



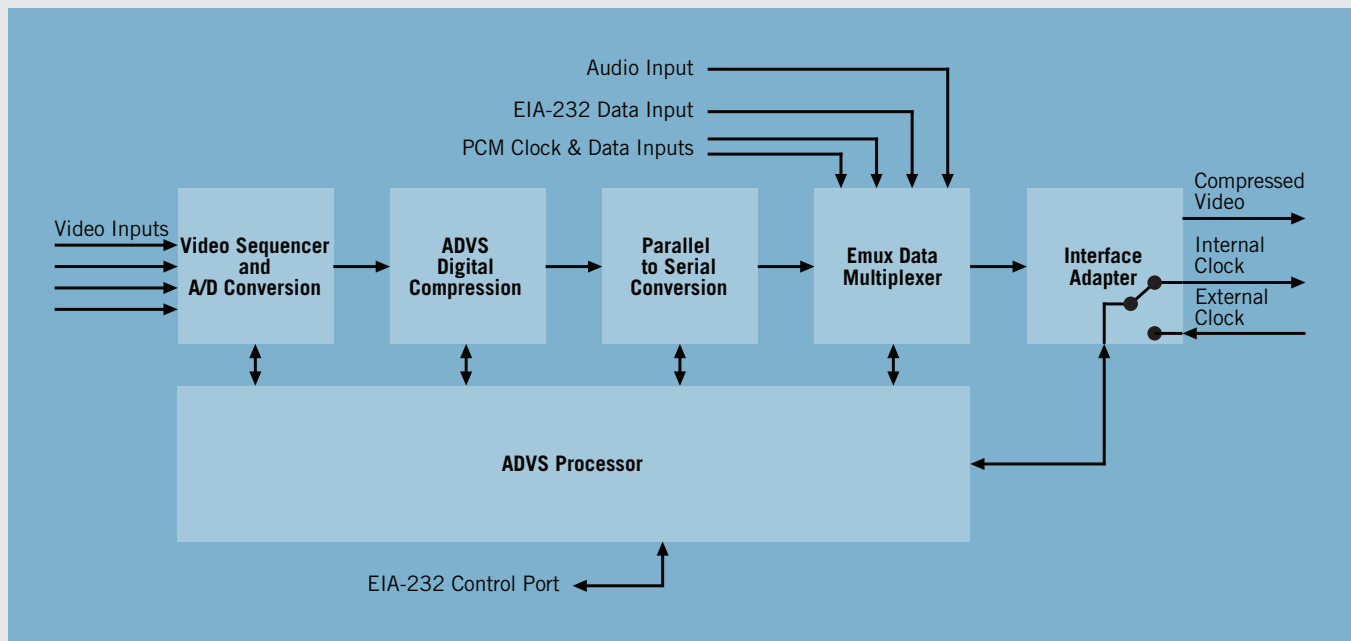
Proven in over a decade of use in key DoD programs such as the Predator® unmanned aircraft, the ENC1000A94 digitizes and compresses a standard analog NTSC or PAL video signal to form a continuous serial bit stream representing the input video at any fixed rate up to 10 Mbps. A variety of standard digital transmission interfaces are available. Up to three separate video sources can be connected to the encoder and each can be selected for compression and transmission via an RS-232 serial port command line interface that enables remote encoder setup using any controller with terminal emulation. User-selectable configuration is provided for three levels of horizontal resolution (pixels/line), compression quantization level, crop mode, output bit rate, color, tint, system defaults, test patterns, and system status. All settings are stored in non-volatile memory so the encoder returns to its last configuration without user intervention when power cycled.

Based on the JPEG standard, the ADVS® Adaptive Digital Video Standard processor compresses each frame separately, eliminating frame-to-frame error propagation and potential degradation resulting from motion estimation algorithms. A multiplexer provides inputs for asynchronous serial data, PCM data and clock, or an audio signal to be transmitted with the digitized video data stream.

ENC1000A94 At-A-Glance

- » ADVS® — Adaptive Digital Video Standard Compression Algorithm
- » Real-Time Digital Compression of Full-Motion Video
- » Very 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

ENC1000A94 Encoder Functional Block Diagram & Specifications



INPUTS

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

POWER

Input Power 28 VDC \pm 20%

Power Consumption 350 mA maximum at 28 VDC

SIZE

Dimensions 94 cubic inches, 7 in. x 4.5 in. x 3 in.

Weight 50 ounces

ENVIRONMENTAL

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

Forward Error Correction* Reed-Solomon correction at 12.3% overhead

Passlink™* Volatile or non-volatile password storage

* Software Selectable

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