



**NDS3542LU**

**Multi-Channel Encoder**



## Product Overview

NDS3542LU Multi-Channel encoder is a professional HD audio & video encoding and multiplexing device. It has 8/12/16/20/24 HDMI video input interfaces, and supports HEVC/H.265, MPEG-4 AVC/H.264 video encoding, with H.265's high compression ratio, it helps to save bandwidth up to 75%. In conclusion, its high integrated and cost effective design makes the device widely used in varieties of digital distribution systems such as cable TV digital head-end, digital TV broadcasting etc.

## Key features

- **8/12/16 /20/24× HDMI input with 8/12/16 /20/24 SPTS and 1 MPTS output through Data 1 and Data 2**
- **HEVC/H.265, MPEG4 AVC/H.264 video encoding format**
- **Support B frame GOP, high video compression ratio and stable bitrate**
- **MPEG-1 Layer 2, LC-AAC, HE-AAC, HE-AAC V2, AC3 Passthrough audio encoding**



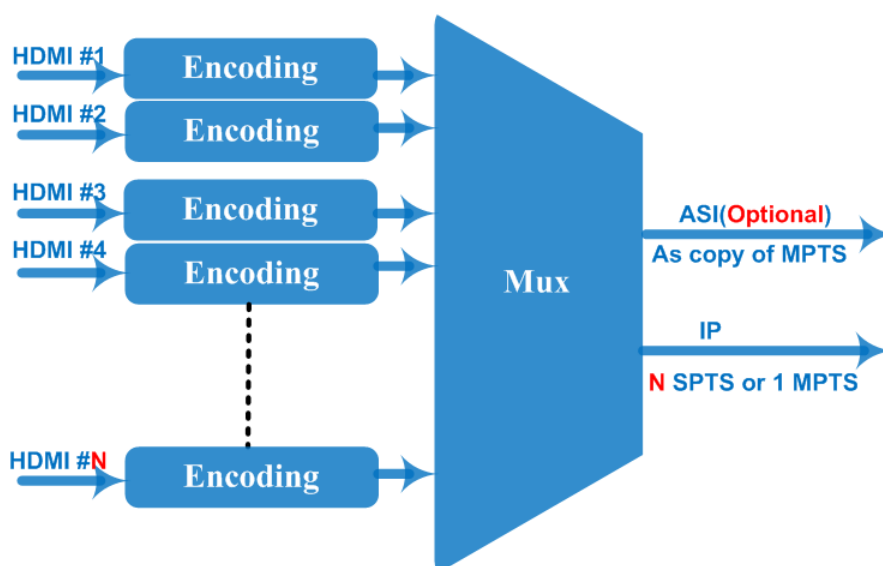
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Add: No. 10 & No. 12, Wuxing Fourth Road, Wuhou District, Chengdu 610045, Sichuan, PR China  
www.dsdtvb.com/English Tel: +86-028-85558928 Fax: +86-028-85585255 Email: sunyu@dsdtvb.com

format.

- 1 ASI output (optional) as copy of MPTS
- IP output over UDP and RTP/RTSP protocol
- **Support QR code, LOGO, closed caption insertion.**
- Support “Null PKT Filter” function
- Support PID Remapping/ PCR accurate adjusting
- Control via web management, and easy updates via web

### Principle Chart



### Technical specification

Input	8/12/16/20/24 HDMI inputs		
Video	Resolution	input	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	1920×1080_60P , 1920×1080_50P, 1920×1080_30P,1920×1080_25P, 1280×720_60P, 1280×720_50P
	Encoding	MPEG-4 AVC/H.264, HEVC/H.265	
	Bit-rate	1~15Mbps for each channel	
	Rate Control	CBR/VBR	
	GOP Structure	IP, IBBP, IBBBP	

<b>Audio</b>	Encoding	MPEG-1 Layer 2, LC-AAC, HE-AAC, HE-AAC V2, AC3 Passthrough
	Sampling rate	48KHz
	Bit-rate	48Kbps~384Kbps (MPEG-1 Layer 2 & LC-AAC) 24 Kbps~128 Kbps (HE-AAC) 18 Kbps~56 Kbps (HE-AAC V2)
<b>Multiplexing</b>	Maximum PID Remapping	180 output PIDs per channel
	Function	PID remapping (automatically or manually) Accurate PCR adjusting
<b>Stream output</b>	IP output thru Data1 (GE) and Data2 (FE) over UDP and RTP/RTSP protocol 8/12/16/20/24 SPTS and 1MPTS output (unicast/ multicast) ASI output as copy of MPTS (optional)	
<b>System function</b>	Network management (WEB)	
	Chinese and English language	
	Ethernet software upgrade	
<b>Miscellaneous</b>	Dimension (W×L×H)	482mm×410mm×44mm
	Environment	0~45°C(work); -20~80°C (Storage)
	Power requirements	AC 110V± 10%, 50/60Hz, AC 220 ± 10%, 50/60Hz

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

### LOGO Insertion



- Support jpg/jpeg/bmp/gif/png file
- Support multi pictures compressed into a zip file and display pictures in a dynamic way
- Custom time table of appear and disappear
- Custom transparency 
- Drag to move to any position 

Transparent background (hollow out) with png/gif type picture




White background with jpg/jpeg/bmp type picture

### Caption Insertion

- Multi languages: Chinese, English, Thai, Arabic, Indian, Korean, Japanese...
- Custom font family/ color/size/weight 
- Custom running speed 
- Custom showing period and text length
- Custom background, transparency or any color
- Custom time table of appear and disappear
- Drag to move to any position

### QR Code Insertion

- Input URL and create immediately
- Support add text at top or bottom
- Custom transparency/ size: 40\*40 -- 400\*400
- Support add logo at the center 
- Custom time table of appear and disappear
- Drag to move to any position



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## Technical Comparison

	NDS3542L	NDS3542LU
<b>Chipset</b>	Hisilicon (Old)	Hisilicon (New)
<b>Video Format</b>	MPEG-4 AVC/H.264	MPEG-4 AVC/H.264, HEVC/H.265
<b>Video Bit Rate</b>	1~13Mbps each channel (Bit rate is with a high fluctuation, suitable for cable system, not suitable for satellite uplink)	1~15Mbps each channel <b>(Bit rate is stable)</b>
<b>GOP</b>	IP...P (P Frame adjustment, without B Frame )	<b>IP, IBBP, IBBBP</b>
<b>Output Resolution</b>	1920×1080_30P, 1920×1080_25P, 1280×720_30P, 1280×720_25P	1920×1080_60P, 1920×1080_50P, 1920×1080_30P, 1920×1080_25P, 1280×720_60P, 1280×720_50P
<b>Audio Encode</b>	MPEG-1 Layer 2	MPEG-1 Layer 2, LC-AAC, HE-AAC, HE-AAC V2, AC3 Passthrough
<b>Audio Gain</b>	0-255 Adjustable	N/A
<b>IP output</b>	SPTS and 1MPTS (for 8/12 channel) SPTS or 1MPTS alternative (for 16/20/24 channel)	SPTS and 1MPTS (for 8/12/16/20/24 channel)

## Order Information

	NDS3542LU-8	NDS3542LU-12	NDS3542LU-16	NDS3542LU-20	NDS3542LU-24
8 HDMI Inputs with 8 SPTS and 1 MPTS out	✓				
12 HDMI Inputs with 12 SPTS and 1 MPTS out		✓			
16 HDMI Inputs with 16 SPTS and 1 MPTS out			✓		
20 HDMI Inputs with 20 SPTS and 1 MPTS out				✓	
24 HDMI Inputs with 24 SPTS and 1 MPTS out					✓

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