DVC201

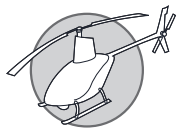
DIGITAL VIDEO CODEC
Wavelet compression

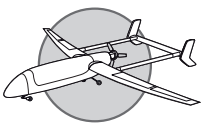
DVC201 is a video codec for military and industrial on-board applications, supporting professional video formats, and adaptable to a wide range of operational requirements. Its compact housing is resistant to difficult environments, and is adapted to airborne and terrestrial applications. DVC201 uses wavelet, intra-frame compression technique to provide low latency and high robustness against transmission errors.

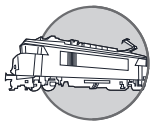
Highly configurable, it can be used in a wide range of operational conditions

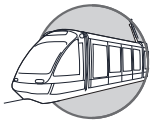
FEATURES

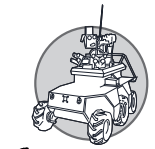
- 4:2:2 professional video formats (PAL and NTSC).
- 2 selectable video inputs,
- Video frame rates ranging from 5 to 25 images/second.
- Latency down to 40 ms.
- Digital stream bitrates ranging from 333 kbps to 16 Mbps.
- Configuration through a user friendly MMI using a PC software.
- Field upgradeable firmware.
- Image compression: JPEG 2000 (wavelet).
- RS232 telemetry I/O up to 115 kbps.

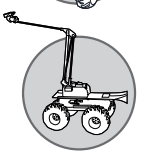












SPECIFICATIONS

Compression Standard:	JPEG2000 (Wavelet)

Video input:

Connector:	BNC or TNC
Video inputs:	2 (up to 6 in option)
Video standard:	PAL (NTSC in option) CVBS (Y/C or YUV in option)

Video output:

Connector:	BNC or TNC
Video:	PAL (NTSC in option)
standard:	CVBS (Y/C, RGB or YUV in option)

Configuration & telemetry:

Connector:	Circular 5 pins
Serial interface:	RS232
Serial Data rate:	2400 to 115200 bps

Compressed data:

Connector:	0.05" 36 position MDR
Serial interface:	RS 422, LVTTL, or LVDS
Serial Data rate:	up to 16.6 Mbps

Power supply:

Connector:	Circular 4 pins
Supply Voltage:	7V to 32V DC
Consumption:	6W

Operating Temperature:	-40 to +70°C

Weight:

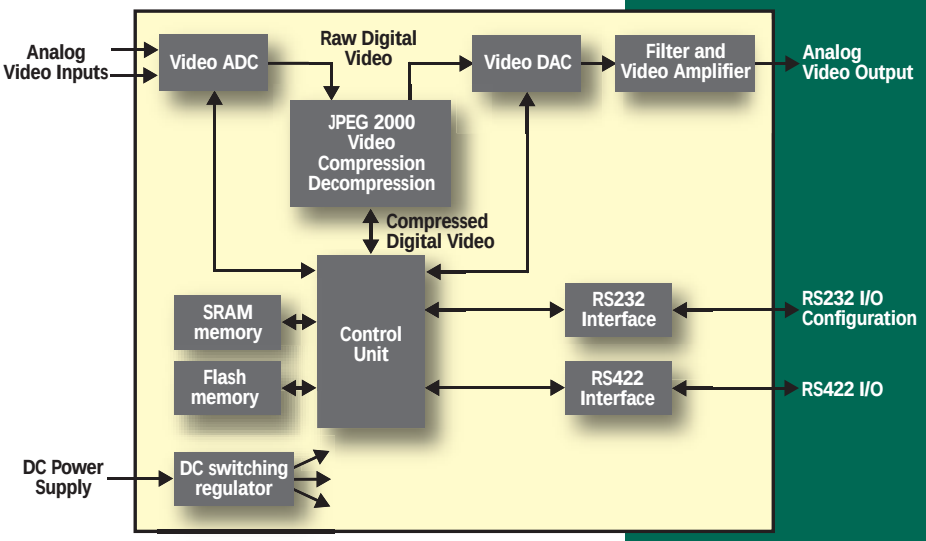
OEM:	135gr
With enclosure:	560gr

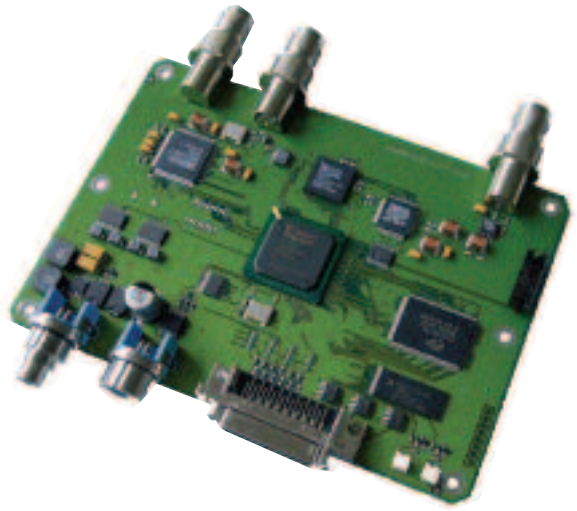
ADVANTAGES

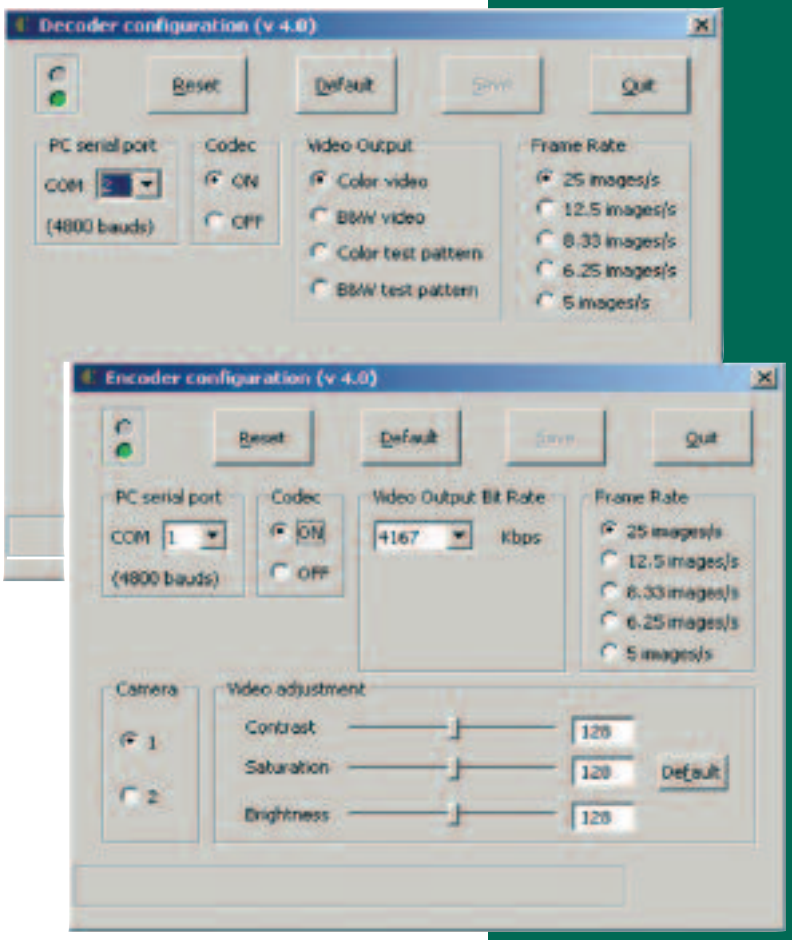
The video encoder board complies with the JPEG2000 compression standard. The video compression algorithm, based on wavelet transform, offers many advantages compared to other digital video standards:

- Best efficiency for still images.
- Infinite scalability for both accuracy and resolution.
- Shortest latency.
- Best error resilience.
- Lossless capability.

These advantages make JPEG2000 an especially well suited compression standard for wireless video transmission.







SOFTWARE CONFIGURATION

- Adjustable frame rate
- Video input selection with video adjustments (contrast, saturation and brightness)
- The compressed video data rate is set according to the radio transmitter raw data rate.
- The frame rate may then be adjusted for different compromises between sharpness and refresh rate.

Frame rate	Encoder		Decoder		**Total Latency (ms)**
	compression	buffer	buffer	decompression	
25 images/s	20	0	0	20	**40**
12,5 images/s	20	80	80	20	**200**
8,33 images/s	20	120	120	20	**280**
6,25 images/s	20	160	160	20	**360**
5 images/s	20	200	200	20	**440**

ADVANTEN ADVANCED RADIO SOLUTIONS

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