

# Matrox DSX LE4 LP

## Multi-channel SDI low profile card

Matrox DSX LE4 LP features re-configurable multi-channel SD, HD, 3G and 4K SDI I/O in a low profile card. This card is supported by the Matrox DSX SDK (Software Development Toolkit). Please refer to the Matrox DSX Developer Products datasheet for information on file I/O, software codecs and CPU effects.



### Key features

- Low profile, half-length PCI-e card
- Re-configurable I/O that can support up to 8 SDI inputs or outputs
- Frame synchronizers
- VANC and HANC support for each input and output
- Analog blackburst reference input (tri-level or bi-level)
- Automatic video relay bypass (optional)
- Live zero-frame delay video mixers

### System bus interface

- Single-slot PCIe Gen2 x8 bus
- Allows for multiple cards in a system

### Digital video inputs and outputs

- Reconfigurable inputs and outputs
- Serial digital component 4:2:2 video at 270 Mbps in accordance with SMPTE 259M (SD)
  - 480i (NTSC) at 29.97 fps
  - 576i (PAL) at 25 fps
- Serial digital component 4:2:2 video at 1.5 Gbps in accordance with SMPTE 292M (HD)
  - 1080i at 25, 29.97, and 30 fps
  - 720p at 50, 59.94, and 60 fps
  - 1080p/PsF at 23.98, 24, 25, 29.97, and 30 fps
- 3G SDI in accordance with SMPTE 424M and SMPTE 425M-AB
  - 1080p at 50, 59.94, and 60 fps
  - 8 and 10-bit YUV 4:2:2
- Up to 8 10-bit 4:2:2 serial digital video inputs
- Up to 8 10-bit 4:2:2 serial digital video outputs
- Up to 4 SDI inputs and outputs can be a key or video, where key inputs and outputs can be expanded and inverted
- 4K and QFHD (Quad Full HD) input and output
  - 3840x2160p at 59.94, 50, 30, 29.97, 25, 24, 23.98
- Simultaneous input and output of different video standards
- Auto-detection of input video standard
- Video relay bypass for 4 inputs (optional)
- Independent horizontal and vertical timing presets for each video output
- Generic support of VANC
- Support for HANC packets (SMPTE 12M-2 and SMPTE 352)
- Proc amp controls at inputs

### Built-in frame synchronizers

- Up to 8 frame synchronizers
- Corrects timebase of inputs to the genlock source
- 16 channels of audio resampling per input
- 1-frame latency
- Can be optionally disabled

### In-line live video mixer

- Up to 4 live mixers
- Zero frame delay
- 8- and 10-bit video
- Downstream mixing of live video with host buffers

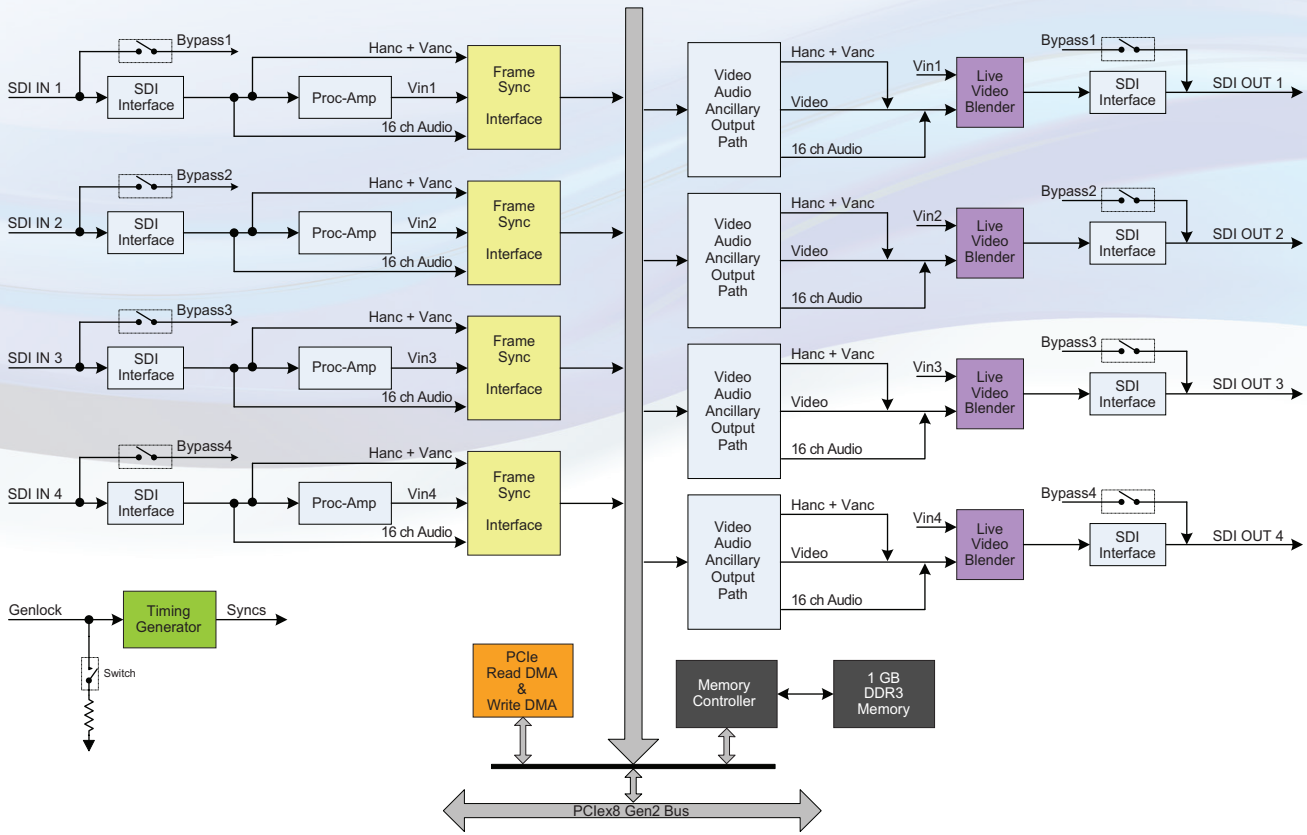
### Genlock time base

- Analog blackburst reference (tri-level or bi-level) or SDI input as reference
- Optional latching termination
- Auto detection of genlock standard

### Embedded audio inputs and outputs

- Supports up to 16 channels of embedded audio per SDI video stream in accordance with SMPTE 272M A, B, and C (SD) and SMPTE 299M (HD)
- 48 kHz sampling
- Supports 16-, 20-, and 24-bit audio streams

# Matrox DSX LE4 LP (4 inputs and 4 outputs configuration)



[www.matrox.com/video](http://www.matrox.com/video)

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