Product Data Sheet

Multi-Format AV Scaler with DisplayPort

Overview

The AVSC-7DA-HDMI is a video graphics scaler that accepts seven types of signals: analog video, S-Video, component video, VGA, DVI, HDMI, and DisplayPort signals. It scales the input signals into either VGA or HDMI signals, supporting higher full HD resolutions of 480i/p, 720p, and 1080i/p. The scaler is designed to solve problems of compatibility between source devices and monitors. Use it to deliver one single image on a TV wall. In addition to the front panel buttons and the IR remote control, users may control the scaler using a PC through the RS-232 serial port or Ethernet port.

NOTE: We recommend using Black Box Locking HDMI Cables with this scaler. The cables provide a locking connector to help keep your connections secure. For details, see ***page 4*** *of this data sheet.*

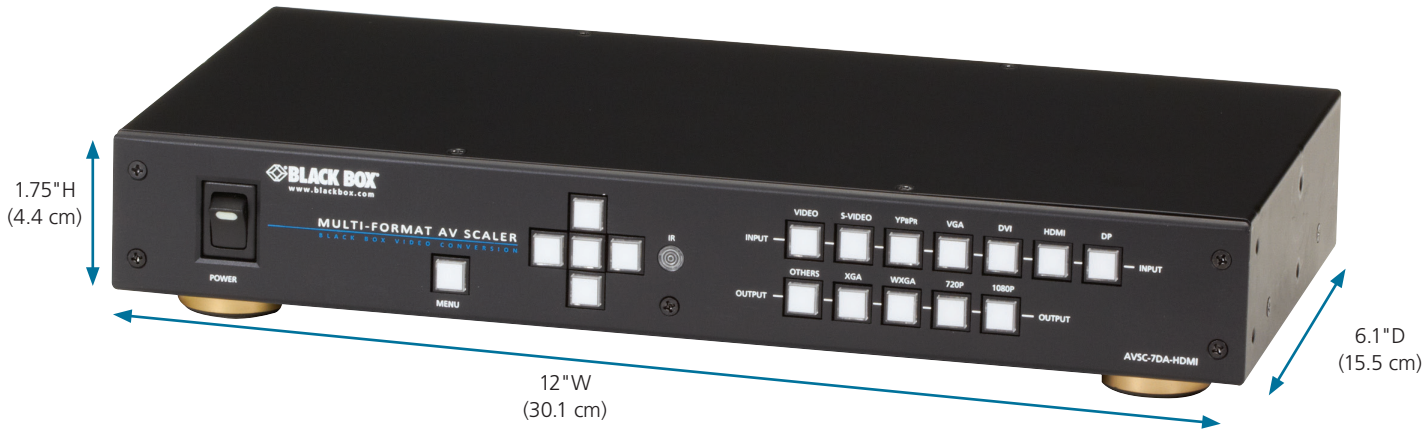
Basic Features

- Compliant with HDCP 2.0.
- Input support: Analog: analog video, S-Video, composite video, VGA; Digital: DVI, HDMI, and DisplayPort.
- Output support: VGA and HDMI 1080p with deep color 36-bit.
- Output audio support: S/PDIF, stereo audio.
- Supports a wide range of HD resolutions ranging from XGA to WUXGA 1920 x 1200 to HDTV/DTV resolutions 480i/480p, 576i/576p, 720p, 1080i, and 1080p.
- Compatible with all HDMI source devices, PC monitors, plasma HD displays, HDTVs, and audio receivers/amplifiers.
- Supports intelligent color adjustment (discrete RGB color adjustment, hue, saturation, sharpness, contrast, brightness, and preset color modes).
- Rackmountable: 19-inch ear rackmount.
- Various user interface control, including front-panel push buttons, IR wireless remote controls, third-party RS-232 controller (via simple ASCII), and Ethernet.
- Supports IR extender with maximum extend distance reaching 300 meters.
- Supports TV wall function, allowing the image to be divided on multiple displays/monitors.
- Includes 12-VDC power supply, universal-type switch, 100–240 VAC, 50/60 Hz.

AVSC-7DA-HDMI Specifications

Advanced Video Processing	High-quality video and graphics scaling up and down Frame rate conversion
Approvals	CE, FCC, RoHS2
Audio Input Signal	L/R: S0-Video, Composite, Component; Stereo Audio: VGA, DVI
Audio Output Signal	1x S/PDIF Digital Audio, 1x Analog Audio RH/LH, 1x HDMI Audio
Video Input Signal	(1) Composite/(1) S-Video/(1) Component; (1) VGA/(1) DVI/(1) HDMI/(1) DP
Video Output Signal	(1) VGA, (1) HDMI
Chassis Material	Metal
Control	IR remote control, RS-232, front panel push buttons
HDMI Compliance	High-speed
Infrared Frequency	38 KHz
Intelligent Color Adjustment	Discrete RGB, color adjustment, hue, saturation sharpness, contrast, brightness, four preset color modes
IR Extend Distance	300 meters (984 feet) line cable via IR extender
Input Resolution	Up to 1080p, 1920 x 1200 (HDMI or DVI); Up to 2560 x 1600 DisplayPort
Output Resolution	Up to 1080p-60, 1920x1200
Power Supply	Input: 100–240 VAC, 50/60 Hz Output: 12 VDC, 2 A
Rackmount	19-inch panel type (1U-44L)
Scaler Type	7 in/2 out HDMI Video Scaler
Source Status	Automatic scanning of input/output status
System Control	Box ID for easy independent control through IR, RS-232, and five selectable profiles settings for difference display. Ethernet control module with RJ-45 connector. ASCII control protocol over RS-232 and Ethernet.
Temperature	32–100° F (0–32° C)
Video Wall Function	Magnify, scroll, pan through all inputs Video wall function: Image split, cropping, and assign display location Pixel-based overlap adjustment in all edges, up to 15 x15 matrix displays Up to 2560 x 1600 input resolution via display port
Dimensions	1.75"H x 12"W x 6.1"D (4.4 x 30.1 x 15.5 cm)
Weight	Shipping weight: 3.42 lb. (2.05 kg)

Dimensional diagram of the Multi-Format AV Scaler with DisplayPort (AVSC-7DA-HDMI)

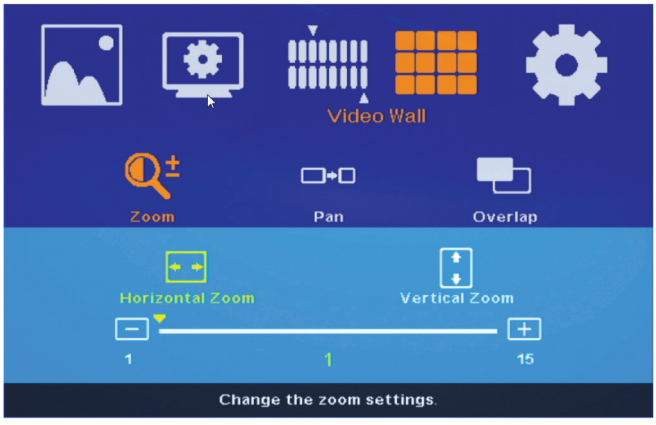


An On-Screen Display (OSD) example for the AVSC-7DA-HDMI GUI is shown below.

OSD options include Picture, Image Setup, Image Properties, Video Wall, and Options.

The AVSW-7DA-HDMI scaler can send divided images on multiple display devices and build a video wall of, for example, 1x2, 2x2, or 10x10. A video wall of 15x15 is the maximum size the scaler can generate.

NOTE: An AVSW-7DA-HDMI is required for each output. Users may arrange the position and adjust the size of each image block under the TV WALL function.



You might also need Locking HDMI Cables (described below).

NOTE: The screw lock is located above the connector at a distance of 7.975 mm from the center of the HDMI connector to the center of the screw lock pin.

Locking Cables Specifications

Approvals	RoHS2; High-Speed HDMI
Cable	Construction: Magnalium braid; O.D. = 5.2 mm
Color	Black
Data Transfer Rate	VCL-HDMIDVI-00xM: 165 MHz, 4.95 Gbps; VCL-HDMIS-00xM: 340 MHz; 10.2 Gbps; VCL-HDMIL-00xM: 340 MHz, 10.2 Gbps; VAL-HDMIDVI: 165 MHz, 4.95 Gbps
HDMI Standard	High-Speed
Resolution	Maximum supported: 1080p @ 60 Hz, digital displays (may vary by monitor); Supports 3D and Deep Color, and 1080p
Connectors	VCL-HDMIDVI-00xM: Input: HDMI M (NIckel-plated, screw lock), Output: DVI-D single-link M (gold contact); VCL-HDMIS-00xM: Input: HDMI M (Nickel-plated), screw lock, Output: HDMI M (Nickel-plated); VCL-HDMIL-00xM: Input: HDMI M (NIckel-plated, screw lock), Output: HDMI M (NIckel-plated, screw lock); VAL-HDMIDVI: Input: HDMI M (Nickel-plated, screw lock), Output: DVI-D single-link M (gold contact)
Distance from Center	7.975-mm distance from the center of the HDMI connector to the center of the screw lock pin
Length	VCL-HDMIDVI-001M, VCL-HDMIS-001M, VCL-HDMIL-001M: 1 m (3.2 ft.); VCL-HDMIDVI-002M, VCL-HDMIS-002M, VCL-HDMIL-002M: 2 m (6.5 ft.); VCL-HDMIDVI-003M, VCL-HDMIS-003M, VCL-HDMIL-003M: 3 m (9.8 ft.); VCL-HDMIDVI-005M, VCL-HDMIS-005M, VCL-HDMIL-005M: 5 m (16.4 ft.); VAL-HDMIDVI: 15 cm (6")
Wire Gauge	28 AWG

Ordering Information for Locking Cables

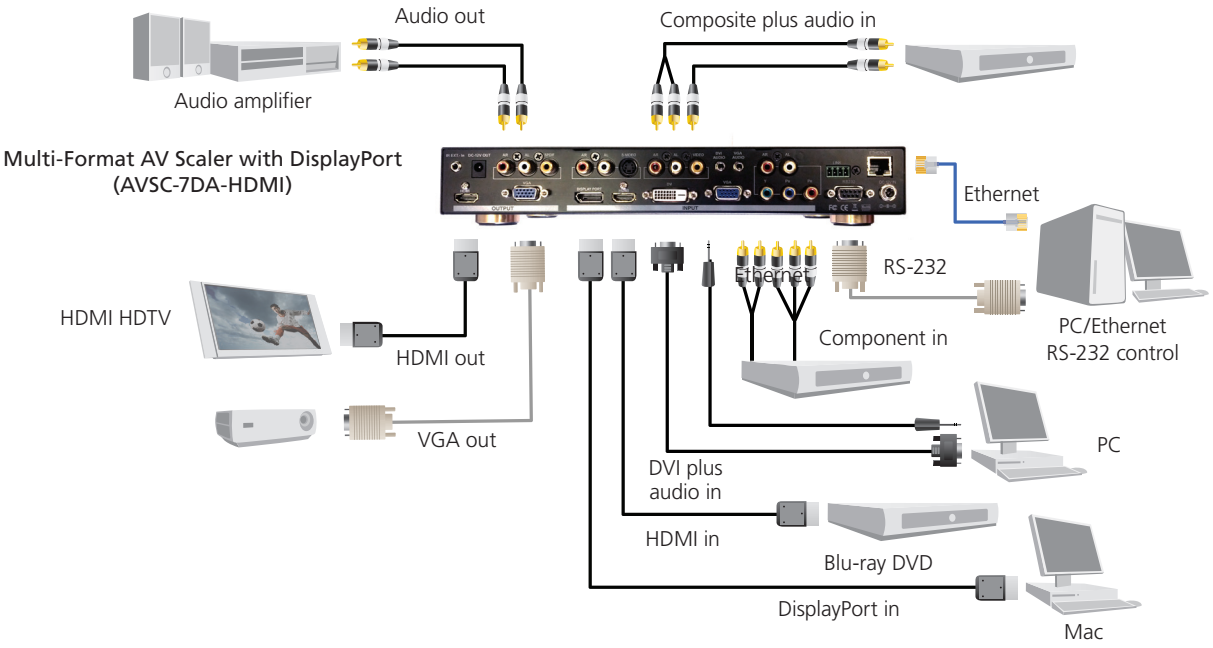
Comparison Chart: Locking HDMI Cables

Product Code	Cable Length	Connectors
VCL-HDMIDVI-001M	1 m (3.2 ft.)	(1) Locking HDMI M, (1) DVI M
VCL-HDMIDVI-002M	2 m (6.5 ft.)	(1) Locking HDMI M, (1) DVI M
VCL-HDMIDVI-003M	3 m (9.8 ft.)	(1) Locking HDMI M, (1) DVI M
VCL-HDMIDVI-005M	5 m (16.4 ft.)	(1) Locking HDMI M, (1) DVI M
VCL-HDMIS-001M	1 m (3.2 ft.)	(1) Locking HDMI M, (1) Standard HDMI M
VCL-HDMIS-002M	2 m (6.5 ft.)	(1) Locking HDMI M, (1) Standard HDMI M
VCL-HDMIS-003M	3 m (9.8 ft.)	(1) Locking HDMI M, (1) Standard HDMI M
VCL-HDMIS-004M	5 m (16.4 ft.)	(1) Locking HDMI M, (1) Standard HDMI M
VCL-HDMIL-001M	1 m (3.2 ft.)	(2) Locking HDMI M
VCL-HDMIL-002M	2 m (6.5 ft.)	(2) Locking HDMI M
VCL-HDMIL-003M	3 m (9.8 ft.)	(2) Locking HDMI M
VCL-HDMIL-005M	5 m (16.4 ft.)	(2) Locking HDMI M
Adapter Cable		
Product Code	Cable Length	Connectors
VAL-HDMIDVI	15 cm (6")	(1) HDMI M, (1) DVI female

Ordering Information for the Multi-Format AV Scaler with DisplayPort

*NOTE: To order the Multi-Format AV Scaler with DisplayPort, please specify product code **AVSC-7DA-HDMI**.*

A typical application of the AVSC-7DA-HDMI is shown below.



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