VFD571

VIDEO FREEZE FRAME DETECTOR

The VFD571 Video Freeze Frame Detector is a video switch and alarm that provides an automatic transfer of video and stereo audio when there is a Freeze Frame interruption of video service. Freeze Frame interruptions can occur due to loss of signal in a digital transmission system, or loss of signal on an IRD Integrated Receiver Decoder.

The control circuitry constantly monitors the incoming video picture content at the primary input. When a Freeze Frame interruption of video occurs the device automatically switches to the secondary input. This feature controls a relay that can also be used to activate an external alarm or operate other equipment. The unit will work equally well with NTSC or PAL video signals.

Field Select time delay allows normal video to pause for a short period of time without causing an alarm condition. This delay is user programmable from 7 seconds to 256 minutes. A front panel toggle switch allows for three alarm reset conditions. The AUTO reset position will switch back to the primary input after normal video is restored. This gives the operator trouble free unattended switching of video preventing "DEAD-AIR" occurrences. The HOLD reset position will stay connected to the secondary input until the reset switch is depressed manually, this is useful for unattended fault detection. The MANUAL reset position keeps the unit in reset, turning off the alarm while you solve the Freeze Frame problem, this also switches the unit to the primary input.

The unit features a three position locking toggle switch to manually select either the Primary, Secondary, or the Automatic mode of switching from the front panel. If power is lost the unit will stay connected to the primary channel.

Two green LED front panel indicators monitor the presence of video Sync and Luminance levels on the primary video input. A red LED indicates when a Freeze Frame time out alarm has occurred.

Video connections are BNC female and are automatically terminated with 75 Ohms to maintain the correct video levels. The balanced audio is connected by a 12 position removable screw terminal block.

The VFD571 card fits into the PMS500 **P**anel **M**ount **S**ystem, which is a 19" X 1 3/4" built-in power supply and Mainframe for use in a standard 19" rack. This rack mount will hold up to three VFD571 cards. This lets you put three independent video freeze frame switchers in one vertical rack space.

VIDEO	**SPECIFICATION**
Standard	NTSC or PAL (Auto-Select)
Level (Composite Video)	0.5 to 2 Vp-p (1.0 Vp-p STD.)
Input Impedance	75 Ohm
Frequency Response	$\geq$ 0.2 dB from DC to 40MHz
Video Sync Indicator	Green LED (Front Panel)
Video Luma Indicator	Green LED (Front Panel)
Freeze Frame Indicator	Red LED (Front Panel)
Cross-Talk (Pri/Sec input)	$\leq$ 75 dB
Cross-Talk (Channel 1 to 2)	$\leq$ 80 dB
Signal to Noise Ratio	$\leq$ 90 dB

AUDIO

Frequency Response	Flat from DC to 50KHz
Cross-Talk (Pri/Sec)	$\leq$ 80 dB
Cross-Talk (Left/Right)	$\leq$ 80 dB
Signal to noise ratio	$\leq$ 90 dB

Mechanical

Power requirement	-24 VDC (PMS500 Power Supply)
Rack Mounting	One of three spaces in PMS500
Video Connectors	BNC (Female)
Audio Connector	12 Position Screw Terminal
Video Mode Switch	3 Position Locking Toggle
Alarm Reset Mode Switch	3 Position Locking Toggle
Field Select Time Delay	12 Position Internal Jumper

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