providers deliver a great entertainment experience, regardless of how viewers access programming: in their home theaters; via new Internet-capable media devices such as Vudu and Apple TV®; or on the many video-enhanced mobile devices on the market. All Dolby broadcast technologies support a path for metadata, ensuring that consumers hear programming the way it was intended. Plus, each technology is designed to address unique requirements for different parts of the broadcast chain, while still efficiently taking advantage of similarities when possible.

The Technologies

Dolby E is our digital audio technology optimized for the distribution of multichannel audio through digital two-channel postproduction and broadcasting infrastructures. Dolby E is the ideal format for professional contribution and distribution through networks regardless of the technology used for final delivery to consumers.

Dolby Digital is a worldwide standard in film, broadcast, and packaged media. It is used virtually worldwide for broadcast services with 5.1-channel audio and can be found in DVD, terrestrial DTV, digital cable, and direct broadcast satellite. It is also used widely in consumer platforms such as PCs, game consoles, and automotive entertainment systems. The unrivalled Dolby Digital codec provides up to 5.1 discrete channels of surround sound while utilizing metadata to provide the best listening experience regardless of environment.

Dolby Digital Plus is our next-generation audio codec that includes Dolby Digital while offering extended capabilities for evolving content delivery systems. Dolby Digital Plus maintains the high audio quality viewers have come to expect from Dolby Digital but also provides additional benefits, such as flexibility and scalability, more surround sound channels, and innovative features such as stream mixing.

Dolby Digital Plus maintains backward compatibility with the large installed base of home A/V receivers through a conversion tool that is at the heart of every Dolby Digital Plus set-top box, enabling the box to output a bitstream compliant with Dolby Digital in addition to Dolby Digital Plus. Dolby Digital Plus is a mandatory part of the revised ATSC broadcast standard, and part of the ETSI standards related to digital television and IPTV. It is also part of the standards and requirements specified by the DVB, the EBU, the French and Spanish HD Forums, and other European organizations.

In packaged media, Dolby Digital Plus is part of the Blu-ray Disc™ format.

aacPlus by Dolby is our technology for systems where bandwidth constraints are a primary concern. Low-bit-rate audio coding is an enabling technology for a number of applications, such as IPTV, digital radio, Internet streaming, and mobile multimedia applications. aacPlus by Dolby enables high-quality stereo and 5.1-channel surround sound at extremely low data rates. aacPlus by Dolby supports the same metadata flow that broadcasters have come to trust with Dolby Digital and Dolby Digital Plus. When coupled with important Dolby features such as dialogue level and dynamic range control, aacPlus by Dolby is the ultimate companion for extreme low-bandwidth systems.

Nearly all existing mobile music services—and many Internet streaming and digital radio services—have already selected aacPlus by Dolby as their audio codec. Along with Dolby Digital Plus, aacPlus by Dolby is also specified in a variety of standards in Europe and the Americas.

In the near future, Dolby will introduce new encoding, decoding, and transcoding platforms offering integrated solutions that include Dolby Digital, Dolby Digital Plus, and aacPlus by Dolby, providing all the benefits of the Dolby brand in any broadcast ecosystem. These new platforms will offer a combined package sporting flexible data rates, seamless metadata support, advanced features (such as 7.1 channels and stream mixing), and, of course, the quality assurance provided by Dolby's well-known testing and certification program. From traditional over-the-air broadcasting to the latest Internet or mobile applications, these features all work together to ensure the optimal solution for any application.

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