caton

Caton Prime

HEVC 4K Encoder and Decoder

Caton Prime is a powerful and versatile switchable encoder and decoder, designed for ultra-high quality HEVC 4K UHD video. The ability to switch between encoding and decoding allows users to attain the utmost flexibility in inventory management. Leveraging high dynamic range (HDR) video technology to elevate image realism, content is delivered with brighter highlights, better contrast and deeper, more lifelike realistic colours, assuring a visually impactful viewing experience. Built with Caton Transport Protocols (CTP) for the highest quality and reliability to distribute ultra-low latency live video securely over any private network and the internet, interoperable with major industry protocols including SRT.

Caton Prime is designed with unmatched reliability for round-the-clock mission-critical live broadcast, making it ideal for telemedicine, remote production, enterprise and critical infrastructure sector's applications.

CTP
Caton Transport Protocols

SRT
SECURE RELIABLE TRANSPORT

* CTP and SRT compatibility are license-enabled

Key Features

- High quality up to 4K60p 4:2:2
- Switchable between encoder and decoder
- Reliable & Secure IP transmission with CTP
- Remote management via Caton NMS agent
- Broadcast grade with high MTBF
- Dual power supply with auto-failover

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

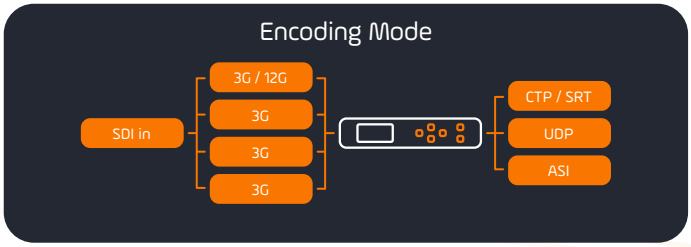
Caton Transport Protocols (CTP) for Superior Video Transmission

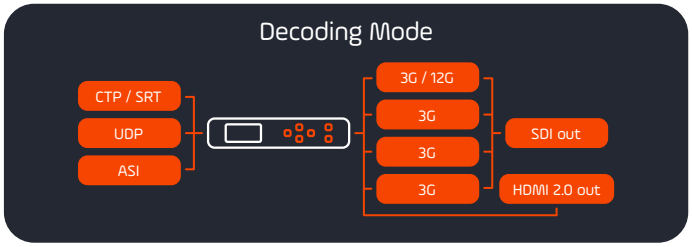
Caton Transport Protocols (CTP) comprise of our IP transmission technologies that assures stability, quality and security for video, media and other data transmissions. With over 30 in-built algorithms, CTP leverages machine and deep learning approaches that work to smooth and mitigate network challenges. This is coupled with our patented dynamic error corrections to recover from data loss.

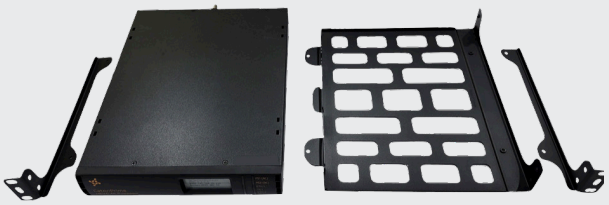
Our customers use CTP to enable high quality, low latency live video to be distributed at scale over any IP network, making it the ideal technology for live streaming of high value content where quality, security and real connections matter. Beyond video, enterprises and service providers are leveraging CTP for fast file and data transfer, enjoying accelerated transmission speeds that are significantly faster than traditional solutions.In addition, Caton Prime supports CTP Multipathing for higher resilience..

CatonNet Video Platform (CVP)

CatonNet Video Platform (CVP), powered by Caton Transport Protocols, provides broadcast grade media transmission services. CVP is designed as a highly available, low latency and secure service ensuring your video can be transmitted and received without compromising on quality, security or speed. With a point of presence in over 60 countries worldwide, some of the largest content creators, broadcasters,satellite operators and service providers are using this fully managed end-to-end service with up to 99.999% stream availability to securely deliver superior video to their customers locally, regionally and globally. All while enjoying significant cost savings compared to traditional network services.

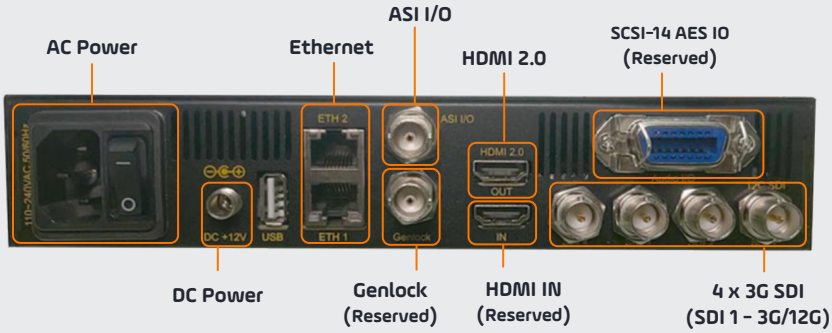






Dual Unit

Single Unit



Caton Technology is an industry leader in next-generation IP network transport solutions. Powered by technology and driven to innovate, we improve how businesses around the world and across multiple industries stream live media in the highest quality, distribute video and move data over any IP network faster and more securely—enabling new deployment possibilities while reducing costs. Headquartered in Singapore, with regional offices in Shanghai, Beijing, California, Hong Kong, Taipei and Tokyo, Caton Technology is poised to connect the world with high-quality real-time interactions between people, things and everywhere in between. The best connections are created with Caton. For more information, please visit www.catontechnology.com.

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	4K 12G SDI / HDMI	HD 3G-SDI / HDMI
CTP (license-enabled)	Up to 80 Mbps	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

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