

DTS:X: The immersive audio standard, explained

DTS:X is a next-generation surround-sound format designed to compete against Dolby Atmos. Here's everything you need to know.



The latest entry to the DTS suite of audio soundtrack options (which includes [basic DTS](#) and [DTS-HD Master Audio](#)), DTS:X falls into a new category that we call 3D object-based audio.

The "3D" part of that description refers to the fact that, like Dolby Atmos, [DTS:X](#) adds a height or overhead effect to the surround sound experience to create a more realistic sense of immersion. For instance, if a plane flies overhead in the film soundtrack, a DTS:X setup with overhead speakers allows that sound to be precisely located above you, instead of being forced off to the sides.



DTS Neo:X Inputs and Outputs:



The "object-based audio" description refers to a completely different way of mixing the audio. Instead of being limited to a certain number of channels, object-based formats allow the sound mixer more freedom to place audio elements around the soundfield, and it gives end users more freedom to build a surround sound system to replicate that experience.

DTS says that DTS:X is more flexible than Atmos, which depends on the use of a few specific speaker layouts. DTS:X allows commercial and home theater designers to put speakers almost anywhere within reason, and the system will "map" the correct sounds into each speaker. In the home, the system supports up to 32 speakers.

DTS first announced DTS:X for both the theater and the home in December 2014; in the spring of 2015, the company provided **a more detailed plan** of how the format would roll out in theaters and in the home.

To enjoy the DTS:X experience, you will need an AV processor that can decode DTS:X, a Blu-ray disc that includes a DTS:X soundtrack, and the extra speakers necessary to create the overhead effects. DTS:X does not embrace the up-firing speaker approach that Dolby supports for Atmos, where the height effects can be reflected off the ceiling so that you don't have to install in-ceiling speakers.

The majority of AV electronics manufacturers now include support for DTS:X in their newest mid- to high-end AV receivers and processors. However, as of March 2016, most of those products are still just "DTS:X ready," meaning that they are awaiting a firmware update to officially add the technology. Denon and Marantz are the first companies to actually activate DTS:X in their products.

On the software side, the first crop of Blu-ray discs to include a DTS:X soundtrack have also arrived, and you can view the list [here](#).

The first disc to be announced was the **moody sci-fi thriller "Ex Machina"** in July 2015. Since then the number has appreciated by about one a month.



As of September 2016 there are 16 titles available:

- American Ultra
- Crimson Peak
- Daddy's Home
- Divergent (UHD)

- Ex Machina
- Gods of Egypt (BD and UHD)
- Huntsman's Winter's War (BD and UHD)
- Independence Day (UHD)
- Ip Man 3
- Last Witch Hunter (BD and UHD)
- London Has Fallen
- Lone Survivor (UHD)
- Snow White & the Huntsman (UHD)
- The Big Short
- Whiskey Tango Foxtrot
- Zoolander 2

Meanwhile [Dolby Atmos had more than 50](#) titles (not including 4K Blu-ray and streaming titles) which includes disks such as "Mad Max: Fury Road," "American Sniper," "Game of Thrones" and "The Hunger Games: Mockingjay -- Part 1" and "Part 2".

DTS admits that it has a long way to go if it wants to catch up to Dolby's Atmos. But the company seems to be content to share the stage with its competitor this time around.

"Right now there's some good stuff in the marketplace that our competitor has done, so they're out ahead," McIntyre said. "Will we get back to the 80 or 90 percent? I'd love to. But we don't have to, and I'm comfortable with a healthy balance in the marketplace."

While McIntyre said he could envision studios producing mixes for both DTS:X and Dolby Atmos, Jordan Miller says that due to space constraints only one of the formats will fit on a disc at once. By comparison, many existing discs carry both DTS-HD Master Audio and Dolby TrueHD formats.

The object-based surround future

Given that many receivers support both DTS:X and Dolby Atmos, it's not likely we'll get a "format war" scenario where we have to choose one format or the other. While some enthusiasts seek out discs based on which audio format it supports, most of us will just buy the movie we want to watch and listen to the default format.

While the lack of momentum, and lack of discs, has been a little frustrating for DTS fans, owners of compatible receivers and height-enabled speakers are finally able to hear the format as intended. All we need now are some more exciting titles.

***Editors' note:** This story was originally published on May 29, 2016, but has since been updated to reflect additional hardware and software releases for DTS:X and Dolby Atmos.*