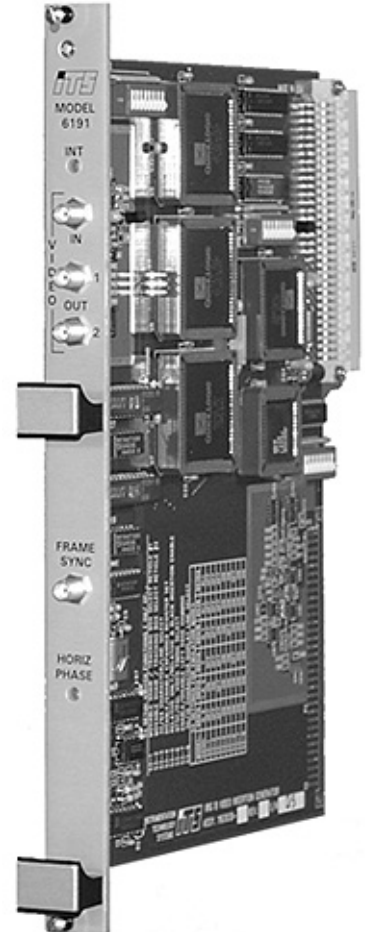


## FEATURES

- Operates with NTSC, RS170, or CCIR/PAL input video. Includes an on board video generator to allow unit to operate in the absence of applied video.
- Generates and inserts up to 30 lines (NTSC) or 31 lines (PAL) of 32 or 64 characters per line, selectable. Up to 15 lines (large characters selected)
- Generates and inserts two movable, sizable symbols, configurable as crosshairs or tracking-gate/closed box.
- Generates and inserts a fixed "Boresight" reticle
- Inserts up to 31 bytes of edge encoded data per field (with hamming disabled), 21 bytes with hamming error correction code enabled (NTSC). In PAL mode, inserts up to 37 bytes w/o hamming or 25 w/hamming.
- Automatically synchronizes with composite video input, no external sync required.
- Can be user set to emulate ITS models 9891A, 9891B, 9938 or 9938A.



## DESCRIPTION

The ITS Model 6191 Video Insertion Generator contains, an alphanumeric character generator, a video data edge encoder, a boresight reticle generator and two movable symbol generators, all of which may be inserted into an input RS-170, NTSC or PAL/CCIR video signal. The edge encoding includes automatic error correction code generation. The 6191 is a memory mapped slave subsystem operating on the VME bus. Message generation and symbol positioning is controlled by program transfers via the VME bus.

The unit may be user configured by setting onboard DIP switches to emulate the ITS models 9891A, 9891B, 9938 or 9938A, including any of the variations of those models. When set to any of the above models the 6191 is fully interchangeable with the selected model.

The 6191 is contained in a dual high 6U VME card and occupies a single 0.8-inch slot.

# Model 6191 VMEbus Video Insertion Generator

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## SPECIFICATIONS

<b>Video In</b>	Composite, 525/60 interlaced, 2:1 black negative, one volt peak-to-peak, in accordance with EIA RS-170, NTSC or 625/50 CCIR/PAL; video connection is via panel mounted SMA connector. 75 ohm input impedance.
<b>Video Amplifier Bandwidth</b>	> 20 MHz $\pm$ 1dB
<b>Video Out (1 and 2)</b>	Same as video in except with character and encoded data added and DC restored; connections are via panel mounted SMA connectors with output as specified when terminated with a 75 ohm load).
<b>Frame Sync (Out)</b>	Vertical sync/blanking reference pulse derived from incoming video or vertical signal from onboard generator. Signal available panel mounted SMA connector.
<b>Encoded Data</b>	Left edge encoded, method and format IAW Optical Systems Group Document 452-84, Section 7.
<b>Inserted Video Resolution</b>	640 x 240 pixels (for RS170/NTSC and 640 x 286 (for CCIR/PAL) .
<b>VMEbus Compatibility</b>	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.
<b>Character Generator</b>	96-character ASCII set plus 32 special characters displayed in a 5 X 7 pixel format. Insertion mode is constant contrast, black or constant contrast with black border, selectable via bus.
<b>Reticle Format</b>	
Boresight Reticle	Open centered fixed crosshair, with center dot.
Movable symbols	Two selectable formats: closed crosshair or fully controllable tracking gate.
<b>Video Insertion Mode</b>	Selectable via bus, constant contrast or black.
<b>Interrupts</b>	Vectored interrupt generated each frame; may disable under program control.
<b>Display Update</b>	Full update, alphanumeric, encoded and symbol data can occur each video field. Inserted data remains until overwritten or turned off by inputs over the VMEbus.
<b>Power Requirements</b>	5 volts @ 130 ma nominal + 12 volts @ 30 ma nominal -12 volts @ 45 ma nominal
<b>Temperature</b>	
Operating	0° to 70°C (32°to 158°F)
Non-operating	-25° to 85°C (-13° to 185°F)
<b>Humidity</b>	95% non-condensing
<b>Size</b>	Dual-high VME card (6U form factor) occupies one slot (0.8 inch spacing)