

Ultra Encode AIO: setup and site to site

A standalone live encoder for one HDMI and one SDI source (or both mixed): up to six streaming destinations at once while recording, and SRT links between sites to a Pro Convert decoder and a screen at the far end.

Ports and power

Video in	HDMI 1.4a up to 4096×2160p60 · SDI (SD/HD/3G/6G) up to 4K30
Loop-through	HDMI and SDI, both active
Audio	3.5 mm line in and line out · embedded SDI/HDMI audio
Network	RJ45 10/100/1000 with PoE+ (IEEE 802.3at) · Wi-Fi · 4G/5G USB modem (not supplied)
Power	DC 9–18 V adapter (supplied), ≈ 11.5 W max · or PoE+
Other	USB-C config · 2 × USB-A · SD card slot · 1.9" touch screen
Size	214.9 × 128.2 × 44.55 mm · 1U rack kit supplied · 0–40 °C
Warranty	2 years (power adapter 1 year)

Streaming

Destinations	Up to 6 at once
Presets	YouTube, Facebook, Twitch, Wowza, Zixi Broadcaster
Protocols	RTMP/RTMPS, SRT, NDI HX2/HX3, RTSP, HLS, RIST, Zixi, TVU ISSP, UDP/RTP
Encoding	H.264/H.265 · main up to 4K30 · sub up to 1080p60 · 256 kbps–32 Mbps
One-only	One of: SRT listener, RTSP, HLS, RIST listener or ISSP · NDI HX3 runs alone
Inputs	HDMI, SDI, or Mixer (PiP or side by side)
Overlays	Up to 8 per stream: text, images, clock

SRT site to site: settings

Roles	One end listener , the other caller (either way round)
Listener	Needs a fixed public IP · encoder default port 8000 · up to 8 connections
Latency	Default 120 ms · encoder 30–8000 ms · decoder 20–5000 ms · match both ends
Encryption	AES-128/192/256 · passphrase 10–79 characters · same both ends
Stream ID	Must match the receiving decoder
Sessions	Up to 6 SRT sessions per unit, one of them a listener

If the link won't connect

- Latency set the same at both ends
- Stream ID and passphrase match exactly
- The caller uses the listener's public address and port
- The two ends can reach each other

Ideas to build on: an overflow venue in another building fed over SRT · up to 8 sites calling one listener, each showing the programme on its own screen · public streaming and a private site link from the same encoder · branded output with overlays.

Reaching it

DHCP	IP and QR code on the front screen
USB-C	Browse to 192.168.66.1
Wi-Fi hotspot	Browse to 192.168.48.1 · password: last 8 digits of the serial
Login	Admin / Admin, change on first login
Reset	No button: USB-C → 192.168.66.1 → "Reset all settings"

In the box: power adapter, 2 Wi-Fi antennas, HDMI cable, 1U rack ears, screws and retainer plate. Recording media not supplied.

Recording

Tasks	Up to 2 recordings, alongside streaming
Media	SD card, USB drive, NAS (NFS/CIFS)
Formats	MP4 (default), MOV, TS · normal or loop mode

Far-end decoders (receive SRT)

- **Pro Convert IP to HDMI 4K:** HDMI, single view to 4Kp60, PiP or quad at 1080p60
- **Pro Convert IP to AIO 4K:** HDMI + 12G-SDI (same picture), up to 4 HD streams in multiview
- Source type on the decoder: "MPEG-TS over SRT"; both ends must be able to reach each other

Parts list

- ☐ Ultra Encode AIO (adapter supplied), or a PoE+ switch port
- ☐ SD card, USB drive or NAS for recordings
- ☐ A fixed public IP address at the listening end
- ☐ Pro Convert IP to HDMI 4K or IP to AIO 4K at the far site
- ☐ Control Hub, to manage encoders and decoders together