

**AVENUE**

Avenue™ signal integration system

# Model 5430/5440 8x1 and 8x8 Digital Video Routers Data Pack

**ENSEMBLE**

D E S I G N S

Revision 3.1 SW v1.1

This data pack provides detailed installation, configuration and operation information for the **5430 8x1 Digital Video Router** and the **5440 8x8 Router** option as part of the Avenue Signal Integration System.

The module information in this data pack is organized into the following sections:

- Module Overviews
- Applications
- Installation
- Cabling
- Module Configuration and Control
- Troubleshooting
- Software Updating
- Warranty and Factory Service
- Specifications
- Appendix A – Serial Control

### MODULE OVERVIEWS

The 5430 8x1 Digital Video Router module provides digital video routing for eight inputs by one output. The 5440 8x8 Digital Video Router module option mounts physically on the 5430 circuit board in the adjacent frame slot to expand the number of outputs to eight (8x8). An analog monitor output is also provided on the 5440 for tracking any of the eight serial output buses. An On Screen Display (OSD) overlay on the monitor output indicates text ID of source and destination and crosspoint configuration.

The router and router option can be controlled through an optional Touch Screen panel, Avenue PC, or an external interfaces such as an Avenue X-Y Router Control Panel available with the routers, GPI control (customer supplied buttons) or serial control with a PC. The X-Y Control panel connects directly to the 15-pin high-density Control D connectors on the rear of the 5430 modules. The GPI control uses nine pins on the Control D connector.

The 5430 module accepts up to eight serial digital inputs fed from BNCs on the rear of the module. The inputs are first equalized then fed to the crosspoint routing circuitry as illustrated in the 5430 Block diagram on the opposite page. Crosspoint control information determines which crosspoint video will be sent to reclocking circuitry before being buffered and fed to two looping BNCs on the rear of the module.

Crosspoint control information is derived from the AveNet control input and the external control device (X-Y Control panel or GPI and Tally) if installed or by local module settings. Vertical interval switching information is input to the crosspoint control from the master timing reference feeding a vertical detector. This allows the router switching to take place during the vertical interval.

The other seven equalized outputs are also sent to a header connector on the 5430 module which connects to the 5440 module when it is installed as shown in the block diagram on the opposite page. This provides the input video sources to the 5440 module. The seven selected crosspoints are fed to the reclocking and buffer circuitry before being buffered and sent to the output BNCs on the rear of the 5440 module.

A composite monitor output is provided through two identical BNCs on the rear of the 5440 module to allow a text overlay label for the selected output source and destination.

Power is derived from the  $\pm 12$  volt frame power. It is regulated to the required +5 volts for the module by on-board regulator. The module is fused with a resettable fuse device. If the fuse opens due to an overcurrent condition, the module will lose power. After pulling the module, the fuse will reset automatically requiring no replacement fuse.

Router configuration can be set remotely or locally. The router status can be read from the remote interfaces (Avenue PC or a Touch Screen) or from the LEDs on the front of the 5430 module as explained later in this data pack.