

Pro Convert HDMI 4K Plus: HDMI to NDI

A standalone encoder that puts one HDMI source onto your network as full bandwidth NDI (NDI 6.3), with an HDMI loop-through for a local monitor. Any NDI receiver on the network can pick it up. Also available as a Modator module for the Modator 2U chassis.

Per unit

HDMI in	Up to 4096×2160 60 fps 4:4:4 8-bit · HDMI 1.4/2.0, DVI-D · custom EDID
HDMI out	Loop-through
Output	Full NDI only (NDI 6.3) · up to 4096×2160 60 fps · not NDI HX, not SRT
Audio	8-channel HDMI-embedded, carried in the NDI stream
Network	RJ45 10/100/1000 Mbps
Power	PoE IEEE 802.3af, or 5 V / 2.1 A adaptor · ≈ 10 W max
Mini-DIN 8	Tally light · serial PTZ (VISCA, VISCA UDP, PELCO-P/D)
Size	117.5 × 66.7 × 23.4 mm · 1/4"-20 mount · 0–45 °C
Warranty	2 years (USB cable and adaptor 1 year)

Set-up steps

- Connect HDMI in, loop-through monitor (optional), network; power by PoE or adaptor
- DHCP by default; find it in NDI Studio Monitor or Windows Network as "Pro Convert" + serial
- Web page login **Admin / Admin**: change it at first sign-in
- Name the NDI source; rotary switch sets board index 0–F
- No network: USB to a PC, then **192.168.66.1**

Receivers

- OBS with the NDI plug-in · NDI Studio Monitor · other NDI software
- Magewell decoders, e.g. Pro Convert for NDI to HDMI 4K, to a screen
- Pro Convert IP to USB: NDI to a USB webcam-style input

Common fixes

- Not seen: same network segment; NDI group "public"
- Black picture with loop-through monitor: SmartEDID off (EDID tab)
- Reset: USB, 192.168.66.1, "Reset all settings"

Bandwidth (Magewell, full NDI)

FORMAT	≈ MBPS
720p50/60	90
1080p50/60	125
UHD p30	200
UHD p60	250

Varies with picture complexity. One gigabit link carries 6–7 × 1080p60 or 2–3 × 4Kp60 (Magewell FAQ). NDI's own figure for 1080p60 full NDI: 132 Mbps (docs.ndi.video).

Delay: about 60 ms at 4K60 on gigabit (Magewell user manual). Magewell's FAQs quote about 47 ms and about 70 ms for 1080p60 in other tests.

Network

- Gigabit switch; PoE (802.3af) ports if not using the adaptor
- Many receivers: **multicast** on the encoder, **IGMP snooping or IGMP proxy** on the switch (Magewell: for a LAN not connected to an external network)
- Transport: default TCP multi-connection; Magewell suggests TCP uni-connection for reliable 4K
- Across subnets: NDI Discovery Server (the encoder can host one)

Going off-site

- This encoder sends **full NDI only**
- **NDI Bridge** (from NDI) links two NDI networks over the internet, host port forwarded, can transcode to NDI HX
- Or feed the loop-through into a Magewell **Ultra Encode** for SRT and platforms

Parts list

- ☐ One encoder per HDMI source (or Modator modules + Modator 2U chassis)
- ☐ Gigabit switch: PoE, multicast, IGMP snooping
- ☐ Receivers: NDI software or Magewell decoders
- ☐ Control Hub (optional), for central management
- ☐ HDMI cables; network cables