



NDS3544MF

Encoder Modulator

24 HDMI → 16* DVB-C/8*DVB-T/ATSC/6*ISDB-T Digital RF



Product Overview

NDS3544MF HD encoder modulator is a professional high integration device which includes encoding, multiplexing, scrambling and modulating. It supports 24 HDMI inputs, one DVB-C (ATSC optional) tuner input and maximum 512 IP input through Data1 (GE) port. It also supports DVB-C RF out with 16 non-adjacent carries or DVB-T/ATSC RF out with 8 non-adjacent carriers or ISDB-T RF out with 6 non-adjacent carriers and supports 16 MPTS as mirror of 16 carriers or 8 MPTS as mirror of 8 carriers or 6 MPTS as mirror of 6 carriers through Data2 (GE) output port. To meet customers' various requirements, it is also equipped with 1 ASI output (Optional) as mirror of one of RF output carriers. This full function device makes it ideal for small CATV head end system.

Key features

- **24 HDMI inputs with MPEG-4 AVC/H.264 Encoding**
- **1DVB-C(ATSC optional) tuner input for re-mux**
- **Each carrier out channel process maximum 32 IP from DATA1 input port (UDP&RTP protocol)**
- **MPEG1 Layer II; AC3 pass through ; MPEG-2 AAC,MPEG-4 AAC (Optional)**
- **Support 16 groups multiplexing/Scrambling/DVB-C modulating**
- **Support 8 groups multiplexing/DVB-T/ATSC modulating---Optional**
- **Support 6 groups multiplexing/ISDB-T modulating---Optional**

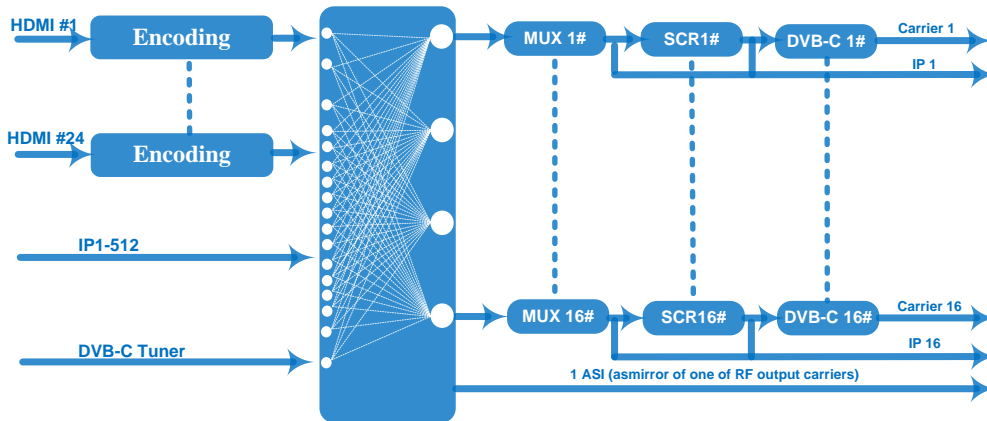


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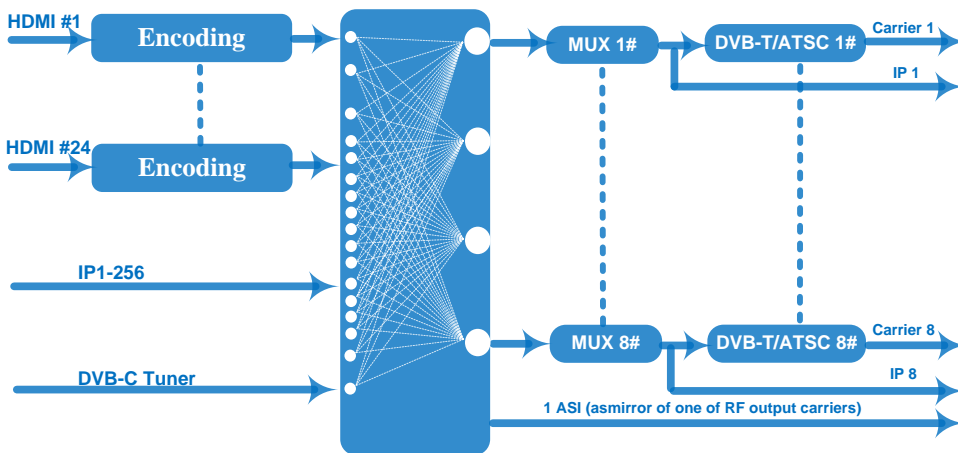
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- Support 1 ASI out as mirror of one of RF output carriers---**Optional**
- Support 16 MPTS IP (DATA2 port only) output over UDP, RTP/RTSP
- **Support 8 MPTS IP (DATA2 port only) output over UDP, RTP/RTSP-- DVB-T/ATSC RF out**
- **Support 6 MPTS IP (DATA2 port only) output over UDP, RTP/RTSP-- ISDB-T RF out**
- Support PID remapping/ accurate PCR adjusting/PSI/SI editing and inserting
- Control via web management, and easy updates via web

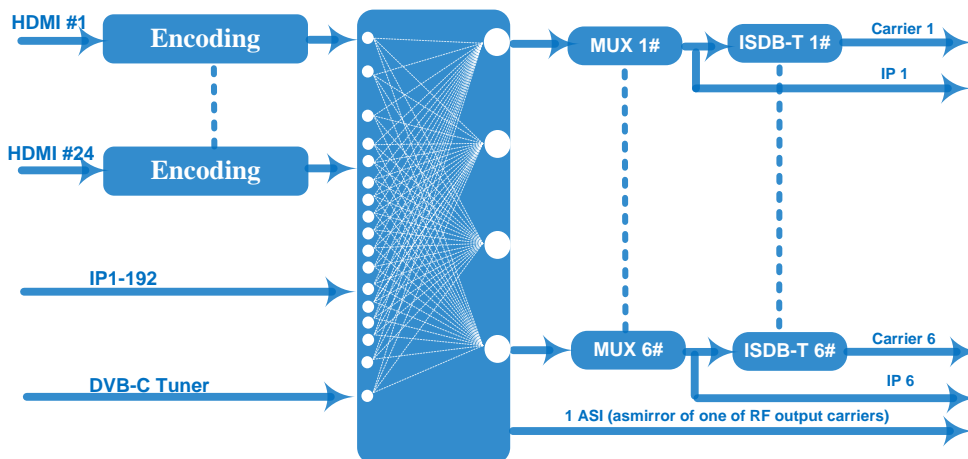
Principle Chart



DVB-C Principle Chart



DVB-T Principle Chart



ISDB-T Principle Chart

Technical specification



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Input	24 HDMI inputs 1 DVB-C(ATSC optional) Tuner for re-mux, F type interface 512 IP input over UDP and RTP, DATA1, RJ45—DVB-C RF out 256 IP input over UDP and RTP, DATA1, RJ45—DVB-T/ATSC RF out 192 IP input over UDP and RTP, DATA1, RJ45—ISDB RF out			
Video	Resolution	1920×1080_60P,1920×1080_50P,1920×1080_60i, 1920×1080_50i,1280×720_60P,1280×720_50P, 720×576_50i, 720×480_60i		
	Encoding	MPEG-4 AVC/H.264		
	Bit-rate	0.8~19Mbps each channel		
	Rate Control	CBR/VBR		
	GOP Structure	IBBP		
Audio	Encoding	MPEG1 Layer II, AC3 pass through (MPEG-2 AAC, MPEG-4 AAC Optional)		
	Sampling rate	48KHz		
	Audio Gain	0-400% adjustable		
	Bit-rate	64~320Kbps each channel (each channel)		
Multiplexing	Maximum PID Remapping	180 input per channel		
	Function	PID remapping (automatically or manually)		
		Accurate PCR adjusting Generate PSI/ SI table automatically		
Scrambling	Maximum simulcrypt CA	4		
	Standard	ETR289, ETSI 101197, ETSI 103197		
	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
	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 out	8 non-adjacent carriers output (maximum bandwidth 192MHz)
		RF output level	-20~+10dbm (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
		Transmission 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 out	6 non-adjacent carriers output (maximum bandwidth 192MHz)
		RF output level	-20dBm~+10dBm, 0.1dB stepping
Stream output	1 ASI output as mirror of one of RF output carriers- Optional 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/ATSC carriers(Optional) 6 MPTS output over UDP and RTP/RTSP as mirror of 6 ISDB-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	

Ordering Information

	IP input	IP output	RF carriers	Scrambling
DVB-C	512	16	16	√
DVB-T	256	8	8	×
ATSC	256	8	8	×
ISDB-T	192	6	6	×