

DVI DL-DA Splitter Installation & Operation Guide



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PRODUCT INFORMATION

ABOUT THE DVI DL-DA SPLITTER

Black Diamond Video's compact DVI DL-DA Splitter provides single-link or dual-link DVI distribution amplification. The DVI DL-DA Splitter can route DVI signals from one signal source to up to two DVI display devices.

The system diagram (*Figure 1*) illustrates the simple installation of the DVI DL-DA Splitter.

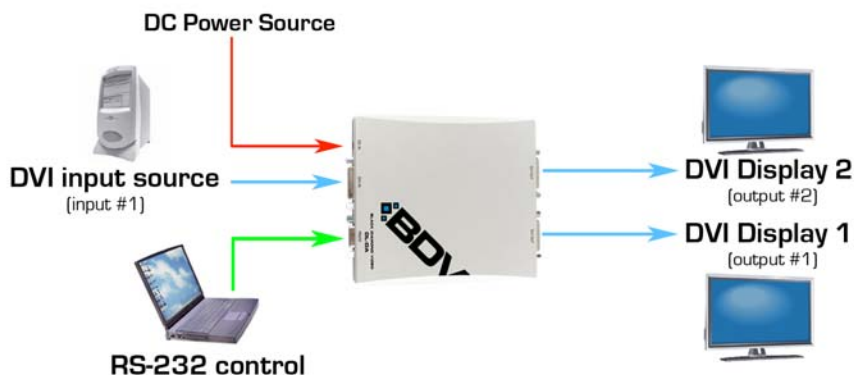


FIGURE 1. DVI DL-DA System Diagram

KEY FEATURES & SPECIFICATIONS

Features and specifications include the following:

VIDEO INPUT

- One DVI dual-link input, DVI 1.0.

VIDEO OUTPUT

- Two DVI dual-link outputs, DVI 1.0

MAXIMUM DATA RATE

- 9.9 Gbps.

PRODUCT INFORMATION

Output Panel Detail

PIXEL CLOCK RATE

- 25-330 MHz

CONTROL

- RS-232 serial control. Connector: DB9 female.

POWER

- The DVI DL-DA Splitter is supplied with a +5V DC adapter.

EDID MANAGEMENT

- EDID management, copy, custom or force for over 200 host timing values.

For a list of related commands, see Appendix A, “RS-232 Protocol.”

DIMENSIONS

- 5.95” length x 4.7” width x 0.98” height (*Figure 2*)

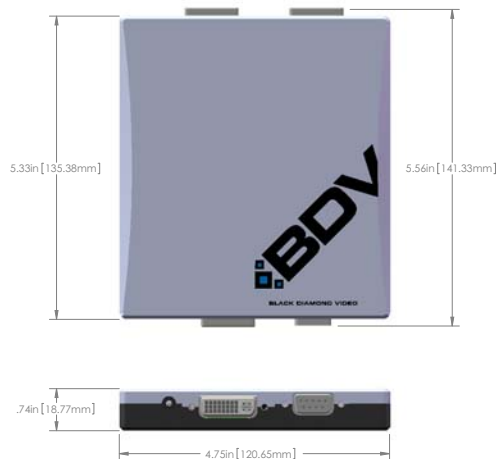


FIGURE 2. DVI DL-DA Splitter dimensions

OUTPUT PANEL DETAIL

Figure 3 details the DVI output panel of the DVI DL-DA Splitter. This panel contains 2 DVI outputs and 2 Link status LED lights, one next to each DVI output. The Link status

LEDs illuminate green when power to the Splitter is established, and red to indicate that an active video input connection exists.



FIGURE 3. DVI output panel of the DVI DL-DA Splitter

VIDEO INPUT DETAIL

Figure 4 details the video input panel of the DVI DL-DA Splitter. This panel also contains the RS-232 serial port and the DC power input connector.



FIGURE 4. DVI input panel of the DVI DL-DA Splitter



PRODUCT INFORMATION

Customer Service and Support

CUSTOMER SERVICE AND SUPPORT



For technical support and service, contact Black Diamond Video at:

Black Diamond Video

503 Canal Blvd.

Point Richmond, California, 94804

Phone: (510) 439-4500

Fax: (510) 439-4599

Visit us on the web at www.blackdiamondvideo.com.

INSTALLATION INSTRUCTIONS

This chapter tells you how to install your DVI DL-DA Splitter and establish RS-232 control.

IMPORTANT!	This product must be tested with the intended equipment before being permanently installed. Failure to do so voids any warranty and limited liability. Although Black Diamond Video tests the product to its fullest extent, situations may arise giving marginal results or potential compatibility issues when used with digital video display devices that are non-compliant or incompatible.
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DVI DL-DA SPLITTER INSTALLATION

Figure 5 illustrates the installation of the DVI DL-DA Splitter. The following procedure describes the installation process.

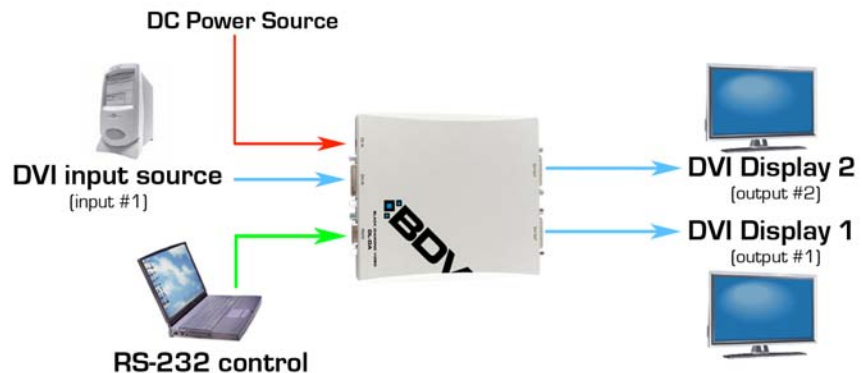


FIGURE 5. DVI DL-DA Splitter installation

To Install the DVI DL-DA Splitter

- 1 Before installing the DVI DL-DA Splitter, connect the supplied power adapter to the unit and plug it into a DC power source.**
- 2 Connect a DVI video source to the DVI input connector.**
- 3 Connect up to 2 DVI display devices to the Splitter's DVI output connectors using Black Diamond Video-tested DVI cable.**
- 4 The Link LED indicators on the DVI DL-DA Splitter illuminate red when an active connection to the DL-DA Splitter is established.**

Installation of the DVI DL-DA Splitter is complete.

ESTABLISHING RS-232 CONTROL

Setup of the DVI DL-DA Splitter should be done using RS-232 control. The following procedure details how to establish RS-232 serial control of the DVI DL-DA Splitter.

- 1 Connect a DB9 RS-232 cable to the DVI DL-DA Splitter.**
- 2 Connect the control computer to the RS-232 DB9 connector on the supplied cable.**
- 3 Open up a serial port terminal on the control computer.**

On Microsoft Windows, you can use HyperTerminal for serial communications.

- 4 Configure the port settings as follows:**

- Baud: 9600
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow control: None

The RS-232 connection to the DVI DL-DA Splitter is established and the Splitter can be controlled using the RS-232 command set found in Appendix A, "RS-232 Protocol."

RS-232 PROTOCOL

DVI DL-DA SPLITTER COMMAND SET

The DVI DL-DA Splitter is controlled by using RS-232 protocol. Commonly used commands are presented and defined in the following tables covering image control, input and host timing control, and general system commands.

Arguments in [square brackets] are optional. Arguments in <angle brackets> are required. For example, typing `hlist` by itself displays all host timing values. Typing `hlist 501` returns the host timing for host 501. Typing `inputsave` with no arguments returns an error because the `inputsave` command requires the <inputnum> argument.

Commands can be entered using either the full command name or the abbreviated syntax. For example, to restore default settings, you could type either `restoredefault` or `rfd`.

NOTE: RS-232 commands are *not* case-sensitive. Capitalization of either the commands or the parameters does not matter.

INPUT AND OUTPUT NUMBER ASSIGNMENT

Some commands require the number of the involved input and/or output. Input and output numbers are assigned as follows (*Figure 6*):

- The input is considered Input 1.
- The output across from the input is Output 2.
- The output across from the serial port is Output 1.



FIGURE 6. DVI DL-DA I/O Arrangement

HOST COMMANDS

Command	Abbreviated Command Syntax	Action
CREATEOUTPUTHOST	COUTHOST <host> <name> <hfp> <hs> <hbp> <hact> <vfp> <vs> <vbp> <vact> <hfreq> <sync> <phase> <vpol> <hpol> <interlace>	Creates an output host timing with the specified parameters. <host> is a value from 501 to 540. <name> is limited to 16 characters. <hfreq> in Hz. <sync> is 3,4, or 5 wire. <vpol> is vertical sync polarity; 1 = positive, 0 = negative. <hpol> is horizontal sync polarity. <interlace> is 1 = interlaced, 0 = non-interlaced.
HOSTLIST	HLIST [host]	Displays one or all default input hosts.
OUTPUTLIST	OUTLIST [host]	Displays one or all local output hosts.
OUTPUTLISTDEL	OUTLISTDEL <host>	Deletes a local output host.
OUTPUTNAME	OUTN <HOST> <HOSTNAME>	Names a local host.
OUTPUTSAVE	OUTS <HOST>	Saves to a local host.

INPUT AND OUTPUT COMMANDS

Command	Abbreviated Command Syntax	Action
GETDVIINTIMING	GDIT	Returns the timing at the DVI input channel.
INPUTTIMING	INT	Returns the input timing. If a valid input signal is not present, no values are returned.
OVERRIDE	OVERRIDE <dl/sl/off>	Forces output to dual link (dl), single link (sl), or no override (off).

SYSTEM COMMANDS

Command	Abbreviated Command Syntax	Action
CUSTOMEDID	CEDID <input #> <host #>	Sets the EDID timing from the host table. Use when you know the host number. <input #> is 1.



SYSTEM COMMANDS

Command	Abbreviated Command Syntax	Action
COPYEDID	CPEDID <output #> <input #>	Copies the EDID from the output to the input. NOTE: Before issuing this command, disconnect the input from the DVI source. <input #> is 1. <output #> is 1 or 2.
GETEDID	GEDID <output #>	Returns the EDID data from the display device connected to the selected output channel (1 or 2).
HELP	help	Lists all user commands.
ID	id	Returns system information: model, manufacturing date, serial number, and firmware version.
OVERRIDE	override <dl/sl/off>	Forces dual link (dl), single link (sl), or no override.
PROGEDID	PROGEDID <sl/dl>	Sets input EDID to default for single/dual link.
RDINEDID	RDINEDID	Displays the EDID programmed on the input.
RESTOREDEFAULT	rfd	Restores the factory defaults. NOTE: This deletes all stored hosts.

