

ITS MODEL 6316

VIDEO CONCENTRATOR MULTIPLEXOR

2.0 GENERAL

The general features of the Video Concentrator Multiplexor (VCM) have tailored to meet the requirements of the Weapon Impact Scoring Set (WISS) for NAVAIR and ACC training ranges.

Features include:

- *Receives up to 4 independent channels of SD-SDI video per SMPTE 259M and HD-SDI video per SMPTE 292 (1.5 GB/sec data for 720p and 1080i) and SMPTE 424M (3 GB/sec for 1080p) that may be of any of the following SMPTE 296M or SMPTE 274M (720p/1080i or 1080p (3G) respectively) formats.*
 - *Luminance and Color Encoding: 4:2:2 encoding as described in ITU-R BT.709.*
 - *Frame rates, 29.97, 30, 59.94, 60 per second.*
 - *Any of these video payloads may be applied to any input channel at any time and the VCM will synchronize to it and decode it.*
- *Reads up to two VANC KLV ancillary packets. The general type 2 KLV packets are defined in SMPTE 291M. The content of these packets are:*
 - *Packet 1 Line 9, Microsecond Time Stamp*
 - *Packet 2 Line 9, Stripe Data*
- *Overlays on command, key stripe and system status.*
Writes a Microsecond Time Stamp KLV packet on any channel when none is present on the incoming video. The time is derived from the VCM time master.
- *Provides a time master that may be synchronized GPS time to within 25 ± 20 ns generated by an internal 12 channel GPS receiver or $\pm 2\mu\text{sec}$ of a Stratum 1 NTP server.*
- *Time Equalize the four (4) incoming HD-SDI video streams within a 16GB DDR3 memory such that any output stream contains video images that have been captured at the same time ± 1 frame time.*
- *Controls to enable the operator to select vertical segments (lines) of any of the incoming video streams to appear in an output stream. These segments, referred to as Region of Interest Stripes (ROIS) may be placed in any order and on any output stream.*
- *An HD-SDI compliant output video stream comprised of the operator selected ROIS.*
- *A web server that permits the operator using a web browser running on an external computer connected via a TCP/IP Ethernet network to examine status and organize ROIS for all channels.*
- *A a command set enabling full control of all features and status reporting.*
- *An 80 character LCD and 12-button keypad that may be used to examine status and perform certain setup functions.*

The VCM is housed in a 19" 2U rack mount chassis and is powered by 100 to 240VAC 50/60 Hz.