



HDMI Extender Kit (500401) Frequently Asked Questions (FAQ)

1. **What are the main differences between the 500401 and the 500400?** The main differences are distance and resolution performance and are summarized in the following table:

	HDMI Extender (500401)	HDMI Econo Extender (500400)
Maximum Dist Cat6 - 1080i (ft)	250	200
Maximum Dist Cat5e/6e - 1080p (ft)	150	66
Maximum Dist Cat6 - 1080p (ft)	200	100
Maximum Dist Cat6 - 1080p Deep Color (ft)	90	unspecified
HDMI Compliance	1.3a	1.3 no 1080p deep color

2. **Will the 500400 be phased out?** Yes. The plan is to eventually phase out the 500400.
3. **Does the 500401 work better with STP cable?** If the environment is electrically noisy, the 500401 may perform better with STP cable.
4. **In order to support 1080p Deep Color, does the DDC cable also need to be Cat6?** No. Cat5e is sufficient for the DDC cable.
5. **Does the 500401 work in conjunction with an HDMI distribution amplifier (DA)?** Yes. As long as the distribution amplifier (DA) is installed near the 500401 using standard HDMI cables. Due to jitter and signal attenuation, the 500401 may not work if the DA is cascaded or if long HDMI cables are used.
6. **Does the 500401 work in conjunction with an HDMI switcher?** Yes.
7. **Does the 500401 use all four (4) twisted pairs in both Cat5e/6 cables?** No. There are a couple of unused wires.
8. **Will the 500401 work with one (1) Cat5e/6 cable if only the “VIDEO” port is connected?** No.
9. **Does the 500401 support DVI?** Yes. The 500401 supports DVI for video only. In order to do so, it is necessary to connect the DVI equipment to the 500401 using DVI-to-HDMI cables.
10. **Can the source be DVI and the TV be HDMI?** Yes. For video only.
11. **Does the 500401 support 1080p Deep Color (12-bit)?** Yes. However, only with Cat6 cable.
12. **Does an HDMI 1.2 source work with an HDMI 1.3 display?** Yes; All 1.3 display devices are backward compatible with previous version of the HDMI standard.
13. **Are there any spare wires in the two Cat5e/6e cables that could be used for other services such as IR pass-thru?** Yes. In the DDC cable, RJ45 pins 5 and 8 are available.
14. **Does the 500401 transmit the HDCP information?** Yes. The 500401 does not affect the signal being transmitted.
15. **Do the two Cat5e/6e cable have to be exactly the same length?** No. The difference in length between the two cables is not an issue since one cable carries video and the other carries control signals. The only constraint is that the DDC cable should not exceed 450 feet.
16. **Does the 500401/410 support 1920x1200 resolution?** Possibly. In order to transmit 1920x1200 via the 500401/410, the signal must originate from a PC with a DVI or HDMI interface. MuxLab has not tested this PC resolution with the 500401/410. Based on MuxLab’s knowledge, the resolution is slightly higher than 1920x1080, and therefore the clock rate

increases from 148.5 MHz to 154 Mhz. Furthermore, based on public information (http://en.wikipedia.org/wiki/Digital_Visual_Interface) the number of bits per pixel is limited to 24 bits (i.e. 8 bits per color) and the Maximum Clock Frequency on a DVI Single link is limited to 165 MHz. Therefore, since the clock rate is lower than 1080P Deep Color (225 MHz), it is estimated that 1920x1200 could be transmitted up to 100 ft and 150 ft via Cat5e and Cat6 respectively.

17. **Does the 500401 work with patch panels?** Maybe. Patch panels are not recommended for HDMI transmission for the following reasons:
- a) The patch panel crimping must be properly done due to the higher HDMI frequency (1.48 to 2.25 Gbit).
 - b) All patch panel equipment must be certified Cat5e.
 - c) If 1080p/8-bit is transmitted, it is difficult to achieve 60ft, although it may work at lower resolution.
 - d) 1080p/12-bit will not work with patch panels, since the 500401 only supports Cat6 at 1080p/12-bit.
 - e) Most patch panels are rated for 100 Mhz (100base-T) or 250 Mhz (1000base-T) and therefore do not meet the bandwidth requirement of HDMI.
18. **Has the 500401 (or other MuxLab HDMI extenders) been tested with Matrox DVI interfaces?** MuxLab has not tested with Matrox interfaces in-house. However, R&D expects it should work and suggests to use a quality DVI to HDMI cable assembly as some cable assemblies may have non-standard pin configurations.

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/>. Rev F Oct 2013