ENC-300-HDSDI

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

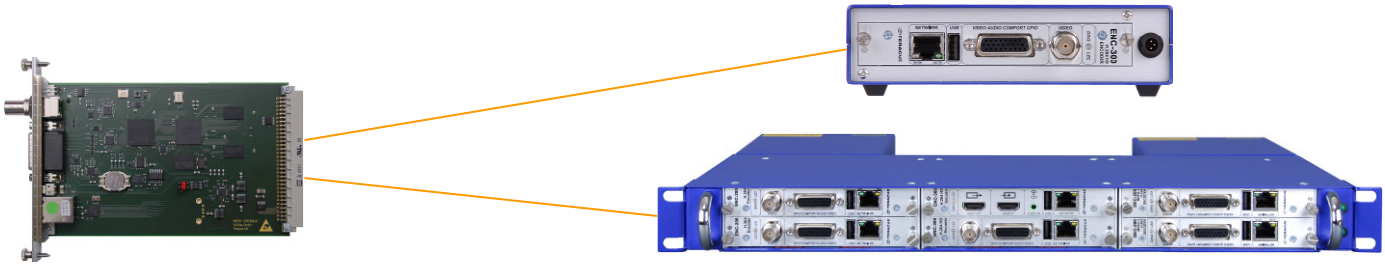
The ENC-300-HDSDI encoder is designed for LIVE streaming applications where single TV channels, CAMERA signals or MONITORING feeds are distributed or published on a network or the internet. The ENC series provides real-time compression of video and audio inputs. The ENC series create and transmit video streams inside LAN and intranet networks. Input video/audio signals on an ENC encoder and view these streams directly -via network- on PC's, TV's or other display devices. The ENC-300-HDSDI is a compact, low cost H.264 SD/HD video encoding and LIVE streaming blade. The ENC-300-HDSDI encoder process 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-HDSDI encoder blades are built for robust 24/7 LIVE encoding operations and can be used in tough environmental conditions. They are designed without any moving parts, making them disk-, fan- and noiseless.

Unique Features:

- Direct and real-time encoding of SD-SDI, HD-SDI, CVBS, YPbPr, YC and analogue RGB/VGA* signals
- SDI and YPbPr resolution: up to 1080i
- RGB/VGA resolution: up to 1280x1024@60
- Adjustable framerate* (e.g. 5 fps)
- Low-latency compression technology
- Supports 3G-SDI
- 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/RS-422*
- Talkback for audio conferencing
- Configuration by web interface



Professional quality & Easy configuration
ENC-300-HDSDI 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-HDSDI 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/RS-422 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.

Contact info: sales@advanceddigital.ca **WEB:** http://www.advanceddigital.ca Tel: +1 416 479 0480
+1 416 848 0715

ENC-300-HDSDI

AdvancedDigital Inc.

TERACUE

PRODUCT NAME: ENC-300-HDSDI

The ENC-300-HDSDI is a MPEG-4 AVC H.264 SD/HD encoder blade with SD/HD SDI input (with embedded audio) and Composite*, S-Video (YC)*, Component* (YP_bP_r) or analogue VGA* (RGB) input.

The ENC-300-HDSDI is delivered with the BREAK-OUT cable 'S' as standard additional inputs/outputs via the DB26 connector. Teracue also offers a professional BREAK-OUT cable ''P-3E' or BREAK-OUT cable 'VGA' which must be ordered separately.

S - YC (MiniDIN), CVBS (RCA plug), Analogue Audio In/Out (RCA plug)
P3E- YP_bP_r, YC, CVBS, RGB (all BNC), Analogue Audio In/Out (RCA plug), GPI In/Out (Sub D 9pin), RS-232/-422 (Sub D 9pin)
VGA-* RGB, H Sync RGB, V Sync RGB (Sub D HD 15pin VGA connector)

ENCODING SPECIFICATION:

Standards:	PAL, NTSC
Video Inputs:	SD/HD/3G-SDI Input: 0,8 V_{P-P}, 75 Ohm (BNC, embedded audio support) (SMPTE259M, SMPTE292M, SMPTE424M);
Break-out cable inputs:*	Composite: 1 V_{P-P}, 75 Ohm S-Video: 1 V_{P-P} (Y), 0,3 V_{P-P} (C - Pal), 0,286 V_{P-P} (C - NTSC), 75 Ohm Component: 1 V_{P-P} (Y), 0,7 V_{P-P} (P_bP_r), 75 Ohm VGA (RGB)*: 0,7 V_{P-P}, 75 Ohm, Sync: 0,3 V_{P-P}
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
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
VGA (RGB) Resolutions:	1280x1024* 60Hz, 1024x768* 60Hz, 800x600* 60Hz Frame rates can be reduced with the adjustable frame rate divider.
Audio Inputs:	1x Stereo*, unbalanced, AC-coupled 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 SDI embedded Audio 2CH (SMPTE 272M, SMPTE 299M)
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 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/RS-422 Port*:	RS-232/-422 connection via console (Remote control for non IP devices via TCP/IP serial command tunnelling*)
GPIO*:	1x In, isolated, TTL 4 mA, 1x Out, isolated, TTL 20 mA
MANAGEMENT:	Software updates via web browser 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 +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% / 9W 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.
** = On request

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