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Front



Rear



VSM-102
Video Selector Module

General

The VSAS (Video Selector Amplifier System) was developed to enable users at remote locations to view information from up to six different video sources.

The VSM-102 is a dual, 6-1 video multiplexer which accepts NTSC video information from up to six sources. Each of the 6-1 multiplexers can select any of the six video sources independent of each other.

The video output from each multiplexer is buffered and fed to an output connector. Each of the buffered outputs from the VSM-102 is capable of driving up to 500 feet of standard 75Ohm coaxial cable. The coaxial cables from each output connector are routed to remote locations where they are connected to the video input connector of a control panel. The control panel is available in two configurations, one for a single monitor and one for a dual monitor. The single monitor control panel (VSM-CP) is used in applications where two independent operators in different location need to view video information from any of the six video sources. Each operator is required to have a control panel from which they can select any of the six video sources for viewing.

Circuit Operation:

Pressing one of the CAM switches on the control panel performs monitor selection. The control panel generates a digital code representing the corresponding video source. It stores this code in memory for restoration of previous settings during power up, lights the corresponding switch light, and sends the code back to the selector module through the discrete control lines. The selector module selects the corresponding video source and directs the video to the selector module output connector. From there, the video is fed to the control panel through a coaxial cable which may be as long as 500 feet. Once in the control panel, the video is directed through either a video amplifier or an AGC circuit, to the output connector, and finally to the monitor.

The path of the video through the amplifier or the AGC circuit is selectable by a toggle switch located on the rear of the control panel. The ACG circuit will maintain a constant video output level reducing the need for adjusting all of the video sources to the same level whereas the video amplifier will not compensate for variations in input level. Gain adjustments for the AGC and video amplifier are also located on the rear of the control panel.

The dual control panel is basically two single control panels in one rack mount chassis. The dual control panel consists of two ACG circuits, two video amplifiers and two banks of six switches for selection of the video sources.

Specifications

See separate specification sheets for the following:

VSM-102 Video Selector Module, VSM-CP Video Selector Module Control Panel

Input

- Input: Six, J1 through J6, BNC connectors Single Ended Inputs with 75Ω Impedance.
- Input Level: 0.25 to 5.0 Vp-p Composite Video.

Output

- Output: Two, Single Ended outputs with 75Ω Impedance, J7 and J8, BNC connectors.
- Output Level: Same as input when terminated into 75 Ohms.
- Output buffers can drive up to 500 feet of 75 Ohm coaxial cable.

Primary Power

- Primary Power: 28 ± 6 VDC, Isolated from chassis and signal ground, J10 M38999 Series III connector.
- Power Consumption: < 14 Watts
- Power Switch: None (Unit is ON when power is applied).

Environmental

- Altitude Non Operating: Sea Level to 40,000 feet.
- Altitude Operating: Sea Level to 30,000 feet.
- Operating Temperature: -30°C to $+70^{\circ}\text{C}$
- Storage Temperature: -50°C to $+70^{\circ}\text{C}$
- Humidity: 95% Relative Humidity, -30°C to $+55^{\circ}\text{C}$, non-condensing.
- Vibration: Per MIL-STD-167, Type 1 Equipment.
- Functional Shock: 20 G (6-9 mS duration).
- Environmental Stress Screening (ESS): All units are subjected to Environmental Stress Screening.
- Cooling: Conduction, through base plate.

Configuration

TWO INDEPENDENT CONTROL PANEL CONFIGURATION

