

# AWS Elemental Link UHD



1x 1GbE RJ45, 1x 12G-SDI, 1x HDMI 2.0

AWS Elemental Link UHD is an HEVC encoding device that connects a live video source, like a camera or video production equipment, to AWS Elemental MediaLive. Link UHD offers a configuration-free, cost-efficient way to securely and reliably transfer video to MediaLive for delivery to viewers. To use the device, you simply connect it to power, Ethernet, and a video source. Then you can control and monitor your AWS Elemental Link UHD device from anywhere you have access to the AWS Management Console. AWS Elemental Link improves the quality and reliability of your live video streams while reducing the cost and complexity of equipment that you need to operate on-premises.



## BENEFITS

### Fast and easy setup

AWS Elemental Link UHD is shipped fully configured for your AWS Account. Simply connect the device to power, an IP network, and a video source (12G-SDI or HDMI 2.0). Once connected, Link automatically starts sending thumbnail images and is available as a source for MediaLive in the AWS Management Console, ready for live streaming.

### Small and portable

Link UHD is a small, portable device with minimal power and cooling requirements. Weighing less than 2 lb (735 g), Link can travel wherever you need to connect live video to the cloud. Link is silent, and fanless operation and minimal heat generation make the device practical to use in low-noise environments like studios.

### Manage and monitor devices remotely

With AWS Elemental Link UHD, you control the entire live event workflow using the AWS Management Console. Because you can manage and monitor multiple devices anywhere in the world from a central point of control, you don't need to send technical operators to event sites in order to set up and configure your live streams.

### High video quality

Link UHD is designed to maximize the quality of video sent to the cloud and account for the unpredictable nature of network conditions. The device uses an advanced video compression system that continuously adjusts to available bandwidth in order to deliver the best possible video under all network conditions.

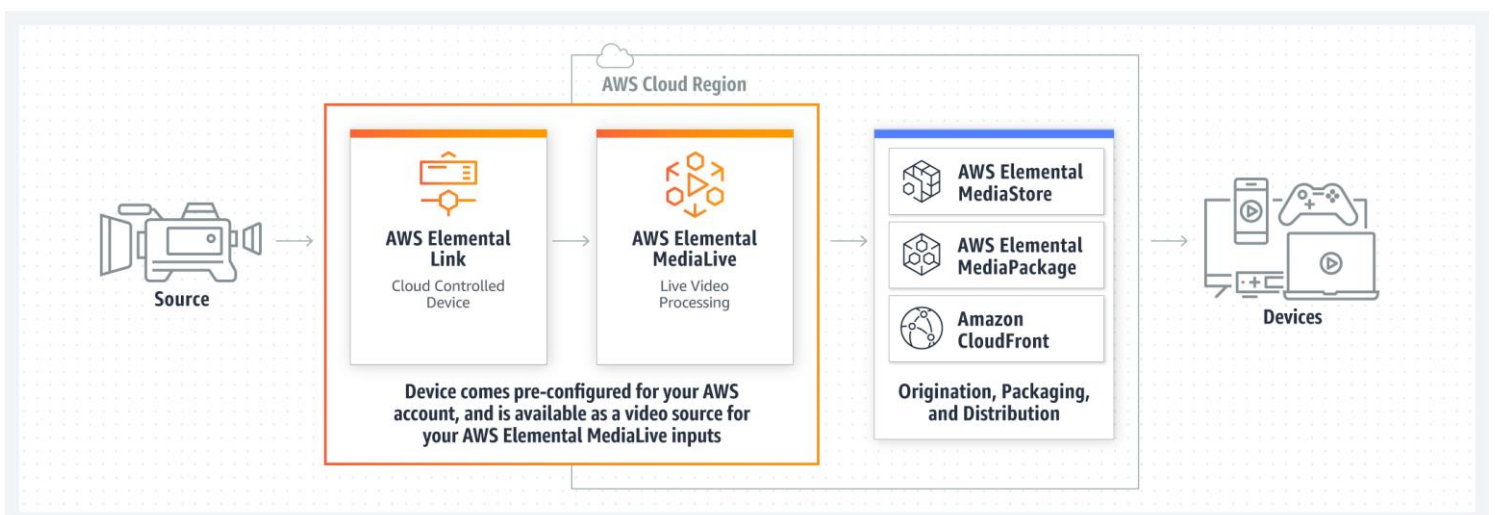
### Cost efficient

At a price of \$4,995 USD per device (excluding customs clearance, duty, tax, and shipping), Link UHD provides a broadcast-grade way to connect your on-premises live video source to MediaLive at a fraction of the cost of traditional approaches. Because setup is easy and management of devices is handled remotely, Link is efficient to own and operate.

### Delight viewers with HDR video

Delight your audience with brilliant picture quality using Link UHD, which supports up to 10 bit color depth for your video. Using Link UHD you can create high dynamic range (HDR) channels in MediaLive with HDR 10 and HLG video output.

## HOW IT WORKS



# AWS Elemental Link-UHD



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## PHYSICAL

<b>Dimensions (W x H x D)</b>	14.50 cm x 4.30 cm x 15.70 cm 5.71 in x 1.69 in x 6.18 in
<b>Weight</b>	0.8 kg (Unit) 1.7 kg (Gross)
<b>ECCN</b>	EAR99
<b>USHTS Code</b>	8525.50.3040

## ELECTRICAL

<b>Max Potential Power</b>	25 Watts (Max)
<b>Heat Dissipation</b>	85.30 BTU/hr (Max)
<b>Line Frequency</b>	50 - 60 Hz
<b>Input Voltage</b>	100 - 240 VAC

## ENVIRONMENTAL

<b>Operating Conditions</b>	0 to 40 °C (32 to 104 °F) 5% to 80% RH (non-condensing)
<b>Storage Conditions</b>	-20 to 75 °C (-4 to 167 °F) Up to 95% RH (non-condensing)
<b>Noise Level</b>	0 dBA (Max)
<b>Electromagnetic Compliance</b>	EN 55032:2012/AC:2013 Class B EN 61000-3-2:2014, EN 61000-3-3:2013 FCC 15.107:2020 Class B FCC 15.109:2020 Class B ICES-003:2016 Class B VCCI-CISPR 32:2016 Class B
<b>Safety Compliance</b>	IEC 62368-1:2014

## SYSTEM

<b>System Management</b>	AWS Elemental MediaLive Console
<b>Interfaces</b>	1x 1GbE RJ45 1x 12G-SDI 1x HDMI 2.0 1x USB 3.0 Momentary Switch Button LCD Front Panel Display

## INPUT SUPPORT

<b>MediaLive Transport Formats</b>	<ul style="list-style-type: none"><li>- Video is transported to MediaLive as 10-bit color depth with 4:2:2 color space sampling</li><li>- Interlaced video is deinterlaced and transported as progressive video</li></ul>
<b>3G-SDI Interface</b>	<ul style="list-style-type: none"><li>- 4096x2160p @ 23.97fps, 24fps, 25fps, 29.97fps, 30fps, 50fps, 59.94fps, 60fps</li><li>- 1920x1080p @ 23.97 fps, 24fps, 25fps, 29.97fps, 30fps, 50fps, 59.94fps, 60fps</li><li>- 1280x720p @ 50fps, 59.94fps, 60fps</li><li>- 1920x1080i 25fps, 29.97ps, 30fps (field rate is 50, 59.94, 60 respectively)</li><li>- 576i 25fps (field rate is 50)</li><li>- 480i 29.97fps, 30fps (field rate is 59.94 and 60 respectively)</li></ul>
<b>HDMI Interface</b>	<ul style="list-style-type: none"><li>- 4096x2160p @ 23.97fps, 24fps, 25fps, 29.97fps, 30fps, 50fps, 59.94fps, 60fps</li><li>- 1920x1080p @ 23.97 fps, 24fps, 25fps, 29.97fps, 30fps, 50fps, 59.95fps, 60fps</li><li>- 1280x720p @ 50fps, 59.94fps, 60fps</li><li>- 1920x1080i 25fps, 29.97ps, 30fps (field rate is 50, 59.94, 60 respectively)</li><li>- 576i 25fps (field rate is 50)</li><li>- 480i 29.97fps, 30fps (field rate is 59.94 and 60 respectively)</li></ul>
<b>Metadata</b>	<ul style="list-style-type: none"><li>- Timecode (SMPTE 12M), closed captioning (SMPTE 334), teletext (OP-47), and ad insertion (SCTE-104)</li></ul>
<b>Audio Support</b>	<ul style="list-style-type: none"><li>- 16 embedded audio channels over 12G-SDI</li><li>- 8 embedded audio channels over HDMI 2.0</li><li>- 32 kHz, 44.1 kHz, and 48 kHz supported</li></ul>
<b>Codec and Transport</b>	<ul style="list-style-type: none"><li>- Efficient, advanced video compression</li><li>- All streaming media is encrypted and transported using an ARQ protocol</li><li>- Supported bitrates: 0.5Mbps to 50Mbps</li><li>- Bitrate limit can be set in AWS Elemental MediaLive</li><li>- Channel tune algorithm adjusts bitrate based on available bandwidth</li></ul>

## HARDWARE CONFIGURATION

<b>Network Requirements</b>	<ul style="list-style-type: none"><li>- Port 443: Open for inbound connections to Internet</li><li>- Port 2088: Open for outbound connections to Internet</li><li>- No inbound connections ("Port Forwarding") required</li></ul>
<b>IP Provisioning</b>	<ol style="list-style-type: none"><li>1. DHCP supported (Default Configuration)</li><li>2. Static IP Provisioning supported through on-device UI and button press as per instructions below</li></ol>

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## SETTINGS BUTTON FUNCTIONALITY

Press and hold for...	When LEDs blink...	Release to set as...
5 seconds	Once	DHCP
10 seconds	Twice	Static IP
15 seconds	Thrice	Revert to default password

## LED FUNCTIONALITY

LED	LED State	Definition
Power	OFF	The device is not powered ON
Power	Solid Blue	The device is powered ON
Online	Flashing Red	The network did not provide an IP Gateway
Online	Solid Red	The device can't connect to public internet
Online	Solid Blue	The device has successfully connected to public internet
Online	Flashing Purple	Connected to public internet but port 123 is closed and limiting functionality
AWS Link	Solid Red	Device is not able to link with AWS
AWS Link	Solid Blue	Device has successfully linked to AWS
Streaming	Solid Red	Video source has not locked
Streaming	Flashing Purple	No valid video input and the service is live streaming
Streaming	Solid Purple	Valid video input but not streaming
Streaming	Solid Blue	Video input is valid and the service is live streaming