NDS3211B

MPEG-2/H.264 HD Encoder

OSD (Logo/PPT/Caption/QR Code) Insertion

Outline

NDS3211B 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 (HDMI, SDI, YPbPr and CVBS) and audio input interfaces (AES, BNC and XLR) to make it possible to compatible with different signal sources.
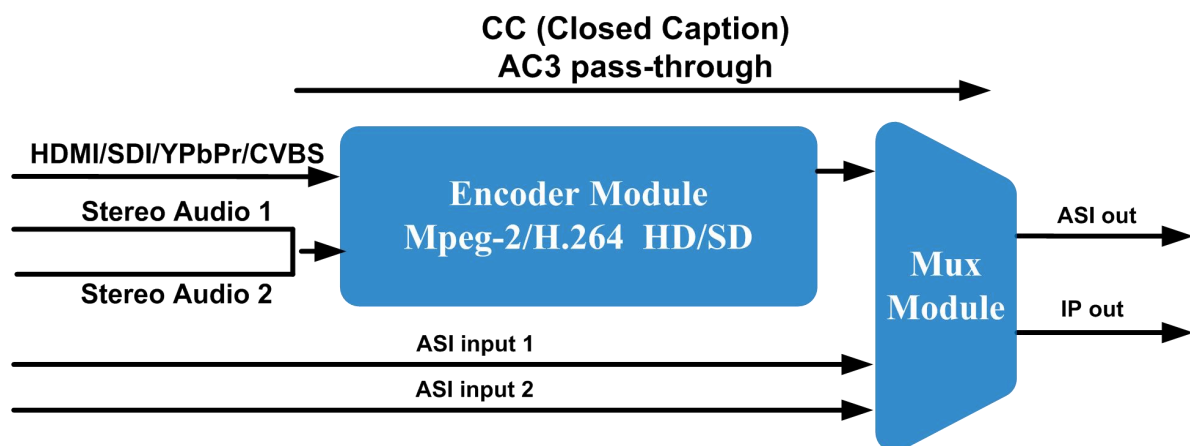
Multiple audio and video encoding formats are available to meet customers' various requirements. It supports 2 stereo to mix with the video to form a stream output. The encoded program will finally output in TS through ASI/IP port.

NDS3211B is also featured with OSD (QR code, LOGO and Caption) insertion function and can display multiple elements at same time. Operator can insert advertisement picture, own LOGO, special QR code, Text content in encoding process independent of STB. It will bring more profit for product user.

Key Features

- **Support QR code, LOGO, OSD inserted(Language Supported: 中文, English, العربية, اردو , for more languages please consult us…)(Optional)**

- **MPEG-2 HD/SD and MPEG-4 AVC/H.264 HD/SD video encoding**

- **MPEG1 Layer II, HE-AAC (v1&v2), LC-AAC and DD AC3 audio encoding**

- **Support DD AC3 pass-through (for SDI and HDMI in)**

- **Support 2 stereo audio encoding**

- **Support ASI output and IP over UDP and RTP output**

- **Support 1080I,720P, 480I, 576I video resolution and downscale transform**

- **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)**

- **LCD / keyboard control and web management**

- **Support low latency**

Inner Principle Chart

Specifications

Video	Interface	1×HDMI, 1×HD-SDI, 1×YPbPr and 1×CVBS(only for CC)		
	Resolution	**Input**	**Output**	**Interface Applicable**
		1920×1080p@60/59.94	1920×1080p@60,	SDI, HDMI
		1920×1080p@50	1920×1080p@50	
		1920×1080i@60/59.94	1920×1080i @60	SDI, HDMI, YpbPr
		1920×1080i @50	1920×1080i @50	
		1280×720p@60/59.94	1280×720p@60	
		1280×720p@50	1280×720p@50	
		720×576i@50	720×576i @50	SDI, HDMI
		720×480i@60	720×480i @60	
	Encoding	MPEG-2 HD/SD,MPEG-4 AVC/H.264 HD/SD		
	Bitrate Range	2.5 – 19.00 Mbps		
	Rate Control	CBR/VBR		
	GOP Structure	IP, IBBP, IBBBP		
	Chroma	4:2:0		
Audio	Interface	2×XLR, 2×AES, 2×BNC, 1×SDI (support maximum 2 stereos synchronous processing), 1×HDMI,		
	Encoding	MPEG-1 Layer II, HE-AAC (v1&v2), LC-AAC, DD AC3 (2.0) DD AC3 pass-through (for SDI and HDMI in)		
	Sampling rate	48KHz		
	Bit-rate	32Kbps~384Kbps		
Stream Input		2 ASI Input for remux		
Stream output		2×ASI output ports, BNC interface		
		2 IP (MPTS) over UDP / RTP /RTSP, 1000 Base-T Ethernet interface*2 with independent IP addresses (multicast/unicast)		
System function		LCD/keyboard and web management		
		Language: English		
		Ethernet software upgrade		
General	Dimensions	482mm×405mm×44.5mm (W × D × H)		
	Temperature	0~45℃(Operation), -20~80℃(Storage)		
	Power	AC110V±10%, 50/60Hz; AC 220V±10%,50/60Hz		
	Consumption	16W		

Technical Comparison

	NDS3211B	NDS3211B (V2)	NDS3211HS
Chipset	Magnum	Vixs	Hisilicon
Video Encoding	MPEG-2 HD/SD; MPEG-4 AVC/H.264 HD/SD	MPEG-2 HD/SD; MPEG-4 AVC/H.264 HD/SD	HEVC/H.265 HD/SD MPEG-4 AVC/H.264 HD/SD
Bit Rate	0.20 – 60.00 Mbps	2.5Mbps~19.0Mbps	1Mbps~15Mbps
HDMI Resolution	HD	HD/SD	HD/SD
Audio Encode	MPEG-1 Layer II, HE-AAC (v1&v2), LC-AAC, DD AC3 (2.0), DD AC3 pass-through (for SDI in)	MPEG-1 Layer II, HE-AAC (v1&v2), LC-AAC, DD AC3 (2.0), DD AC3 pass-through (for SDI and HDMI in)	MPEG-1 Layer II, HE-AAC (v1&v2), LC-AAC, DD AC3 pass-through (for SDI and HDMI in)
Audio Channel	Up to 4 stereos	Up to 2 stereos	Up to 2 stereos
Rate Control	CBR	CBR/VBR	CBR/VBR
Aspect Ratio	16:9, 4:3, 14:9	16:9, 4:3	
Chroma	4:2:0, 4:2:2	4:2:0	4:2:0
Video Buffer	Yes	Yes	N/A
ASI In & Mux	N/A	2 ASI input for remux	2 ASI input for remux
IP out	1SPTS over UDP/RTP	1 MPTS over UDP / RTP /RTSP	1 MPTS over UDP / RTP /RTSP
Low Delay	150ms-650ms	150ms-650ms	N/A
Closed Caption	EIA 608 and EIA 708	EIA 608 and EIA 708	EIA 608