



NDS3211B

MPEG-2/H.264 HD Encoder

Logo/OSD/QR Code Insertion



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

● **4 stereo/8 mono audio channels**

● **Huge video buffer**

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

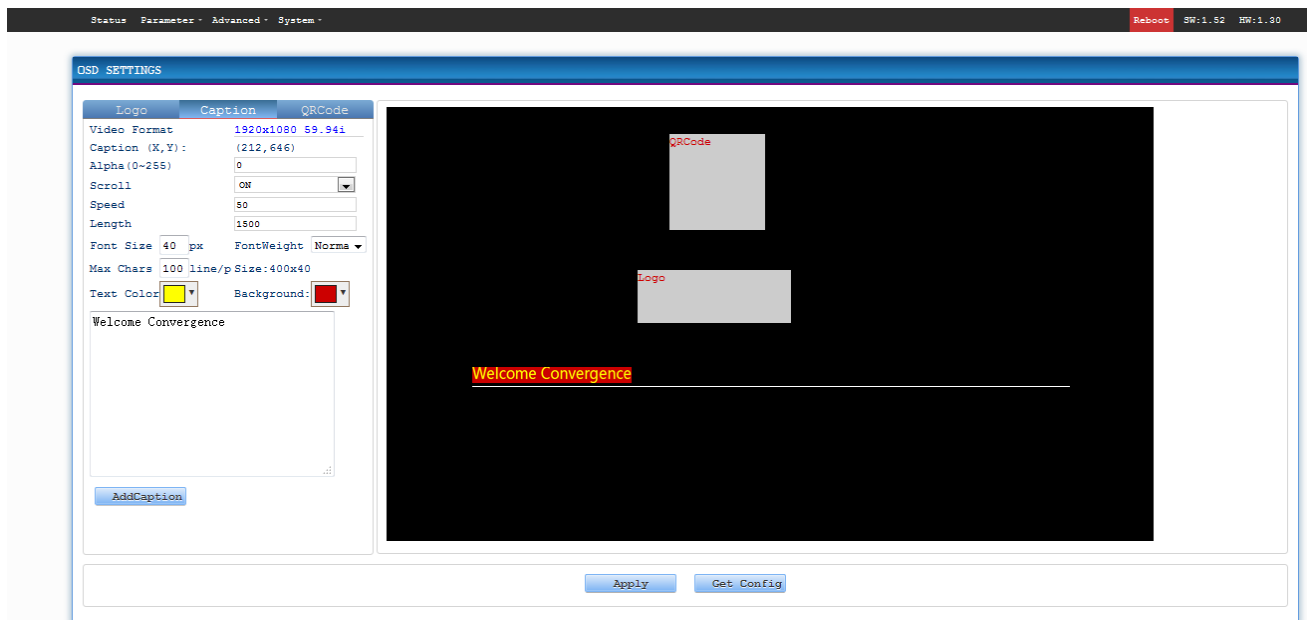
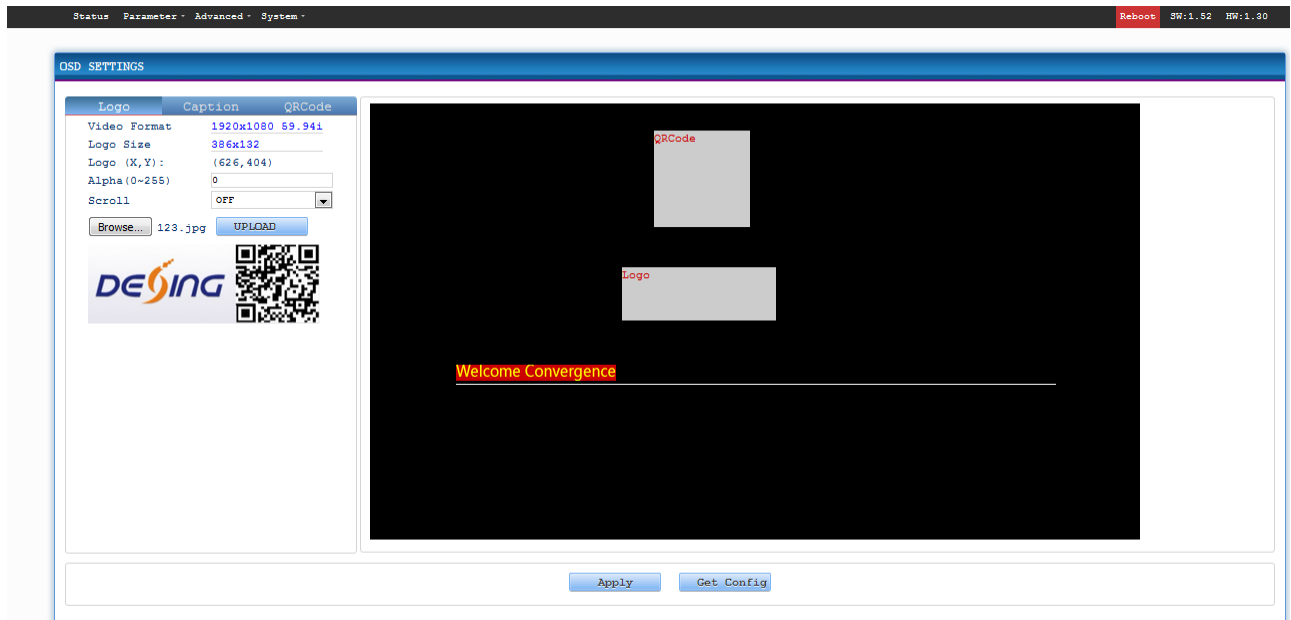
● **QR code, Logo, OSD Inserted**

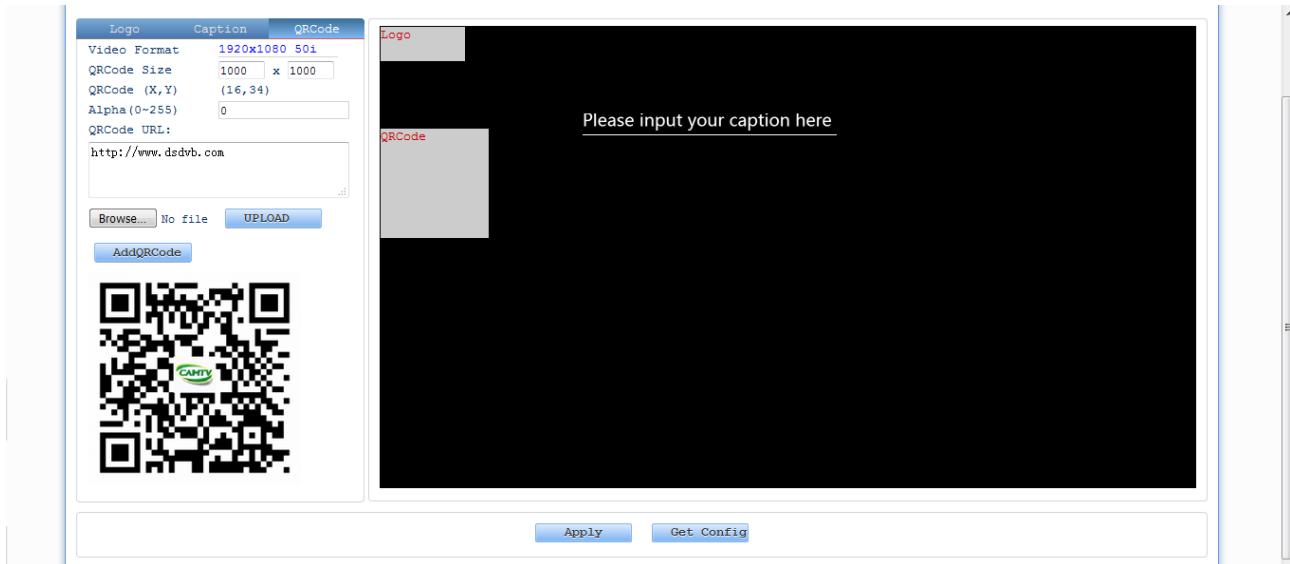
QR CODE, LOGO, OSD Insertion Function Preview

A, LOGO Interface: Insert any most picture form at any position within max resolution you selected

B, OSD Interface: Insert any OSD at any position within max resolution

C, QR Code Interface: It can convert a Website address or other URL to QR Code with a picture embedded.





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) 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.

NDS3211B 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 (for SDI in)
- Support 4 stereo or 8 mono audio encoding

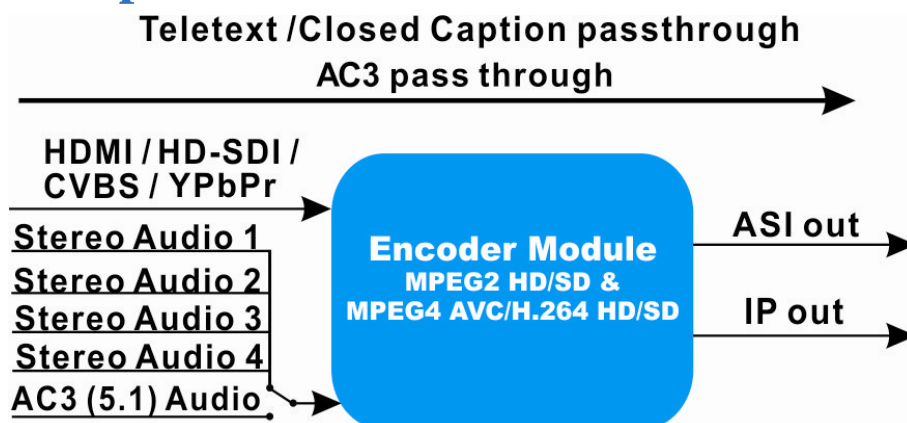


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- Support video buffer, free to switch video sources (all video interface available)
- Support CC (closed caption), EIA 608 and EIA 708 (for CVBS and SDI in)
- Support ASI output and IP over UDP and RTP output
- LCD / keyboard control and web management

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	720×576, 704×576, 640×576, 544×576, 528×576, 480×576, 352×576	SDI, CVBS
	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	0.52 – 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			
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
Low Delay options		150ms, 200ms, 350ms, 650ms
Stream output		2×ASI output ports, BNC interface IP over UDP and RTP, 100 Base-T Ethernet interface (UDP multicast/unicast)
System function		LCD/keyboard and web management Language: English Ethernet software upgrade
General	Dimensions	482mm×405mm×44.5mm (W × D × H)
	Weight	Approx 4.0Kg
	Temperature	0~45°C (Operation), -20~80°C (Storage)
	Power	AC110V±10%, 50/60Hz; AC 220V±10%, 50/60Hz
	Consumption	21W

Technical Comparison

	NDS3211B	NDS3211A	NDS3211P
Chipset	Magnum D7 Pro	Magnum DXT8313	Fujitsu 86H46
Video interface	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
Video Encoding	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
Bit Rate	0.52 – 60.00 Mbps	0.25Mbps~60.5Mbps	0.8Mbps~20Mbps
HDMI Resolution	HD	HD/SD	HD/SD
Audio Encode	MPEG-1 Layer II, HE-AAC (v1&v2), LC-AAC, DD AC3 (2.0/5.1), DD AC3 passthrough	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)
Audio Channel	Up to 4 stereos or 1DD AC3 (5.1)	Up to 2 stereos	1 stereo
Rate Control	CBR	CBR/VBR	CBR/VBR
Aspect Ratio	16:9, 4:3, 14:9	16:9, 4:3, 1:1, 2.35:1	16:9, 4:3
Chroma	4:2:0, 4:2:2	4:2:0, 4:2:2	4:2:0
One-seg	N/A	Yes	N/A
PIP	Under Develop	N/A	N/A
Video Buffer	Yes	N/A	N/A
ASI In & Mux	N/A	Yes	N/A
IP out	UDP/RTP	MPTS/8*SPTS over UDP/RTP,	UDP/RTP
Low Delay	150ms, 200ms, 350ms, 650ms	1400ms - 5000ms, 1ms stepping	N/A
Closed Caption	EIA 608 and EIA 708	EIA 608 and EIA 708	N/A