



NDS3544MD

Encoder Modulator

12 HD-SDI → **16* DVB-C/8* DVB-T Digital RF**



Product Overview

NDS3544MD HD encoder modulator is a professional high integration device which includes encoding, multiplexing, scrambling and modulating. It supports 12 HD-SDI with CC inputs, one DVB-C tuner input and 256 IP input through Data1 (GE) port. It also supports DVB-C RF out with 16 non-adjacent carriers or DVB-T RF out with 8 non-adjacent carriers and supports 16 MPTS as mirror of 16 carriers or 8 MPTS as mirror of 8 carriers through Data2 (GE) output port. To meet customers' various requirements, it is also equipped with 1 ASI output as mirror of one of RF output carriers.

Key features

- **12 HD-SDI inputs with MPEG2 & MPEG4 AVC/H.264 Encoding**
- **1DVB-C(ATSC optional) tuner input for re-mux**
- **256 IP(DATA1 port only) input over UDP and RTP protocol**
- **MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC, Dolby Digital AC3 (2.0) encoding (Optional)**
AC3 (2.0/5.1) passthrough
- **Support 16 groups multiplexing /Scrambling/DVB-C modulating**
- **Support 8 groups multiplexing / DVB-T modulating---Optional**

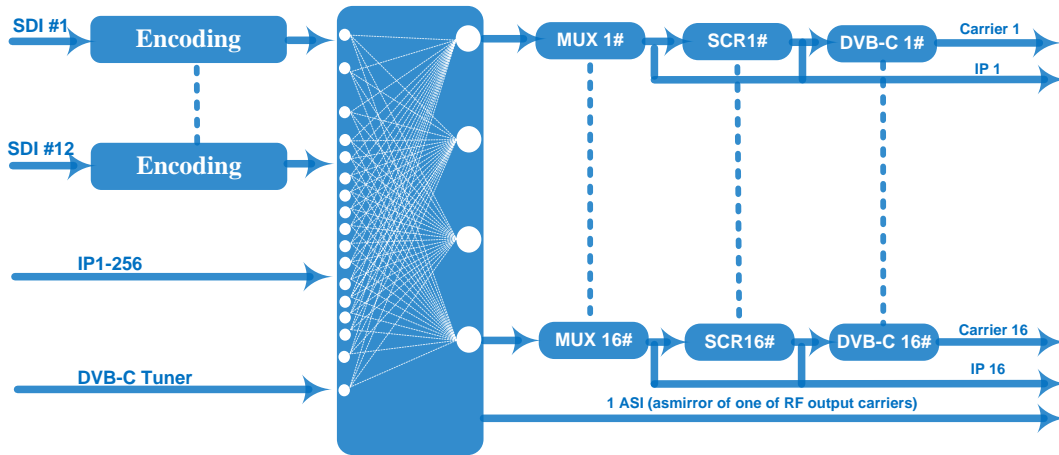


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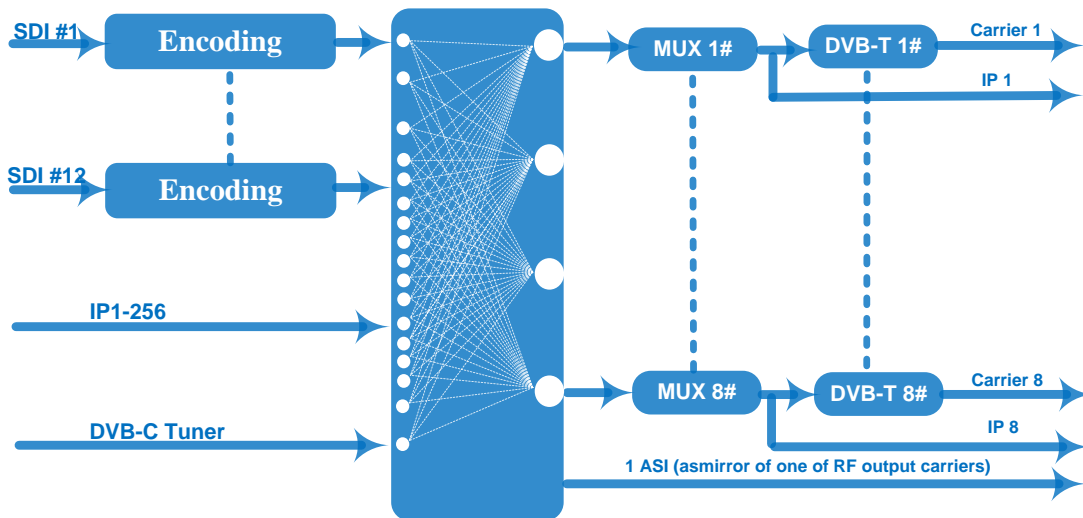
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- Support 1 ASI out as mirror of one of RF output carriers
- Support 16 MPTS IP (DATA2 port only) output over UDP, RTP/RTSP
- **Support 8 MPTS IP (DATA2 port only) output over UDP, RTP/RTSP--only for DVB-T RF out**
- Support PID remapping/ accurate PCR adjusting/PSI/SI editing and inserting
- Control via web management, and easy updates via web

Principle Chart



DVB-C Principle Chart



DVB-T Principle Chart

Technical specification

Input	12 HD-SDI inputs with CC 1 DVB-C (ATSC optional)Tuner for re-mux, F type interface 256 IP input over UDP and RTP, DATA1, RJ45		
Video	Resolution	Input	1920*1080_60p, 1920*1080_50p, 1920*1080_60i, 1920*1080_50i, 1280*720_60p, 1280*720_50P, 720*480_60i, 720*576_50i

		Output	1920*1080_60p, 1920*1080_50p, 1920*1080_60i, 1920*1080_50i, 1440*1080_60i, 1440*1080_50i, 1280*720_60p, 1280*720_50P, 720*576_50p, 720*576_50i, 720*576_30p, 720*576_25p, 720*480_60p, 720*480_60i, 720*480_30p, 720*480_25p, 320*240_60p, 320*240_50p, 320*240_30p, 320*240_25p, 320*180_60p, 320*180_50p, 320*180_30p, 320*180_25p, 960*540_50i, 704*576_50i, 704*480_60i, 640*576_50i, 640*480_60i, 544*576_50i, 544*480_60i,	
	Encoding	MPEG2 & MPEG4 AVC/H.264		
	Bit-rate	0.8~19Mbps for H.264 encoding 1~19Mbps for MPEG-2 encoding		
	Rate Control	CBR/VBR		
	GOP Structure	GOP B Frame: 0-3, GOP P Frame: 0-6		
	Advanced Pretreatment	De-interlacing, noise reduction		
Audio	Encoding	MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC, Dolby Digital AC3 (2.0) encoding (Optional), AC3 (2.0/5.1) passthrough		
	Sampling rate	48KHz		
	Bit-rate	64Kbps-320kbps each channel		
Multiplexing	Maximum PID Remapping	256 input per channel		
	Function	PID remapping (automatically or manually)		
		Accurate PCR adjusting		
		Generate PSI/ SI table automatically		
Scrambling	Maximum simulcrypt CA	4		
	Standard	EN300 429/ITU-T J.83A/B		
	Connection	Local/remote connection		
Modulation	DVB-C	QAM Channel: 16 non-adjacent carriers output (maximum bandwidth 192MHz)		
		Standard: EN300 429/ITU-T J.83A/B		
		MER: ≥40db		
		RF frequency: 50~960MHz, 1KHz step		
				RF output level: -20~+10dbm, 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			

		FEC	1/2, 2/3, 3/4, 5/6, 7/8
		MER	≥42 dB
		RF frequency	50~960MHz, 1KHz step
		RF out	8 non-adjacent carriers output (maximum bandwidth 192MHz)
		RF output level	-20~+10 dBm, 0.1db step
Stream output	RF output (F type interface)		
	1 ASI out as mirror of one of RF output carriers		
	16 MPTS output over UDP and RTP/RTSP as mirror of 16 DVB-C carriers, 8 MPTS output over UDP and RTP/RTSP as mirror of 8 DVB-T carriers(Optional)		
	1*1000M Base-T Ethernet interface		
System function	Network management (WEB)		
	Chinese and English language		
	Ethernet software upgrade		
Miscellaneous	Dimension (W×L×H)	482mm×440mm×44mm	
	Environment	0~45°C(work); -20~80°C (Storage)	
	Power requirements	AC 110V± 10%, 50/60Hz, AC 220 ± 10%, 50/60Hz	