

# MODEL 6325G GPS/IRIG B VIDEO DATA INSERTER

## FEATURES

- 12 Channel GPS Receiver.
- Active GPS antenna.
- RS-232C Serial Port.
- Inserts GPS or IRIG Synchronized time message into video signal.
- Inserts Latitude, Longitude and Altitude position message.
- Inserts Alphanumeric data received via the RS-232 serial port.
- Inserts Boresight reticle (crosshair).
- Generates IRIG B time code signal, synchronized to GPS.
- Operates with NTSC, RS170, or optionally PAL/CCIR (6325GP)
- Non-volatile Memory.
- Operates on 9V to 36VDC power.



## DESCRIPTION

The Model 6325G GPS/IRIG Video Data Inserter, provides for the insertion of a GPS or IRIG B synchronized time message, Latitude, Longitude and Altitude into an applied RS-170, or NTSC Video signal. The time and position messages may be positioned to any location in the viewed scene by serial ASCII commands entered via an RS-232 port. Additionally, alphanumeric messages input via the serial port may be inserted.

An internal clock is synchronized by the GPS receiver. Once the time is established, a loss of GPS lock will cause the 6325G to automatically switch to the internal clock that will increment the time display until the GPS signal is re-acquired. A programmable time offset may be used to convert from UTC to local time. In the event that a GPS signal is not available, the 6325G can be locked to an external IRIG B serial time code signal.

In the absence of both a GPS and IRIG signal the 6325G clock may be set by the user via the RS-232 port

The 6325G is housed in a ruggedized 2.5 inch high by 8.5 inch by 8.5 inch deep aluminum enclosure

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## SPECIFICATIONS

<b>Video In</b>	Standard 525/60 composite video 2:1 interlace, black negative per EIA RS-170 or NTSC. 75-ohm input impedance. 1.0 volt peak-to-peak, Optionally (Model 6325GP): 625/50 CCIR/PAL.
<b>Video Out 1/2</b>	Identical to video input except with message data added and DC restored, 75-ohm impedance (output as specified when terminated by 75-ohm load).
<b>Video Amplifier Bandwidth</b>	>20MHz $\pm$ 1 db
<b>GPS Performance</b>	
<b>Channels:</b>	12 Parallel channels, tracks all satellites in view.
<b>Time-to-first-fix:</b>	<24 seconds typical (warm start), <150 seconds typical (cold start).
<b>UTC Time Mark:</b>	Synchronized with Global Reference Standard.
<b>Reacquisition:</b>	2 seconds typical.
<b>Datum:</b>	WGS 84
<b>GPS Antenna</b>	Active Patch Magnetic Mount Antenna, 5 VDC power provided via antenna cable. Gain: 26 db $\pm$ 2 db. Noise figure: 1.5 db Max.
<b>IRIG B Input &amp; Output</b>	IRIG B Standard Time Code (IRIG Standard 200-98).
<b>Serial Interface</b>	EIA RS-232C, Asynchronous, 19200 baud, 8 data bits, 1 start bit, 1 stop bit, no parity, no flow control. The baud rate may be changed via internal Jumper: 9600 or 19.2K baud.
<b>Package and Environment</b>	
<b>Size:</b>	2.5 inches high x 8.5 inches x 8.5 inches deep
<b>Weight:</b>	3 lbs.
<b>Temperature:</b>	0°C to 60°C ambient
<b>Humidity:</b>	95% non-condensing
<b>Power Input</b>	9 to 36VDC @5 Watts