Introduction

The Atlona **Etude™ Sync** (**AT-ETU-SYNC**) provides EDID emulation and Hot Plug Detect communication between HDMI sink and source devices. Part of the comprehensive family of Atlona 4K HDR integration products, it detects and corrects for signal integrity issues associated with cabling or connections, and can resolve compatibility problems between a source and sink. The Etude Sync is compatible with high dynamic range (HDR) formats and is HDCP 2.2 compliant. It supports 4K/UHD video @ 60 Hz with 4:4:4 chroma sampling, as well as HDMI data rates up to 18 Gbps. In addition to addressing HDMI signal and device-related issues, the Etude Sync reports HDCP compliance at the source and destination, and can manage EDID communication with the source. This device is ideal for AV system troubleshooting as well as ensuring reliable, consistent performance.

The Etude Sync is for residential and commercial applications with the latest as well as emerging 4K/UHD and HDR sources and displays. It includes Atlona's award-winning 10-year limited product warranty and customer support services, so that integrators can specify, purchase, and install with confidence.

Applications

- **Residential and commercial installations**
  The Etude Sync is designed for AV systems with the latest UHD and HDR sources such as Ultra HD Blu-ray players, plus compatible televisions and projectors.

- **Troubleshooting**
  The Etude Sync is ideal for identifying and resolving signal handshaking problems between a source and a display (or other destination device).

- **Legacy device integration**
  This device provides compatibility with legacy HDMI source devices that do not support the HDMI clock stretching protocol required for HDBaseT™ extension.

Key Features

EDID emulation and management for HDMI signals

- Provides EDID to the HDMI source device from the display or the Etude Sync's internal memory.
- Ability to capture EDID from a display and store in memory.
- Ensures desired audio formats and video resolutions are provided to the AV system.

5 Volt and Hot Plug Detect emulation for HDMI source and sink communications

- Restores +5 volt and HPD signals lost due to issues at the source or display, as well as faulty or long cables.
- Enables the essential signal handshaking necessary for the source to deliver video content.

Detects and resolves issues associated with signal handshaking between source and destination devices

- Ideal for troubleshooting performance or reliability issues related to cabling, terminations, source and display compatibility, and other factors.
- Quickly and easily installs into AV systems to address HDMI signaling or EDID problems and ensure dependable operation.

4K/UHD capability @ 60 Hz with 4:4:4 chroma sampling, plus support for HDR formats

- Ideal for new and emerging 4K/UHD and HDR-capable sources and displays.
- Compatible with 4K HDR10 and Dolby® Vision™ @ 60 Hz.

HDCP 2.2 compliant

- Adheres to latest specification for High-bandwidth Digital Content Protection.
- Allows protected content stream to pass between devices.

Provides HDMI signal regeneration for source devices

- Allows legacy HDMI sources such as cable television set-top boxes to be used in newer systems.
- Addresses the lack of support for the HDMI clock stretching protocol required in HDBaseT extenders.

Multi-channel audio compliant

- Passes through multi-channel audio formats from the HDMI input.
- Supports PCM, Dolby Digital, Dolby Digital Plus™, Dolby TrueHD, Dolby Atmos®, DTS® Digital Surround™, DTS-HD Master Audio™, and DTS:X®.

Field-updatable firmware

- Device can be updated in the field via USB port.

Front panel power and signal status LEDs

- LED indicators provide power and signal status information for +5 volt source supply, hot plug detect, and HDCP.
- Quick and easy identification of connection or signal integrity problems, as well as HDCP compliance at source and destination.

Key Features (continued)

USB-powered with the included power supply or local device

• Flexible options available for installing the Etude Sync in the field.

• For testing or troubleshooting, device can conveniently be powered by a laptop or any available USB port nearby.

Low-profile, 1 inch (25 mm) high enclosure

• Easy installation into racks and confined spaces.

• Keeps devices out-of-sight when placed in public spaces.

Included accessories

• User guide, USB cable, and external universal power supply.

Award-winning 10 year limited product warranty

• Ensures long-term product reliability and performance in residential and commercial systems.

• Specify, purchase, and install with confidence.

Specifications

Video		
Signal	Input - HDMI Output - HDMI	
Copy Protection	HDCP 1.4 / 2.2	
Pixel Clock	600 MHz	
UHD/HD/SD	4096×2160@24/25/30/50/60Hz 3840×2160@24/25/30/50/60Hz 2048x1080p 1920x1080p@23.98/24/25/29.97/30/50/ 59.94/60Hz 1920x1080i@50/59.94/60Hz	1280x720p@50/59.94/60Hz 720x576p 720x576i 720x480p 720x480i
VESA All resolutions are 60Hz	2560x1600 2048x1536 1920x1200 1680x1050 1600x1200 1440x900 1400x1050 1366x768	1360x768 1280x1024 1280x800 1152x768 1024x768 800x600 640x480
Color Space	YUV, RGB	
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0	

Audio			
HDMI Output	PCM 2.0 LPCM 5.1 LPCM 7.1	Dolby® Digital Dolby Digital Plus™ Dolby TrueHD Dolby Atmos®	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X®
Bit Rate	24 Mbits/s max		
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz		

Resolution / Distance	4K/UHD - Feet / Meters		1080p - Feet / Meters	
HDMI IN/OUT	15	5	30	10

Buttons and Indicators	
Buttons: TEST, LEARN EDID	2 x buttons, momentary, tact-type 1 x Rotary switch
Indicators: POWER SOURCE, SINK, 5V, HPD	1 x RED 4 x GREEN

Connectors	
HDMI IN	1 x Type A, 19-pin female
HDMI OUT	1 x Type A, 19-pin female
FW / PWR	1 x Mini-USB

Environmental	Fahrenheit	Celsius
Operating Temperature	+32 to +122	0 to +50
Storage Temperature	-4 to +140	-20 to +60
Operating Humidity (RH)	20% to 90%, non-condensing	

Power	
Consumption	5.2 W
BTU/h	20.1
External Power Supply	100 - 240 V AC, 50/60 Hz Output: 5 V / 1.2 A DC

Dimensions (H x W x D)	Inches	Millimeters
Unit	1.02 x 4.29 x 3.50	26 x 109 x 89
Unit (w/feet)	1.02 x 4.29 x 3.74	26 x 109 x 95
Power Supply (AT-PS-51-U)	2.3 x 4.4 x 2.8	58 x 111 x 71

Weight	Pounds	Kilograms
Device	0.6	0.27

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

Compliance		
NDAA-899	Yes	
TAA	Yes	

Warranty	
Device	To view the product warranty, use the following link: https://atlona.com/warranty

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