



The AI-DVS-32 is a 32-by-32-channel digital video cross-point switch capable of routing any one or more of 32 SMPTE 259M digital input signals to any one or more of 32 SMPTE 259M output destinations.

### FEATURES:

- > 32 serial digital inputs, SMPTE 259M-compliant
- > 75 Ohm input impedance, operational to 270 Mb/s
- > 32 serial digital outputs, SMPTE 259M-compliant
- > VME64-compliant P1 and P2 interfaces

### BENEFITS:

The AI-DVS-32 provides cross-point switching functions through the use of differential cross-point switches. Any of the 32 differential input signal pairs can be connected to any or all of the 32 output signal pairs. The differential nature of the data path is retained throughout the cross-point structure, to minimize data distortion. The AI-DVS-32 is designed to VMEbus 6U form-factor, and functions as a VMEbus slave as per IEEE 1014-1987.

Simple configuration controls allow new configurations, once entered into the configuration file, to be completely reconfigured in only 6ns, without disturbing switch operation.

# SPECIFICATIONS

## Video Interface

### **Video Input Signals:**

32 serial digital input signals  
SMPTE 259M-compliant  
Operational to 270 Mb/s

### **Video Signal Input Impedance:**

Terminations = 75 Ohm +/- 1%

### **Video Input Signal Amplitude:**

Voltage Gain >33 dB @ 135 MHz

### **Cross-Point Switch:**

32-by-32-channel serial digital cross-point switch  
Simultaneous reconfiguration of the switch is possible without disturbing operation.

### **Video Output Signals:**

32 serial digital output signals  
SMPTE 259M-compliant

### **Video Signal Source Impedance:**

Output signal source impedance = 75 Ohms

### **Video Output Signal Characteristics:**

Amplitude:  $\geq 800$  mV +/- 10%  
DC offset  $\leq 0$  +/- 0.5 V  
Pulse rise/fall time: 500 to 800 ps  
Jitter:  $\leq 250$  ps

## VME Bus Interface

### **VME Bus Slave:**

Address = A16      Data = D16  
Interrupter = none    Interrupt Handler = none

VME P2/Row A provides connection to the 32 video input signals.

VME P2/Row C provides connection to the 32 video output signals.

VME P2/Row B provides the signal return (shield) connection path.

### **Electrical Power Supply:**

+5 Volts DC +/- 10% @ 6.6 Amps max.

**MTBF:** > 100,000 Hours

**Linear acceleration:** TBD

**Pressure:** 13.5 to 14.9 psi

**Thermal:** 15.8° to 150.8° F (-9° to 66° C)

**Humidity:**  $1.43 \times 10^{-4}$  kg/kg

**Shock:** TBD



**Applied Integration Corporation**  
3930 West New York Drive  
Tucson, Arizona 85745 USA  
(520) 743-3095 Voice / (520) 623-1683 Fax  
[www.appliedi.com](http://www.appliedi.com)  
[www.inchargenet.com](http://www.inchargenet.com)