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.
MODEL VCM042
MPEG-2/MPEG-4 ENCODER/DECODER MODULE

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