

## MD9800 Encoder

HD | SD | 1 SEG



**MD9800 encoder to audio and video compression of high performance Hitachi Kokusai Linear was developed to TV digital system application in HD, SD e 1SEG, offering reliability, quality and practicality.**

This encoder is developed with high speed processors, quality-assured to audio and video ally the excellents output rates, following brazilian rules of digital TV.

Toll kit fully programmable to MPEG-2/MPEG-4 and support interlacement of video (MBAFF e PAFF).

The encoder has 8 pair of advanced audio by video channel besides the option Dolby Digital (AC3)/Dolby Digital Plus (AC+) codification or Dolby digital E re-encoding for later re-encoding in Dolby Digital (AC3) / Dolby Digital Plus (+ AC).

The compression technology is ready to deliver a best sgnal HD to IPTV, DVB-S, DVB-T, DVB-C e ISDB-T.

### Characteristics:

- MPEG-2, H.264/MPEG-4 AVC codification
- Support to Picture-in-Picture
- Processing up to 8 audio pairs
- HD video encoding for high quality for distribution.
- Support for monitoring and control via SNMP
- Support extension for metadata (VBI, CC, DVB-subtitles)
- In accordance with any distribution architecture (DVB-S / S2, DVB-T / T2, DVB-C / C2, ISDB-T, ATSC)
- SDI output for monitoring (loopback)
- Delivery capacity of two services on the same channel (HD - 1SEG or SD - 1SEG).
- Frame rate selectable between 15 to 30 fps for 1SEG.
- Has input for external sync.
- Fully compliance brazilian standards NBR 15602-1 / NBR 15602-2 / NBR 15602-3.

# MD9800 Encoder

## HD | SD | 1SEG

### TECHNICAL SPECIFICATIONS

#### Characteristics

Video input signal:	HD/SD-SDI
Audio input signal:	SDI audio embedded AES/EBU (optional)
Video data rate:	HD / SD - 1 to 30 Mbps 1SEG - 100 kbps to 5 Mbps
MPEG2-TS output:	DVB-ASI, 2 outputs
IP output (UDP / RTP):	2 stream Gigabit Ethernet <sup>1</sup> (10/100/1000) ports
Video coding:	MPEG-4/AVC (H.264) 4:2:0 8-bit MPEG-2 4:2:0 8-bit
Output resolution:	HD - 1080i x 1920, 1536, 1440, 1280 and 960 pixels 720p x 1280, 1024, 960 and 640 pixels SD - 576i x 720, 576, 544, 480 and 352 pixels 480i x 720, 640, 576, 544, 480 and 352 pixels 1SEG - 320p x 240 and 180 pixels
Frame rate:	HD - 1080i @ 25, 29,97 and 30 Hz 720p @ 50, 59,94 and 60 Hz SD - 576i @ 25 Hz 480i @ 29,97 and 30Hz 1SEG - 320p @ 29.97 and 30 Hz
Audio coding:	MPEG Layer2 AAC LC (MPEG-4) AAC LC (MPEG-2) AAC HEv1 AAC HEv2 Dolby Digital (optional) Dolby Digital Plus (optional)
Audio coding modes:	Mono, Stereo and 5.1 Up to 8 stereo pair per video channel
Audio data rate:	HD / SD - 192 to 384 kbps for MPEG-1 32 to 384 kbps for AAC-LC 32 to 64 kbps for HE-AAC 1SEG - 32 to 384 kbps for AAC-LC 32 to 64 kbps for HE-AAC
GOP structure:	Fixed or adaptative structure Automatic insertion of I frames
Preprocessing:	Inverse telecine Scene change detection logo insertion Psycho-visual enhancement with noise processing
Audio multiplexing and signaling:	LATM/LOAS and ADTS
Configuration and control:	Front panel with LCD and keyboard Management: Gigabit Ethernet port (10/100/1000)
Telemetry:	Protocolos HTTP (Web Server) and SNMP
<b>General</b>	
Power supply:	90 to 240 Vac
Consumption:	150 W
Operation temperature:	from 5°C up to 40°C
Operation altitude:	Up to 4.000 m above sea level
Dimensions (mm):	44(H) x 482(W) x 519(D)
Weight:	7,3 kg

<sup>1</sup> Ethernet is a trademark Xerox Corporation.

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