

## ▶ SC11HD

User Manual

### Thank you for purchasing this product.

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.



### Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

### Safety And Performance Notice

Do not substitute or use any other power supply other than the enclosed unit, or a Blustream approved replacement.

Do not disassemble Blustream hardware for any reason. Doing so will void the manufacturer's warranty.

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# Introduction

The Blustream SC11HD is a HDMI 4K scaler, designed for installations with multiple displays that support different maximum video resolutions.

The SC11HD is ideal for installations incorporating HDMI Matrix products or AV amplifiers with 2+ HDMI outputs, allowing those displays only capable of supporting lower video resolutions to receive scaled 4K content while still showing maximum original 4K resolution on the higher-definition displays.

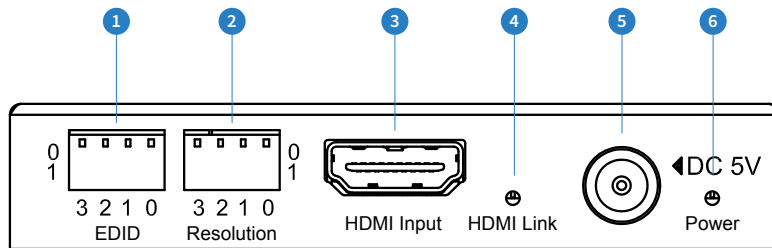
The SC11HD supports down-scaling of 4K video to various lower resolution video formats. The SC11HD will also up-scale lower video resolutions up to 1080p and supports HDCP 2.2 with advanced EDID management.

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## FEATURES:

- HDMI 4K video scaler
- Supports up to 4K UHD video input (3840 x 2160 @ 30Hz)
- HDMI output will both up-scale or down-scale the video input to the following formats:
  - 1080p @ 50Hz
  - 1080p @ 60Hz
  - 720p @ 50Hz
  - 720p @ 60Hz
  - 1280 x 1024 @ 60Hz
  - 1024 x 768 @ 60Hz
  - 1360 x 768 @ 60Hz
  - 1440 x 900 @ 60Hz
  - 1680 x 1050 @ 60Hz
- Support pass-through of all known HDMI audio formats including Dolby TrueHD, Dolby Atmos, Dolby Digital Plus and DTS-HD Master audio transmission.
- Advanced EDID management.
- HDCP 2.2 support

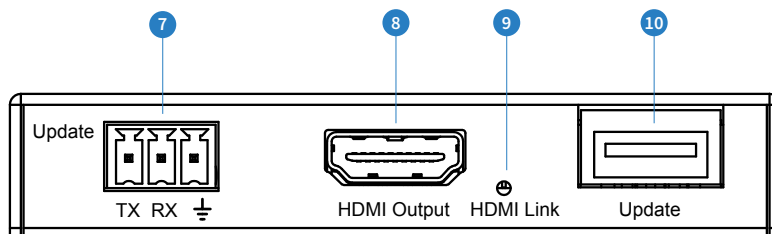
Front Panel



**Connections:**

- 1 EDID dip-switches - Adjust the EDID setting for the source input - see page 5 for further details
- 2 Resolution dip-switches - Adjust the HDMI output resolution - see page 5 for further details
- 3 HDMI input - Connect to a HDMI source device
- 4 HDMI LED indicator - Lit when there is an active HDMI connection to a source device
- 5 Power port – Use supplied 5V 1A DC adaptor
- 6 Power LED indicator - Lit when unit is powered

Rear Panel



**Connections:**

- 7 RS-232 Update port - 3-pin Phoenix connector used for firmware upgrade
- 8 HDMI output - Connect to a HDMI display/end point
- 9 HDMI LED indicator - Lit when there is an active HDMI connection to a display/end point
- 10 USB Update port - USB connector used for firmware upgrade

## EDID Management

EDID (Extended Display Identification Data) is a data structure that is used between a display and a source. This data is used by the source to find out what audio and video resolutions are supported by the display then from this information the source will determine what the best resolution is to output.

While the objective of EDID is to make connecting a digital display to a source a simple plug and play procedure issues do arise when multiple displays or video matrix switching is introduced because of the increased number of variables.

The SC11HD will act as an 'end point' in the HDMI signal path. Using the EDID dip-switches pre-determines the video resolution and audio format of the source regardless of the video output resolution that the SC11HD scales to.

To change the EDID settings move the EDID dip-switches as required on the front panel of the unit. Please see adjacent table for settings.

*Note: You must power-cycle the SC11HD after changes have been made in order for the EDID settings to update.*

3	2	1	0	EDID Type
Combination of DIP positions				
0	0	0	0	Copy EDID from output
0	0	0	1	1080p 2.0ch
0	0	1	0	1080p 5.1ch
0	0	1	1	1080p 7.1ch
0	1	0	0	1080i 2.0ch
0	1	0	1	1080i 5.1ch
0	1	1	0	1080i 7.1ch
0	1	1	1	1080p 3D 2.0ch
1	0	0	0	1080p 3D 5.1ch
1	0	0	1	1080p 3D 7.1ch
1	0	1	0	4K 2.0ch
1	0	1	1	4K 5.1ch
1	1	0	0	4K 7.1ch
1	1	0	1	DVI 1280x1024
1	1	1	0	DVI 1920x1080
1	1	1	1	DVI 1920x1200

## HDMI Output Resolution

The SC11HD allows both down-scaling and up-scaling of the source HDMI signal to a fixed HDMI output resolution.

The SC11HD is ideal for installations that have multiple displays capable of supporting different video formats, such as dual outputs on an AV receiver or HDMI matrix products. Installing the SC11HD with those displays only capable of supporting lower video resolutions allows them to receive a scaled 4K image while still showing maximum original 4K resolution on the higher-definition displays.

Using the EDID settings (as above) the source can be instructed to output a 4K 30Hz signal (or lower format if required). The SC11HD will scale the HDMI input signal to a selected output resolution using the RESOLUTION dip-switches on the front panel. Please see adjacent table for settings.

The SC11HD can also up-scale a lower resolution video HDMI input signal to a higher output video resolution\*. The same procedure is used as above for setting the input signal type using the EDID dip-switches, and then changing the output video resolution using the RESOLUTION dip-switches.

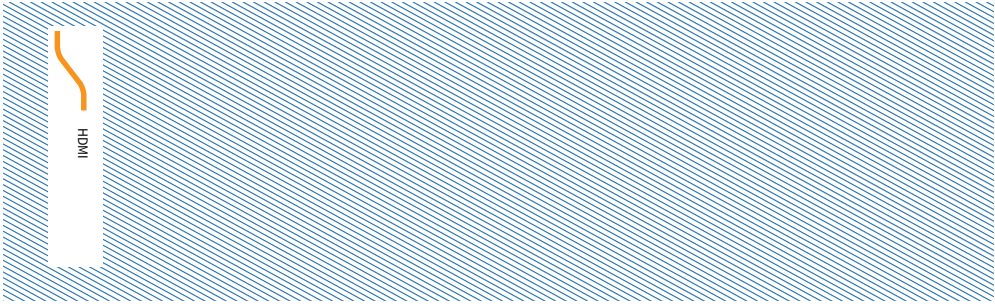
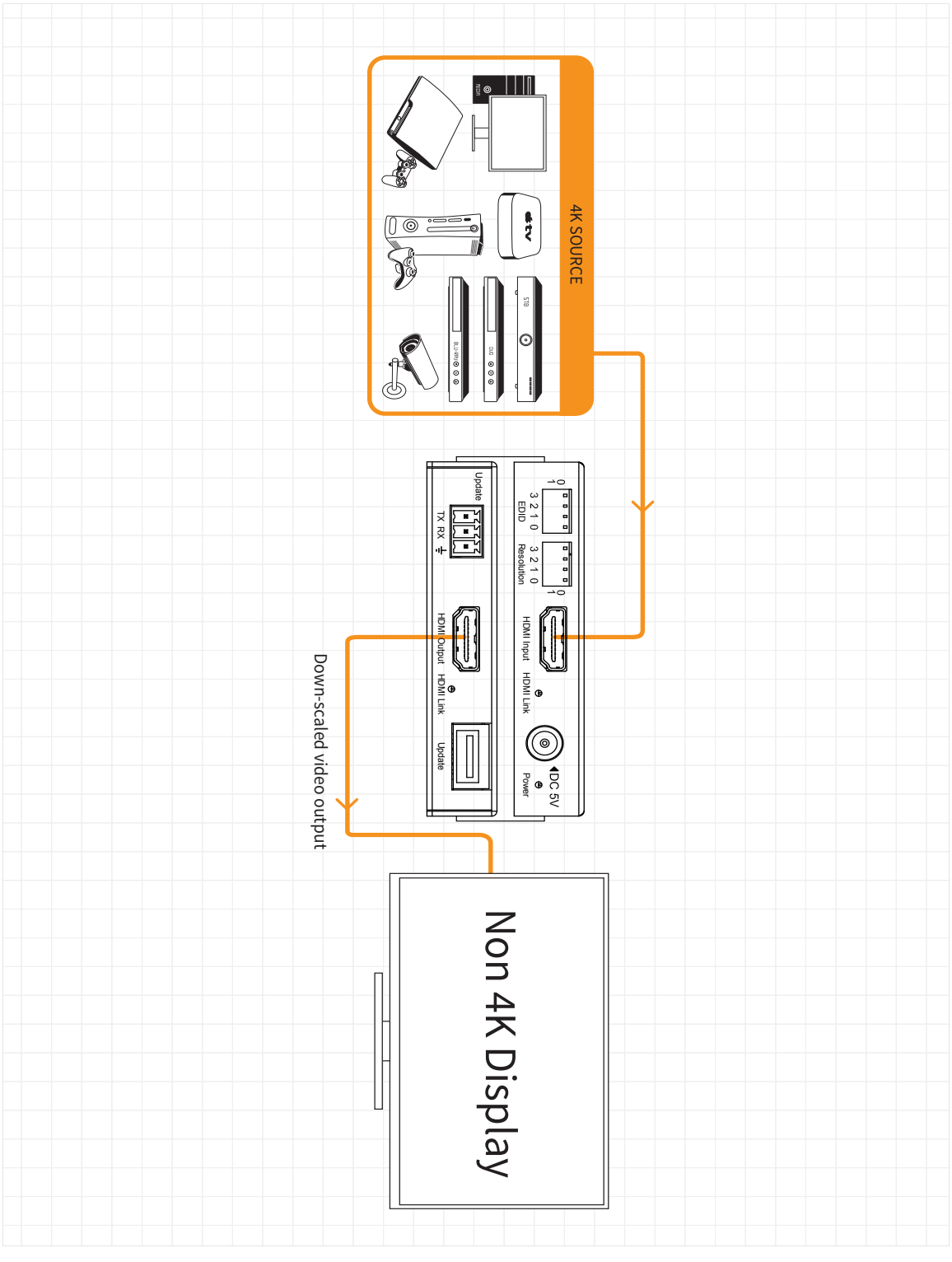
*Note: You must power-cycle the SC11HD after changes have been made in order for the Resolution settings to update. The SC11HD cannot up-scale to 4K video formats. Output resolution options are fixed to those shown in the adjacent table.*

*\*SC11HD up-scales to a maximum 1080p video resolution.*

3	2	1	0	Output Resolution
Combination of DIP positions				
0	0	0	0	1080p 50Hz
0	0	0	1	1080p 60Hz
0	0	1	0	720p 50Hz
0	0	1	1	720p 60Hz
0	1	0	0	1280 x 1024 60Hz
0	1	0	1	1024 x 768 60Hz
0	1	1	0	1360 x 768 60Hz
0	1	1	1	1440 x 900 60Hz
1	0	0	0	1680 x 1050 60Hz

**BLUSTREAM**

Example Schematic  
**SC11HD**



## Specifications

**Video Input Connectors:** 1x HDMI Type A, 19-pin, female

**Video Output Connectors:** 1x HDMI Type A, 19-pin, female

**EDID:** 4-Pin DIP Switch

**Resolution:** 4-Pin DIP Switch

**Product upgrade:** 1x 3-Pin Phoenix connector & 1x Type A USB female

**Dimensions (W x D x H):** 85 x 112 x 15mm

**Shipping Weight:** 0.5kg

**Operating Temperature:** 32°F to 104°F (0°C to 40°C)

**Storage Temperature:** - 4°F to 140°F (- 20°C to 60°C)

**Power Supply:** 5V/1A DC

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## Package Contents:

- 1x SC11HD
- 1x 5V/1A DC power supply
- 1x Mounting kit
- 1 x User manual

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## Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.



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