

AL GRIFFIN

## Next-Gen A/V



Digital high-definition broadcasting started back in 1998, but since then, only video has received a facelift, not audio.

Why hasn't DTV audio evolved to at least Dolby Digital Plus status?

David Musoke / via e-mail

DTV audio did evolve to Dolby Digital Plus status—the Advanced Television Systems Committee (ATSC), an international organization tasked with developing digital broadcasting standards including the current system used in the U.S., incorporated Dolby Digital Plus into the ATSC 1.0 standard back in 2005. However, U.S. terrestrial broadcasters never got around to exploiting the benefits of Dolby Digital Plus (also known as Enhanced AC-3), which allows for higher channel counts and enhanced bitrate options to improve sound quality over standard Dolby Digital.

One area where Dolby Digital Plus has made a mark is with over-the-top streaming services such as Netflix, Vudu, and HBO Go. New DirecTV satellite DVRs and set-top boxes are also capable of passing up to 7.1-channel Dolby Digital Plus soundtracks from content that's encoded with it.

While audio never got a push beyond basic Dolby Digital in ATSC 1.0, the forthcoming ATSC 3.0 broadcast standard should provide a

### Do you know if there are future plans for 3D Ultra HD Blu-rays?

significant audio upgrade. Two audio formats have competed to be included as part of 3.0, Dolby's AC-4 and the MPEG-H Alliance's MPEG-H, with the ATSC ultimately recommending that specific countries or regions be allowed to select the one format that best addresses their needs.

On paper, AC-4 and MPEG-H appear to be fairly similar. Both provide object-based immersive audio with interactive features that let viewers do things like select alternative commentary tracks and independently control the level of dialogue and background sound. They also provide dynamic range limiting and contouring to protect your ears from obnoxious ads during commercial breaks and to scale the sound appropriately for mobile devices like phones and tablets.

Which format will be selected for ATSC

3.0 broadcasting in the U.S.? No formal announcement has been made, though there have been indications that it will be Dolby's AC-4. Meanwhile, TV manufacturers including Sony, Vizio, and Samsung have all announced plans to incorporate support for the new Dolby format in TVs starting in 2017, which is when initial ATSC 3.0 broadcasts are also expected to begin.

**There are two-dozen or so Ultra HD Blu-rays available for purchase, with many more hopefully to come. However, none of the UHD Blu-ray releases are available in 3D, even if the theatrical version was in 3D. Do you know if there are future plans for 3D Ultra HD Blu-rays, or has the home video industry decided to kill off 3D for good? I am aware that not many people care about 3D, though some (myself included) do, so it would be good to know what to expect in the future.**

Tomasz Cieciewicz / Warsaw, Poland

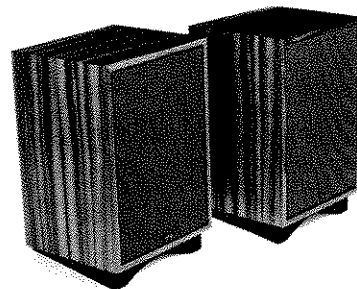
The Ultra HD Blu-ray specification brings plenty of improvements over the old Blu-ray standard: a 4X increase in picture resolution, high dynamic range, wide color gamut with increased color bit depth, and even high-frame-rate (60 fps) video. It also carries over support for the object-based Dolby Atmos and DTS:X soundtrack formats that have been used for several recent high-profile Blu-ray releases.

What the new spec doesn't support is 3D. There are a number of reasons for this. The main one is that the current Ultra HDTV specification doesn't support 3D at 2160p resolution, though it's possible that 3D capability could be added in the future. Another issue is that the 3D movies coming out of Hollywood (such as *Mad Max: Fury Road*) are mastered in 2K rather than 4K due to current technical limitations in the post-production process. Finally, with consumer enthusiasm (and, consequently, TV maker support) for home 3D viewing on the wane, there's little impetus for the home video industry to push for 3D video support in Ultra HD Blu-ray.

While this all may come as bad news for a 3D fan like yourself, new Ultra HD Blu-ray players like Samsung's UBD-K8500 can play 3D Blu-ray Discs, so backward-compatibility is built in. Also, with 3D theatrical releases still going strong, you should take comfort in knowing there will continue to be 3D releases on regular Blu-ray, though the range of new TVs equipped to support it is likely to be limited to higher-end models from select manufacturers. (Both Vizio and Samsung neglected to include 3D support in their 2016 TVs.)

## Klipsch Celebrates 70th Anniversary

Klipsch devotees converged on the company's birthplace in Hope, Arkansas, in May to celebrate the speaker brand's 70th anniversary. The annual pilgrimage brought together Klipsch forum members and employees for a tour of the plant, audio labs, and museum. Klipsch marked the anniversary with versions of the Klipschorn (\$16,000/pair) and Heresy III (\$3,200/pair) in limited editions with Australian walnut veneer with panels hand-matched from the same pieces of timber. The Klipschorn mates horned tweeters and midrange drivers with a 15-inch woofer. The Heresy, which made its debut in 1957, comes in a smaller, upwardly inclined wide box enclosure with 12-inch woofer. Both were produced in quantities of only 70 pairs available from authorized retailers or klipsch.com. Klipsch is now under the ownership of Vox Electronics. —MF



## Rovi Swallows TiVo

Rovi has bought TiVo, everyone's favorite DVR maker, and adopted its name. Why is this \$1.1 billion deal so richly ironic? Rovi got its start in 1983 as Macrovision, a videocassette anti-copy system that caused strobing of images on playback of illegal tape-to-tape copies. As an unintended side effect, the system sometimes did the same even with authorized prerecorded tapes. So it's quite an eyebrow raiser to see Macrovision's successor absorbing a company devoted to personal video recording. But Rovi has long since moved on to consumer-friendlier technologies. Today its portfolio includes media guides, entertainment metadata, search and recommendation engines, a multi-platform advertising service, and audience management tools. The combined company will serve 28 million homes worldwide with program guides—18 million from Rovi and 10 million from TiVo.

—MF

