

COMPACT MPEG-4 AVC H.264 SD/HD ENCODING BLADE

The ENC-300-DVI encoder is designed for LIVE streaming applications where single computer based DVI signals or HDMI signals are distributed or published on a network or the internet. The ENC-300-DVI mainly targets medical, military, control room and training applications where high resolution DVI/HDMI signals from medical instruments and cameras, radar devices, monitoring displays, or any kind of PC desktop views - need to be shared, published and distributed by means of professional video-networking and IPTV. The DVI encoder is a compact, low cost H.264 SD/HD video encoding and LIVE streaming blade. It processes input streams from D1 up to Full-HD resolution for professional MPEG-4 AVC H.264 SD/HD streaming to any kind of device. ENC-300-DVI encoder blades are built for robust 24/7 LIVE encoding operations. They are designed without any moving parts, making them disk-, fan- and noiseless.

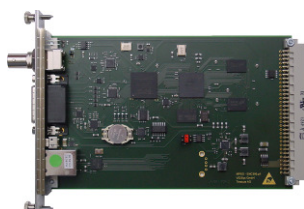


Unique Features:

- Real-time encoding of DVI and HDMI signals (with embedded audio)
- Supports HDMI loop through
- DVI Resolutions are supported
- Resolution: up to 1920x1200 60Hz
- Adjustable framerate* (e.g. 5 fps)
- Scaling* supported
- Low-latency compression technology
- IPTV streams fully ISO/IEC compliant

Main Features:

- Robust HD encoding solution for 24/7 streaming
- Transmission of multicast / unicast streams
- Supports H.264 SD/HD
- Supports AAC-LC
- Supports UDP and RTP transport streaming (TS)
- Supports SNMP* and RS-232*
- Talkback for audio conferencing
- Configuration by web interface



Professional quality & Easy configuration

ENC-300-DVI encoders incorporate low-latency compression technology and professional signal processing, creating full resolution video streams in HD or SD resolution. To access the intuitive graphical user interface use your standard web browser from any PC on the network, no special or additional tools are required. Remote network configuration is also supported over SNMP* and serial control over the local Comport.

TALKBACK* audio conferencing, integrated COM* server and GPIO*

The ENC-300-DVI supports TALKBACK*. This allows audio conferencing and communication between encoder standpoint and viewer. TALKBACK to ENC encoders is supported by PC's, as well as from the DEC decoder series. The Comport* supports remote control of PTZ cameras and other peripheral serial equipment through it's integrated a switchable RS-232 port*. The GPIO* interface enables contact closure function from the web GUI or pass thru from a decoder.

Extremely robust and durable

The encoder blades are designed without any moving parts to ensure system uptime, reliability and noiseless operation.

Blade based operation

The ENC-300-SDI blades are operated inside the FR chassis series. Blades can be used in a single channel chassis (FR-110, factory mounted). High-density requirements are solved by operating the ENC blades in the 1 RU FR-610 multi-channel rack, which can hold up to max. 6 Teracue blades. The 4 RU FR-2000 can hold up to 11 ENC-300 blades. Different types of ENC encoder blades and DEC decoder blades can be "mixed and matched" inside the FR-610 and FR-2000 chassis.

PRODUCT NAME: ENC-300-DVI
The ENC-300-DVI is a MPEG-4 AVC H.264 DVI encoder blade with DVI/HDMI input (with embedded audio).

ENCODING SPECIFICATION:

DVI/HDMI Inputs: 1x HDMI 1.3 Typ A, RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2; 1x HDMI loop through (without HDCP)
DVI supported via HDMI interface

Video Encoding: H.264 (MPEG-4 AVC Part 10; ISO/IEC 14496-10)

Video Encoding Bitrates: 250Kb/s – 10Mb/s, CBR/VBR, low latency support

DVI Resolutions: 1920x1200, 1600x1200, 1280x1024, 1024x768, 800x600

Video Resolutions: 1920x1080p 30/29.97/25Hz, 1920x1080i 60/59.94/50Hz, 1280x720p 60/59.94/5030/29.97/25Hz,
720x480/576i 60/59.94/50Hz
Frame rates can be reduced with the adjustable frame rate divider.

Audio Inputs: 1x Stereo*, unbalanced, AC-coupled, Mini-Jack 3.5
Audio nominal level: -10 dBV (0.316Vrms), Maximum level: 2 V_{P-P}
Microphone nominal level: -60 dBV (1mVrms), Gain Control for microphone and line input
Minimum load resistance 20kΩ
HDMI embedded Audio

Audio Encoding: MPEG-4 AAC LC (ISO/IEC 14496-3)

Supported Sample Rates: 48 kHz, 16Bit Sample Rate, 16-576 kbit data rate

Audio Outputs (TALKBACK)*: 1x Stereo, unbalanced, AC-coupled, via multipoint socket connector
Output gain adjustment* from (off) -78 dB to +9 dB
Talkback*: 16 bit stereo, PCM, Sample Rate 48kHz

Multiplex Format: ISO/IEC 13818-1 Transport
ISO/IEC 14496-10 NAL (Network Abstraction Layer)
Stream Types: Transport Stream and Elementary Audio/Video* Stream

I/O SPECIFICATION:

Network: 10/100TX Ethernet, RJ45, half/full duplex, Auto-sensing or manual control

Streaming Traffic: Unicast and Multicast traffic supported

IP Protocols: HTTP, TCP/IP Control Protocol, UDP/IP Streaming, RTP*, IGMPv2, SAPv2*, Unicast/Multicast, SNMPv2*, DHCP

USB*: 1x USB 2.0 (Blade Connector), High Speed, Type A socket
1x USB 2.0 (on board Connector), High Speed, Type A socket

RS-232 Port*: RS-232 connection via console (Remote control for non IP devices via TCP/IP serial command tunnelling*),
via multipoint socket connector

GPIO*: 1x In, non isolated, TTL 4 mA, 1x Out, non isolated, TTL 20 mA, via multipoint socket connector

MANAGEMENT: Software updates via web browser,
Fault measurement with log file generation*, authorization via user password, RTC (Real Time Clock) support

ENVIRONMENTAL:

Agency Approvals: CE, RoHS, EN 55103-1, EN 55103-2, EN 55022

Humidity: Up to 90%, non-condensing

Temperature: 0 to +35°C environment temperature; fanless when operated in FR-110

Weight: Approx. 160 grams

Blade dimensions (H/W/D): 20mm x 130mm x 190mm, Europe Card (160mm x 100mm, 3HE), Conform to IEC60297-3/-4

Power: 5Vdc ±5% / 8W per blade

Limited Warranty: 1 year standard limited warranty. Warranty extensions available.

***PLEASE NOTE: Live Streaming/Multicast Streaming requires specially designed and configured networks. Minimum Requirements include: Layer-3 Switched Ethernet, Multicast Enabled, IGMPv2/3, Network and Multicast Routing Supported.

* = Will be supported in future firmware versions. GPIO, Audio Talkback, RS-232 is only available in the FR-610

** = On request

Specifications are subject to change without notice. Technical and print errors accepted.