HD-SDI Extender Kit (500700)
Frequently Asked Questions (FAQ)

1. **What is the maximum distance of HD-SDI over coax versus using the 500700 and Cat5e/6?** The SMPTE does not specify a maximum distance because actual distances depend on data rate, resolution, cable grade and type of source/receiver. Typically RG6 and RG59 coax are used although RG11 is also support. Belden specifies their 1694F RG6 coax up to 190 ft (58m) @ 3G-SDI (SMPTE 424M/3 Gbps). Extron specifies their active 3G-SDI coax equalizer to a maximum of 120m with RG6 @ 3G-SDI (3Gbps) and 60m with RG59 @ 3G-SDI (3Gbps). Clark Wire and Cable specifies their CD7511 RG11 coax to up to 366-570 ft @ 3G-SDI. Typical HD-SDI CCTV cameras are specified to up to 300 ft via coax. The 500700 supports up to 330 ft (100m) via Cat5e at all resolutions. The product supports up to 400 ft (122m) via Cat6 at all resolutions.

2. **How does HD-SDI (HDTV) compare to IP CCTV?** HD-SDI is based on the uncompressed SMPTE standards for digital audio/video and support up to 3Gbps uncompressed. IP CCTV uses MPEG or JPEG compression to reduce the bandwidth of the HDTV signal to achieve more throughput when transmitted over longer distances or with multiple cameras on the same network. Therefore for professional digital processing/editing applications HD-SDI is preferred because the original un-compressed signal is being transmitted,

3. **What are some of the HD-SDI CCTV camera vendors in Europe?** Some of the HD-CCTV camera vendors include;

   Orion Images (Sales office - the Netherlands)
   http://www.orionimages.com/contactus.asp?page=generalinfo

   Everfocus (Sales office - Germany)
   http://www.everfocus.de/en/products/hd-cctv-products/hd-cctv-products/242-eqh-5200.html

4. **Which types of coax cable does the 500700 allow to be replaced.** The 500700 allows RG6, RG59 or RG11 coax to be replaced by Cat5e/6.

5. **Will the HD-SDI Extender with 100m of Cat5e yield the same image quality as 100 meters of coaxial cable?** Yes.

6. **What is the megapixel size for a typical HD-SDI camera?** 2.07 Megapixels

7. **Under what conditions is the 500700 a preferred HD-SDI cabling solution?** The 500700 is the preferred solution when one or more of the following benefits are present:

   . Coax is not feasible due to poor quality of coax cable, high resolution, receiver sensitivity
   - Easier to manipulate Cat5e; lighter, sharper bend radius, uses less conduit space.
   - There is pre-installed Cat5e/6 thus avoiding the need to break through walls and pull more cable.
   - Cat5e/6 is easier to install versus coax (i.e. conduit (duct) space constraints, bend radius).
   - Moves and changes are needed via Cat5e/6 cross-connect hardware.

8. **Can several 500700 be connected in series to increase the distance?** Yes.

9. **Can a pair of HD-SDI baluns (500701) be connected after the 500700 to increase the distance?** Yes. But only one pair of 500701 may be added. The maximum additional distance will be according to the distance table in the 500701 datasheet.

10. **Is it feasible to add 100m of coax cable in front of the 500700?** Possibly. However, it may depend on the type of equipment and cable grade. MuxLab has not yet validated this.

11. **Can the 500700 be used with slip rings (rotary connection devices)?** Yes. Providing the slip rings are designed to support Ethernet 100BaseT signalling.

For more information, please contact MuxLab Customer Technical Support at 877-689-5228 (North America) or +1 514-905-0588 or at videoease@muxlab.com or visit http://www.muxlab.com/.

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