

EM36S

Encoder Modulator



Product Overview

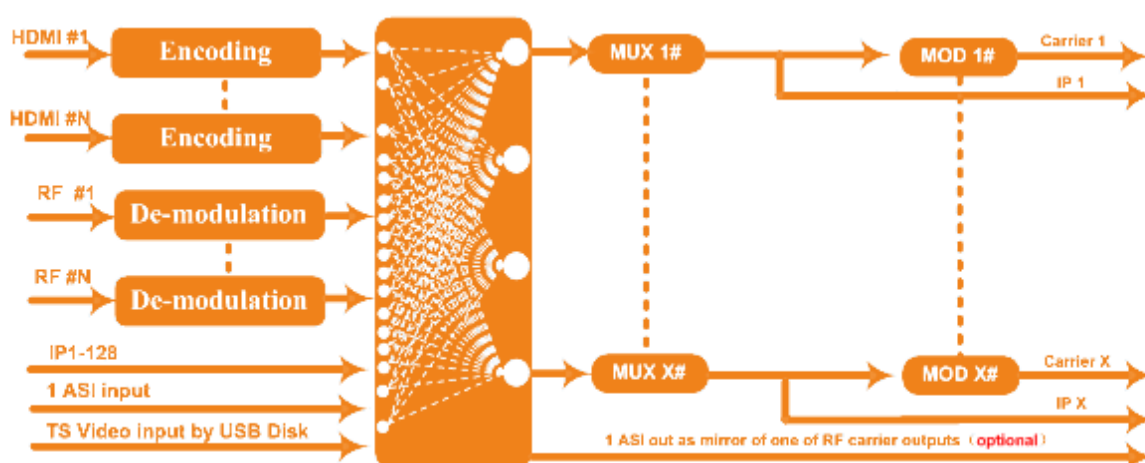
EM36S is a professional and high integration device which includes encoding (and de-modulation), multiplexing, and modulation functions in one case. It supports 8/16/24 HDMI (or HDMI plus tuner mix input) inputs, 1 ASI input, 1 USB player input and 128 IP inputs via the GE port, and output by multiple DVB-C (or DVB-T/ATSC/ISDB-T optional) carrier channels. It also supports MPTS output as mirror of carriers through the GE port and 1 ASI out as mirror of one of the carriers. This full function device makes it ideal for a small CATV head end

system, and it's a smart choice for hotel TV system, entertainment system in sports bar, hospital, apartment.

Key Features

- 8/16/24 HDMI (or HDMI plus DVB-S/S2/S2X/C/T/ISDB-T tuner) inputs
- HEVC/H.265, MPEG-4 AVC/H.264 Video encoding
- 1 ASI input for re-mux
- 1 USB Player (Insert the USB Flash drive with “xxx.ts” videos in NDS3536S and play back the content in an easy way; file system FAT 32)
- 128 IP input over UDP and RTP via GE port
- Each carrier out channel process maximum 32 IP from the GE port (UDP&RTP protocol)
- Support audio gain adjustment
- Support 16/32ch DVB-C RF out (8ch/16ch DVB-T, 16/32ch ATSC, or 16ch ISDB-T out for option, as per order)
- Support 1 ASI out as mirror of one of RF output carriers---Optional
- Support IP MPTS or SPTS output over UDP, RTP/RTSP
- Support LOGO, Caption and QR code insertion (Language Supported: 中文, English, العربية, ไทย, हिन्दी, русский, اردو, for more languages please consult us...)
- Support PID remapping/ accurate PCR adjusting/PSI/SI editing and inserting
- Control via web management, and easy updates via web

Principle Chart:



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 IP input over UDP and RTP, GE port, RJ45
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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, without B Frame)	
Audio (HDMI Input)	Sampling rate	48KHz	
	Resolution	24-bit	
	Audio Gain	0-255 Adjustable	
	Bit-rate	48/56/64/80/96/112/128/160/192/224/256/320/384 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/32A PSK
		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 per tuner	≤170 Mbps
	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	256 input per channel	
	Function	PID remapping (automatically or manually)	
		Accurate PCR adjusting	
		Generate PSI/ SI table automatically	
Modulation	DVB-C	QAM Channel	16/32/48 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~+3dbm, 0.1db step
		Symbol Rate	5.0Msps~7.0Msps, 1ksps stepping

			J.83A	J.83B
		Constellation	16/32/64/128/ 256 QAM	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	8/16/28 non-adjacent carriers output (maximum bandwidth 192MHz)	
		RF output level	-28~ -3dBm, 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	16/32/48 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	
		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	8/16/24 non-adjacent carriers output (maximum bandwidth 192MHz)
		RF output level	-20dBm~+3dBm, 0.1dB stepping
Stream output	1 ASI output as mirror of one of RF output carriers (Optional) MPTS output over UDP and RTP/RTSP as mirror of modulation carriers 64 SPTS output (available for models of 32ch DVB-C, 16ch DVB-T, 32ch ATSC and 16ch ISDB-T) , 1*1000M Base-T Ethernet interface, GE port		
System function	Management: web-based NMS, one NMS port manage all input modules, LCD+Keyboard manage		
	Chinese and English language		
	Ethernet software upgrade		
Miscellaneous	Dimension (W×L×H)	482mm×328mm×44mm	
	Environment	0~45°C(work); -20~80°C (Storage)	
	Power requirements	AC 110V±10%, 50/60Hz, AC 220V±10%, 50/60Hz	