

 **Dolby Vision** |  **Dolby Atmos**

Onwards and upwards: Dolby Vision and Dolby Atmos raise the bar

JULY 2020



Dolby | 210 x 297mm | Portrait | Dolby Producers flier - ENGLISH May 20
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FILE VERSION
v16
DATE : 01/07/20

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Dolby offers flexible and premium solutions, which offer consumers easier access to high-end experiences through the use of a single, scalable, master deliverable.

Our technologies allow the delivery of stunning content at the highest quality, irrespective of the end user's device configuration.

Dolby Vision® and Dolby Atmos® technologies are currently widely available in a varied range of products across home entertainment. These technologies offer the consumer powerful and unique entertainment experiences.

With an ever-increasing amount of content available, consumers are actively looking to buy, watch, and listen to their content both at home and on-the-go.

The highest quality regardless of device



Traditional surround sound

Before the advent of Dolby Atmos the standard audio solution was surround sound.

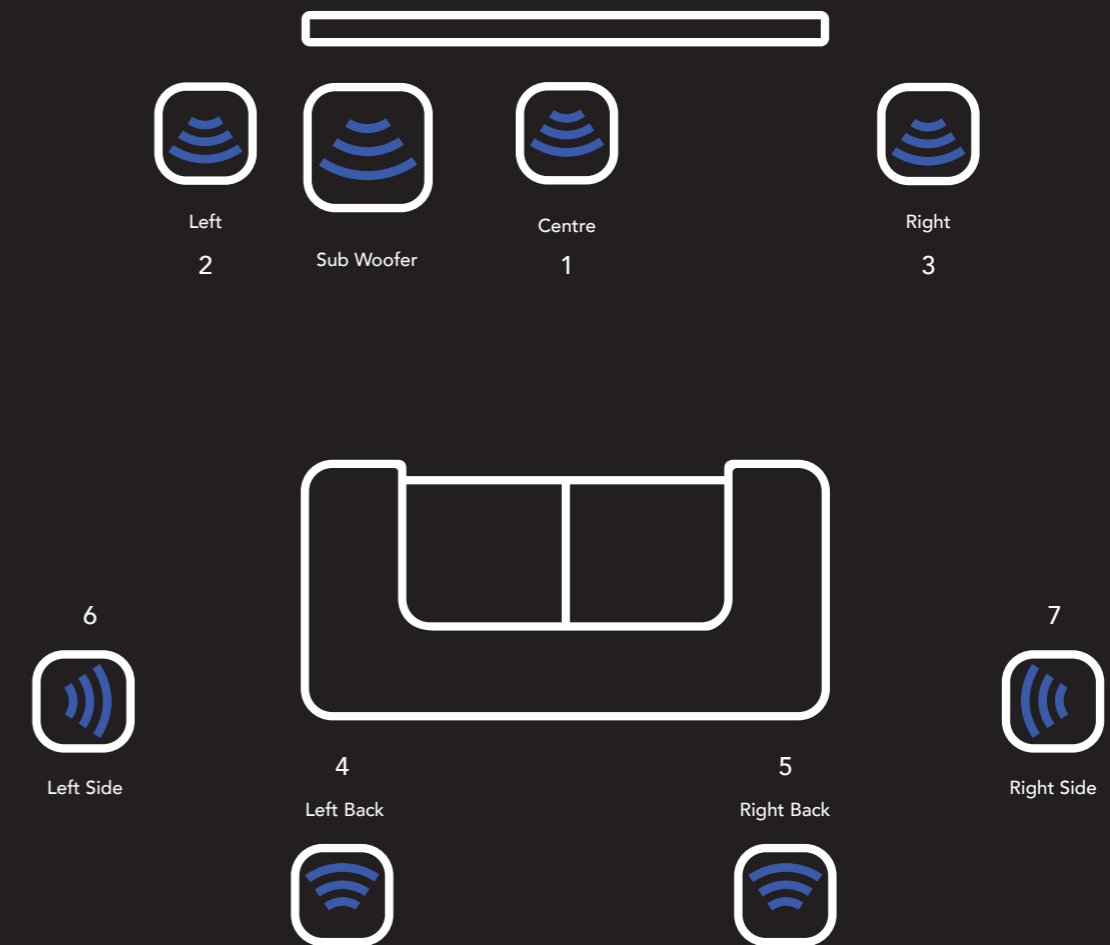
Traditional surround soundtracks confine all sounds to a stereo 2.0, 5.1, or 7.1 channel mix. Sound placement is limited to a maximum of 8 locations - defined by each speaker position - all located on the same horizontal plane as the listener.

Stereo 2.0 consists of two channels of sound - left and right - produced by a pair of stereo speakers.

5.1 surround sound ('five point one') is the common name for 5 channels of surround sound - (1 - 5) front left and right / rear left and right / centre (commonly used for dialogue), and subwoofer (.1) that provides a deep bass sound.

7.1 surround sound adds two additional speakers to 5.1 by splitting the rear channels on each side of the viewer.

7.1 Sound Setup



Dolby Atmos

Dolby Atmos challenges traditional channel-based audio by freeing sound from the restraints of predefined channels.

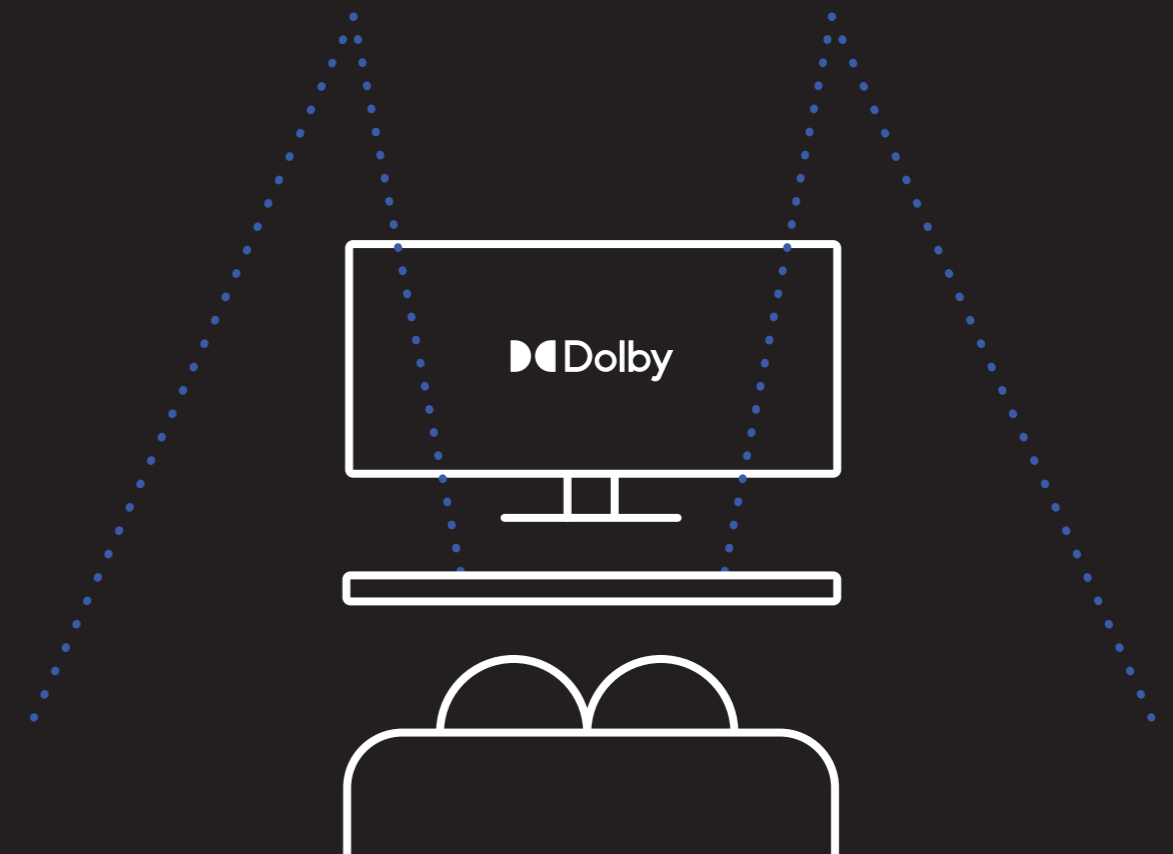
In doing so, it has elevated sound as a creative tool so that it is now on par with the visuals. Sounds exist as individual entities that can be precisely placed and moved anywhere in your room's three-dimensional space - even, above the listener's head. This provides a far more realistic and lifelike audio environment much closer to what we experience in day-to-day life, immersing you in sound.

Dolby Atmos is an incredibly versatile format with multiple possible speaker configurations and is available in a range of different guises in the home with a speaker layout solution to suit almost any room environment from a full home theatre experience, to soundbars, to the speakers inside your television, and headphones.

To ensure a wide adoption of Dolby Atmos among consumers, Dolby has democratised pricing and space. Dolby Atmos in soundbars and televisions can be implemented using two solutions.

The first one is sound reflected down from the ceiling and off the walls. The second involves 'virtualised' audio height information that offers an immersive experience thanks to advanced engineering. No matter the shape and size of your living room, you can get a Dolby Atmos experience.

The sound reflects down from the ceiling to give you sound above your head.



Key Benefits

Sound flows all around you, even overhead. Astonishing clarity. Crisp dialogue. True-to-life detail. Richness and depth. Positions individual sounds in a 3D space.

Imaging Glossary

Image resolution

Resolution refers to the number of pixels in an image. Resolution is sometimes identified by the width and height of the image as well as the total number of pixels in the image. HD is the current standard for high quality images used by broadcasters and online providers. 4K/ Ultra HD in the home, 4K resolution, also called UHD, is 3840 x 2160 pixels - four times the detail of HD.

Available in the cinema and at home, High Dynamic Range (HDR) technology is used to produce brighter and sharper images on screen, providing more detail in darker areas of the picture.

Nits

A measurement of how much light the screen sends to your eyes (luminance) within a given area.

Bit depth

A measurement that quantifies how many unique colours are available in an image's colour palette.

Wider colour gamut

Often referred to as spectrum, this is the ability to showcase more colours than has previously been possible. The human eye can see far more colours than current screens can display. With Dolby Vision, we widen the colour spectrum (much like using a larger box of crayons), so we can recreate richer, deeper colours on screen.

HDR10

The base layer for UltraHD which supports 10-bit and static metadata. Dolby Vision HDR includes an enhanced layer which adds 12-bit and dynamic metadata to display more accurate images.

Dolby Vision widens your luminance to give more details in the darks...



...and widens the colour spectrum to give more nuances to your palette



Dolby Vision

Dolby Vision delivers a dramatically more dynamic visual experience – astonishing brightness, incomparable contrast, and captivating colour.

It achieves this stunning image quality through innovative high-dynamic range (HDR) and wide colour gamut imaging technologies.

As a result, it makes every pixel better, enabling televisions to deliver images with much greater brightness while providing much deeper, more nuanced darks. It renders a fuller palette

To ensure a wide adoption of Dolby Vision among consumers, Dolby has worked with manufacturers across all screens: television sets, laptops, tablets and mobile phones.

Dolby Vision has been rapidly adopted by big brands such as LG, Panasonic and Toshiba, and is available across most of their range and price points.

SDR



Dolby Vision



Key Benefits

Astonishing brightness. Deep darks. Expanded contrast. Ultravivid colours.
Refined details. Enhanced dimensionality. Wider colour gamut.
Biggest creative space, no limits on possibilities in HDR.

Workflows and Deliverables

Dolby has worked hand in hand with the main stakeholders in the film and broadcast industry to develop the most efficient and agile workflows for Dolby Atmos and Dolby Vision.

Content is sold in phases to various distribution channels and it can be costly to have to go back to post-production to create new deliverables.

By following our recommended process, you ensure you can create all the required deliverables from the Dolby Vision and Dolby Atmos masters and produce all the formats required by all broadcasters and digital platforms worldwide. Netflix, Apple TV, Disney+ all request content in Dolby Atmos and Dolby Vision.

This ensures that your deliverables will be future-proof and your content will have a longer shelf life in the best possible quality.

Dolby Atmos Workflow

- Prepare your editing in Dolby Atmos.
- Mix in Dolby Atmos.
- Render your Dolby Atmos mix in Dolby 7.1, Dolby 5.1, and stereo.
- Your 7.1, 5.1, and stereo sound better.
- One master for four audio deliverables.

Dolby Vision Workflow

- Grade HDR first with Dolby Vision.
- Perform a Dolby Vision analysis.
- Review and trim SDR using Dolby Vision tools.
- The derived SDR version looks better than a standard SDR grade.
- One master for 4 imaging deliverables (Dolby Vision, HDR10, SDR, HLG).

 **Dolby** Vision |  **Dolby** Atmos

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