

MODEL 6055B-6GX SIX-CHANNEL GPS SYNCHRONIZED IRIG GENERATOR / INSERTER

FEATURES

- GPS Synchronized IRIG B Serial Time Code Generator.
- Decodes and inserts IRIG B time message into six asynchronous video signals.
- Generates and inserts up to 22 lines of 30 alphanumeric characters each into each video channel.
- Includes Countdown Clock, synchronized with the applied GPS/IRIG B time signal.
- Two fonts, selectable by front panel switch, keyboard or via RS232 port.
- Provides twelve discrete event/alarm inputs (two per channel).
- To 21 bit Parallel ports (Azimuth and Elevation input).
- RS-232C port, provides means for remote control and annotation of display.
- Detachable keyboard, provides means for the operator to annotate and format video display locally.
- Accepts RS170, NTSC or S-Video input. (PAL version available, Model 6055B-6GXP)
- Independent insertion of machine-readable digital information using left edge encoding method on each video channel.



DESCRIPTION

The Model 6055B-6GX Six Channel GPS Synchronized IRIG Generator/Inserter is a video insertion generator that inserts an IRIG time message in up to six asynchronous video signals. The unit includes a 12 channel GPS receiver that automatically acquires all in-view satellites upon power up and locks an internal IRIG B time code generator to the GPS time reference. Other functions include a full screen annotator, a GPS/IRIG synchronized Countdown Clock and an RS232C port. Display formatting and annotation is performed via an included detachable keyboard or via the RS232 port. Also included are individual event alarm inputs for each channel. Countdown Clock enable (Start) and load (Preset) are controlled by TTL or Contact closure inputs

The 6055B-6GX has two modes of insertion, constant contrast and white with black border, independently selectable for each channel via front panel switches. The overlay intensity is controlled by front panel controls.

The Data Encode function provides for the encoding of time and selected text independently into each video channel, using the "Left Edge" method. The data may be machine read using any decoder meeting the RCC document 452-86 section 7 specification, such as the ITS models 6042 and 6142A Decoders

The unit is housed in a rack mountable aluminum enclosure, 19 inches wide, 3.5 inches high, 15 inches deep. It is powered by 100 to 240VAC, 50 to 400 Hz.

Model 6055B-6GX, 6 Channel GPS Synchronized IRIG Generator / Inserter

SPECIFICATIONS

Video Channels	Six, asynchronous, each with two outputs
Video In 1	Composite, 525/60 interlaced, 2:1 black negative, one volt peak-to-peak, in accordance with EIA RS-170 or NTSC. (each channel)
Video In 2	Standard S-Video Y/C. (each channel)
Video Amplifier	Bandwidth: >20 MHz \pm 1dB. Input Impedance: 75 Ohms
Video Out 1,2	Same as Video In, except with annotation added and DC restored; Output level is 1 volt peak-to-peak (output as specified when terminated with a 75 ohm load)
IRIG B Input	IRIG B standard serial time code (IRIG Standard 200-98). Input level 100mv peak-to-peak to 5 volts p-to-p with modulation ratio from 2:1 to 6:1, accuracy of +1 -0.1ms.
GPS Antenna	Active, magnetic mount, powered via antenna cable
GPS Performance	
Channels:	12 Parallel channels, tracks all satellites in view
Time-to-first-fix:	<18 seconds typical (warm start), <120 seconds typical (cold start)
UTC Time Mark:	Synchronized with Global Reference Standard
Reacquisition:	2 seconds typical
Azimuth In	21 bit binary, TTL input positive true with 100K pull down. Port includes data request (Data Strobe) output with rate of 62 KHz.
Elevation In	Same as Azimuth
Data Input (Message enable)	TTL negative true, 12 discrete lines, two designated for each channel.
Countdown Clock control	TTL negative true, two inputs: RUN/HOLD and PRESET.
RS-232C	EIA RS-232C serial, 19200 baud, 8 bit, no parity, 1 stop bit.
Keyboard	PC AT style 101 key, detachable.
Character Generator	96-character ASCII set, 7X9 pixel format. Insertion mode is selectable: constant contrast or white with black border.
Event Message Generator	Two, six character messages for each channel, total of 12. Displayed upon application of low input on discrete data input. Special messages optional.
Encoded Data	Video left-edge encoding method. Format IAW RCC document 452-86 section 7.
Power Requirements	100 to 240VAC 50 to 400Hz, 15 Watts.
Temperature	
Operating	0° to 50°C (32° to 122°F)
Non-operating	-20° to 70°C (-4° to 158°F)
Humidity	85% non-condensing
Package	
Size:	19 inch rack mountable, 3.5 inches high, 15 inches deep.
Weight:	6 lbs.