



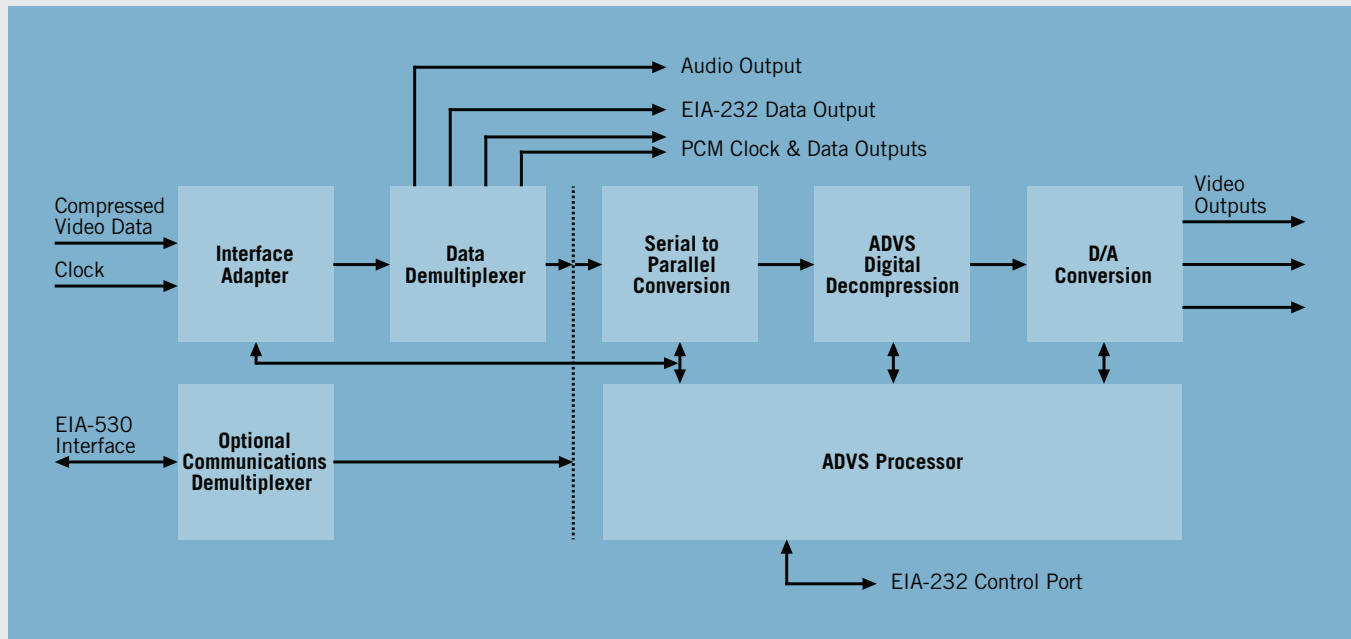
Proven in over a decade of use in key DoD programs such as the Predator® unmanned aircraft, the DEC1000R5 decompresses a bit stream of compressed digital video generated by ViaSat's Enc1000A94 MJPEG Encoder and transmitted over any type of digital communications link at rates up to 10 Mbps. It outputs the original standard NTSC or PAL analog television signal for viewing on any standard video monitor. System configuration parameters such as video format and resolution are automatically derived from information contained within the compressed video data stream so no handshake with the encoder is required. The DEC1000R5 also outputs audio, PCM data, or data over RS-232 serial port when the Encoder is configured to send these. Optional Reed-Solomon decoding provides error correction for improved reliability in communication systems that otherwise lack forward error correction.

The data demultiplexer or optional communications demultiplexer allows restoration of data from a similarly equipped encoder.

DEC1000R5 At-A-Glance

- » ADVS® — Adaptive Digital Video Standard Compression Algorithm
- » Real-time decompression of Full Motion MJPEG Video
- » Standard 19-inch Rack Mount Chassis
- » Low Power — 25 Watts Typical at 120 VAC
- » No Blurred Motion — Each Frame Separately Displayed
- » User Programmable Video Parameters via EIA-232 Port
- » Composite NTSC Color and PAL, Y/C Capabilities
- » Receives at Rates Up to 10 Mbps Over Any Digital Medium

DEC1000R5 Functional Block Diagram & Specifications



INPUTS

Video Outputs* Three outputs of composite or composite Y/C NTSC or PAL, 1 Vp-p, 75 ohms

Digital Data Inputs NRZL clock and data, TTL or EIA-422A levels

Communications Port* EIA-232C at 9600, 4800, 2400, 1200 or 300 baud

DATA MULTIPLEXER

» **PCM output*** TTL, CMOS or EIA-422A selectable output levels, maximum data rate is 49% of total link frequency

» **Audio output*** 300 Hz to 3000 Hz, 600 ohms, 1 Vp-p

» **EIA-232 multiplex output*** 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

Operating Frequencies Any rate up to 10 Mbps

Interface Connectors BNC for each video output, BNC for clock and data inputs, DB25 for EIA-232 interface, IEC type detachable power cord

POWER

Input Power 95-265 VAC, 50 Hz or 60 Hz

Power Consumption 30 watts maximum

SIZE

Dimensions 19-inch rack, 5.25 in. high, 12 in. deep

Weight 11.7 pounds

ENVIRONMENTAL

Operating Temperature Range -20 to +70°C

Video Insertion Generator* Upper and lower case text, on-screen time and data, miniature color bar insertion

Pattern Generator* Color bars, SMPTE bars, and solid fields

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

EIA-530 Interface Allows connection to T1, 56Kb, and fractional rate modems

Communications Multiplexer* Allows inband quad EIA-232C control and inband audio multiplexing

» **T1 CSU/DSU*** Internal T1 (1.544 Mbps) line interface (Optional)

» **Dual T1 CSU/DSU*** Internal Dual T1 (3.088 Mbps) line interface (Optional)

DBS12 Multi-Freq. Bit Synchronizer recovers clock and data from analog receiver data output

BRC1000 PCM Converter converts decoder burst PCM output to continuous PCM output

* Software Selectable

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