

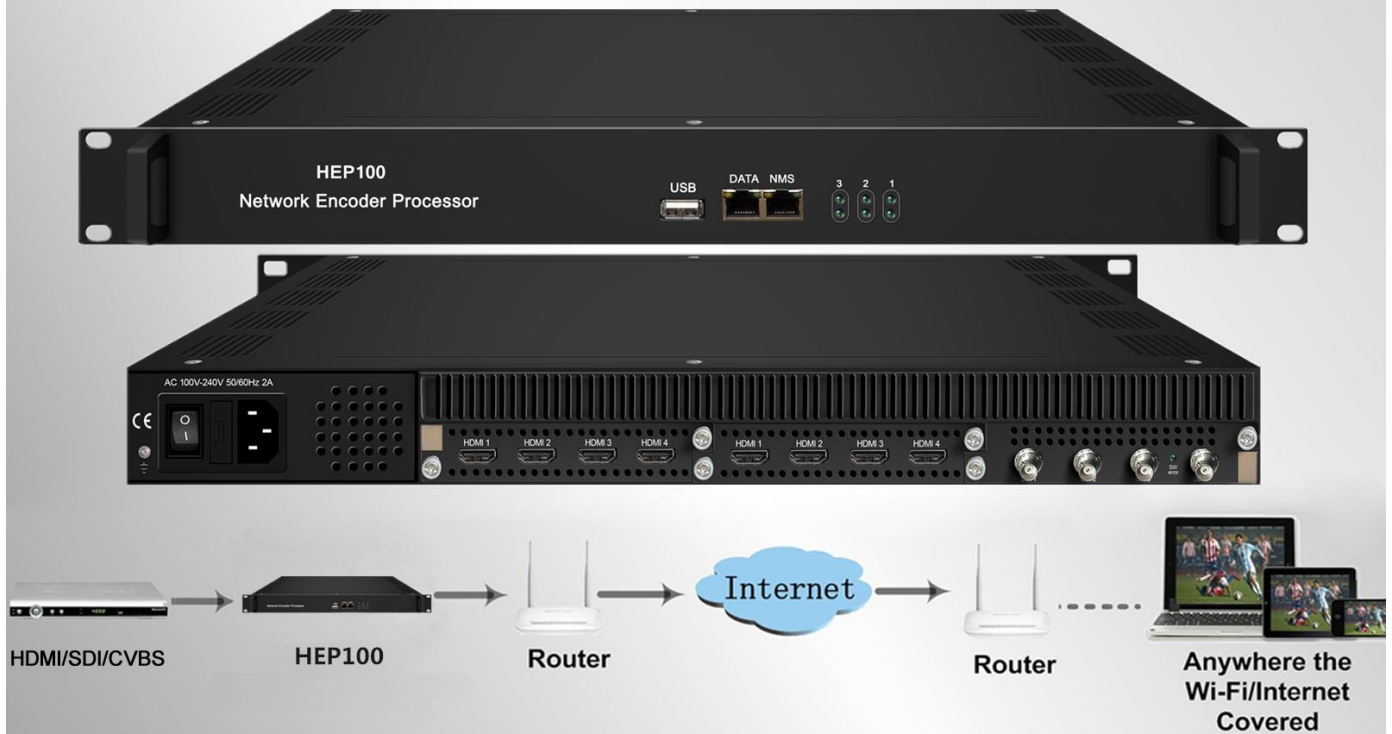


HEP100

Network Encoder Processor

Multiple HDMI/SDI/CVBS input

IP out over UDP (SPTS), RTP, RTSP, RTMP, HTTP, HLS



HEP100 Network Encoder Processor is an IP broadcasting device with multiple inputs (HDMI/SDI/CVBS and etc) which can convert the input programs into IP format and send to terminals through the internet/LAN.

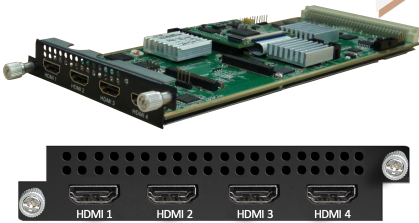
This 1-U chassis comes with 3 slots which allow loading different encoder modules with different interfaces and video formats.

Key Features

- Modular design, 1U chassis with 3 slots
- Support flexible combination of encoding modules, up to 12 HD programs inputs
- HDMI/SDI/CVBS modules available, HEVC/MPEG4/MPEG2 video format for option
- 1 GE port with maximum 200Mbps data processing and output
- IP out over UDP (SPTS), RTP, RTSP, RTMP, HTTP, HLS (Unicast/Multicast)
- Support Web management, Upgrade via USB port

Encoder Module Specifications

4 HDMI Encoding Module



HP224H/HV

Module Specifications:

Input: 4×HDMI (1.4) input, HDCP 1.4

Video Encoding:

Video format: **HEVC/H.265** & MPEG 4 AVC/H.264---HP224H
HEVC/H.265---HP224HV

Resolution:

1920×1080_60P, 1920×1080_59.94P, 1920×1080_50P;
1280×720_60P, 1280×720_59.94P, 1280×720_50P

Input: 1920×1080_60i, 1920×1080_59.94i, 1920×1080_50i

Output: 1920×1080_60P, 1920×1080_59.94P, 1920×1080_50P

Chroma: 4:2:0 Bit rate (each channel): 0.5Mbps~20Mbps (H.265)
4 Mbps~20Mbps (H.264)

Rate Control: CBR/VBR GOP structure: IBBP, IPPP

Audio Encoding:

Audio format: MPEG-1 Layer 2, LC-AAC, HE-AAC, HE-AAC V2, AC3 Passthrough

Sampling rate: 48KHz

Bit-rate (each channel):

48Kbps~384Kbps (MPEG-1 Layer 2 & LC-AAC)

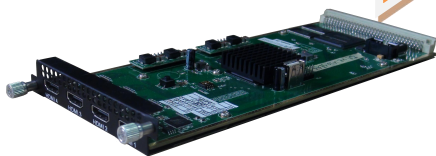
24 Kbps~128 Kbps (HE-AAC)

18 Kbps~56 Kbps (HE-AAC V2)

Audio Gain: 0~255

Support **Logo, QR Code insertion--Optional as per order**

4 HDMI Encoding Module



HP224HS

Module Specifications:

Input: 4*HDMI (1.4) input, HDCP 1.4

Video Encoding:

Video format: HEVC/ H.265, MPEG4 AVC/H.264

Input Resolution: 1920×1080_60P, 1920×1080_50P, 1920×1080_59.94P,
1920×1080_60i, 1920×1080_50i, 1920×1080_59.94i,
1280×720_60P, 1280×720_59.94P, 1280×720_50P,

Output Resolution: 1920×1080_60P , 1920×1080_50P, 1920×1080_30P,
1920×1080_25P, 1280×720_60P, 1280×720_50P

Chroma: 4:2:0

GOP structure: IP, IBBP, IBBBP

Video Bit-rate: 1Mbps~15Mbps per channel

Rate Control: CBR/VBR

Audio Encoding:

Audio format: MPEG-1 Layer 2, LC-AAC, HE-AAC, HE-AAC V2, AC3 Passthrough

Sampling rate: 48 KHz

Resolution: 24-bit

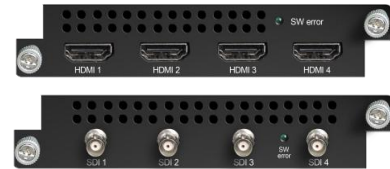
Audio Bit-rate (per channel):

48Kbps~384Kbps (MPEG-1 Layer 2 & LC-AAC)

24 Kbps~128 Kbps (HE-AAC), 18 Kbps~56 Kbps (HE-AAC V2)

Others: Support Logo, Caption, QR Code insertion

4 HDMI/SDI Encoding Module



HP224V

Module Specifications:

Input: 4×SDI/HDMI (1.4) input, HDCP 1.4

Output: 1 MPTS and maximum 4 SPTS output over UDP/RTP/RTSP; IPv4, IPv6

Video Encoding:

Video format: HEVC/H.265 & MPEG 4 AVC/H.264

Resolution:

HDMI:

3840×2160_30P, 3840×2160_29.97P;

(Encoding 2 CHs per module for H.265, and encoding 1 CH for H.264)

1920×1080_60P, 1920×1080_59.94P, 1920×1080_50P;

(Encoding 4 CHs per module for H.265, and encoding 2 CHs for H.264)

1280×720_60P, 1280×720_59.94P, 1280×720_50P

(Encoding 4 CHs per module for H.264 and H.265)

SDI:

1920×1080_60P, 1920×1080_59.94P, 1920×1080_50P;

(Encoding 4 CHs per module for H.265, and encoding 2 CHs for H.264)

1280×720_60P, 1280×720_59.94P, 1280×720_50P

(Encoding 4 CHs per module for H.264 and H.265)

Input: 1920×1080_60i, 1920×1080_59.94i, 1920×1080_50i

Output: 1920×1080_60P, 1920×1080_59.94P, 1920×1080_50P

(Encoding 4 CHs per module for H.265, and encoding 2 CHs for H.264)

Chroma: 4:2:0

Bit rate: 0.5Mbps~20Mbps (each channel)

Rate Control: CBR/VBR

GOP structure: IBBP, IPPP

Audio Encoding:

Audio format: MPEG-1 Layer 2, LC-AAC, HE-AAC, HE-AAC V2, AC3 Passthrough

Sampling rate: 48KHz

Bit-rate (each channel):

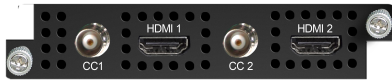
48Kbps~384Kbps (MPEG-1 Layer 2 & LC-AAC)

24 Kbps~128 Kbps (HE-AAC)

18 Kbps~56 Kbps (HE-AAC V2)

Audio Gain: 0~255

2 HDMI Encoding Module



HP202A

Module Specifications:

Input: 2*HDMI, 2*BNC for CC (Closed Caption) input and stream connector

Video Encoding:

Video format: MPEG2 & MPEG4 AVC/H.264

Input resolution:

1920*1080_60P, 1920*1080_50P, 1920*1080_60i, 1920*1080_50i,
1280*720_60p, 1280*720_50P, 720*480_60i, 720*576_50i

Rate control mode: CBR/VBR

Aspect ratio: 16:9, 4:3

Video bitrate: 0.8~19Mbps for MPEG-2 /H.264 encoding

Support CC (closed caption)

Audio Encoding:

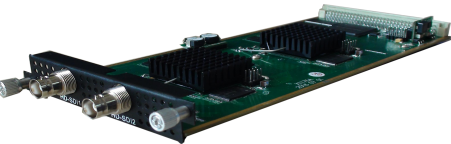
Audio format: MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC,

Dolby Digital AC3 (2.0) encoding (Optional); AC3 (2.0/5.1) passthrough

Sampling rate: 48KHz

Audio bitrate: 64Kbps-320kbps each channel

2 SDI Encoding Module



HP202A-D

Module Specifications:

Input: 2*HD-SDI and stream connector

Video Encoding:

Video format: MPEG2 & MPEG4 AVC/H.264

Input resolution:

1920*1080_60P, 1920*1080_50P, 1920*1080_60i, 1920*1080_50i,
1280*720_60p, 1280*720_50P, 720*480_60i, 720*576_50i

Rate control mode: CBR/VBR

Aspect ratio: 16:9, 4:3

Video bitrate: 0.8~19Mbps for MPEG-2 /H.264 encoding;

Support CC (closed caption)

Audio Encoding:

Audio format:

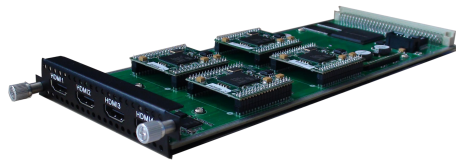
MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC,

Dolby Digital AC3 (2.0) encoding (Optional), AC3 (2.0/5.1) passthrough

Sampling rate: 48KHz

Audio bitrate: 64Kbps-320kbps each channel

4 HDMI Encoding Module



HP224

Module Specifications:

Input: 4*HDMI

Video Encoding:

Video format: MPEG-4 AVC/H.264

Input resolution:

1920×1080_60P, 1920×1080_50P, 1920×1080_60i, 1920×1080_50i,
1280×720_60P, 1280×720_50P, 720×576_50i, 720×480_60i

GOP structure: IBBP

Video bitrate: 0.8Mbps~19Mbps each channel

Rate Control: CBR/VBR

Audio Encoding:

Audio format: MPEG1 Layer II, (MPEG-2 AAC, MPEG-4 AAC Optional as per order),
AC3 passthrough

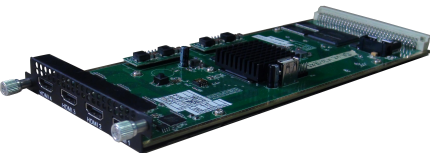
Sampling rate: 48KHz

Resolution: 24-bit

Audio bitrate: 64Kbps~320Kbps each channel

Audio Gain Control: 0-400

4 HDMI Encoding Module



HP224S

Module Specifications:

Input: 4*HDMI

Video Encoding:

Video format: MPEG-4 AVC/H.264

Input resolution: 1920×1080_60P, 1920×1080_60i, 1920×1080_50P,
1920×1080_50i, 1280×720_60P, 1280×720_50P, 720×576_50i, 720×480_60i,

Output resolution: 1920×1080_30P, 1920×1080_25P, 1280×720_30P,
1280×720_25P, 720×576_25P, 720×480_30P,

GOP structure: IP...P (P Frame adjustment, without B Frame)

Video Bit-rate: 1Mbps~13Mbps each channel

Rate Control: CBR/VBR

Audio Encoding:

Audio format: MPEG1 Layer II, **support audio gain adjustment**

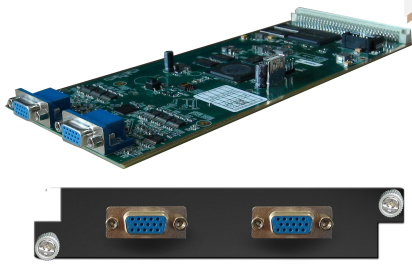
Sampling rate: 48 KHz

Resolution: 24-bit

Audio Bit-rate: 64kbps, 128Kbps, 192kbps, 224kbps, 256kbps, 320kbps, 384kbps

**Support Logo, Caption, QR Code insertion (Language Supported: 中文, English,
العربية, , , русская, اردو, for more languages please consult us...)**

8 CVBS Encoding Module



HP218S

Module Specifications:

Input: 8 CVBS video, 8 Stereo Audio (DB15 to RCA)

Output: 1 MPTS and 8 SPTS output over UDP/RTP, unicast and multicast,

Video Encoding:

Video format: MPEG4 AVC/H.264

Image format: PAL, NTSC SD signal

Resolution: 720×576i, 720×480i

Rate Control: CBR/VBR GOP structure: IPP

Video bitrate: 1~7Mbps each channel

Audio Encoding:

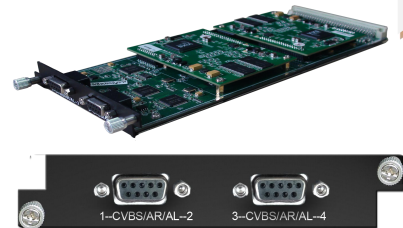
Audio format: MPEG-1 Layer 2 Sampling rate: 48KHz

Resolution: 24-bit

Bit-rate: 64/128/192/224/256/320/384Kbps each channel

Support Logo, Caption, QR Code insertion (Language Supported: , English,

4 CVBS Encoding Module



HP214/HP214A

Module Specifications:

Input: 4 CVBS video, 4 Stereo Audio (DB9 to RCA)

Output: 1MPTS and 4 SPTS output over UDP/RTP, unicast and multicast

Video Encoding:

Video format: MPEG-2 (4:2:0)

Image format: PAL, NTSC SD signal

Input resolution: 720×480_60i, 544×480_60i, 352×480_60i, 352×240_60i,
320×240_60i, 176×240_60i, 176×120_60i, 720×576_50i,
704×576_50i, 640×576_50i, 352×288_50i, 320×288_50i,
176×288_50i, 176×144_50i

GOP structure: IP, IBP, IBBP, IBBBP

Video bit rate: 0.5Mbps~8Mbps per channel

Support CC (closed caption)

Audio Encoding:

Audio format: MPEG-1 Layer 2, DD AC3 (2.0)

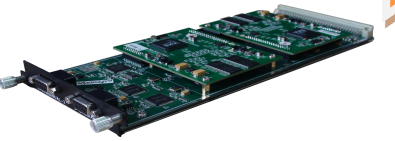
Sampling rate: 48KHz

Resolution: 24-bit

Audio bitrate: 128/192/256/320/384kbps each channel

Support Logo, Caption, QR Code insertion (for HP214A only)

4 CVBS/SDI Encoding Module



HP214B

Module Specifications:

Input: 4 CVBS (DB9 to RCA) or 4 SDI (BNC)

Output: 1MPTS and 4 SPTS output over UDP/RTP, unicast and multicast

Video Encoding:

Video format: MPEG-2, MPEG4 AVC/H.264

Image format: PAL, NTSC SD signal (Only for CVBS input)

Resolution:

Input: 720*576 @50i

Output: 720*576/352*288/320*240/320*180/176*144/160*120/160*90@50Hz

Input: 720*480 @60i

Output: 720*480/352*288/320*240/320*180/176*144/160*120/160*90@60Hz

Rate Control: CBR/VBR

GOP structure: IPPP, IBPBP, IBBPB, IBBBP

Video bitrate: 0.5~5Mbps

Audio Encoding:

Audio format: MPEG1 Audio Layer 2, LC-AAC, HE-AAC

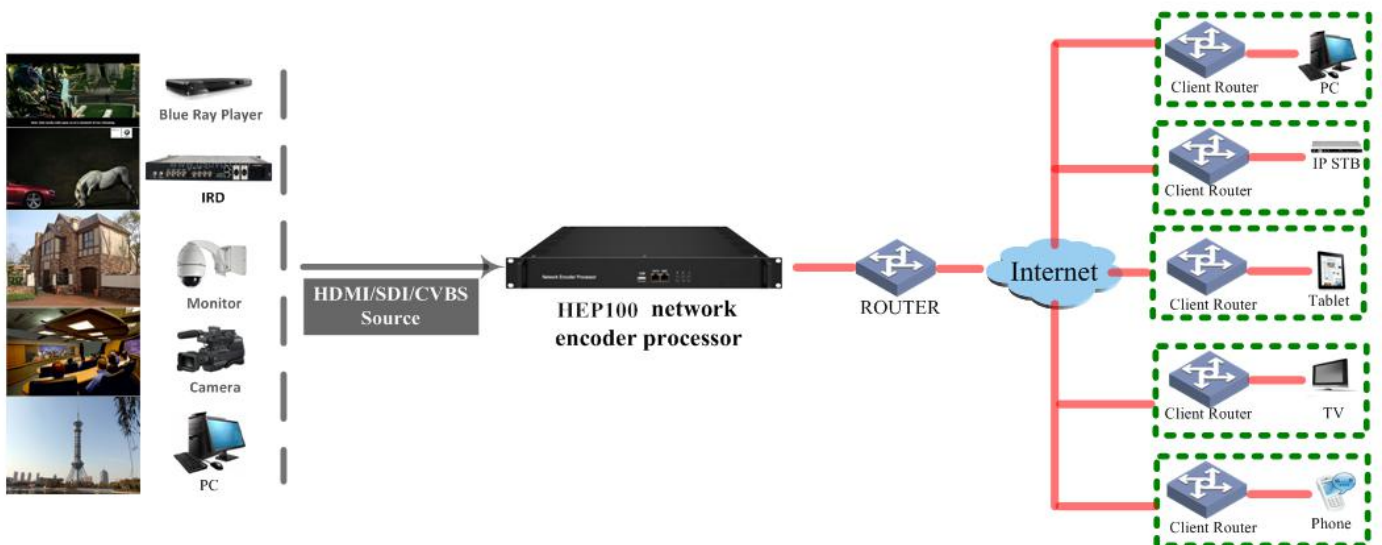
Sampling rate: 48KHz

Bits per sample: 32-bit

Bit-rate: 48-384Kbps each channel

Support **Logo, Caption, QR Code insertion**

System Diagram Illustration:



UDP (SPTS), RTP, RTSP, RTMP, HTTP, HLS (Unicast/Multicast)
Transfer through internet/LAN

Equipment Specifications:

Dimension(W×L×H): 440mm×324mm×44mm
Approx weight: 6kg
Environment: 0~45°C(work); -20~80°C(Storage)
Power requirements: AC 110V± 10%, 50/60Hz, AC 220 ± 10%, 50/60Hz