

AVMATRIX[®]

4K HDMI/NDI Encoder & Decoder

Support SRT, RTMP(S), RTSP, and NDI|HX3 (Optional) Protocols.

Model No.:

DE20-4K





Up to **50 Mbps**
high-bandwidth Transfer

USB Capture and LAN Streaming

twitch

zoom

OBS STUDIO

vMix

VLC
MEDIA PLAYER



USB Disk & SD Card Recording

HDMI Input and HDMI Loopout



Built-in NDI® Encoding Decoding, Up to 4K30

4K30

HDMI  NDI



DC 12V & PoE, DC Out
Flexible Power Options

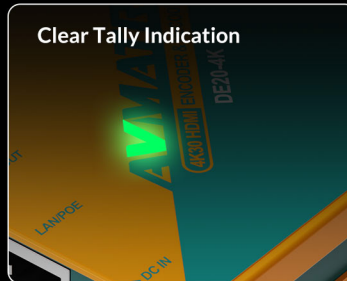


Flexible Audio Mixing

PTZ Camera Control



Clear Tally Indication



2-in-1 Encoder & Decoder

HDMI / IP streams Bidirectional Conversion

Integrating both encoding and decoding into a single compact device, this solution streamlines your entire video workflow. Effortlessly convert HDMI to IP streams, or decode IP sources back to HDMI output—eliminating the need for multiple devices while improving efficiency and flexibility across any application.

HDMI  IP Stream





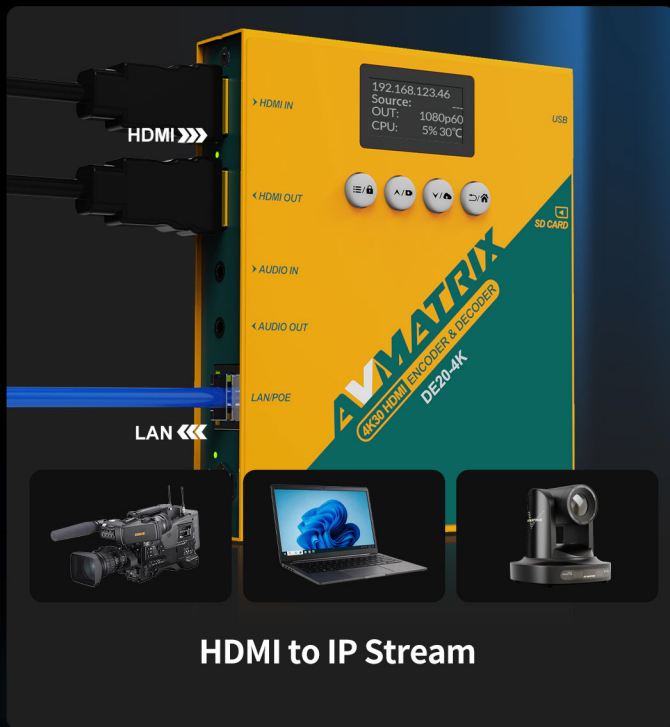
4K60

HDMI Input & Loopout

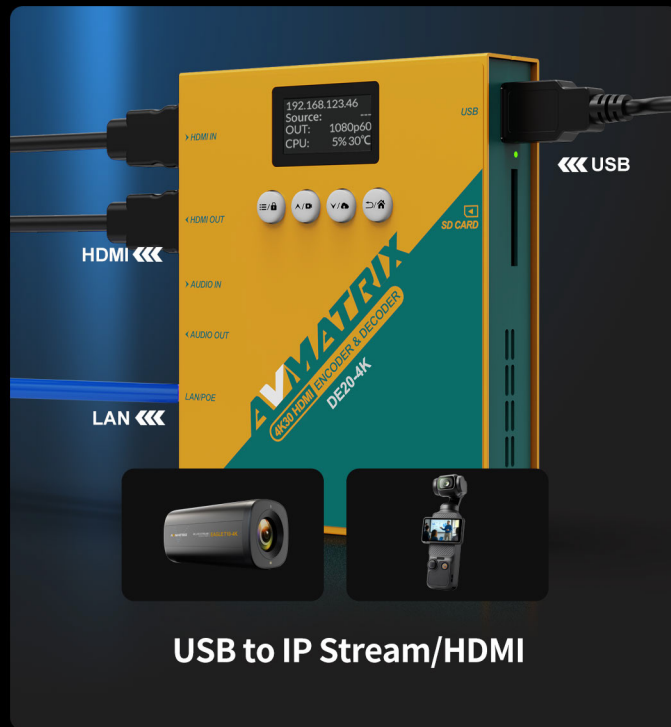
Ultra-HD, Zero-Latency, Pass-Through

DE20-4K offers a no-compromise monitoring experience. It supports full 4K60 HDMI input and HDR loop-out, ensuring your local display sees every detail in real-time with zero latency.

*Note: Encoding and decoding functions support up to 4K30 resolution.



HDMI to IP Stream



USB to IP Stream/HDMI

Versatile HDMI & USB Encoding Solution

Seamlessly Bridge HDMI, USB, and IP Workflows

Easily convert HDMI signals into high-quality, low-latency IP streams, while also supporting USB cameras for both HDMI output and streaming. This versatile solution bridges consumer and professional video workflows, enabling integration of cameras, webcams, laptops, etc.

Multi-platform Live Streaming

Supports Multiple Streaming Protocols

This device supports a wide range of streaming protocols, including SRT, RTMP(S), RTSP, and NDI®|HX3 (Optional). It enables seamless live streaming to mainstream platforms such as YouTube, Facebook, and Twitch without the need for a PC. You can broadcast to up to two RTMP/SRT destinations simultaneously, maximizing your reach with ease.



vimeo



SRT

RTMP(S)

RTSP

NDI®|HX3

Excellent Recording

Via USB Disk & SD Card

Capture every moment with the built-in recording function, enabling simultaneous gaming, live streaming, and recording. Record up to 4K30 video directly to a USB drive or SD card—no external recorder required. Recorded files can be easily accessed and downloaded through the web interface.



192.168.123.46
Source:
GPU: 100%/52°C
CPU: 5%/30°C

128 GB
AMATRIX
DESIGN ENGINEERING & RECORDING
DE20-4K

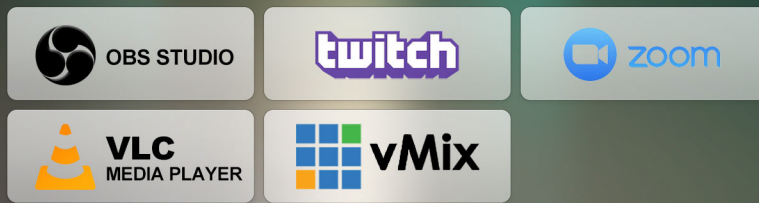
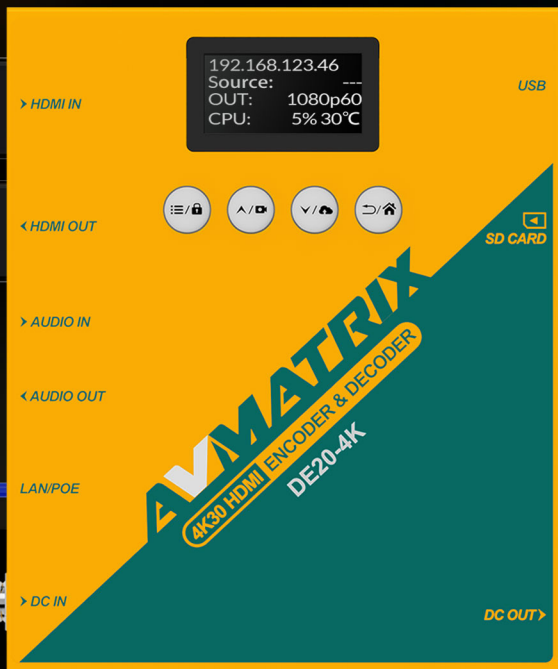
TO CARD

DC OUT

USB Capture for Production

Driver-Free, Plug-and-Play

The device can also work as an USB capture device with MJPG format supported to ensure broad compatibility. With plug-and-play design, it works seamlessly with Windows, macOS, and Linux operating systems and compatible with mainstream streaming software including OBS, PotPlayer, and vMix.





Flexible Audio Interface

Audio Input, Output and USB Sound Card Input

The encoder & decoder features audio input and output ports, allowing external analog sources to be embedded during encoding. It also supports audio input via USB, providing high-fidelity, low-latency sound for live streaming and video production.



LOCAL
STREAM



NETWORK
STREAM



USB
CAMERA



NDI|HX3

High-Quality Decoding Output

Flexible HDMI Conversion from Multiple Sources

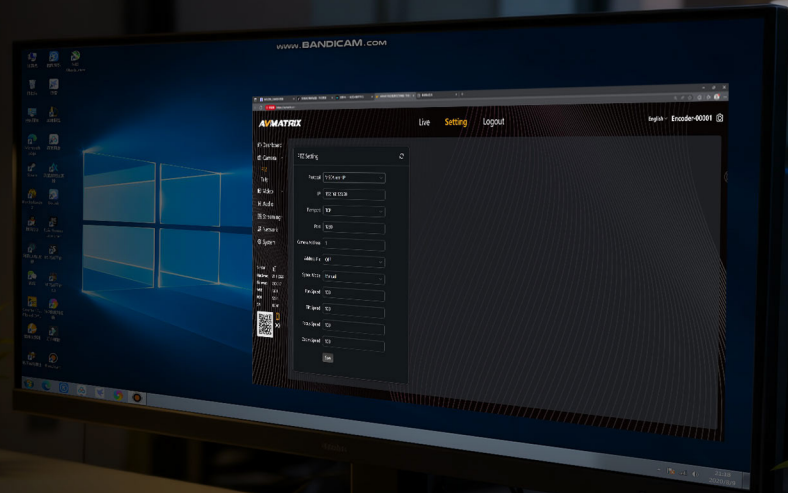
Supports real-time decoding of IP streams into high-quality 4K HDMI output with smooth and clear video. Choose from local stream(RTSP/SRT), network stream(RTMP/RTMP(s)/SRT), USB camera, or NDI|HX3(Optional) input sources for versatile decoding. Audio is simultaneously decoded and output via the AUDIO OUT port for seamless AV integration.

Remote PTZ Camera Control

Via USB to Serial Port, IP Visca, NDI

Easily convert traditional PTZ cameras into network-enabled devices via USB-to-serial (RS232/RS485/RS422), IP VISCA and NDI protocols, it enables flexible and efficient control of you cameras.





Easy Setup, Instant Control

OLED Display and PC Software Interface

Equipped with control buttons for quick and easy access to essential functions. The built-in OLED display provides realtime status information. A clear and intuitive web interface allows you to customize various settings to suit your specific needs.



Built-In Tally Light

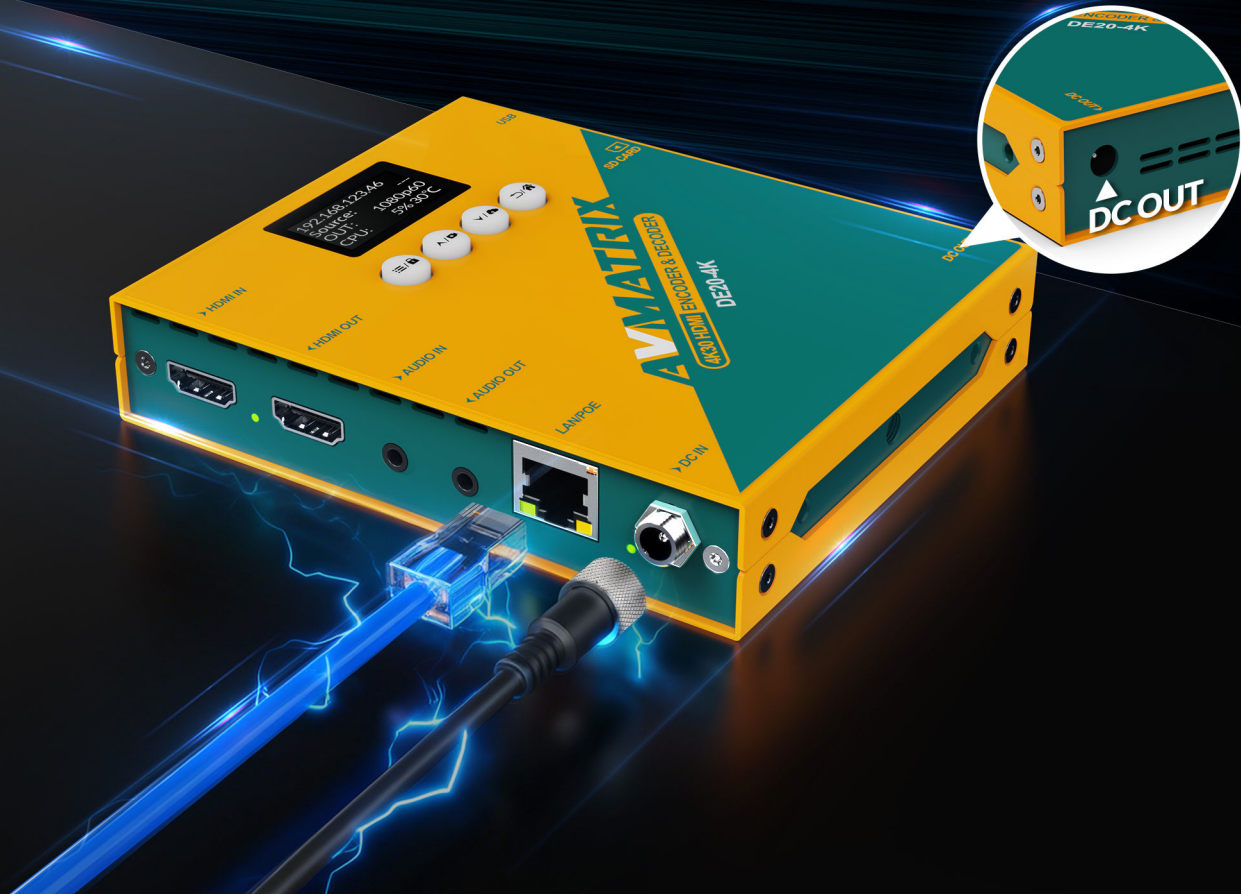
Live Status Indication

Built-in Tally light that allows on-site crew to easily identify which camera is live. It works seamlessly with OBS, vMix, and NDI systems to synchronize PGM and PVW status in real time. In Auto mode, tally indication is available via the NDI protocol only.

Flexible Power Options

PoE & 12V DC Input with DC Output Support

Supports both Power over Ethernet (PoE) and traditional 12V DC power supply, giving users the flexibility to select the optimal power source for their setup. It also features a DC output (12V/1A) for powering other devices directly.



Specifications

CONNECT

Video	Encoder: HDMI In × 1, HDMI Loop × 1 Decoder: HDMI Out × 1
Audio	3.5mm Audio In & Out × 1
Network	LAN(POE) × 1
USB	USB Type-A × 1
Record	SD Card, USB Disk, NAS

FORMATS

HDMI In & Loop	Encoder: Up to 2160p60
HDMI Out	Decoder: Up to 2160p30
Encoder Format	2160p30/ 25/ 24 1080p60/ 50/ 30/ 25/ 24, 1080i60/ 50 720p60/ 50
Decoder Format	2160p30/ 25/ 24 1080p60/ 50/ 30/ 25/ 24, 1080i60/ 50 720p60/ 50

IP STREAM

Stream Protocols	Encoder: RTSP/ RTMP(s)/ SRT/ NDI* Decoder: RTSP/ RTMP(s)/ SRT/ NDI* * NDI function is optional, supporting NDI HX/ HX2/ HX3
Bit Rate	Up to 50Mbps

FUNCTION

REC SD Card Format	FAT32/ exFAT
REC USB Disk Format	FAT32/ exFAT
PTZ Control Protocol	Pelco D/P, VISCA
USB Host	Encoder: USB Record/ USB Audio Input Decoder: USB Video to IP Stream & HDMI Out, USB PTZ Camera Control
USB Device	Encoder: UVC Capture

OTHER

Power	DC In: 6-20V, PoE: PoE+(802.3at) DC Out: 6-20V (Max 1A), USB Out: 5V 1A Consumption: ≤8W
Dimension (LWD)	104×125.5×24.5mm
Weight	Net: 501g; Gross: 820g
Temperature	Operating: -20-60°C; Storage: -30°C~70°C
Warranty	3 years

Accessories



12V 2A Power Adapter



Bracket (Optional)



USB A-C Cable (Optional)

