

# Caton Prime

HEVC 4K Encoder and Decoder



**Future-proof your content** with the ultra-high quality HEVC 4K UHD video quality with Caton Prime. Experience better video quality than AVC, coupled with HDR technology for brighter highlights, deeper contrast, and lifelike colours, creating an immersive viewing experience like never before.

**Experience unparalleled flexibility** with Caton Prime's switchable encoding and decoding. Seamlessly adapt your inventory management and deployment to diverse needs, maximising your resources.

**Unmatched reliability** - Caton Prime delivers unwavering performance thanks to dual power supplies and Internet connectivity, guaranteeing uninterrupted operation. On top of that, gain access to the revolutionary Caton Media XStream, which leverages AI smart routing.

**Simplify your workflow** - Caton Prime integrates effortlessly with your existing infrastructure through major transport protocols like SRT, UDP, and more. More importantly, gain access to the revolutionary Caton Media XStream to leverage AI smart routing.

**Perfect for multi-camera remote production**, the Stream Sync feature ensures seamless synchronisation of multiple streams by precisely aligning the timing and sequencing of data packets, unleashing virtual advertising capabilities and more.

**Ideal for round-the-clock mission-critical live broadcasts**, live sports, and live events, Caton Prime empowers you to deliver flawless content with confidence, ensuring your broadcasts leave a lasting impression on your audience.

## Key Features

- ✓ High quality up to 4K60p 4:2:2
- ✓ Switchable between encoder and decoder
- ✓ Interoperable with major protocols: SRT, UDP, ASI
- ✓ Stream Sync feature for multi-camera remote production
- ✓ Remote management via Caton NMS agent
- ✓ Broadcast grade with high MTBF
- ✓ Dual power supply with auto-failover



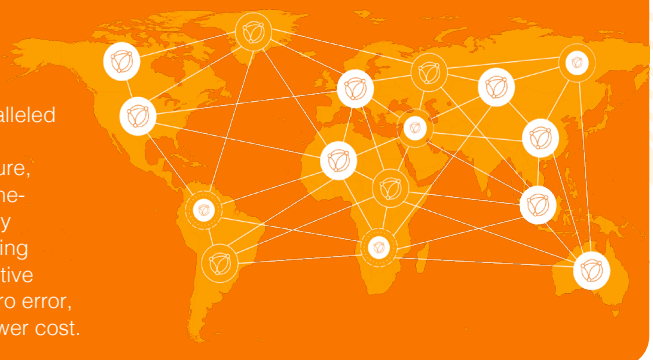
\* CTP and SRT compatibility are license-enabled

2160p Ultra HD	1080p Full HD	HEVC High Efficiency Video Coding	4:2:0 4:2:2	HDR High Dynamic Range	AAC Advanced Audio Coding	4ch 2 Pairs Audio	NMS Caton NMS Agent
-------------------	------------------	--------------------------------------	----------------	---------------------------	------------------------------	----------------------	------------------------



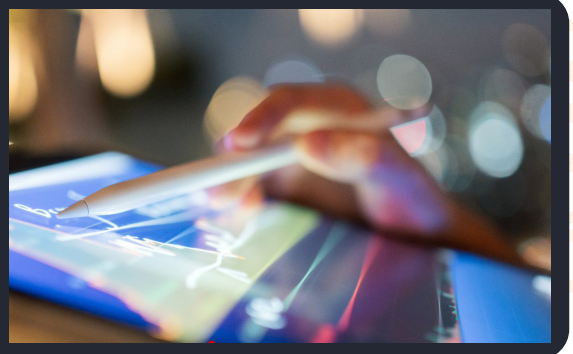
## Caton Media XStream

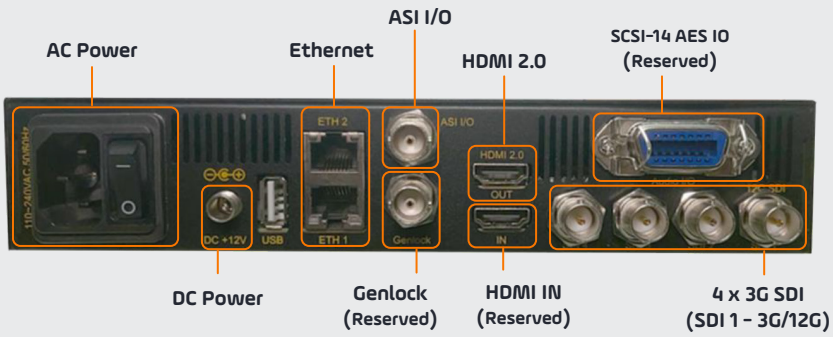
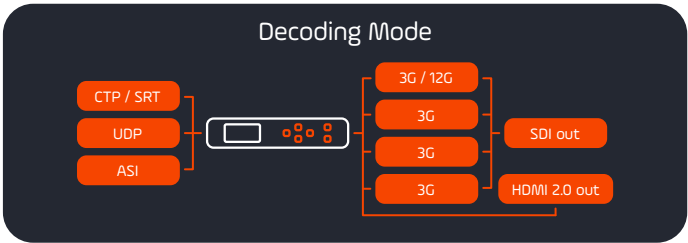
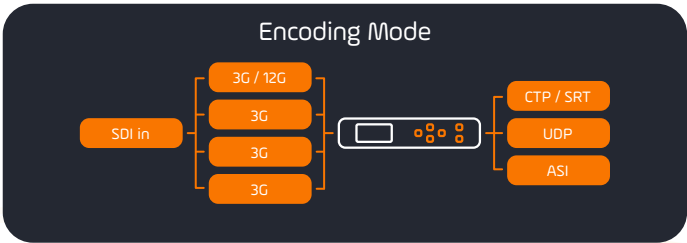
Introducing Caton Media XStream, a revolutionary solution transforming IP broadcasting. Overcoming the open internet's unpredictability offers unparalleled reliability and performance, addressing long-standing industry challenges. The strength of Caton Media XStream lies in its distributed cloud infrastructure, bolstered by a robust network of over 100 Points of Presence and state-of-the-art AI integration. This setup ensures a resilient network that can dynamically optimise paths in real-time, reducing latency and congestion while maintaining flawless video quality. What distinguishes Caton Media XStream is its proactive network optimisation approach. AI-driven decision-making guarantees zero error, outperforming leased lines with an uptime exceeding 99.9999% and at a lower cost.



## Network Performance Monitoring & Diagnostic

Netscope goes beyond traditional Network Performance Monitoring tools by offering real-time, in-depth diagnostics tailored to your network and individual streams. Its advanced bi-directional detection and link tracking pinpoint potential issues before disruptions, while comprehensive monitoring of performance, jitter, and latency provides second-by-second network health insights. Meanwhile, Caton Network Management System (NMS) simplifies remote orchestration and centralised management of video transmissions, software, and hardware. NMS offers consolidated data logging and reporting alongside real-time actionable alerts, streamlining troubleshooting and ensuring smooth operation. Together, Caton Netscope and NMS provide proactive management, fostering accountability and total network visibility for ultimate peace of mind.





Caton Technology is a global leader in next-generation IP transport, revolutionising media distribution with unmatched innovation and customer service. We empower broadcasters and media companies to deliver exceptional Live video over IP. Leveraging our innovative cloud platform and AI technology, Caton Media XStream ensures zero-error transmission and optimal performance, surpassing traditional delivery methods with superior Service Level Agreements at competitive costs. At Caton, quality, performance, and value coexist, enabling our customers to experience the best of all worlds.

© 2024 Caton Technology. All rights reserved. All specifications are subject to change without notice.

## Video Process (Encode and Decode)

**Format**

- UHD/4K HEVC Profile Main 10, Level 5.1 High Tier
- HD HEVC Profile Main 10, Level 4.1/4.0 High Tier

**Channels** 1 UHD or 1 HD

**Video Format**

- 3840 x 2160p 50/59.94/60 (12-100 Mbps)
- 1920 x 1080p 23.98/24/25/29.97/30/50/59.94/60 (4-50 Mbps)
- 1920 x 1080i 50/59.94/60 (3-50 Mbps)
- 1280 x 720p 50/59.94/60 (2-50 Mbps)

**Color Space** 8-bit, 10-bit, 4:2:0, 4:2:2

**HDR Mode** HLG / HDR10 / BT.2020

## Audio Process (Encode and Decode)

**Channels** 4 ch (2 pairs)

**Audio Codec**

- MPEG-1 Layer (32-384 kbps)
- AAC-LC 32-256 Kbps
- Linear PCM Pass-through 1928Kbps

## Video IO

**SDI**

- SDI 1 = 3G/12G SDI Level A, 75Ω BNC
- SDI 2-4 = 3G/SDI Level A, 75Ω BNC

**HDMI**

HDMI 2.0 supports 1080p30 up to 2160p60 decode output

**Audio**

- SDI 1 embedded up to 4 channels encode 2 pairs
- HDMI embedded up to 2 channels decode out only

## TS Processing

**Input / Output** ASI and Dual Ethernet ports

**PCR**

De-jittering

**Null Packet**

Automatic Insertion for transmission

## Transport

**CTP (license-enabled)** up to 80 Mbps stream push and pull, with support for AES-256

**SRT (license-enabled)** up to 80 Mbps caller and listener, with support for AES-256

## Protocol / IO / Bitrate

CTP (license-enabled)

## 4K 12G SDI / HDMI

Up to 80 Mbps

## HD 3G-SDI / HDMI

Up to 50 Mbps

SRT (license-enabled)

Up to 80 Mbps

Up to 50 Mbps

UDP

Up to 100 Mbps

Up to 50 Mbps

ASI

Up to 100 Mbps

Up to 50 Mbps

## Chassis

**Size**

30 cm x 22.3 cm x 15cm (LWH)  
Height is 4.5 cm after removing the accessories

**Power**

- PS1 = 100-240v AC build in power supply
- PS2 = 12V DC external power supply (optional)  
Auto Redundancy available when PS1 and PS2 plugged in

**Operation Temp**

0° to 50°C

**Storage Temp**

-25°C to 65°C

**Networking**

- 2x 1G-RJ45
- Unicast and Multicast ARP
- ICMP (IPv4)
- IGMP (IPv4)

**Relative / Operating Humidity**

<95% (non-condensing)

**Front Panel**

E-Ink display for device information.  
Tri-colour light bar to indicate chassis health

## Management

**WebUI**

Full control via WebUI

**Protocol**

- HTTP(s) and SNMP
- Caton NMS agent for orchestration

**Firmware Updates**

Via WebUI

**Caton Network Management System**

Licence-enabled service through integrated Caton NMS agent