![Delta Digital Video logo]

VCM042

MPEG-2/MPEG-4 ENCODER/DECODER MODULE
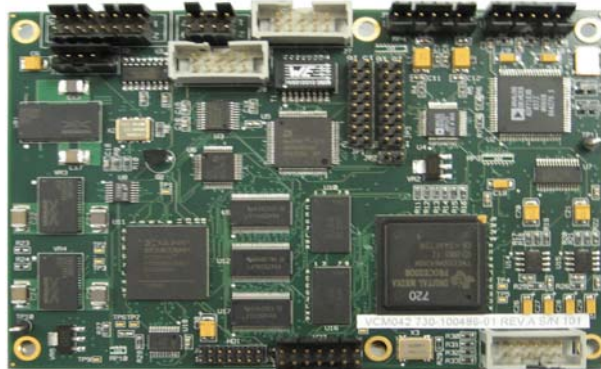
TECHNICAL SPECIFICATIONS

FEATURES

- Real-time, High-quality Compression of Full Motion Video

- Standards-based, MPEG-2 or MPEG-4 Compression/Decompression Algorithm

- NTSC and PAL Composite Formats Supported

- Transmit Video at Rates as low as 64Kbps, up to 10Mbps

- Audio/Data Multiplexing

- Latency <200ms

- Multiple resolution, frame rate, and image quality settings for video optimization

- User Configurable via Jumper or RS-232 Port

- Ethernet/RS-530 Interfaces

- Low-power Operation (<5W)

- Form/Fit Replacement for VCM002

- Rugged, Compact Package

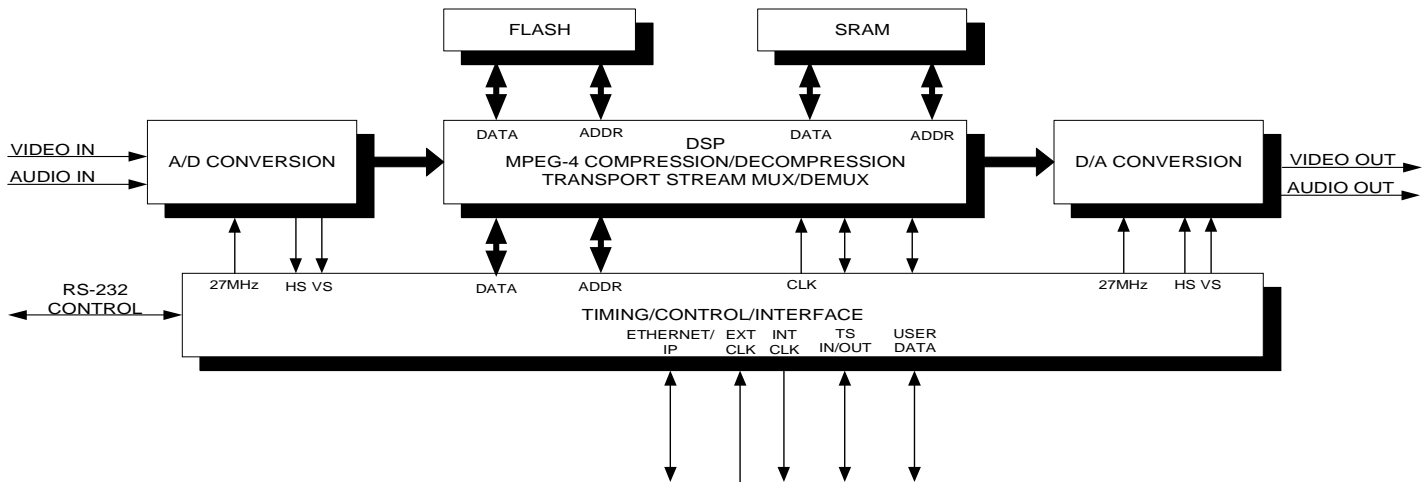- Extended Temperature Available (-20°C to +71°C)

Delta Digital Video's VCM042 Video Encoder/Decoder Module is a practical, cost effective, OEM solution for real time compression of NTSC or PAL composite video for any remote monitoring application including military, aerospace, intelligent transportation, and security applications. This compact module provides high quality compression and is easily integrated into new and existing data links.

The VCM042 is available with a choice of MPEG-2 or MPEG-4 compression. Implemented on a state-of-the-art imaging Digital Signal Processor (DSP), these algorithms provide excellent video quality, even at large compression ratios. Flexible picture coding modes, frame rate and resolution controls, coupled with a broad range of operating bit rates, allow the user to optimize video quality, refresh and latency performance for any data link. Audio and data channel multiplexing is provided to support single-stream video/audio/data transmission.

A choice of ethernet or clock/data interface permits seamless integration into most data links. All parameters are configured via jumper settings or the RS-232 control port. The selected parameters are retained in non-volatile memory when the unit is powered down.

The module is designed to meet the requirements of even the harshest environments. An extended temperature range is available. Contact Delta to discuss customizing the VCM042 to meet your size, interface or other project requirements.

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VCM042 BLOCK DIAGRAM

VIDEO INPUT/OUTPUT

Ports	One
Format	NTSC/PAL Composite
Levels	1.0V p-p
Impedance	75 ohms

VIDEO COMPRESSION

Algorithm	MPEG-2 (MP@ML) or MPEG-4 (Simple Profiles)
Modes	I-only, IP, IPB
Resolution	CIF, 2CIF, D1

MULTIPLEX

Protocol	ISO/IEC 13818-1 MPEG-2 Transport Stream Video/Audio/Data

TRANSPORT STREAM

Ports	Two
Interface	10/100 Ethernet IP
Data Rate	64 Kbps to 10 Mbps
Configuration	DHCP or static address Auto Sense Full/Half-Duplex Unicast/Multicast
Interface	RS530
Data Rate	64Kbps to 10Mbps
Signals	Clk/Data

CONTROL/DATA CHANNEL

Ports	Two
Levels	RS-232C/RS-422
Signals	RD, SD, GND
Data Rate	9.6K - 115Kb, Asynchronous
Format	8 bit data, 2 stop bits, no parity

AUDIO INPUT/OUTPUT

Ports	One
Channels	None, Left, Left and Right*
Format	Balanced (Line Level)
Levels	2.8V p-p (1 Vrms)
Impedance	10K ohms
Gain	0 to 64 db

AUDIO COMPRESSION

Algorithm	ADPCM
Sample Rates	32,48 Ksps
Synchronization	Lip synchronized with video

POWER

Voltage	5VDC or 3.3VDC
Power	<5 Watts

SIZE

5.0"D x 3.3"W x .55"H

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