NEETRA

MPEG-2 ENCODER

Digital TV

The **MPEG-2 ENCODER** is a compact, top-quality, real-time MPEG-2 4:2:0 Audio-Video Encoder offered by Neetra for the Digital Television Broadcasting market.

It is the third generation of Neetra's MPEG-2 Encoders thus achieves all the major technological targets of real-time video encoding, offering great simplicity of operation together with a top-performance compression engine and an excellent picture quality.

It exceeds the Audio&Video encoding specifications of Digital Video Broadcasting (DVB) for Broadband Satellite, Terrestrial and Cable applications and includes a complete multiplexing engine allowing cascading operation and avoiding external multiplexers.

The **MPEG-2 ENCODER** is assembled in a single 1U case equipped with a multi-standard analogue video input, two analogue audio inputs, an SDI input with embedded audio, an ASI input for cascading, a unique digital audio/video compression engine, an embedded multiplexer for combining incoming programs and managing SI Tables and a dual DVB-ASI output interface.

The excellent video quality together with the low bit-rate operation let the **MPEG-2 ENCODER** achieve excellent performances with optimal bandwidth utilisation.

The **MPEG-2 ENCODER** parameters are completely configurable by the user through a very user-friendly LCD Display and Keyboard interface and a highly reliable remote

interface. Neetra equipment is severely tested with highly accurate and professional laboratory testing instrumentation and is guaranteed by the ISO-9001 Quality Certification which ensures a perfectly managed production phase. Neetra equipment for Digital TV broadcasting is currently used by valuable worldwide customers, which is the best certification for in-field performance over different operating environments.

Main characteristics

- 1U Compact Case
- Multi-standard CVBS Video Input
- Two Analogue Audio Channels
- SDI Input with Embedded Audio
- Video Noise Reduction Filter / Full D1 Picture Resolution
- Up to 15Mbps Encoding Bit-Rate / Complete Remote Control
- ISO/IEC 13818-1 Compliant Output
- Embedded Multiplexer
- ASI Input for Cascading Function
- Teletext Support / SI Tables Insertion

Applications

- Fixed and Mobile Contribution / Distribution
- Cable TV head-ends
- Video-on-Demand / Video-over-IP (using external adapter)
- Direct Broadcast Satellite / Remote Education
- DVB-T Transmissions / DVB Encoding for Local Insertion
- Encoding for Digital Microwave Links
- High-quality Video Surveillance / Digital News Gathering

MPEG-2 ENCODER
Technical characteristics

INPUT SECTION

Video Inputs	Composite + SDI with embedded audio
Composite Video Formats	PAL, NTSC, SECAM
Teletext	Supported
Audio Format	Analogue + embedded in SDI
Analogue Audio Inputs	XLR balanced, 600 Ohm, 0dBu
Audio Modes	Stereo, Joint-Stereo, Dual Channel, Single Channel
ASI Input	1 x DVB-ASI BNC 75Ohm

DIGITAL PROCESSING SECTION

Video Encoding Format	Compliant ISO/IEC 13818-2 (MPEG-2 video) / MP@ML and ISO/IEC 11172-2 (MPEG-1 video)
Audio Encoding Format	ISO/IEC 11172-3 (MPEG-1 audio) Layer 1/2 - compliant
Video Resolution	Up to D1
Video Encoding Rate	Up to 15Mbit/s
Audio Sampling Frequency	48kHz
Audio Encoding Rate	Up to 448Kbit/s
Cascading Function	Managed by embedded multiplexer
SI Tables	Fully compliant to ETSI recommendations

OUTPUT SECTION

Interface	2 x DVB-ASI BNC 75Ohm
System Interface	ISO/IEC 13818-1 MPEG-2

GENERAL

Physical	Case 19"-1U, 4kg
Local Control Port	USB
Remote Control Port	RS485
Remote Control Options	PSTN-GSM-Ethernet (with external RCU equipment)
Additional Control Option	Web Server + SNMP (with optional board)
User Interface on Front Panel	LCD Display + Keyboard + Status LEDs
Power Supply Voltage	90 - 250VAC
Power Consumption	< 15W
Operating Temperature	0 - 45°C

Specifications and characteristics are subject to change without notice

MPEG-2 Encoder — TV1 Program → ASI → MPEG-2 Encoder — TV2 Program → ASI → MPEG-2 Encoder — TV3 Program → ASI → MPEG-2 Encoder — TV4 Program → ASI → To Digital TV Transmitter or Digital Microwave Link