

It has come to our attention that some integrators have run into an issue where video is lost when working with HDBaseT. This document will define the issue known as "Clock Stretching", provide you with some resolutions when encountering the issue, as well as list some specific products deserving acknowledgement.

Defining "Clock Stretching":

The general problem is that there is no video output. Specifically, the HDBaseT extender will have no video when connected to sources using an HDMI port that doesn't support Clock Stretching. This issue will appear with HDCP protected content and will occur during the install. This issue is due to the DDC (Display Data Channel) timing with older HDMI technology. The newest specification for HDMI (1.3b and newer) allows for longer DDC data response times, which keeps the source from timing out if there is a delay. Running data through longer HDMI cables and HDMI extenders tends to create a longer DDC response, and poses a problem with the older HDMI spec (1.3a and older). When HDBaseT extenders are used, they packetize the DDC data at the source, and then reverse the process at the TV. This process causes a delay that can take too long for the sources, such as set-top boxes that are more sensitive to the DDC timing, and will stop HDCP content if the EDID isn't received in time.

Resolution:

You can correct this issue in two different ways.

1. Install a newer source that supports Clock Stretching (HDMI 1.3b or newer).
2. Install an HDMI splitter like the B-220-HDSPLTR-1X2, B-220-HDSPLTR-1X4, or B-220-HDSPLTR-1X8 or Matrix Switcher between the device and the HDBaseT Extender.

Known Specific Products Affected:

- Samsung BD-ES-6000
- Scientific Atlanta 8240 and 8300HDC Cable Boxes provided by Time Warner Cable
- Cisco 8642HDC, CHS335HDC and CHS435HDC Cable Boxes
- Motorola RNG Cable Boxes