Soft Codec
Conferencing System

Introduction

The Atlona **AT-UHD-HDVS-300-KIT** provides AV switching, USB and HDMI extension, plus system control for huddle spaces and meeting rooms using PC-based conferencing codecs such as Skype®, WebEx®, and GoToMeeting®. The transmitter and receiver kit offers five video inputs shared between both devices for HDMI, DisplayPort, and analog video signals. To simplify conference room device management, the kit provides two USB type B connectors for host computers. Two built-in USB hubs, one on the transmitter and one on the receiver, allow for numerous Human Interface Devices (HID) as well as USB cameras and microphones. For the HDMI inputs, the HDVS-300-KIT is compatible with Ultra High Definition sources and displays up to 4K/UHD @ 60 Hz with 4:2:0 color subsampling. All audio, video, data, control, USB, and Ethernet transmission between the two devices is carried over a single, Ethernet-enabled HDBaseT link up to 330 feet (100 meters).

The HDVS-300-KIT provides control to a display through TCP/IP, RS-232, or CEC*, without the need for a separate control system. This simplifies system design and integration while reducing cost. With automatic display control, the HDVS-300-KIT can trigger a display to power on automatically whenever a laptop or other device is connected. At the end of the presentation, when the presenter disconnects the laptop, the HDVS-300-KIT forces the display to power off. Ease of presenter interaction with the system, and the savings incurred by automatic display shutdown provide a significant return on investment. The HDVS-300-KIT display control capability can also be triggered by an external control system.

A power button on the front panel can be used for manual on/off control of either the HDVS-300-KIT or the display. Front panel volume controls are also available to control the display's internal audio, or another device with volume control, such as a DSP or another switcher.

Applications

- Teleconferencing with soft codecs
- Touch and interactive displays

* Atlona does not guarantee the function of CEC with all televisions. We can confirm proper operation with many current Samsung, Panasonic, Sony, and LG TVs. Many manufacturers do not support the CEC "off" command when sent from a source and older TVs use proprietary commands. Atlona only supports those TVs that follow CEC command structure from HDMI 1.2a and support the "off" command when issued by a source. We encourage any dealer to get evaluation product from Atlona prior to designing a system around this control technology or be prepared to use other methods to control their displays if Atlona CEC is not compatible with the installed displays.

Key Features

Integrates PCs, USB cameras, and USB mics for presentations and teleconferences

• Brings advanced conferencing capabilities to huddle spaces and meeting rooms; Reduces the number of system components needed for soft codec-based conferences.

• Removes operational barriers for system users; Lowers overall system cost.

AV switcher with USB hub and Ethernet-enabled, extended distance HDBaseT extension

• Delivers 4K/UHD video, audio, 100Base-T Ethernet, power with USB management and control through a single cable.

• Reduces cable counts and floor box connections between source, control system, router, and display to a single cable.

Receiver with additional HDMI input, USB hub, and PoE

• Provides an additional input at the display for local PCs; Ideal for systems with USB 3.0 cameras attached to the PC.

• Expands system design flexibility without increasing integration costs.

Bidirectional USB 2.0 extension between conference table and display

• Automatically changes projector power state based on active or standby mode of switcher. Control signals transmitted via CEC, IP, or RS-232.

• Eliminates need for complex control system in AV systems. Enables display and volume control from the front panel. CEC enables control of low-cost consumer displays.

Automatic input selection using video detection technology

• Selects active input when sources are connected or if there is a change in source power status.

• Eliminates need for complex control system in AV systems.

• Can be configured to have video follow USB switching, or USB follow video switching.

EDID management and HDCP management

• Manages EDID communications between source and display; allows integrators to force sources to preferred resolution.

• Ensures desired audio formats and video resolutions are provided to the AV system; enables non-encrypted PC output to non-compliant codecs.

4K/UHD capability*

• Compatible with Ultra High Definition sources and displays.

• Supports high-resolution applications such as CAD, desktop publishing, and detailed financial reporting.

• Supports up to HDCP 1.4.

AV, Ethernet, power and control over HDBaseT

• Delivers 4K/UHD video, audio, 100Base-T Ethernet, power and control through a single cable.

• Eliminates multiple cable runs between source, control system router and display.
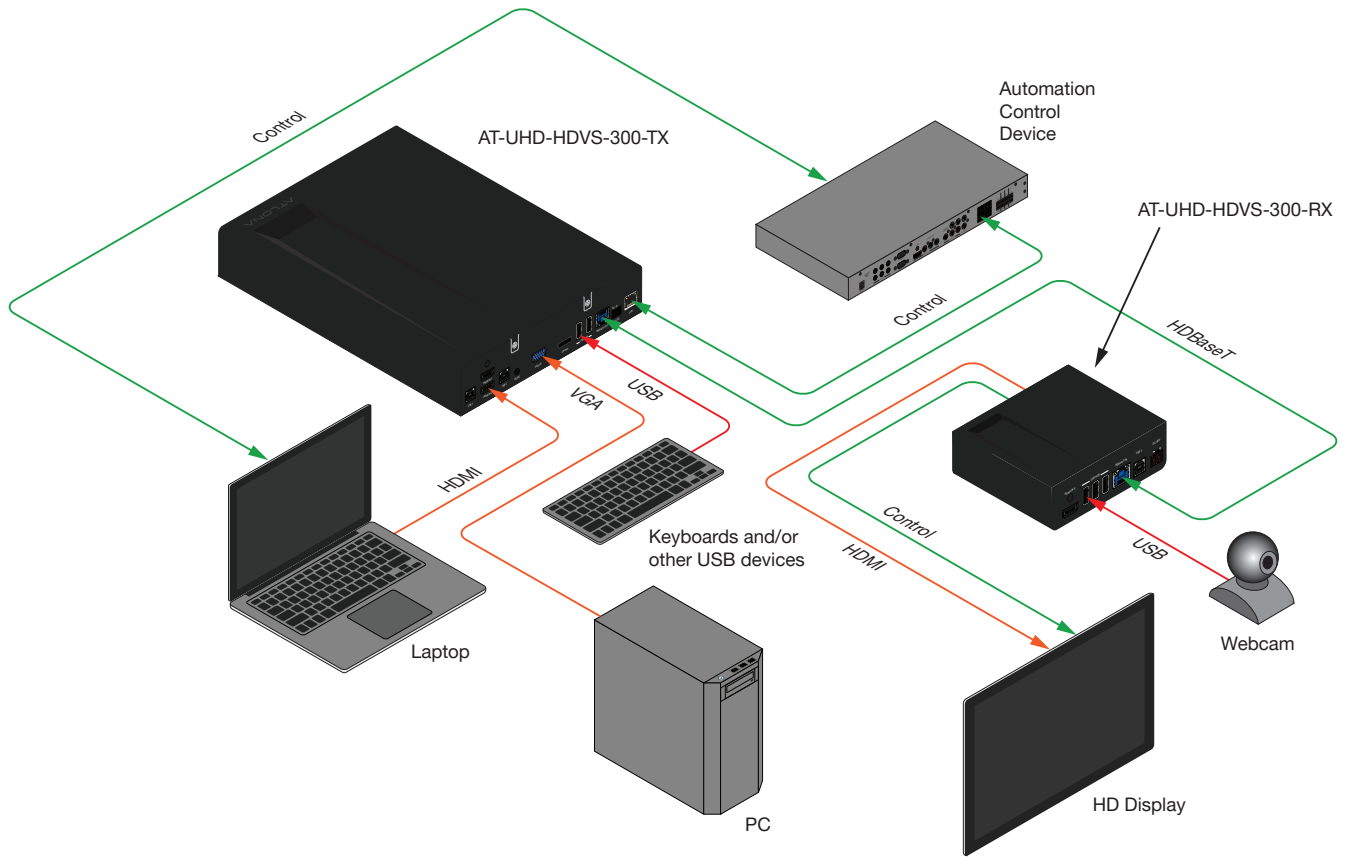
Ethernet control

• Provides IP control capability for third-party control systems

• Reduces integration time and costs

Easy, GUI-based configuration using integrated web server

• Offers menu-based configuration of network settings, RS-232 settings, input switching, USB switching, EDID, and HDCP management and audio.

• Allows fast configuration of product settings and troubleshooting from a tablet, smart phone, or PC in the field.

4K/UHD capability is supported through the HDMI inputs. The DisplayPort input accepts signals up to 1080p resolution.

Connection Diagram

Control

AT-UHD-HDVS-300-TX

Automation
Control
Device

AT-UHD-HDVS-300-RX

Control

HDBaseT

USB

VGA

HDMI

Keyboards and/or
other USB devices

Control

HDMI

USB

Webcam

Laptop

PC

HD Display

Specifications

Connectors, Controls, and Indicators	Transmitter	Receiver
HDMI IN	2 - Type A, 19-pin female	1 - HDMI Type A, 19-pin female
HDMI OUT	1 - Type A, 19-pin female	n/a
DP IN	1 - 20-pin female	n/a
VGA IN	1 - DE15, female	n/a
USB	2 - Type A, 4-pin female 2 - Type B, 4-pin female	3 - USB Type A, 4-pin female
RS-232	1 - 3-pin captive screw	1 - 3-pin captive screw
AUDIO	1 - 3.5 mm mini-stereo	n/a
HDBaseT	1 - RJ45, shielded	1 - RJ45, shielded
LAN	1 - RJ45, sheilded	1 - RJ45, sheilded
DC 48V	n/a	1 - 2-pin, captive screw
Power button	1 - momentary, tact-type	n/a
Cursor buttons	2 - momentary, tact-type	n/a
Input select button	1 - momentary, tact-type	n/a
Video input indicators	5 - LED, blue	n/a
PWR indicator	n/a	1 - LED, green
LINK indicator	n/a	1 - LED, amber

Video	
UHD/HD/SD	4096×2160@24/25/30/50*/60Hz*, 3840×2160@24/25/30/50*/60Hz*, 2048x1080p, 1080p@23.98/24/25/29.97/30/50/59.94/60Hz, 1080i@50/59.94/60Hz, 720p@50/59.94/60Hz, 576p, 576i, 480p, 480i
VESA	2560×2048, 2560×1600, 2048×1536, 1920×1200, 1680×1050, 1600×1200, 1600×900, 1440×900, 1400×1050, 1366×768, 1360×768, 1280×1024, 1280×800 1280×768, 1152×768, 1024×768, 800×600, 640×480
Color Space	YUV, RGB
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0*
Color Depth	8-bit, 10-bit, 12-bit

Audio	
HDMI IN & HDBaseT OUT	PCM 2Ch, LPCM 5.1, LPCM 7.1, Dolby® Digital, DTS® 5.1, Dolby Digital Plus™, Dolby TrueHD, DTS-HD Master Audio™, Dolby Atmos®, DTS:X
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
Bit Rate	24-bit (max.)

Resolution / Distance	4K - Feet	4K - Meters	1080p - Feet	1080p - Meters
CAT5e/6	230	70	330	100
CAT6a/7	330	100	330	100
HDMI IN/OUT	15	5	30	10

4096×2160@50/60Hz & 3840×2160@50/60Hz supported @ chroma subsampling 4:2:0 8-bit only.

Signal	
Maximum TMDS Clock	300 MHz
HDBaseT	10.2 Gbps
HDMI	1.4
DisplayPort	1.2, dual mode
USB	2.0
HDCP	1.4
CEC	Yes

Temperature	Fahrenheit	Celsius
Operating	32 to 104	0 to 40
Storage	-4 to 140	-20 to 60
Humidity (RH)	20% to 90%, non-condensing	

Power	
Consumption	23 W
Idle Consumption	15 W
Supply	Input: 100 - 240 V AC, 50/60 Hz, Output: 48 V DC

Dimensions	Inches	Millimeters
H x W x D (TX)	1.73 x 8.75 x 10.28	44 x 224.25 x 261
H x W x D (RX)	1.02 x 4.29 x 5	26 x 109 x 127

Weight	Pounds	Kilograms
Device (TX)	2.65	1.2
Device (RX)	0.62	0.28

Certification	
Device	CE, FCC
Power Supply	CE, FCC, Level VI, RoHS, cULus, RCM, CCC