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Video Signal: Composite vs. Component (8/93)

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TOPIC -----

This article defines composite and component video.

DISCUSSION -----

Component video

A term given to a recording system which does not require NTSC encoding of RGB signals, but uses a means of recording and routing the luminance and color signals separately. This method does not reduce bandwidth nor compromise the RGB components and results in images of higher resolution and better color quality than composite video. Though designed for high end television production, similar recording methods have recently become available to the consumer market.

Composite video

A composite video signal is one in which the luminance, chrominance and sync information have been combined into a single signal using one of the coding standards: NTSC, PAL, SECAM, etc. This is the form the signal must take before it can be broadcast or recorded by standard means. Until recently, most monitors and projectors have accepted only composite video signals, although many now available accept RGB. See NTSC. Compare component video.

In the United States, the NTSC composite signal format is required for most video recording, manipulation, and display. The exception is high-end post-production facilities that use component video for improved signal integrity.

NTSC Composite vs. Component

In a composite signal, the luminance signal and the color signals are encoded together into one signal. When the color components are kept as separate signals, the video is called component analog video (CAV), which requires three separate signals: the luminance signal (Y) and the color difference signals (R-Y and B-Y).

Because component video does not undergo the encoding process, the color quality is noticeably better than composite video.

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