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Need to choose between Component Video and DVI/HDMI?

Here are the facts...

One of the most common questions we get is whether or not a DVI or HDMI connection is superior to a Component Video connection. The definitive answer is, "Well, it depends...".

First off, let's talk about the difference between Component Video and HDMI/DVI. Even though component video is used on many digital sources (e.g. DVD, HDTV, etc.), the signal itself is analog. DVI and HDMI, on the other hand are digital. There are PLENTY of salesman out there that will tell you DVI/HDMI is superior because it is digital. This is simply not the case.

The superiority of DVI or HDMI over Component Video actually has to do with what type of TV (or display) you are running to. Simply put, if your display uses a digital display technology, then DVI/HDMI will yield superior performance over Component Video. If your TV is analog, though, the performance of DVI/HDMI will be identical to Component Video.

OK, so how do you tell if your TV is digital or analog? Well, the salesman would tell you that all HDTV and HDTV-ready TV's are digital, but this is simply not true. HDTV signals are, in fact, digital. However, most TV's sold today (even HDTV's) are actually analog.

There are only two types of TV's that are truly digital. These are based on either DLP (Digital Light Processing) or LCoS (Liquid Crystal on Silicon, also called D-ILA or HD-ILA). EVERY other type of TV is actually analog. This includes Plasma, LCD, or CRT (standard rear-projection).

So, unless your TV is DLP or LCoS, component video and DVI/HDMI will look identical. To take this a step further, DVI/HDMI might actually look worse to you, since many TV's with DVI inputs disable all picture controls (e.g. brightness, contrast, etc.) when using a DVI/HDMI signal.

OK, so why do digital TV's benefit from DVI/HDMI? The difference has to do with signal conversion. Let's say that you are using a DVD Player with a DVI or HDMI output and your TV is a 56" DLP. If you were using component video cables in this example, the signal would have to be converted to analog (to use the analog component video connection), then it would have to be converted back to digital



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to be displayed (since DLP is a digital display technology). Every time you convert a signal from digital to analog (or vice versa) you take a small performance hit. However, if you were running DVI or HDMI (digital), the signal could stay digital throughout the entire connection. Thus, you would not lose any performance due to unnecessary conversions.

Bottom line, if you are using an analog television (e.g. ANY Plasma, LCD, or CRT), then our [Ultimate Component Video Cable](#) should give you equal performance to a digital connection such as HDMI or DVI. If, however, your TV is digital (e.g. DLP or LCoS ONLY) then using our [Ultimate DVI Cable](#) or our [Ultimate HDMI Cable](#) will yield noticeably better performance.

Afterward: Now that our case has been made in favor of component video cables, let us surprise you by recommending you go with an HDMI connection provided your equipment supports it.

With the advent of HD-DVD and Blu-Ray high definition disc players you will be required to use a digital connection that complies to next generation content protection (See [HDCP](#) and [AACs](#)). If you do not use a digital interconnect that provides HDCP compliance, you will not be able to view high definition content on next generation equipment, period. HDMI and DVI will never give you a lesser quality picture than component video cables on normal length runs (30 feet or less). This inevitable truth puts HDMI in front as far as a connection that will provide you with some level of longevity. That is, of course, unless a newer, better connection comes out.