Tech Info Library

Composite/S-Video: Maximum Cable Length (3/95)

Revised: 3/23/95
Security: Everyone

Composite/S-Video: Maximum Cable Length (3/95)

==========

Article Created: 23 March 1995

TOPIC ----------

I have a customer who wants to use the Apple Presentation System in their school. They want to wire the building for S-Video. Is there a maximum S-Video cable length restriction for the Apple Presentation System, from the box to the video monitor?

DISCUSSION ----------

Generally speaking, the video industry has not defined limits for the maximum length of composite or S-video cables (whether they are attached to the Apple Presentation System, or any other video source, like a VCR).

Composite and S-video cables carry an analog video signal. Due to the characteristics of these signals, they can travel over much longer cables, with much less degradation, than, for example, digital data on a Macintosh SCSI bus.

As longer cables are used, an analog video signal will become weaker and have less quality. How weak the signal gets depends on the quality of the cable. If the customer connected a 500-foot cable to the Apple Presentation System, a week video signal may still be visible on the attached video monitor.

Since digital signals cannot usually afford to "lose" data due to low quality, the cables must have a specified maximum cable length, over which 100% of the data is guaranteed to travel. This is why there are cable length specifications for technologies like SCSI, ADB, and LocalTalk.

Here's the bottom line:

Although we are not aware of a length specification for this kind of cable, it is probably a good idea to use cables that are shorter than about 50 feet. However, it's possible to use high quality cables that are 100 feet, or longer, without a perceptible loss in signal quality. The customer will see the "best" performance when using the shortest cables.

If your customer finds that they are unable to get a high quality video signal using longer cables, they could also consider using a video distribution amplifier. Video distribution amplifiers take an incoming video signal, such as from the Apple Presentation System, and boost it, so that it can travel over greater distances. These devices are usually available from high-quality video equipment dealers.

Support Information Services

Tech Info Library Article Number:17419