



NDS3542U

Encoder Modulator



Up to 2160P 60Hz RGB/YCbCr 4:4:4

H.265 HEVC/H.264 AVC

Video Resolution Upscale/Downscale Transform

HDCP 2.2 and HDCP 1.4

HDMI 2.0

Logo/Caption/QR Code Insertion



Product Overview

NDS3542U is a high performance 4K Encoder modulator designed by Dexin. It integrates encoding (H.265/HEVC and H.264/AVC), multiplexing and modulating functions in one standard 1U case. It support two HDMI (2.0) channel UHD signal input (hot redundancy) for encoding, and also 2 ASI & 32 IP input for remux. To enhance the transport capacity, it combines 1 DVB-C/T carriers output with one RF port. It is also equipped with 4 ASI ports to mirror out RF carrier and IP port to output TS in 1* MPTS.

Key Features

- Support 2 **HDMI 2.0** input (hot redundancy) and 1 **HDMI 2.0 (Loop out)** output
- Support **HDCP 2.2** and **HDCP 1.4**
- Support 2 **ASI & 32 IP** input (MPTS/SPTS) over **UDP and RTP** protocol
- Support up to **2160P 60Hz RGB/YCbCr 4:4:4** input
- Support video **resolution upscale or downscale transform (1080P and 4K convert to each other)**
- Support **H.265/HEVC** and **H.264/AVC** video encoding
- Support **Logo, Caption, QR code insertion (Language Supported: 中文, English, اردو, for more languages please consult us...)**
- Support **CBR video bitrate mode**
- Support **MPEG1 Layer 2, LC –AAC** audio encoding
- Support **PID remapping / accurate PCR adjusting / PSI/SI editing and inserting**
- Support **IP (1000M/100M) Output 1 MPTS over UDP and RTP; IP null packet filter**
- Support **1 TS output through 4 ASI output ports**
- **1*DVB-C/T RF output**
- **Real-time output bit-rate monitoring**
- **Update device through web based NMS port**
- **Support LCD / keyboard operating(optional), and network management (web)**

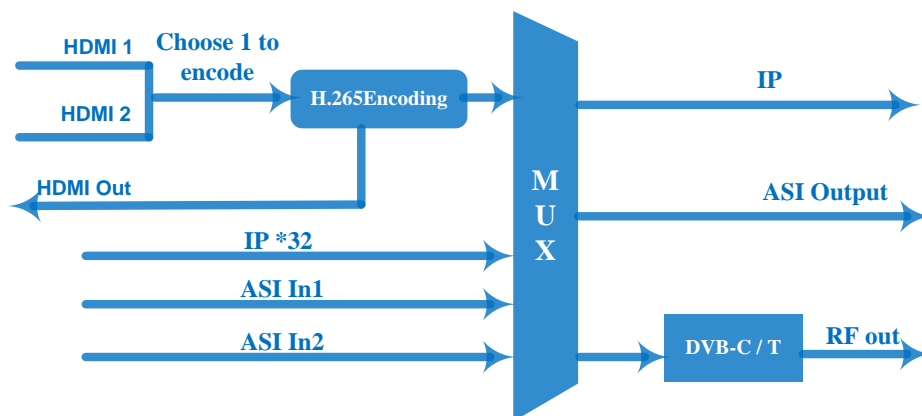
Specifications

Input	1×HDMI input (2.0) with 2 HDMI port, HDCP 2.2/1.4
	2 ASI input, BNC interface

	32 IP input over UDP and RTP protocol			
Video Input	Resolution		Chroma	
	3840×2160_60P,3840×2160_59.94P, 3840×2160_50P,3840×2160_30P, 3840×2160_29.96P,3840×2160_25P, 3840×2160_24P,1920×1080_60P, 1920×1080_59.94P,1920×1080_50P, 1920×1080_30P ,1920×1080_25P 1920×1080_24P,		RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0 (2160P_50/60Hz only)	
Video Encoding	Encoding	H.265/HEVC, H.264/AVC		
	Chroma	4:2:2, 4:2:0		
	Bit-rate	1Mbps~23Mbps		
	Rate Control	CBR		
Audio Encoding	Encoding	MPEG-1 Layer 2, LC-AAC		
	Sampling rate	48KHz		
	Bit-rate	64Kbps~256Kbps each channel		
Multiplexing	2 ASI input multiplexed with local 1 channel of TS			
	PID remapping (automatically or manually)			
	Accurate PCR adjusting			
	Generate PSI/SI table automatically			
Modulator Section	DVB-C	Standard	J.83A, J.83B	
		MER	≥43dB	
		RF frequency	50~960MHz, 1KHz step	
		RF output level	-25.0~ -1 dbm, 0.1db step	
		Symbol rate	5.0 - 7.0 Msps	
			J.83A	J.83B
		Constellation	16/32/64/128/ 256 QAM	64/ 256 QAM
		Bandwidth	8M	6M
	RF out	1*RF DVB-C out		
	DVB-T	Standard	EN300744	
		FFT mode	2K/4K/8K	
		Bandwidth	6M, 7M, 8M	
		Constellation	QPSK, 16QAM, 64QAM	
		Guard Interval	1/4, 1/8, 1/16, 1/32	
		Code rate	1/2, 2/3, 3/4, 5/6, 7/8	
		MER	≥42dB	
		RF frequency	50~960MHz, 1KHz step	
		RF output level	-28~ -3dbm, 0.1db step	
		RF out	1*RF DVB-T out	
	Stream output	1*ASI output through 4 BNC interfaces		

	1 MPTS over UDP/RTP, 1000M/100M Base-T Ethernet interface (unicast/multicast)	
System function	2 versions of front panel: Option1: with LCD and Keyboard; Option2 without LCD or Keyboard.	
	LCD/keyboard operating(optional), web NMS supporting	
	Ethernet software & hardware upgrade	
Miscellaneous	Dimension (W× L× H)	482mm×455mm×44mm
	Approx weight	4kg
	Temperature	0~45℃(work), -20~80℃ (Storage)
	Power	AC 100V-220V±10%, 50/60Hz
	Consumption	25W

Principle Chart



Resolution Upscale



1080P Original Signal

Convert to 4K Encoding Output