

# HPS801B MPEG-2/H.264 HD Encoder



● **Dolby Digital AC3 (5.1) audio encoding**

● **4 stereo/8 mono audio channels**

● **Huge video buffer**

● **CC (closed caption), EIA 608 & EIA 708**



## Outline

HPS801B MPEG-2/H.264 HD Encoder is the new broadcasting audio & video encoding device with powerful functionality. It is equipped with multiple video input interfaces (SDI, CVBS, YPbPr and HDMI) and audio input interfaces (AES, RCA and XLR) to make it possible to compatible with different signal sources.

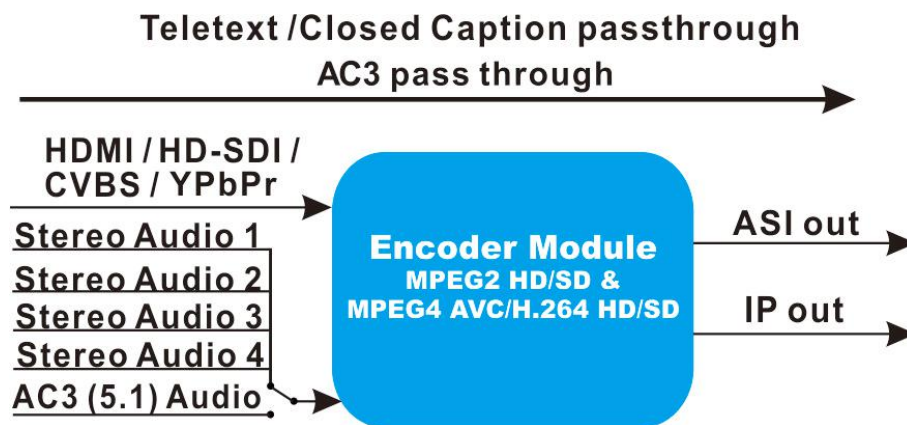
Multiple audio and video encoding formats are available to meet customers' various requirements. It supports 4 stereo (8 mono) or one DD 5.1 (AC3) audios embedded to mix with the video to form a stream output. The encoded program will finally output in TS through ASI/IP port.

HPS801B is also featured with QR code, LOGO and OSD (text message bar) insertion function. It can show 3 functions at the same time. Operators can insert advertisement picture, own LOGO, QR code, OSD content during encoding process independent of STB. It brings more profit for product users.

## Key Features

- **Support QR code, LOGO, OSD insertion**
- **MPEG-2 HD/SD and MPEG-4 AVC/H.264 HD/SD video encoding**
- **Support 1080I, 720P, 480I, 576I video resolution and downscale transform**
- **Support low latency**
- **MPEG1 Layer II, HE-AAC (v1&v2), LC-AAC and DD AC3 audio encoding**
- **Support DD AC3 audio passthrough**
- **Support 4 stereo or 8 mono audio encoding**
- **Support video buffer, free to switch video sources (all video interface available)**
- **Support CC (closed caption), EIA 608 and EIA 708 (for CVBS and SDI in)**
- **Support ASI output and IP over UDP output**
- **LCD / keyboard control and web management**

# Inner Principle



## Specifications

Video	Interface	1×SDI, 1×CVBS, 1×YPbPr and 1×HDMI		
	Resolution	Input	Output	Interface Applicable
		1920×1080i@60	1920×1080, 1440×1080, 1280×1080i, 960×1080i	HDMI, SDI, YPbPr
		1920×1080i @59.94		
		1920×1080i @50		
		1280×720p@60	1280×720, 960×720p, 640×720p	HDMI, SDI, YPbPr
		1280×720p@59.94		
		1280×720p@50		
	720×576i@50	720×576i@50	720×576, 704×576, 640×576, 544×576, 528×576, 480×576, 352×576	SDI, CVBS
			720×480, 704×480, 640×480, 544×480, 528×480, 352×480	SDI, CVBS
	Encoding	MPEG-2 HD/SD; MPEG-4 AVC/H.264 HD/SD		
	Bitrate Range	0.52 – 60.00 Mbps		
	Rate Control	CBR		
	GOP Structure	Auto, IP, IPB, IPBB, IPBBB		
	Aspect Ratio	4:3, 14:9 (for SD video), 16:9 (for HD video)		
	Chroma	4:2:0, 4:2:2 (for MPEG-2 encoding); 4:2:0 (for MPEG-4 AVC/H.264 encoding)		
	Advanced Pretreatment	De-interlacing, noise reduction, sharpening		
Audio	Interface	4×XLR, 4×RCA, 1×AES, 1×HDMI, 1×SDI (support maximum 4 stereos synchronous processing or one DD 5.1 CH processing)		
	Encoding	MPEG-1 Layer II, HE-AAC (v1&v2), LC-AAC, DD AC3 (2.0, 5.1 available); DD AC3 passthrough (for SDI in)		
	Sampling rate	48KHz		
	Resolution	24-bit		
	Bit-rate	32Kbps~384Kbps		

<b>Low Delay options</b>		150ms, 200ms, 350ms, 650ms
<b>Stream output</b>		2×ASI output ports, BNC interface
		IP over UDP, 100 Base-T Ethernet interface (UDP multicast/unicast)
<b>System function</b>		LCD/keyboard and web management
		Language: English
		Ethernet software upgrade
<b>General</b>	Dimensions	482mm×405mm×44.5mm (W × D × H)
	Weight	Approx 4.0Kg
	Temperature	0~45℃ (Operation), -20~80℃ (Storage)
	Power	AC110V±10%, 50/60Hz; AC 220V±10%,50/60Hz
	Consumption	21W

## Technical Comparison

	HPS801B	HPS801A	HP801P
<b>Chipset</b>	Magnum D7 Pro	Magnum DXT8313	Fujitsu 86H46
<b>Video interface</b>	1×SDI, 1×CVBS, 1×YPbPr, 1×HDMI	1×SDI, 1×CVBS, 1×YPbPr, 1×HDMI	1×SDI, 1×CVBS, 1×YPbPr, 1×HDMI, 1×S-Video
<b>Video Encoding</b>	MPEG-2 HD/SD; MPEG-4 AVC/H.264 HD/SD	MPEG-2 HD/SD; MPEG-4 AVC/H.264 HD/SD	MPEG-4 AVC/H.264 HD/SD
<b>Bit Rate</b>	0.52 – 60.00 Mbps	0.25Mbps~60.5Mbps	0.8Mbps~20Mbps
<b>HDMI Resolution</b>	HD	HD/SD	HD/SD
<b>Audio Encode</b>	MPEG-1 Layer II, HE-AAC (v1&v2), LC-AAC, DD AC3 (2.0/5.1), DD AC3 passthrough (under develop)	MPEG-1 Layer II, HE-AAC (v1&v2), LC-AAC; DD AC3 passthrough	MPEG-1 Layer II, (HE-AAC(v2) and LC-AAC optional, as per customer's order)
<b>Audio Channel</b>	Up to 4 stereos or 1DD AC3 (5.1)	Up to 2 stereos	1 stereo
<b>Rate Control</b>	CBR	CBR/VBR	CBR/VBR
<b>Aspect Ratio</b>	16:9, 4:3, 14:9	16:9, 4:3, 1:1, 2.35:1	16:9, 4:3
<b>Chroma</b>	4:2:0, 4:2:2	4:2:0, 4:2:2	4:2:0
<b>One-seg</b>	N/A	Yes	N/A
<b>PIP</b>	Under Develop	N/A	N/A
<b>Video Buffer</b>	Yes	N/A	N/A
<b>ASI In &amp; Mux</b>	N/A	Yes	N/A
<b>IP out</b>	UDP	MPTS/8*SPTS over UDP/RTP,	UDP/RTP
<b>Low Delay</b>	150ms, 200ms, 350ms, 650ms	1400ms - 5000ms, 1ms stepping	N/A
<b>Closed Caption</b>	EIA 608 and EIA 708	EIA 608 and EIA 708	N/A
<b>Management</b>	Web-server	Web-server, SNMP	SNMP, NMS