



NDS3211B

MPEG-2/H.264 HD Encoder

## QR CODE, LOGO, OSD Insertion



- 4 stereo/8 mono audio output
- Huge video buffer
- CC(closed caption), EIA 608 & EIA708
- QR code, Logo, OSD Inserted
- RTP (FEC, SMPTE 2022-1/2) output

# QR CODE, LOGO, OSD Insertion Function Preview



Status Parameter Advanced System Reboot SW:1.52 HW:1.20

### OSD SETTINGS

Logo	Caption	QRCode
Video Format Logo Size Logo (X, Y): Alpha(0~255) Scroll	1920x1080 59.94i 386x132 (626,404) 0 OFF	
Browse... 123.jpg UPLOAD		QRCode
		

Logo

Welcome Convergence

Apply Get Config

Status Parameter Advanced System Reboot SW:1.52 HW:1.20

### OSD SETTINGS

Logo	Caption	QRCode
Video Format Caption (X, Y): Alpha(0~255) Scroll Speed Length Font Size 40 px Max Chars 100 line/pSize:400x40 Text Color: #FFFF00 Background: #FF0000	1920x1080 59.94i (212,646) 0 ON 50 1500 FontWeight Normal 100 line/pSize:400x40 #FFFF00 #FF0000	QRCode
Welcome Convergence		Logo

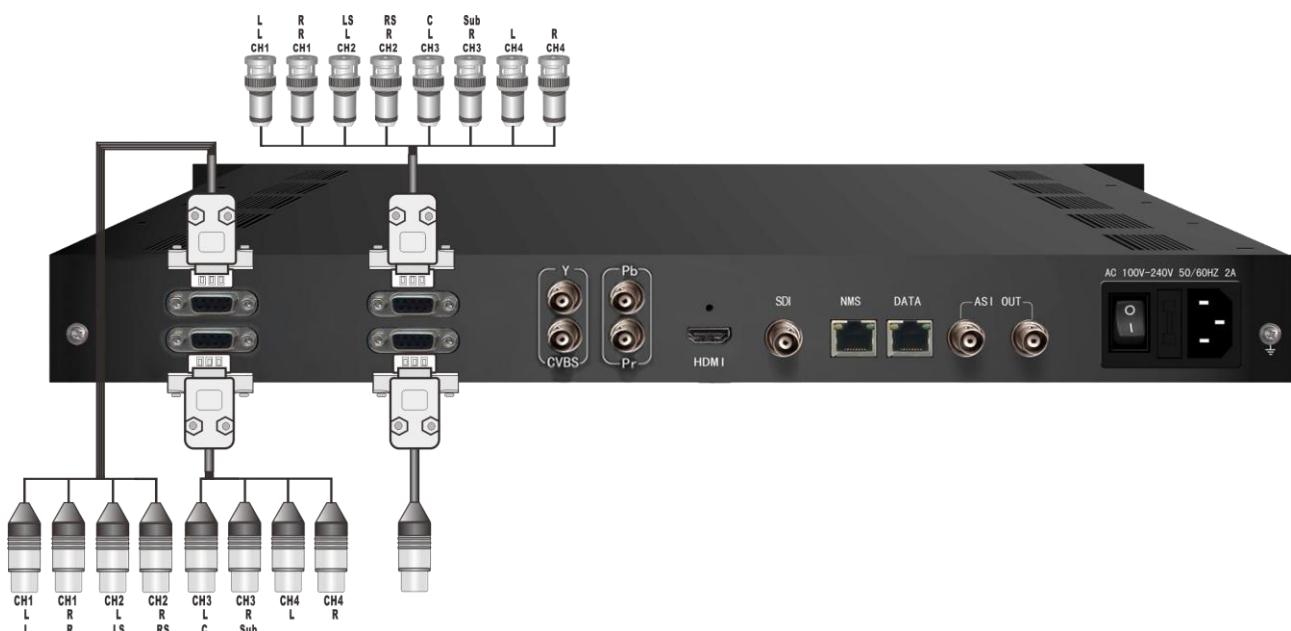
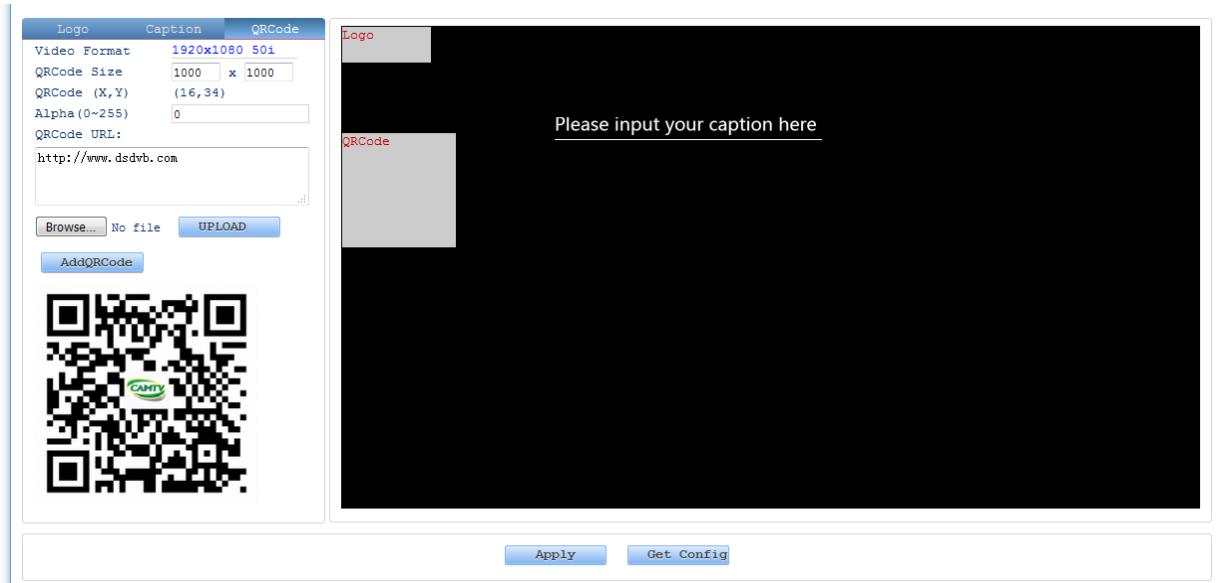
Welcome Convergence

Apply Get Config



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## 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 (SDI, CVBS, YPbPr and HDMI) and audio input interfaces (AES, RCA and XLR) to make it possible to compatible with different signal sources.

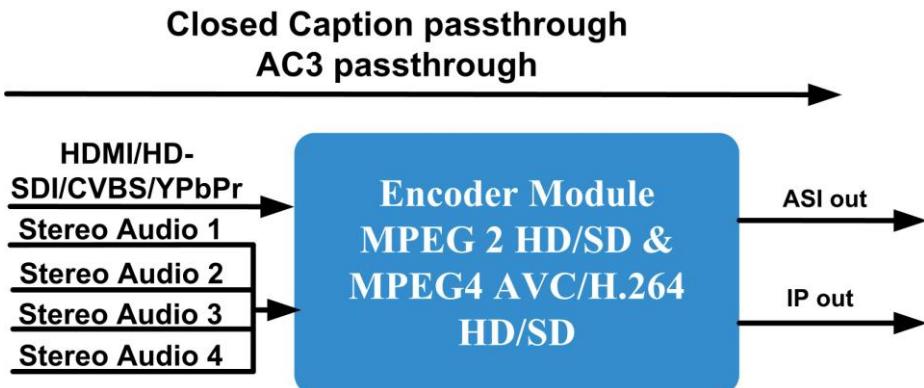
Multiple audio and video encoding formats are available to meet customers' various requirements. It supports 4 stereo (8 mono) mix with the video to form a stream output. The encoded program will finally output in TS through ASI/IP port.

**NDS3221B has QR code, LOGO and OSD insertion function. It will show 3 functions at same time. Operator can insert advertisement picture, own LOGO, special QR code, OSD content on 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, 阿拉伯, اردو, for more languages please consult us...)
- 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 audio passthrough (for SDI in)
- Support 4 stereo or 8 mono audio encoding
- Support ASI output and IP over UDP and RTP (FEC, SMPTE 2022-1/2) 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×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	720×576, 704×576, 640×576,	SDI, CVBS	



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		544×576, 528×576, 480×576, 352×576			
	720×480i@59.94	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	0.20 – 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				
<b>Audio</b>	Interface	4×XLR, 4×RCA, 1×AES, 1×HDMI, 1×SDI (support maximum 4 stereos synchronous processing)			
	Encoding	MPEG-1 Layer II, HE-AAC (v1&v2), LC-AAC, DD AC3 (2.0 available); DD AC3 passthrough (for SDI in)			
	Sampling rate	48KHz			
	Bit-rate	32Kbps~640Kbps			
<b>Low Delay options</b>		150ms, 200ms, 350ms, 650ms			
<b>Stream output</b>	2×ASI output ports, BNC interface				
	IP over UDP and RTP (FEC, SMPTE 2022-1/2), 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)			
	Temperature	0~45°C(Operation), -20~80°C(Storage)			
	Power	AC110V±10%, 50/60Hz; AC 220V±10%,50/60Hz			

## Technical Comparison

	NDS3211B	NDS3211A	NDS3211P
<b>Chipset</b>	Magnum	Magnum	Fujitsu
<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>	0.20 – 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), DD AC3 passthrough (for SDI in)	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	Up to 2 stereos	1 stereo
<b>Rate Control</b>	CBR	CBR/VBR	CBR/VBR



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<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/RTP	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>OSD Function</b>	Yes	N/A	N/A
<b>Management</b>	Web-server	Web-server, SNMP	SNMP, NMS



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