

MSM623-24

8/16/24 channels HDMI to RF Modulator

DVB-C CABLE DVB-T TERRESTRIAL ISDB-T ATSC

HDMI H.264 MPEG-4/AVC



MSM623-24 H.264 encode modulator up to 8/16/24 HD-MI sources From Satellite Receiver, PC, Blue ray, Local Payout, the latest new device which integrate encoding (MPEG-4 AVC/ H.264) and modulation (DVB-C QAM/ DVB-T Cofdm/ATSC/ ISDB-T) to convert Video/Audio signals into RF over Single Coax Cable. MSM623-24, which includes encoding, multiplexing, and modulation, supports 8/16/24 HD-MI inputs, 1 ASI input, 1 USB payer input and 128 IP inputs via the GE port.

This unit is designed especially for high channel density Distribution Video Engineering project, which can support rapid deployment, OSD/Logo Insertion and DVB-C RF out with 12 non-adjacent carries, or ISDB-T RF out with 6/16 non-adjacent carries or DVB-T/ATSC RF out with 8 non-adjacent (optional). It used in some of Hotels in the world, it is an ideal solution for environments where displays to an unlimited number of displays over almost any distance, such as Small Digital TV system, Hotel, Stadiums, Campus, Entertainment facilities, Education Markets.

MSM623-24, Integrate All in One Multiplexer MPEG-TS out Over MPTS as mirrored of RF Channels over LAN network. It is also characterized with high integrated, high performance and breakthrough price.

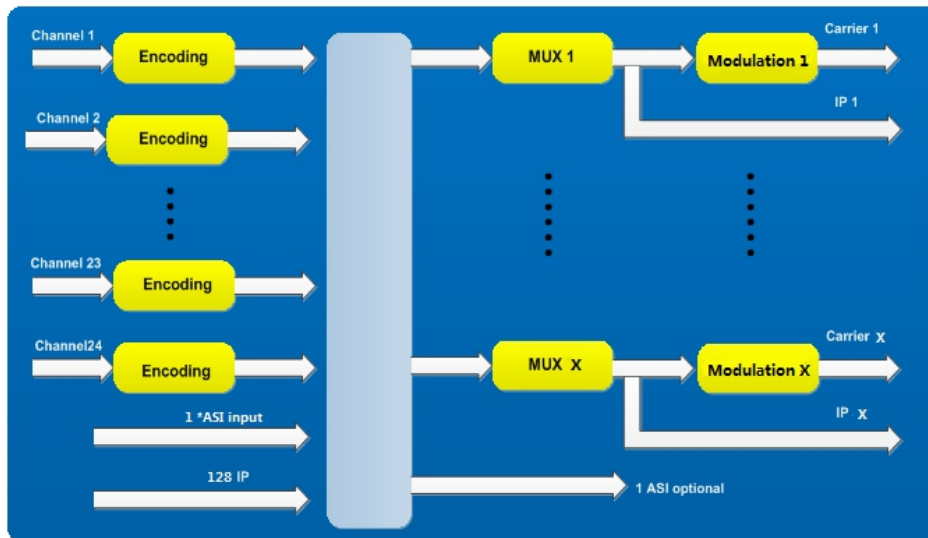
Features

- 8/16/24 HD-MI inputs, MPEG-4 AVC/H.264 Video encoding
- 1 ASI input for re-mux
- 128 IP input over UDP and RTP via GE port
- 1 USB Player (Insert the USB Flash drive with “xxx.ts” videos in MSM623-24 and play back the content in an easy way; file system FAT 32.)
- 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
- 12 groups multiplexing/DVB-C modulating
- 8 groups multiplexing/DVB-T/ATSC modulating--- Optional
- 6 (or 16) groups multiplexing/ISDB-T modulating--- Optional
- 1*ASI out as mirror of one of RF output carriers--- Optional
- 12*MPTS IP output over UDP, RTP/RTSP –DVB-C RF out
- 8*MPTS IP output over UDP, RTP/RTSP-- DVB-T/ATSC RF out
- 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, русский, اردو, for more languages please consult us...)
- PID remapping/ accurate PCR adjusting/PSI/SI editing and inserting
- Easy-to-Use System Management via Web, easy updates via web

Applications

- Distribute Full-HD Video to All TVs Over Existing TV Coax
- Advertising, monitoring, training and educating
- Upgrade all your analog Head-ends to digital TV Solution
- Enterprise, Hotel, campus, hospital, Public Place
- Works with Digital TV transmitter in wireless TV broadcasting

Principle Chart



	IP input	IP output	RF carriers
DVB-C out	128	12	12
DVB-T out	128	8	8
ATSC out	128	8	8
ISDB-T out	128	6	6
	128	16	16

TECHNICAL SPECIFICATIONS

INPUT

8/16/24 HD-MI input
 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/DVB-T/ATSC/ISDB-T RF out

Video Processing

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
 IPPPP (P Frame adjustment, without B Frame)

Audio Processing

Encoding
 MPEG-1 Layer 2, LC-AAC, HE-AAC and AC3 Pass through

Sampling rate
 48KHz

Resolution
 24-bit

MPEG-1 Layer2/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
 Audio Gain 0-255 Adjustable

Multiplexing

Maximum PID Remapping
 255 input per channel
 PID remapping by automatically or manually
 Generate PSI/ SI table automatically
 Accurate PCR adjusting

General RF Modulation

Connector
 F-Type, 75 Ω

DVB-C Mode

QAM Encoding
 EN300 429& ITU-T J.83 Annex A (DVB), Annex B

QAM Channel
 12 non-adjacent carriers output
 (maximum bandwidth 192MHz)

MER
 ≥40db

Bandwidth
 6Mhz(Annex B) or 8 Mhz (Annex A)

Symbol Rate
 5.0Msps~7.0Msps, 1ksps stepping

RF frequency
 50~960MHz, 1KHz step

QAM Constellations
 16/32/64/128/256QAM (Annex A)
 64/256QAM(Annex B)

RF output level
 -20~ +3dBm, 0.1db step

DVB-T Mode

Standard	EN300744
DVB-T channel	8 non-adjacent carriers output (maximum bandwidth 192MHz)
FFT mode	2K, 4K, 8K
Bandwidth	6Mhz, 7Mhz, 8Mhz
Constellation	QPSK, 16-QAM, 64-QAM
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 output level	-20~ +3dBm, 0.1db step

ATSC Mode

Standard	ATSC A/53
ATSC channel	8 non-adjacent carriers output (maximum bandwidth 192MHz)
Bandwidth	6M
Constellation	8VSB
FEC	RS(208 188)+Trellis
MER	≥40dB
ACL	-55 dBc
RF frequency	50~960MHz, 1KHz step
RF output level	-20~+3dbm (for all carriers), 0.5db stepping

ISDB-T Mode

Standard	ARIB STD-B31
ISDB-T channel	6 (or 16) non-adjacent carriers output (maximum bandwidth 192MHz)
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 output level	-20~+3dbm, 0.1db stepping

Stream output

ASI Optional	1*ASI output as mirror of one of RF output carriers
DVB-C OUT	12*MPTS output over UDP and RTP/RTSP as mirror of 12*DVB-C carriers
DVB-T/ATSC OUT (Optional)	8*MPTS output over UDP and RTP/RTSP as mirror of 8 DVB-T/ATSC carriers
ISDB-T OUT (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

Web Network management
Chinese/English language
Ethernet software upgrade

Environment

Dimension(W×L×H)	482mm×328mm×44mm
Approx weight	8kg
Temperature	0~45℃(Operation); -20~80℃ (Storage)
Voltage range	AC 110V± 10%, 50/60Hz, AC 220 ± 10%, 50/60Hz