



The Future of HD Over Component Video As of May, 2010

There's lots of confusion about which video sources can and will pass HD video over their component video outputs, and whether changes are in store. Below is a summary of the situation as of May, 2010 and further down is more detailed information.

Summary

Cable and Satellite Set Top Boxes

The following was decided in May, 2010 by the Federal Communications Commission (FCC), part of the US Government:

- HD over component video outputs on STB's can be turned off **only** for early release movies
- HD over component video outputs on STB's **cannot** be turned off for other HD programming
- See the FCC press release here:
http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-10-795A1.pdf

Blu-ray players

The following rules were created by the Advanced Access Content System Licensing Administrator (AACSLA), a trade organization of Blu-ray player manufacturers and content providers.

- Starting January 1, 2011 new models of Blu-ray players will not pass HD over component video outputs.
- Current models of Blu-ray players that do pass HD over component outputs may be sold until December 31, 2011

Details: Cable and Satellite Set Top Boxes

The May, 2010 FCC ruling on HD video over component video outputs for cable and satellite set top boxes:

- **Requires the STB to pass HD over component** for everything except early release movies (which as of May 2010 aren't available)
- Allows the provider to turn off HD over component **only for a new type of content:** early-release movies available through Video on Demand (VOD) services. Even then the restricted access only lasts for a short while.



That means content available in HD over component video on these set top boxes as of May 2010 is unaffected (thousands of TV shows and movies), **which is a huge win for manufacturers, integrators and end-users** that employ component video connections in their systems.

Background

Recently the Motion Picture Association of America told the FCC it would like to use Video on Demand services to make movies available in the home much sooner than has been the case. In return, they asked that the FCC allow them to use Selective Output Control (SOC) to prevent illegal copying and distribution of those movies. SOC simply allows the content providers to select which set top box outputs can pass HD, the goal being to shut off any outputs that don't employ copy-protection... meaning component video outputs.

It's important to note that the FCC banned the use of SOC on set top boxes years ago, fearing that owners of HDTVs with only component video connectors would be prevented from seeing cable and satellite content in HD. So what the MPAA was really asking for was a *waiver of part* that ruling, just for early-release movies via Video on Demand.

The Ruling

In this case, the FCC decided that it would be good for the public if early-release movies were available through Video on Demand via cable and satellite set top boxes, so they granted the waiver. However, they modified the MPAA's request so that it would be in effect for a more clearly defined term. Here is the FCC's exact wording: "Accordingly we will terminate the waiver for a particular film 90 days after the first activation of SOC, or immediately upon the retail release of the film on any prerecorded media (including Blu-Ray), whichever is sooner."

Translation: movies can now be released via VOD as early as the content providers wish, and they'll be protected by SOC for 90 days, or until they're made available in pre-recorded form.

Conclusion

- Consumers with HDMI-equipped HDTVs will get access to something they've never had before (legally): films still in theaters or not yet released on prerecorded media.
- Consumers with HDTVs that have only component video inputs won't have access to these films, but they never had it to begin with, so they haven't lost anything (in the eyes of the FCC).



- Content providers will get to sell early-release movies via VOD with less chance of piracy.

Details: Blu-ray Players

The Advanced Access Content System Licensing Administrator is an organization made up of members of the movie industry, and Blu-ray manufacturers, who banded together to disable HD output over component video connections in Blu Ray players.

They crafted the agreement mentioned in the summary above, i.e.

- Starting January 1, 2011 new models of Blu-ray players will not pass HD over component video outputs.
- Current models of Blu-ray players that do pass HD over component outputs may be sold until December 31, 2011

They were successful in convincing the vast majority of Blu-ray manufacturers to abide by the agreement.

The AACS license also allows an Image Constraint Token (ICT) to be placed on a Blu-ray disc- the ICT is a digital rights management flag. When a disc with the ICT is played back in an AACS Blu-ray player, the analog component video output is automatically reduced to 960 x 540 pixels, which is less than HD resolution. Thus far the ICT has not been employed.

Conclusion

HD over component video will be phased out on Blu-ray players over the next few years. On the other hand, the government has demonstrated a commitment to maintaining HD over component for cable and satellite set top boxes (except for the aforementioned early release movies). On balance, that's very good news for anyone whose AV system employs component video connections.