

# True HDTV resolution monitoring with HDLink™

## Welcome to HDLink™

Thank you for choosing  $HDLink^{TM}$  for your digital video monitoring. Once connected to a compatible display,  $HDLink^{TM}$  will provide full resolution HDTV or standard definition video monitoring with 2 channels of analog audio output.

#### Instructions

HDLink™ is easy to connect. Please refer to the diagrams in this instruction sheet. HDLink™ has two SDI inputs which can be used for standard definition SDI input or HD-SDI 4:2:2 or dual link HD-SDI 4:4:4 video inputs. Consumer level audio output is fully compatible with a wide range of consumer HiFi equipment.

 $HDLink^{TM}$  is preconfigured for you, requiring no initial setup to connect. Your  $HDLink^{TM}$  will simply run without changing any settings, however, if you would like to update the firmware, modify settings or load custom gamma tables, then use the available HDLink Utility software. This can be downloaded from the Blackmagic Design web site support page. Check www.blackmagic-design.com

#### Installing HDLink Utility Software

Once downloaded, the installer will load a USB 2.0 driver into your system and add the HDLink Utility application in your applications or programs folder. To run the HDLink Utility you will need to have an HDLink connected to your USB port.

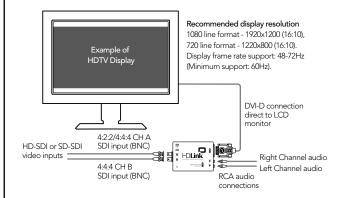
#### Running HDLink™ Utility

- 1) Connect the HDLink™ power supply. The red power light will turn on.
- 2) Connect the USB cable. Most USB ports are now USB 2.0, however, the HDLink Utility software will run with USB 1.0 and slower ports.
- 3) The red power light will flash indicating the USB has been connected.
- 4) Open the HDLink Utility and the settings should be adjustable. If they are 'grayed out', it indicates your computer is not communicating with HDLink™. In this case, check the USB connection or try another USB connection on your host computer.
- 5) Once your version of the HDLink Utility contains newer firmware than is currently installed in the HDLink™ convertor, you will see a message asking you to update the firmware. You must allow the firmware to be updated before you can use this version of HDLink Utility to configure the HDLink™ convertor. Select 'download firmware' and, after a short delay, the firmware will be updated.
- 6) If the firmware has been updated, it is important you unplug both the USB and power cables from HDLink™, wait 5 seconds, and then plug in the power and then USB cables in that order. This ensures the HDLink™ is reset correctly.
- 7) You can make changes to red, green and blue lift, gamma and gain settings on HDLink™, and import custom gamma tables. Changes to settings can be seen on the HDLink™ DVI-D output in real time allowing accurate setup. Check out the sample Microsoft Excel™ spreadsheet gamma table templates included in the software installer folder for examples of how to format custom gamma tables. Gamma tables need to be exported to 'tab separated' text files, prior to being imported into HDLink Utility.
- 8) The gamma tables are loaded into HDLink™ at power up and so HDLink™ needs to be restarted after they are loaded. It is important to unplug both the USB and power cables from HDLink™, wait 5 seconds, and then plug in the power, and then USB cables in that order. This ensures the HDLink™ is reset and the gamma tables are loaded into the HDLink™ video path correctly.
- 9) Other settings at the bottom of the HDLink Utility window are updated immediately and don't need HDLink™ to be restarted. To learn more about how each setting works, hold your mouse over the setting for help information.



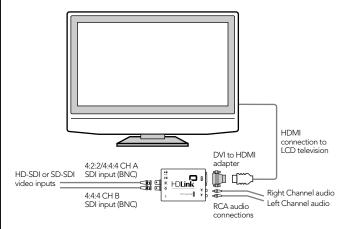
- 1. On/Off LED
- 2. Fast USB 2.0 input
- 3. 4:2:2 and 4:4:4 LED indicator
- 4. HD-SDI input 4:2:2/4:4:4 CH A 5. HD-SDI input 4:4:4 CH B
- 6. Power input +5V 2A
- 7. DVI-D output
- 8. RCA audio out (Right)
- 9. RCA audio out (Left)
- \* HDMI output with included adapter

### Connecting to DVI-D Displays



#### Connecting to HDMI Displays

When you're connecting to HDMI displays, you need to use the included DVI-D to HDMI adapter. This allows the HDMI television or video projector to connect to the HDLink $^{\text{TM}}$ . If you lose the HDMI adaptor, any third party adaptor should work ok.



HDLink™ automatically detects whether a DVI or HDMI display is being used. HDLink™ supports HDMI video only, and audio is output on the two RCA connectors for connecting to HiFi audio equipment. Check the HDLink™ specifications page for additional info on supported formats and modes.