

ENC1000A94

Color Video Compression Encoder

Features

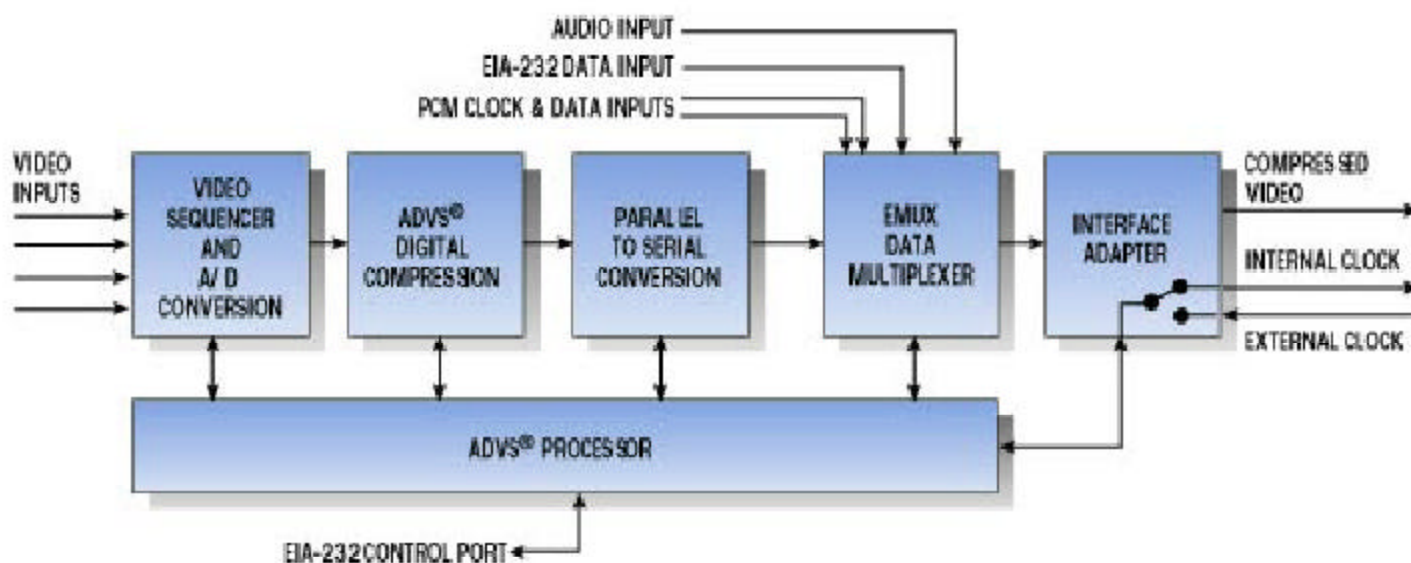
- **ADVS® - Adaptive Digital Video Standard Compression Algorithm**
- **Real-Time Digital Compression of Full-Motion Video**
- **Small Size - 94 Cubic Inches**
- **Low Power - 8 Watts Typical at 28 VDC**
- **Three Selectable Video Inputs**
- **No Blurred Motion - Each Frame Separately Encoded**
- **User Programmable Video Parameters via EIA-232 Port**
- **Composite NTSC Color and PAL, Y/C Capabilities**
- **Transmits at Rates Up to 10 Mbps Over Any Digital Medium**

The encoder digitizes and compresses a standard analog NTSC color video signal and outputs a single, continuous, serial digital output signal representing the input picture clocked at any fixed rate up to 10 Mbps. A variety of standard transmission interfaces are available. Up to three separate video sources can be connected to the encoder. Each input can be selected (one at a time) via the EIA-232 control port. The encoder receives EIA-232 encoder control signal data as required, allowing for remote encoder setup using any DOS-based PC with terminal emulation. Setup includes user selectable adjustments for three levels of horizontal resolution (pixels/line), quantization level, crop mode, output bit rate, color, tint, system defaults, test patterns, and system status information. The 3-wire EIA-232 control port supports serial data baud rates of 300 to 9600; all external EIA-232 programming is held in EEPROM, and therefore, is retained upon power down. The ADVS® Advanced Digital Video Standard compression technique causes no blurring of the compressed picture upon the encoding and decoding of any type of moving objects within a given picture. Using this scheme, each and every video frame is digitized separately and completely.

A multiplexer provides inputs for asynchronous serial data, PCM data and clock, and an audio signal to be interspersed into the digitized video data stream.

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ENC1000A94 Encoder Functional Block Diagram



Standard Functions

FEATURE	DESCRIPTION
Video Inputs *	One of three inputs: NTSC or PAL, Composite or Y/C, 1 Vp-p, 75 ohms
Digital Data Outputs	NRZL clock and data, EIA-422A levels
Communications Port *	EIA-232C at 9600, 4800, 2400, 1200 or 300 baud
Data Multiplexer	
PCM input *	TTL, CMOS or EIA-422A selectable input levels, maximum data rate is 49% of total link frequency
Audio input *	300 Hz to 3000 Hz, 600 ohms, 1 Vp-p
EIA-232 multiplex input *	EIA-232C at 9600, 4800, 2400, 1200 or 300 baud
Resolution *	560, 280 or 140 pixels per line
Quantization *	240 steps
Cropping *	4 steps
Compression Standard	ADVS [®]
Internal Data Clock Output *	19 KHz to 13.3 Mbps in 38 steps
External Data Clock Input *	Any rate up to 10 Mbps
Interface Connector	TNC for each video input, 22-pin circular for power and control
Input Power	28 VDC \pm 20%
Power Consumption	350 mA maximum at 28 VDC
Dimensions	94 cubic inches, 7 in. x 4.5 in. x 3 in.
Weight	50 ounces
Operating Temperature Range	-40 to +85°C
MIL-STD-810 Testing	Consult factory for details
MIL-STD-461 Testing	Consult factory for details

Optional Functions

FEATURE	DESCRIPTION
Forward Error Correction *	Reed-Solomon correction at 12.3% overhead
Passlink [™] *	Volatile or non-volatile password storage

* Software Selectable

