Architectural Specification for the Intelix AVM Matrix Mixer

General

The audio video matrix shall combine audio crosspoint level control with vertical interval video switching in a single chassis. The matrix shall be capable of accepting both AC and DC power supplies. The matrix shall be capable of saving and restoring all settings in the event of a power failure. The matrix shall be capable of storing up to 64 presets in non-volatile memory, recallable in RS232 software. The matrix shall be externally controllable through an RS232 device.

Audio Section

The matrix mixer shall provide up to 32 line level inputs and up to 16 line level outputs. All input and output connectors shall be Phoenix type connectors. Each I/O crosspoint shall provide full user control of parameters including level, ramp time, and slew rate. Ramping of crosspoint levels shall be under user control. All inputs shall be capable of being mixed to any output. The gain adjustment of level at each crosspoint shall be from 0dB to -100dB. The matrix shall be programmable through an RS232 port. The matrix shall be capable of storing up to 64 presets recallable in RS232 controlled software. The presets shall be stored in nonvolatile memory on board the matrix. The matrix shall be capable of external DC control via digital 110 ports. The frequency response of the matrix mixer shall be ± .5 dB from 20Hz to 20kHz and +0, -3 from 10Hz to 30kHz. Crosstalk shall be better than -80dB. Control point attenuation resolution shall be .4dB per step. Input impedance shall be 20Kw balanced and 10Kw unbalanced with a maximum level of +24dBV RMS. Output impedance shall be 220w unbalanced and 440w balanced, with a maximum level of +24dBV RMS. One Mic/Line input cards shall be standard (more available) to allow the direct input of microphone level signals without external preamps.

Video Section

The video switching section shall provide up to 8 inputs and 8 outputs of any of the following formats: composite, Y/C, RGB,YUV, RGBS, and RGBHV. All input and input connectors shall be BNC type connectors. Each video crosspoint shall be individually controllable by the user. The video switching matrix shall have a bandwidth of 250 MHz. Setup and control software shall be capable of automatically configuring the video matrix to accommodate any supported format. The software shall allow the grouping of A/V signals to facilitate single message switching of such bundles. The matrix shall allow vertical interval switching with audio crossfade switching under user control. Video signal bandwidth shall be 250MHz. Input/ Output connector impedance shall be 75w. I/O levels shall be 0.5 to 2.0V. Crosstalk shall be -79dB @ 5MHz.