

Encode
Decode

SD HD 4K

SDI / ASI / IP

AVC/HEVC



Encode • Decode • IP Transmission

Robust and Professional Media Processing Platform

IVP-3000 is a compact 1RU broadcast transmission platform designed by Caton Technology. Equipped with 6 modular slots, use different modules and customize to meet your existing workflow needs. Take advantage of the built-in Caton Engine for industry leading reliable video transmission over the open internet.

IVP-3000 is a CPCI standard design platform, and it supports HEVC/H.264/MPEG-2 Standard Definition, High Definition and Ultra High Definition encoding and decoding, ASI I/O, AVS+ or a mixture of them. A reliable, flexible and affordable solution for all of today's transmission needs.

With different selections of modules, the IVP-3000 supports SD, HD, and up to 4K within a compact 1RU chassis. Mix and match different formats in one box with SD and HD, NTSC and PAL, SDI and HDMI, input and output. All modules function independently but can also work in concert across multiple cards.



The IVP-3000 is an enterprise-grade 1RU modular appliance with dual power supplies and hot swap modules. Designed to the highest standards for mission critical 24/7 operation, the IVP-3000 is ready for the most demanding professional environments.

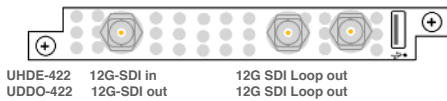
IVP 3000 Tech Spec

Module Design	6 module slots in rear panel, 1 slot in front panel and SMIP
Hot Swap	All modules hot swappable
Multiplexer	Transport Stream routing Service Level filtering and grooming PSI / SI PID Re-mapping
Front Panel	OLED Screen display
Network Control	Web Browser support, PC/Mac/iOS/Android
Power Modules	Hot Swap redundancy power supply
Input Voltage	100-240V, 50/60Hz
Operating Temperature	0-50°C
Humidity	<90% (No Condensation)
Size	Standard 1RU design 460 x 44.5 x 440mm (W x H x D)

Integrated Video Processor

UHDE-422 / UDDO-422

UHD Encoding / Decoding



Input/output for encoding/decoding:

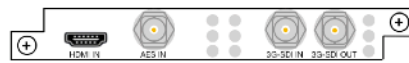
- 1.5/3/12G-SDI with embedded 2 pairs audio
- 2160p@60/59.94/50,
- 1080p@60/59.94/50/29.97/25,
- 1080i/720p@50/59.94/60

Encoding and decoding format:

- 422 or 420 HEVC (H.265) 4K UHD and HD
- UHD 12-100mbps, HD 2-50mbps
- MPEG-1 Layer 2
- AAC-LC
- SMPTE 302M(LPCM)

HDE-422/420

HD Encoding



Input for encoding:

- SD/HD-SDI with embedded 2 pairs audio (422 mode up to four stereo pairs) or AES/EBU inputs
- HDMI with embedded audio
- 1080p@30/29.97/25 ,
- 1080i/720p@60/59.94/50
- 480i@59.94 , 576i@50
- Integrated with an audio ALC and BISS key insertion

Encoding format:

- 422 or 420 MPEG-4 AVC (H.264) HD and SD
- MPEG-1 Layer 2
- AAC-LC
- HE-AAC v1/2

MHDE-420

Multi Bitrate Encoding



Input for encoding:

- Same source input, 3 independent encoded streaming output
- SDI/HD-SDI with embedded 1 pair audio or analog audio input
- HDMI with embedded audio
- 1080p@59.94/50/29.97/25,
- 1080i/720p@59.94/50
- 480i@59.94 , 576i@50
- Integrated with an logo overlay and BISS key insertion

Encoding format:

- 420 MPEG-4 AVC (H.264) HD and SD
- MPEG-1 Layer 2
- AAC-LC
- HE-AAC v1/v2

DDO-422

HD Decoding



Decoding format:

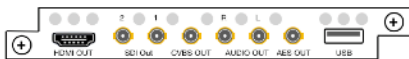
- 422/420 MPEG-2 SD
- 422/420 MPEG-4 AVC (H.264) HD/SD
- MPEG-1 Layer 2
- AAC-LC
- HE-AAC v1/v2

Decode output:

- HD-SDI/SDI with embedded 4 pairs audio or AES/EBU outputs
- HDMI with embedded audio
- Support frame rate 50/59.94/60Hz output
- Integrated BISS key Decrypted
- Frame synchronization (Genlock)
- 1+1 redundancy on service level

DDO-AVSplus

SD/HD AVS+ Decoding



Decoding format:

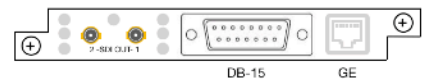
- 420 MPEG-2 SD
- 420 MPEG-4 AVC (H.264) HD/SD
- 420 AVS+ HD/SD
- MPEG-1 Layer 2
- AAC-LC
- HE-AAC v1/v2

Decode output:

- HD-SDI/SDI with embedded 1 pairs audio or AES/EBU outputs
- HDMI with embedded audio
- Composite video (Pal and NTSC) with analogue audio
- Support frame rate 50/60Hz output
- 1+1 redundancy on service level

DDO-HEVC

SD/HD H.264/HEVC Decoding



Decoding format:

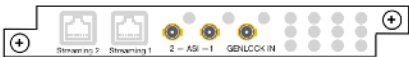
- 420 AVC (H.264) HEVC (H.265) HD/SD
- Optional AVS+/VC9/RTMP Pull support
- Optional Caton Engine R2TP input
- MPEG-1 Layer 2
- AAC-LC
- HE-AAC v1/v2

Decode output:

- HD-SDI/SDI with embedded 1 pairs audio or AES/EBU/XLR outputs
- Composite video (Pal and NTSC) with analogue audio
- Support frame rate 50/59.94/60Hz output
- Frame synchronization (Genlock)
- 1+1 redundancy on service level

IPASI-M

IP and ASI Connection



- Streaming Port: 2xRJ45, 10/100/1000 auto sensing
- Transport Protocol: UDP(Unicast, Multicast), RTP
- Support 4 SPTS/MPTS over IP input / 10 UDP output
- Up to 200Mb/s data rate / port
- ASI Transport Stream I/O
- Streaming Port : Dual ASI ports and each software configurable as input or output
- Genlock source input
- SD HSync (black & burst) or HD Tri-level

SMIP

R2TP Transmission



- Streaming Port: 4xRJ45, 10/100/1000 auto sensing
- Transport Protocol: R2TP / R2TP-S
- Support 4 SPTS/MPTS over R2TP-TX or RX
- Up to 60Mb/s data rate / port
- Captures network and bandwidth statistical information in real-time

SMIP-Plus

R2TP Transmission with ASI I/O



- Streaming Port: 2xRJ45, 10/100/1000 auto sensing
- Transport Protocol: UDP/SRT/R2TP/R2TP-S
- Support multi channel R2TP TX and RX
- Up to 108Mb/s data rate / port
- Build in ASI in and out
- Captures network and bandwidth statistical information in real-time