



NDS3536S-N

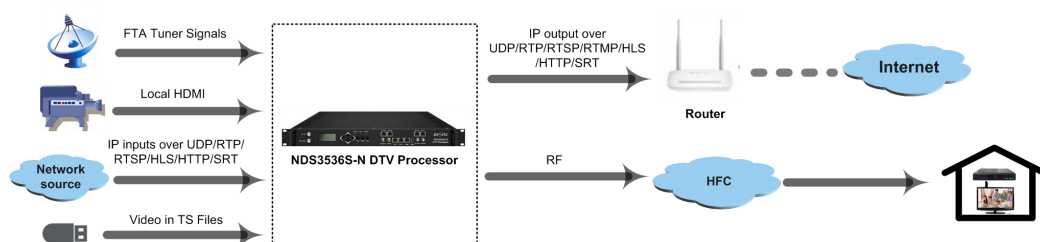
DTV Processor



Product Overview

NDS3536S-N DTV processor is a high integration dual platform which includes DVB encoder/IRD-mux-modulator and IPTV streamer in one case. It supports 8/16/24 HDMI (or HDMI plus DVB-S/S2/S2X/C/T/T2/ISDB-T tuner mix input) inputs, 1 ASI input, 1 USB player input and 128 IP inputs via the GE port, and output by multiple DVB-C (or DVB-T/ATSC/ISDB-T optional) carrier channels. It also supports to convert the contents to IP streams out over multiple protocols to fit for internet transmission.

System Application



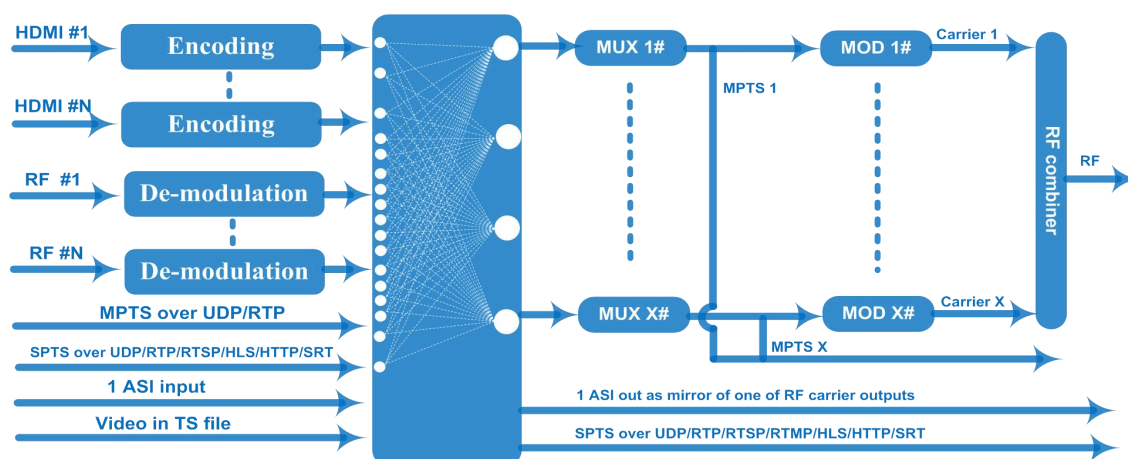
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Key features

- DVB+IPTV dual platform in one case
- 8/16/24 HDMI (or HDMI plus DVB-S/S2/S2X/C/T/T2/ISDB-T tuner) inputs, HEVC/H.265 & MPEG-4 AVC/H.264 Video encoding
- 1 ASI input for re-mux, TS files input by external USB disk
- Support 32ch DVB-C RF out (16ch DVB-T, 16ch ATSC, or 16ch ISDB-T out for option, as per order)
- IP input over UDP/RTP/RTSP/HLS/HTTP/SRT
- Support MPTS IP output over UDP/RTP/RTSP, and SPTS out over UDP/HLS/HTTP/RTP/RTSP/RTMP/SRT Protocol
- Support LOGO, Caption and QR code insertion for local made channels
- Control via web management, and easy updates via web

Working Block



Technical Specifications

Input	8/16/24 HDMI inputs for option (or HDMI and different Tuner mix input, details pls check below order guide)		
	1 ASI in for re-mux 1 USB Player input for re-mux (“xxx.ts” video) 128 MPTS IP input over UDP and RTP, GE port, RJ45 SPTS input over UDP/RTP/RTSP/HLS/HTTP/SRT		
Video (HDMI Input)	Resolution	Input	1920×1080_60P, 1920×1080_60i, 1920×1080_50P, 1920×1080_50i, 1280×720_60P, 1280×720_50P, 720×576_50i,720×480_60i,
		Output	1920×1080_30P, 1920×1080_25P, 1280×720_30P, 1280×720_25P, 720×576_25P,720×480_30P,
	Encoding	HEVC/H.265 & MPEG-4 AVC/H.264	
	Bit-rate	1Mbps~13Mbps each channel	
	Rate Control	CBR/VBR	
	GOP Structure	IP...P (P Frame adjustment)	



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Audio (HDMI Input)	Encoding	MPEG-1 Layer 2, LC-AAC, HE-AAC and AC3 Pass through		
	Sampling rate	48KHz		
	Resolution	24-bit		
	Audio Gain	0-255 Adjustable		
	MPEG-1 Layer 2 Bit-rate	48/56/64/80/96/112/128/160/192/224/256/320/384 kbps		
	LC-AAC Bit-rate	48/56/64/80/96/112/128/160/192/224/256/320/384 kbps		
	HE-AAC Bit-rate	48/56/64/80/96/112/128 kbps		
Tuner Section	DVB-S	Input Frequency	950-2150MHz	
		Symbol Rate	0.5~45 Msps	
		Constellation	QPSK	
		FEC	1/2, 2/3, 3/4, 5/6, 7/8	
	DVB-S2	Input Frequency	950-2150MHz	
		Symbol Rate	QPSK/8PSK/16APSK: 0.5~45 Msps 32APSK:0.5~40 Msps	
		Constellation	QPSK/8PSK/16APSK/32APSK	
		FEC	QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9,9/10 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 32APSK: 3/4, 4/5, 5/6, 8/9	
		Max input bitrate	≤ 170 Mbps per tuner	
	DVB-S2X	Symbol Rate	QPSK/8PSK/16APSK: 0.5~45 Msps; 8APSK/32APSK: 0.5~40 Msps	
		Constellation	QPSK/8PSK/16APSK/8APSK/32APSK	
		FEC	QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 13/45, 9/20, 11/20 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10, 23/36, 25/36, 13/18 8APSK: 5/9-L, 26/45-L 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10,1/2-L, 8/15-L, 5/9-L, 26/45, 3/5, 3/5-L, 28/45, 23/36, 2/3-L, 25/36, 13/18, 7/9, 77/90 32APSK: 3/4, 4/5, 5/6, 8/9, 2/3-L, 32/45, 11/15, 7/9	
		Max input bitrate per tuner	≤ 170 Mbps	
Signal Strength	-65 ~ -25dBm			
Multiplexing	Maximum PID Remapping	255 input per channel		
	Function	PID remapping (automatically or manually)		
		Accurate PCR adjusting Generate PSI/ SI table automatically		
Modulation	DVB-C	Standard	EN300 429/ITU-T J.83A/B	
		RF output channel	32 non-adjacent carriers output (maximum bandwidth 384MHz)	

		MER	≥40db
		RF frequency	50~960MHz, 1KHz step
		RF output level	-20~+1dbm, 0.1db step
		Symbol Rate	5.0Msps~7.0Msps, 1ksps stepping
			J.83A J.83B
		Constellation	16/32/64/128/256QAM 64/256 QAM
		Bandwidth	8M 6M
	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	≥42 dB
		RF frequency	50~960MHz, 1KHz step
		RF output channel	16 non-adjacent carriers output (maximum bandwidth 192MHz)
		RF output level	-20~ +1dBm, 0.1db step
	ATSC	Standard	ATSC A/53
		Bandwidth	6M
		Constellation	8VSB
		FEC	RS(208 188)+Trellis
		MER	≥40dB
		ACL	-55 dBc
		RF frequency	50~960MHz, 1KHz step
		RF output channel	16 non-adjacent carriers output (maximum bandwidth 192MHz)
		RF output level	-20~+3dbm (for all carriers), 0.5db stepping
	ISDB-T	Standard	ARIB STD-B31
		Bandwidth	6M
		Constellation	QPSK, 16QAM, 64QAM
		Guard Interval	1/32, 1/16, 1/8, 1/4
		FFT Mode	2K, 4K, 8K
		Code rate	1/2, 2/3, 3/4, 5/6, 7/8
		MER	≥40dB
		RF frequency	50~960MHz, 1KHz step
		RF output channel	16 non-adjacent carriers output (maximum bandwidth 192MHz)
		RF output level	-20dBm~+1dBm, 0.1dB stepping
MPTS output	1 ASI output as mirror of one of RF output carriers 32 MPTS output over UDP and RTP/RTSP as mirror of 32 DVB-C carriers(or 16 MPTS output over UDP and RTP/RTSP as mirror of 16 DVB-T/ATSC/ISDB-T carriers for option), 1*1000M Base-T Ethernet interface, GE port		
SPTS output	SPTS over UDP/RTP/RTSP/RTMP/HLS/HTTP/SRT		

System function	Network management (WEB)	
	English language	
	Ethernet software upgrade	
Miscellaneous	Dimension (W×L×H)	482mm×328mm×44mm
	Environment	0~45℃(work); -20~80℃ (Storage)
	Power requirements	AC 110V± 10%, 50/60Hz, AC 220 ± 10%, 50/60Hz

Ordering Guide

Input Section:

	HDMI	DVB-S2 /S2X	DVB-C/T/T2/ ISDB-T
Option 1	8	/	/
Option 2	16	/	/
Option 3	24	/	/
Option 4	8	8	/
Option 5	8	16	/
Option 6	16	8	/
Option 7	8	/	8
Option 8	8	/	16
Option 9	16	/	8
Option 10	8	8	8
Option 11	16	4	4

Output Section:

RF output standard	RF carrier channels
DVB-C out	32
DVB-T out	16
ATSC out	16
ISDB-T out	16