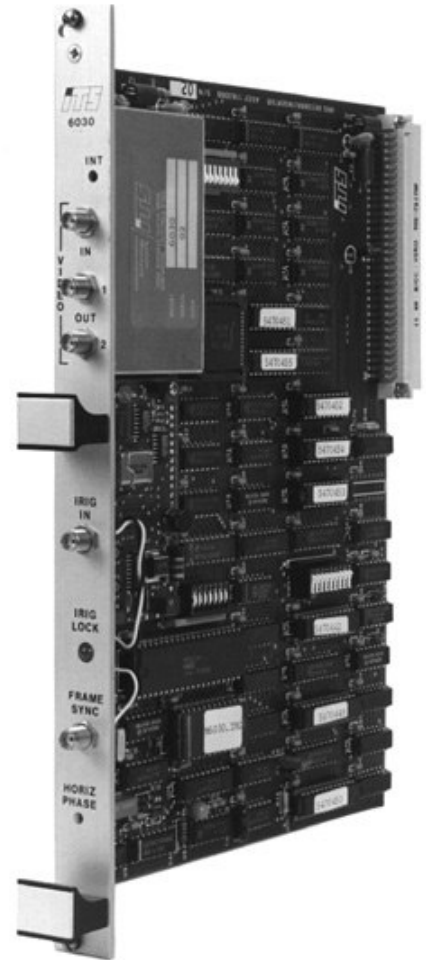


MODEL 6030 VMEbus IRIG/VIDEO INSERTION GENERATOR

FEATURES

- Decodes an IRIG B time code signal and inserts a time message.
- Generates and inserts a movable crosshair/reticle symbol.
- Generates and inserts a fixed "Boresight" reticle
- Generates and inserts up to 30 lines of 32 characters per line.
- Automatically synchronizes with composite video input
- Operates on RS-170, NTSC or optionally, CCIR video (6030A)



DESCRIPTION

The ITS Model 6030 Video Insertion Generator is designed to plug into a standard VME backplane and generates alphanumeric characters and graphics which are inserted into an input RS-170 or NTSC video signal. The 6030 is a single board memory mapped slave subsystem operating on the VME bus. The IRIG B time code is decoded and the Time Message is inserted into the applied video signal without bus involvement. All other message generation and symbol positioning is controlled by program transfers via the VME bus.

Additionally the IRIG B time may be read via the bus. Once time is established, a loss of IRIG signal will cause the 6030 to automatically switch to a internal real time clock which will increment the time display until the IRIG signal is reacquired. The position of the IRIG Time Message within the display may be controlled by an on board DIP switch or by commands entered via the bus.

The 6030 is contained in a dual high 6U VME card and occupies a single 0.8 inch slot.

Model 6030 VMEbus IRIG/Video Insertion Generator

SPECIFICATIONS

Video In	Composite, 525/60 interlaced, 2:1 black negative, one volt peak-to-peak, in accordance with EIA RS-170 or NTSC; connector is coaxial SMA series. CCIR 625/50 video optional (6030A).
Input Impedance	75 ohms
Video Amplifier Bandwidth	>20 MHz \pm 1dB
Video Out (1 and 2)	Same as video in except with character and encoded data added and DC restored; connectors are coaxial SMA series (output as specified when terminated with a 75 ohm load)
IRIG In	IRIG B standard serial time code (IRIG Standard 200-98).
Frame Sync (Out)	Vertical blanking ref. pulse derived from incoming video; TTL level, low true
VMEbus Compatibility	A16:D16 Slave, Bus Address switch-selectable within 64K short I/O address space; occupies 1K consecutive word address space with supervisory/nonprivileged address switch selection Interrupter is switch-selectable, I (1) to I (7) or off; switch-selectable vector
Character Generator	96-character ASCII set plus 32 special characters displayed in a 5 X 7 pixel format. Insertion mode is constant contrast
Reticle Format	
Boresight Reticle	Open centered fixed crosshair, with center dot
Movable Reticle	Four selectable formats: closed crosshair, open crosshair, open with dot, box.
Video Insertion Mode	Selectable via bus, constant contrast or black
Interrupts	Vectored interrupt generated each video frame; may be disabled under program control
Display Update	Full update, alphanumeric and symbol data can occur each video field. Inserted data remains until overwritten or turned off by inputs over the VMEbus.
Power Requirements	5 volts @ 560 ma nominal +12 volts @ 30 ma nominal -12 volts @ 70 ma nominal
Temperature	
Operating	0° to 50°C (32° to 122°F)
Non-operating	-20° to 70°C (-4° to 158°F)
Humidity	95% non-condensing
Size	Dual-high VME card (6U form factor) occupies one slot (0.8 inch spacing)