IT'S ABOUT TIME

VIDEO ENCODER/DECODER, MODEL VED-I (V-data) SN:

IN VIDEO OUT   HOUR OFFSET   COM   IRIG-B   +12VDC

091099/A-04 3759.4042,N,07632.2216,W
1403:38.887   R=001,E=000,0000:03.628

Add a Variety of Useful Information or Simply Time/Date to Your Video

- Precision Time and Date with fail-safe synchronization to GPS or IRIG-B inputs
- Time accurate to +/- 1 ms sampled at vertical sync, switch selectable for field or frame update
- UTC(GMT) or hour offset to local time worldwide using rotary switch
- GPS latitude and longitude display (in GPS input mode)
- User annotation (in IRIG-B input mode)
- Event capture accurate to +/- 1 ms, with display and serial output of run count, event count, and time
- Boresight crosshair
- Edge-code write and read, with moveable crosshair in read mode

Prices (includes shipping)

Video Encoder/Decoder, Model VED-I with AC adapter	$1375
Compatible 12 Ch. WAAS GPS receiver, Model GPS-18	$350
S-Video (YC) Adapter	$60
DC cable with locking connector	$20

Other Products
GPS Receiver/IRIG-B Timecode Generator, Model GTP
Video Encoder/Decoder (GPS on Video), Model VED-M
Video Encoder/Decoder with expansion capability, Model VED-A

Terms
US: MasterCard/Visa or Net 30
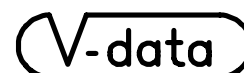
(V-data)

693 Melrose Road
Lottsburg, VA 22511
(804) 529-5950
vdata@crosslink.net

V-data Video Encoder/Decoder, Model VED-I Specifications

Physical: 5 ¼"W x 1 ¼"H x 8"L (13.3cm x 3.2cm x20cm), 1 ½ lb (680 g)
　　　　Extruded aluminum case with aluminum end panels, powder painted beige.
Power: 9-16 VDC @ 100 ma without GPS receiver, 400 ma with GPS receiver,
　　　　2.1 mm jack, center pin positive, reverse polarity protected, self-resetting fuse.
Video In/Out: 1 V p-p into 75 ohms, BNC connectors, NTSC (PAL version available)
IRIG-B In: 3 volts p-p, opto-isolated (up to ten inputs can be driven by V-data's GTP)
COM Connector (DB9F) Pin Assignment:
1. Jumper selectable +12 VDC or +5VDC power to GPS receiver, 100ma maximum load
2. Serial RS-232 (TTL) data output , 4800 baud, 8 data bits, 1 stop bit, no parity, no handshake
3. Serial RS-232 data in to VED, 4800 baud, 8 data bits, 1 stop bit, no parity, no handshake
4. Pulse-per-second input from GPS receiver
5. Chassis Ground for GPS receiver or serial data
6. Boresight Crosshair White/Black/Off (Schmidt trigger with 10k ohm pullup, active low)
7. Event Counter input (Schmidt trigger with 10k ohm pullup, active low)
8. Run Counter input (Schmidt trigger with 10 k ohm pullup, active low)
9. Chassis Ground

Internal Switches:

Switch	On Position	Off Position
1	Hour Offset Range -12 to +3	Hour Offset Range +12 to -3
2	Updates each frame	Updates each field
3	Lat/long data display on	Lat/long data display off
4	Edge-code on	Edge-code off

GPS receiver requirements: Receiver must output $GPRMC message in RS-232 at 4800 baud, 8 data bits, 1 stop bit, no parity, and a pulse-per-second of 10-100 ms duration, +3 to +15 volt amplitude.

Recommended GPS receiver available from V-data: Model GPS-18, a 12 channel WAAS receiver with integral antenna, 9 feet of cable with VED-I compatible DB9M connector, NMEA and pulse-per-second outputs.

Time Display: Displayed date and time is UTC(GMT) time from GPS or IRIG-B +/- the hour offset. The time starts counting from zero on power-up until valid IRIG-B or GPS input is detected as shown by an on-screen indicator. Correct time is maintained during input drop-outs.

Event Capture: Active low inputs advance Run Count or Event Count and capture Event Time with millisecond accuracy. Run Count input resets Event Count. Once activated, Counts and Event Time are displayed on screen, edge-coded (if enabled), and output as serial data. After serial data output is complete (approximately 25 milliseconds) event capture is re-armed.

Edge-code: When enabled, edge-code is written for all sign and numeric data displayed on the bottom line. In the read mode, which is accessed by commands from an external computer via the serial port, edge-coded data from previously recorded video can be read and output along with the position of a moveable crosshair. Facilitates video position and motion analysis.

User Annotation: When enabled, serial GPS data or user input is displayed on top line. User input can also be displayed on bottom line where it may be edge-encoded.

Boresight Crosshair: Active low input sequences crosshair White/Black/Off. The crosshair position can be changed in the read mode but returns to screen center on power-up.