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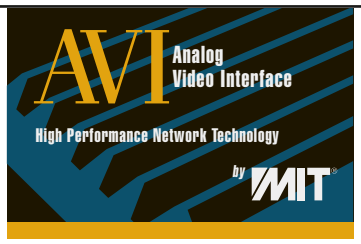
AVI Interface (Analog Video Interface)



It is a common misconception that a high quality video signal can be transported without distortion by a typical video cable. It sounds logical enough — that is until you think about what a complex task delivering that signal actually is.

The pictures and sounds you experience when you watch TV have been converted to electrical signals by the video camera, transported to you by TV's RF (radio frequency) signals, and, finally, converted back to pictures and sounds by your television receiver.

These scenes start out as light images and are converted to electrical signals (called composite video signals) by the television camera. The signals are called composite video because they are actually several signals assembled together. The three main components of composite video include: 1) black & white picture information, or luminance; 2) color information, or chroma; and 3) horizontal and vertical synchronization information, or sync.

The sound for TV is changed to electrical signals by microphones and is transported to the television independent of the video. (It is also transported from receiver to monitor as a separate signal carried by a discrete cable, so we'll ignore it for the purposes of this discussion.)

It has long been accepted that a simple cable carrying/transporting the audio signal can impart distortions that change the sound — particularly the complex timbral and spatial qualities so sought after by audiophiles. Research we have conducted in our MIT laboratory over the last year has revealed that simple cables transporting composite video signals were, in fact, degrading the luminance and chroma to a hitherto unsuspected extent — and even degrading the sync information, although to a lesser degree. These distortions may be severe enough to necessitate monitor adjustments, thus increasing further potential distortions created when the monitor's internal circuitry is overdriven.

Just as MIT pioneered networked interfaces for audio applications, we have developed networked technologies for video applications. These complex interfaces restore the video signal's full luminance and chroma information — information irretrievably lost by ordinary wire cables. Additionally, when fed by an interface optimized with networking, video monitors often need less adjustment gain for color, brightness and contrast — which can result in lower distortion and longer life.

Once again, just as we discovered with networked technologies engineered for audio applications, we have determined that installing these networked interfaces optimized specifically for video applications offers immense benefits that are readily apparent.

Brighter pictures, deeper color saturation, and deeper levels of black are among the most obvious benefits of this technology. MIT's networked video interfaces also enhance the delineation of visible detail, as well as adding dimension to the picture.

These interfaces will initially be available solely in S-Video, component, and RGB configurations.

MIT has filed for patents on these new technologies. As soon as we are assured the technology is protected, we will produce a white paper and our test results on these new technology-driven products.

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