H.264 DVI ENCODER

COMPACT MPEG-4 AVC H.264 SD/HD ENCODING BLADE: ENC-300-DVI

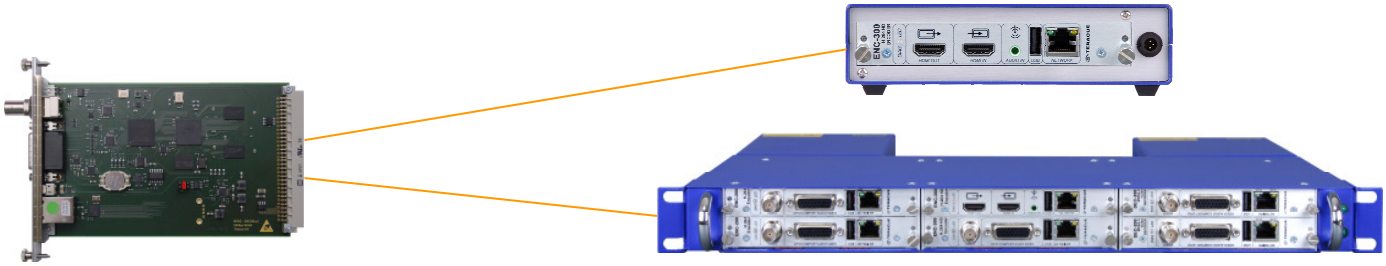
The ENC-300-DVI encoder is designed for LIVE streaming applications where single computer based DVI signals or HDMI signals are distributed or published on a network or the internet. The ENC-300-DVI mainly targets medical, military, control room and training applications where high resolution DVI/HDMI 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 CIF 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
- VGA 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 MPEG-1 Layer 2 Audio* and AAC-LC
- Supports UDP and RTP transport streaming (TS)
- Supports SNMP and RS-232*
- Talkback for audio conferencing
- Configuration settings stored as presets
- 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 basic remote control of the ENC-300-DVI, e.g. turning encoding/transmission on/off, by a light sensor or foot switch.

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-DVI blades are operated inside the FR chassis series. Blades can be used in a single channel chassis (FR-110, as shown above). High-density requirements are solved by operating the ENC blades in the FR-610 multichannel rack, which can hold up to max. 6 Teracue blades. Different types of ENC encoder blades and DEC decoder blades can be "mixed and matched" inside the FR-610 chassis.

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TERACUE

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:

Standards:	PAL, NTSC
DVI/HDMI Inputs:	1x HDMI 1.3 Typ A, RGB 4:4:4, YC_bC_r 4:4:4, YC_bC_r 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:	256Kb/s – 18Mb/s, CBR/VBR, low latency support; adjustable framerate*: 1 – 30fps
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
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); MPEG-1 Layer 2 Audio* (ISO/IEC 13818-3)
Supported Sample Rates:	48 kHz, 16Bit Sample Rate, 64-384 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*, RTCP*, SRTP, IGMPv3, SAPv2*, Unicast/Multicast, SNMPv3*, 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 (on board USB stick recording, usage alternately with Bade Connector)
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: Configuration data can be stored/loaded as XML presets*; Software updates via web browser, or via Comport*
Fault measurement with log file generation*, authorization via user password, RTC (Real Time Clock) support

ENVIROMENTAL:

Agency Approvals:	CE, RoHS, EN 55103-1, EN 55103-2, EN 55022
Humidity:	Up to 90%, non-condensing
Temperature:	0 to +60°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 ±10% / 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.

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