

PRODUCT MODEL NUMBER: TL-9596S ENCODER MODULATOR



DISCLAIMER

No part of this document may be reproduced in any form without the written permission of the copyright owner. The contents of this document are subject to revision without notice due to continued progress in methodology, design and manufacturing. TRANSLITE GLOBAL LLC shall have no liability for any error or damage of any kind resulting from the use of this document.

COPY WARNING

This document includes some confidential information. Its usage is limited to the owners of the product that it is relevant to. It cannot be copied, modified, or translated in another language without prior written authorization from TRANSLITE GLOBAL LLC.

PRODUCT OVERVIEW

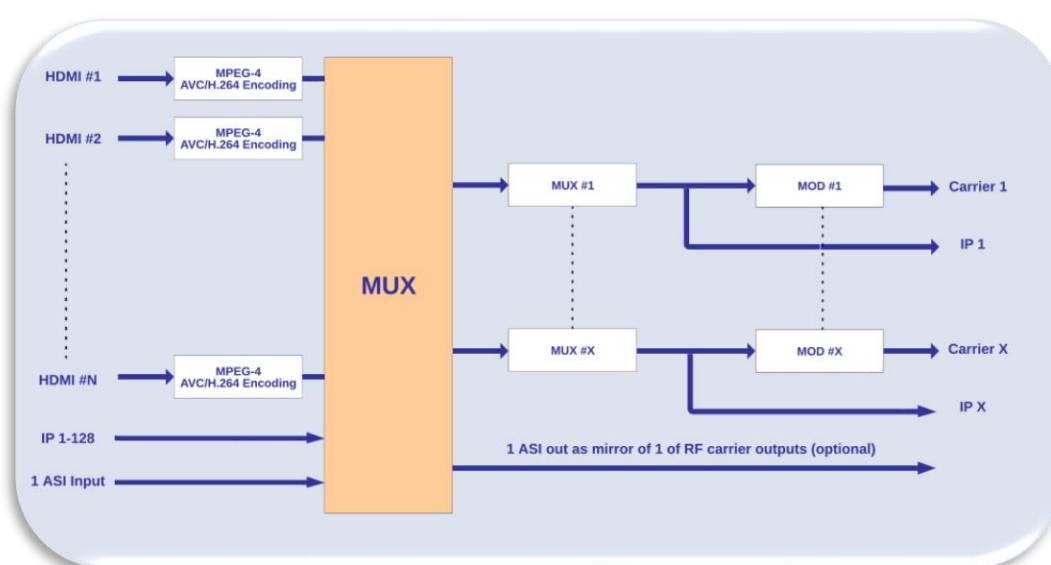
TL-9596S is a professional high integration device which includes encoding, multiplexing, and modulation. It supports 8/16/24 HDMI inputs, 1 ASI input, 1 USB player input and 128 IP inputs via the GE port. It also supports DVB-C RF out with 12 non-adjacent carriers or DVB-T/ATSC RF out with 8 non-adjacent carriers, or ISDB-T RF out with 6/16 non-adjacent carriers and supports 12/8/6/16 MPTS as mirror of 12/8/6/16 carriers through the GE port and 1 ASI out as mirror of one of the carriers. This full function device makes it ideal for small CATV head end system, and it's a smart choice for hotel TV system, entertainment system in sports bar, hospital, apartment, etc.

KEY FEATURES

- 8/16/24 HDMI inputs, 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 TL-9596S 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)
- MPEG1 Layer II, LC-AAC and HE-AAC Audio encoding, AC3 Pass Through and audio gain adjustment
- Support 12 groups multiplexing/DVB-C modulating

- Support 8 groups multiplexing/DVB-T/ATSC modulating →Optional
- Support 6 (or 16) groups multiplexing/ISDB-T modulating →Optional
- Support 1 ASI out as mirror of one of RF output carriers →Optional
- Support 12 MPTS IP output over UDP, RTP/RTSP → DVB-C RF out
- Support 8 MPTS IP output over UDP, RTP/RTSP → DVB-T/ATSC RF out
- Support 6 (or 16) MPTS IP output over UDP, RTP/RTSP → ISDB-T RF out
- 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 1 ASI in for re-mux 1 USB Player input for re-mux 128 IP input over UDP and RTP, GE port, RJ45—DVB-C RF out 128 IP input over UDP and RTP, GE port, RJ45—DVB-T/ATSC RF out 128 IP input over UDP and RTP, GE port, RJ45—ISDBT RF out	
Video	
Input Resolution	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 Resolution	1920×1080_30P, 1920×1080_25P, 1280×720_30P, 1280×720_25P, 720×576_25P, 720×480_30P,
Encoding	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	
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
Multiplexing	
Maximum PID Remapping	255 input per channel
Function	PID remapping (automatically or manually)
	Accurate PCR adjusting
	Generate PSI/ SI table automatically

DVBC Modulator Section		
QAM Channel	12 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	16/32/64/128/256QAM	64/256 QAM
Bandwidth	8M	6M
DVB-T Modulator Section		
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~ +3dBm, 0.1db step	
ATSC Modulator Section		
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~+3dbm (for all carriers), 0.5db stepping	

ISDB-T Modulator Section	
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 (or 16) 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) 12 MPTS output over UDP and RTP/RTSP as mirror of 12 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) 16 MPTS output over UDP and RTP/RTSP as mirror of 16 ISDB-T carriers (Optional) 1*1000M Base-T Ethernet interface, GE port	
System Function	
Network management (WEB)	
Chinese and English language	
Ethernet software upgrade	
General Information	
Dimension (W×L×H)	482mm×328mm×44mm
Environment	0~45°C(work); -20~80°C (Storage)
Power requirements	AC 110V± 10%, 50/60Hz, AC 220 ± 10%, 50/60Hz

ORDER GUIDE

System Function					
		IP input	IP output	RF carriers	Scrambling
DVB-C out		128	12	12	N/A
DVB-T out		128	8	8	N/A
ATSC out		128	8	8	N/A
ISDB-T out	V1	128	6	6	N/A
	V2	128	16	16	N/A

For Sales

North America:

sales@transliteglobal.com

Asia:

sales@translite.co.in

Rest Of The World:

sales@transliteglobal.com

For Support

North America:

support@transliteglobal.com

Asia:

support@translite.co.in

Rest Of The World:

support@transliteglobal.com