

AV OVER IP · H.264/265 ENCODER / DECODER

BLU-SDV-100AT

One box, two roles.
4K60 over 1G IP.

An H.264/265 AVoIP transceiver that works as encoder or decoder from the same hardware. Uncompressed-quality 4K60 4:4:4 video, embedded/de-embedded stereo audio, USB KVM and RS-232 control all ride a single 1G copper or fibre link, with seamless switching, video walls up to 9×9 and multiview up to 25 windows.



TX / RX ONE BOX, EITHER ROLE	1G COPPER OR FIBRE	4K60 4:4:4 MAX RESOLUTION	9×9 VIDEO WALL	25 MULTIVIEW WINDOWS
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SPECIFICATION SUMMARY

Role	Encoder or decoder, set on unit
HDMI	HDMI 2.0b
HDCP	HDCP 2.2
Compression	H.264 / H.265
HDMI Bandwidth	18Gbps
Network	1000M Base-T, PoE + SFP
Max resolution	3840×2160 @ 60Hz
HDR	HDR10, Dolby Vision, HLG
Colour depth	8 / 10 / 12-bit
Control	Panel, RS-232, TCP/IP, USB KVM

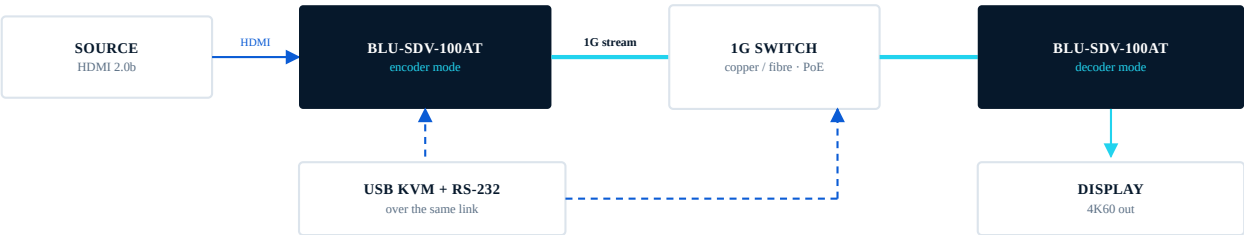
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TYPICAL USE

- Campus and command-centre AV distribution
- Video walls and multiview monitoring
- Digital signage over a standard IP switch
- Meeting rooms needing KVM and RS-232 reach

One box, either role. Set the unit as encoder or decoder from the front panel or over the API — same hardware, same stock, one spare part covers both ends of a run.



ONE STREAM, ONE NETWORK · ENCODE AT THE SOURCE, DECODE AT THE DISPLAY

01 Overview

What the transceiver does, and how one box covers both ends of a link.

The **BLU-SDV-100AT** is an H.264/265 AVoIP transceiver that works as **encoder or decoder from the same hardware**. It carries uncompressed-quality **4K60 4:4:4** video, embedded / de-embedded stereo audio, USB KVM and RS-232 control over a single **1G copper or fibre link**, with seamless switching, video walls up to **9×9** and multiview up to **25** windows.

Set the role from the front-panel button or over the control API. Because encoder and decoder units share identical hardware, spares stock is a single part number — one box covers both ends of a run. A built-in H.264 preview stream lets you check any source from a phone or tablet on the network.

CAPABILITIES

- **Encoder or decoder** role, set on the unit
- **H.264 / H.265** compression
- **HDMI 2.0b, HDCP 2.2**, 18Gbps HDMI bandwidth
- **4K60 4:4:4** — 3840×2160 @ 60Hz maximum
- **HDR10, Dolby Vision and HLG**; 8 / 10 / 12-bit colour depth
- **1000M Base-T network** with PoE, plus an SFP fibre slot
- **Video walls up to 9×9** and multiview up to 25 windows
- **USB KVM** and RS-232 ride the same network link as the video
- **Control** via front panel, RS-232, TCP/IP
- **Built-in H.264 preview stream** for any source

AT A GLANCE

Role TX / RX	Codec H.264/265	HDMI 2.0b
HDCP 2.2	Max 4K60 4:4:4	Net 1G PoE + SFP
Wall 9×9	Multiview 25	KVM USB

HOW ROLE SWITCHING WORKS

- Set the unit to encoder or decoder from the front-panel button, or remotely over the control API
- Encoder and decoder units share identical hardware, so spares stock is a single part number
- Control via front panel, RS-232 or TCP/IP; USB KVM rides the same network link as the video
- A built-in H.264 preview stream lets you check any source from a phone or tablet on the network

02 Specifications

Video, network, connection and control figures.

VIDEO

HDMI	HDMI 2.0b
HDCP	HDCP 2.2
Compression	H.264 / H.265
HDMI Bandwidth	18Gbps
Max resolution	3840×2160 @ 60Hz (4K60 4:4:4)
HDR	HDR10, Dolby Vision, HLG
Colour depth	8 / 10 / 12-bit
Video wall	up to 9×9
Multiview	up to 25 windows
Preview	Built-in H.264 preview stream

ROLE

Mode	Encoder or decoder, set on unit
Set by	Front-panel button or control API
Hardware	Identical TX / RX, single part number

NETWORK

Ethernet	1000M Base-T (RJ45)
PoE	802.3at PD
Fibre	SFP slot – alternate link for longer runs

CONNECTIONS

HDMI IN	Type A, 19-pin female
HDMI OUT	Type A, 19-pin female
Audio IN / OUT	3-pin phoenix pair each (L: +/GND/–, R: +/GND/–), balanced stereo line level
RS-232	3-pin phoenix (TX / GND / RX)
USB DEVICE	2× Type A, 4-pin female
USB HOST	Type B, 4-pin female
Reset	Recessed button

CONTROL & POWER

Control	Panel, RS-232, TCP/IP, USB KVM
Power	PoE (802.3at) or local DC 12 V / 2.5 A

03 Interfaces & control

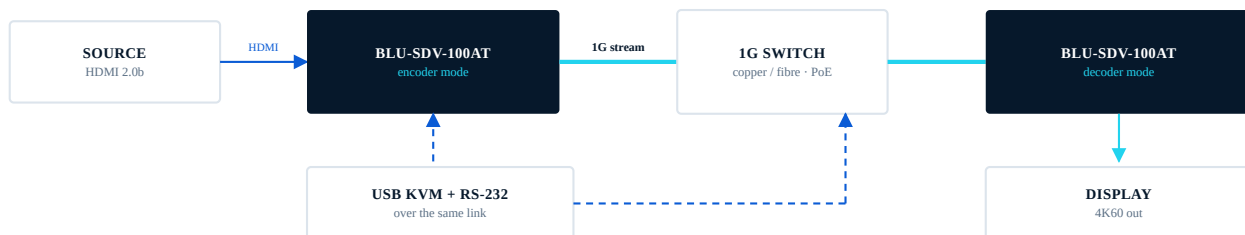
Every connector on the unit, and the three ways to drive it.



1	DC 12V	Barrel power input. Local 12V/2.5A supply — an alternative to powering the unit over PoE.
2	LAN (PoE)	RJ45, 1000M Base-T. Carries the video/audio/control stream and, on a PoE port, powers the unit (802.3at PD).
3	SFP	Fibre slot — an alternate network link for longer runs, used in place of or alongside the copper port.
4	HDMI IN	Source input, Type A 19-pin female. HDMI 2.0b, HDCP 2.2 — active when the unit is set to encoder mode.
5	HDMI OUT	Type A 19-pin female. Recovered signal to the display in decoder mode, or a local loop-out of the source in encoder mode.
6	AUDIO OUT	3-pin phoenix pair (L: +/GND/–, R: +/GND/–), balanced stereo line level. De-embedded from the stream at the decoder, for a local amplifier.
7	AUDIO IN	3-pin phoenix pair (L: +/GND/–, R: +/GND/–), balanced stereo line level. Embedded into the outgoing stream at the encoder.
8	RS-232	3-pin phoenix connector (TX / GND / RX). Serial commands pass across the network link between paired units.
9	USB DEVICE ×2	Type A, 4-pin female (ports 1–2). Connects keyboard, mouse or other USB peripherals for KVM at the display end.
10	USB HOST	Type B, 4-pin female. Connects to a PC for USB KVM operation.
11	RESET	Recessed button. Press and hold to restore factory defaults.

04 Application example

Encode at the source, decode at the display — one stream over one network.



One box, either role. The same hardware encodes at the source and decodes at the display; set the mode from the front panel or the control API.

One link carries it all. Video, audio, USB KVM and RS-232 ride the same 1G copper or fibre network connection.

HOW ROLE SWITCHING WORKS

- Set the unit to encoder or decoder from the front-panel button, or remotely over the control API
- Encoder and decoder units share identical hardware, so spares stock is a single part number
- Control via front panel, RS-232 or TCP/IP; USB KVM rides the same network link as the video
- A built-in H.264 preview stream lets you check any source from a phone or tablet on the network

ORDERING

BLU-SDV-100AT

AV over IP H.264/265 encoder / decoder transceiver — HDMI 2.0b, HDCP 2.2, 4K60 4:4:4, 1000M Base-T with PoE + SFP, USB KVM, RS-232, encoder-or-decoder role set on the unit

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