



# XVD™ Professional SD-TX1100 Video and Audio Encoder

**Full D1 resolution within a single T1/E1 link...**



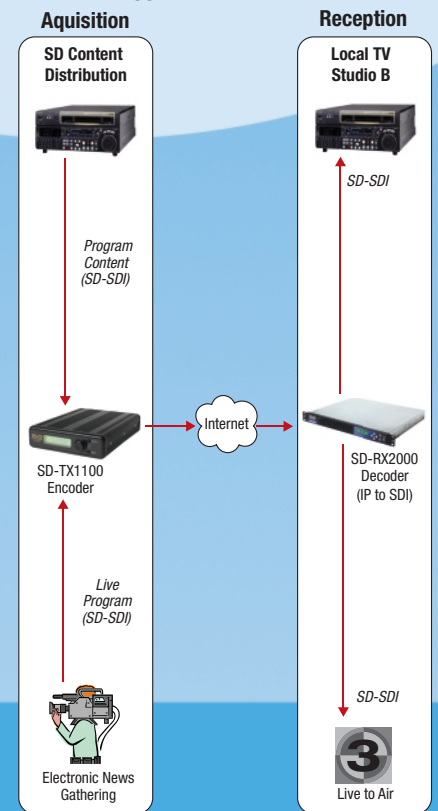
**Achieve superior-quality video and audio at any given network bandwidth over IP-based digital television links.**

*Achieve real-time compression at data rates from 500 Kbps to 5.0 Mbps — without the burden of royalty fees!*

The SD-TX1100 is a versatile real-time SDTV encoder designed for acquisition and distribution of fixed and mobile live events. This field-proven encoder is in service with major TV networks, beating out all other competitive solutions by delivering full D1 resolution within a single T1/E1 link in remote news capture. The SD-TX1100 offers real-time compression at data rates from 500 Kbps to 5.0 Mbps. It supports a full range of video resolutions which can be easily set to operational requirements from a front-panel LCD control and display. This simple operator control allows users to select SD standards (NTSC or PAL), resolutions and data rates to match the available link bandwidth. The SD-TX1100 provides an IP output for live streaming of XVD-SD data packets over broadband IP networks.

At one-fifth the size and weight of conventional SD encoders, the SD-TX1100 can be easily integrated into small mobile packages, such as those required for airborne and small ENG vehicles. With its associated decoder (SD-RX2000), the SD-TX1100 supports SD-SDI as input and output, making it compatible with digital studio and post-production facilities.

### Application Overview



## XVD SD-TX1100 Encoder At-A-Glance

- Real-time SDTV encoding
- Full D1 resolution in a single T1/E1 link or other restricted bandwidth link
- SD-SDI input
- IP network output
- Small size
- Light weight (1.2 Kg/2.66 lb)
- Low power consumption
- AC/DC power options
- ProXVD FEC
- Simple operator controls
- High reliability
- Network analysis tools

# XVD™ Professional SD-TX1100 Video and Audio Encoder



## SPECIFICATIONS

INPUT/OUTPUT	
<b>Video Inputs</b>	SD-SDI supports PAL (625 @ 50 Hz) and NTSC (525 @ 60 Hz) (SMPTE 259M)
<b>Video Pre-processing</b>	Noise reduction, adaptive spatial filtering, adaptive motion-compensated temporal filtering
<b>Video Encoding</b>	Proprietary XVD video codec; automatic scene change detection; object motion estimation, CBR/VBR data-rate control
<b>Audio Input</b>	2 channels via analog balanced 600 ohm, SDI embedded (4 channels)
<b>Audio Encoding</b>	Proprietary XVD audio codec
<b>Audio Data-rate</b>	32 Kbps – 128 Kbps for each stereo pair
<b>Network Interface</b>	One 10/100 Mbps Ethernet port (RJ45 - lockable)
<b>Network Protocol Output</b>	XVD-SD over TCP, RTP; Multicast support; real-time network analysis (RTP only); ProXVD One- or Two-dimensional FEC
<b>Power Connector</b>	12-24 VDC (XLR 4 pin x 1)
<b>Adaptive Performance Control (APC)</b>	Improves display smoothness over complex frame sequences
<b>Power (AC adaptor)</b>	100-240 VAC @ 50/60 Hz, auto-sensing, 12 VDC output
<b>Power Consumption (typical)</b>	12 Watts (typical)

USER INTERFACE	
<b>Power Indicator</b>	LED
<b>Web Browser Control</b>	Interface to a complete set of HTML pages for all parameters and controlling unit
<b>System Management</b>	Software upgrade via Ethernet
<b>Front Panel Display: 2 line/16 character LCD</b>	User Configurations: Video resolution, video data rate, audio data rate, source format, other advanced configurations Status Display: Video format, current data rates

VIDEO PERFORMANCE					
	Source Format	Encoding		Data-rate Range	Typical User Data-Rate
		Resolution	Frame Rate		
Standard Definition (SD)	NTSC	D1: 720 x 480 1/2D1: 352 x 480 CIF: 352 x 240	30 Fps	500 Kbps – 5.0 Mbps 300 Kbps – 3.0 Mbps 100 Kbps – 1.0 Mbps	1.0 – 3.0 Mbps 700 Kbps – 1.5 Mbps 300 Kbps – 500 Kbps
		D1: 720 x 576 1/2D1: 352 x 576 CIF: 352 x 288			

ENVIRONMENTAL/PHYSICAL	
<b>Operating Temperature</b>	0°C to 60°C (32°F to 140°F)
<b>Cooling</b>	Heat sink only (fanless)
<b>Operating Humidity</b>	0–95%, RHG non-condensing
<b>Storage Temperature</b>	–20°C to 70°C (–4°F to 158°F)
<b>Weight (Installed)</b>	1.2 Kg (2.66 lb)
<b>Dimensions (W x D x H)</b>	160 x 210 x 46 mm (6.3 x 8.3 x 1.8 in)
<b>Warranty</b>	1 year limited warranty - includes up to two firmware updates

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XVD is the world's most advanced real-time video compression technology. Years of development and field testing supports the XVD codec design, providing much higher performance and efficiency than other block-based real-time video compression systems. XVD's patented video codec is optimized for the human visual system, and adds several unique features including: Automatic Scene Changing Detection; Object Motion Detection Estimation; plus CBR/VBR data rate control with configurable window size to improve video quality at dramatically lower data rates. The XVD audio codec also provides high performance at significantly lower data rates, allowing many more audio channels to be carried in any chosen bandwidth.

**NO ROYALTIES**  
*Unlike with other compression standards, users of XVD compression never pay a royalty of any kind.*



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