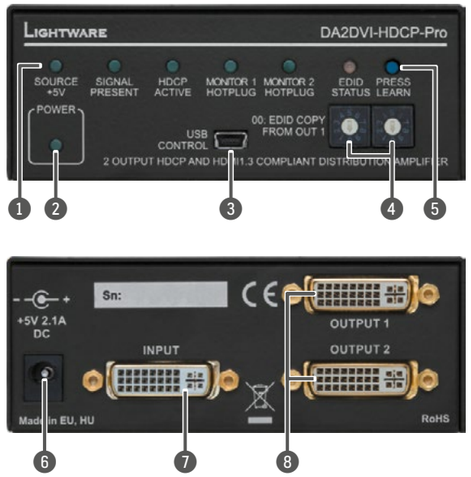
visual engineering
LIGHTWARE

Quick Start Guide

DA2DVI-HDCP-Pro

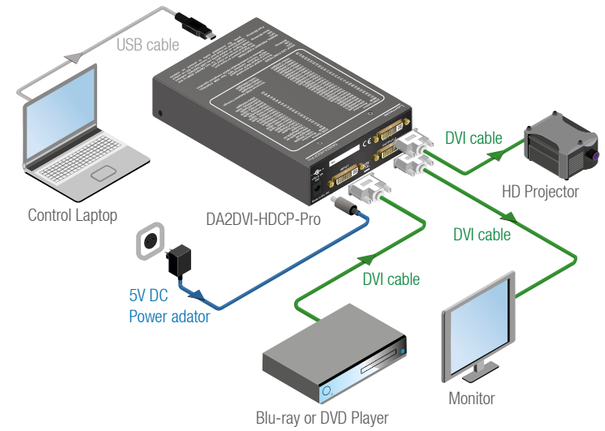
Front and rear views



Front and rear views - Legend

1	**Status LEDs**	Display source-, signal-, HDCP-, EDID- and connected sink states on the LEDs.
2	**Power LED**	Indicates if the device is powered on.
3	**USB control**	Further EDID settings and firmware upgrade are available via the USB interface.
4	**Rotary switches**	The rotary switches select one of the EDID memory addresses.
5	**Learn button**	Stores the EDID of the display device attached to OUTPUT 1 in the selected memory address.
6	**DC 5V in**	Connect the OUTPUT of the supplied 5V power adaptor or use Lightware's rack mountable power supply unit.
7	**Input**	Connect one Single-Link DVI cable (only digital pins are connected internally) between the DVI source and DA2DVI-HDCP-Pro.
8	**Outputs**	Connect one Single-Link DVI-D or DVI-I cable (only digital pins are connected internally) between the DA2DVI-HDCP-Pro and the display device. The OUTPUT connector is able to supply 500 mA current on pin 14 to power fiber optical DVI extenders like DVI-OPT-TX110.

Typical application



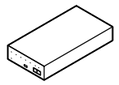
Important safety instructions

Please read and keep the information in the attached safety instructions supplied with the product before start using the device.

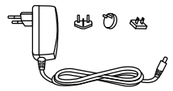
Introduction

DA2DVI-HDCP-Pro is a multifunctional distribution amplifier with built-in EDID Management and Pixel Accurate Reclocking, supporting DVI and HDMI 1.3a signals with or without HDCP ncryption. It automatically compensates for up to 60 meters of DVI copper cable, hence no adjustment is needed by the user. The Output signal is reclocked and stabilized using Lightware's Pixel Accurate Reclocking technology to remove jitter caused by long cables or poor quality DVI sources Advanced EDID Management function is included, which is configurable on the front panel, or via USB by Lightware Device Controller software.

Box contents



DA2DVI-HDCP-Pro unit



5V DC power adaptor with interchangeable plugs

Safety and warranty info, Quick Start Guide

Installation

1. Connect the source to the INPUT connector.
2. Connect the monitors (or sink devices) to the OUTPUT connectors.
3. Connect the supplied AC power adaptor to +5V input, then connect the adaptor to an AC power socket.
4. Now the unit is ready to be used.

Startup process

1. After being powered on, the DA2DVI-HDCP-Pro displays its firmware version using the Status LED. The following example shows this process for a firmware version of 1.2.1: Red blinks once → Short pause → Green blinks twice → Short pause → Green blinks once.
2. After indicating the firmware version, the Status LED turns green if the selected EDID is valid, or turns red, if the selected EDID is invalid.
3. If a display device is connected to an OUTPUT, the DA2DVI-HDCP-Pro reads the EDID from the attached monitor's EDID memory.
4. The normal function of the LED is in effect.

If none of the LEDs light up upon power-up, the unit is most likely damaged and further use is not advised. Please contact support@lightware.eu.

Status LEDs

Source +5V

- ON: source is connected.

Signal Present

- BLINKING (slow): HDMI signal is present on the input.
- BLINKING (fast): HDMI input signal is converted to DVI.
- ON: DVI signal is present on the input.

To turn ON/OFF HDMI to DVI conversion connect to the device via USB port and use Lightware Device Controller software.

HDCP Active

- OFF: video output signal is not encrypted with HDCP.
- ON: video output signal is encrypted with HDCP.

Monitor 1 hotplug

- ON: hotplug signal is detected on output 1.

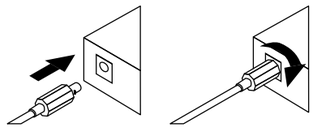
Monitor 2 hotplug

- ON: hotplug signal is detected on output 2.

EDID status LED

- BLINKING (red): EDID learning was not successful.
- BLINKING (green): EDID learning was successful.
- ON (red): invalid EDID is selected.
- ON (green): valid EDID is selected and emulated on the input.

Locking DC plug



Twist 90°clockwise to lock.

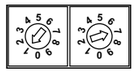
EDID Memory

- Address #00: the EDID of the last attached monitor on OUTPUT1.
- Address #01..#49: factory preset EDIDs.
- Address #50: reserved.
- Address #51..#98: user programmable EDID memory.
- Address #99: the EDID of the last attached monitor on OUTPUT2.

The #30..#45 memories and #49 contain EDIDs supporting various embedded audio formats, for HDMI audio.

Selecting an EDID

1. Turn the EDID address rotary switches to the desired position. Use a flat head screwdriver to change the address. The left switch sets the tens value, the right switch gives the ones value of the EDID.



Avoid the use of keys, coins, knives and other sharp objects.

2. The EDID Status LEDs provide feedback:
   - Red: an empty memory or invalid EDID was selected.
   - Green: valid EDID is present at input.
3. Now the selected EDID is reported at the DVI INPUT.

EDID Learning

1. EDID learning is only available on OUTPUT 1. Connect the desired display device.
2. Turn the Rotary switches to the desired memory address where you want to store the display's EDID attached to OUTPUT 1 (between user addresses #51..#98).
3. Press and hold the LEARN button for approximately 3 seconds.
4. The EDID Status LEDs provide feedback:
   - Blinking red: the learn process failed from OUTPUT 1.
   - Blinking green: the learn process was successful from OUTPUT 1.

If an invalid EDID is selected by the rotary switches, it will not be emulated on the input. In this case the EDID on the input is the previously emulated EDID.

HDCP enable/disable function

HDCP ACTIVE LED indicates the source signal's HDCP encryption. To enable/disable HDCP compliant operation, turn the rotary switches to memory address #01 and press LEARN button for approximately 3 seconds (or use Lightware Device Controller software to enable/disable HDCP compliant operation).

Device reset

The factory default settings can be restored as follows:

1. Set the rotary switches to "00" state.
2. Press and keep pressed the Learn button for at least 2 seconds; the red LED blinks 6 times.
3. The factory default settings are loaded.

Further information

The document is valid with the following firmware version: 1.2.1
The User's manual of this appliance is available at www.lightware.eu.
See the Downloads section on the website of the product.

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