

## key features

- *HD high-quality digital video upconversion in a single, dual height module set*
- *User selection of the following up-conversion rates:*
  - 480i59.94 to 480p59.94, 720p59.94, 1080i59.94
  - 576i50 to 576p50, 720p50, 1080i50
- *Color-space conversion*
- *Picture detail enhancement with selectable horizontal and vertical picture detail sharpen and soften adjustments*
- *Aspect-ratio conversion with selectable of anamorphic, common top, and common side along with zoom, crop, and edge trim, with the ability to adjust fill shade video levels*
- *Video gain, black level, chroma saturation, and hue adjustments*
- *Active loop-through of selected 270 Mb/s SDI input source*
- *Two HD SDI video outputs*
- *Re-embeds first two groups of audio from SD video into the HD video stream with compensating delay*
- *Dolby E supported*
- *Reinsertion of closed-caption data (EIA-608A to 708B) into HD output stream*
- *10 user-programmable presets with selectable store and recall*
- *Three GPI contact closures*
- *Hot swappable module set*
- *Card edge LEDs for signal presence and module status*
- *Processes up to two program streams in a single 1 RU frame—up to six in a 3 RU frame*

## specifications

### Serial Video Input

**Standard:** SMPTE 259C (270 Mb/s)

**Number of Inputs:** One with active loop output

**Connector:** BNC per IEC 60169-8 Amendment 2

**Equalization:** Automatic to 300m @ 270 Mb/s with Belden 1694 or equivalent cable

**Return Loss:** >15 dB @ 270 Mb/s

### Active Input Loop-Through Output

**Standard:** SMPTE 259C (270 Mb/s)

**Number of Outputs:** One

**Connector:** BNC per IEC 60169-8 Amendment 2

**DC Offset:** 0V  $\pm$  0.5V

**Rise and Fall Time:** 750 ps nominal for SD

**Overshoot:** <10% of amplitude

**Return Loss:** >15 dB at 270 Mb/s

**Wideband Jitter:** < 0.2 UI

### Upconverted Serial Video Output

**Standard:** SMPTE 292M (1.5 Gb/s)

**Number of Outputs:** Two

**Connector:** BNC per IEC 60169-8 Amendment 2

**DC Offset:** 0V  $\pm$  0.5V

**Rise and Fall Time:** 750 ps nominal for SD

**Overshoot:** <10% of amplitude

**Return Loss:** >9 dB @ 1.5 Gb/s

**Wideband Jitter:** < 0.2 UI

### Input to Output Processing Delay

**Video Delay:** Four frames

**Audio Delay:** Delayed and re-embedded in time with the output video

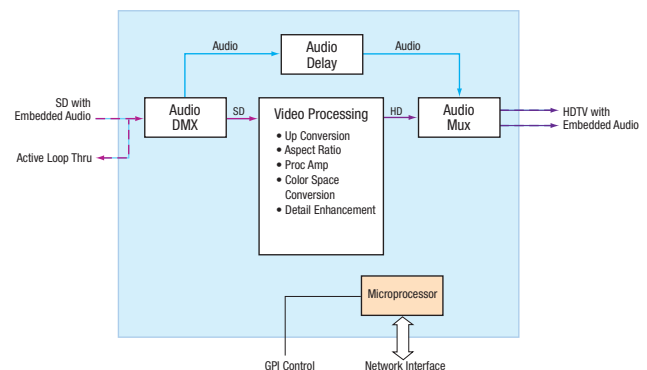
### Electrical

**Power:** 27W

**EMI/RFI:** Complies with FCC Part 15 Class A, EU EMC Directive

### Physical

**Number of Slots:** Two, Installation in even numbered frame slots recommended for maximum frame density



## ordering information

### KAM-XM-UPC

HD upconverter

### KAMXMUDCMAN

Manual for KAM-XM-UPC, -UNC, -UDC, -UCG, -DNC Module Sets

### 2000T1DNG

1 RU frame, power supply, 2000NET, and 2000GEN

### 2000T3NG

3 RU frame, power supply, 2000FAN, 2000NET, and 2000GEN

### NEWT-RM

1 RU Newton control panel and modular control system

### NEWT-PC

Software Newton control panel and modular control system