VRC7008E Product Brief

8-Channel 960H DVR PCIe Add-In Card

Description

Designed for professional video surveillance applications, the VRC7008E Digital Video Recorder (DVR) PCI express add-in cards feature the Exar S7100 software configurable processor and perform H.264 encoding on eight channels of up to 960H NTSC/PAL video at full resolution and frame rate.

Extensive video preprocessing coupled with the power of the Exar Intelligent Encoder give the VRC7008E pristine video quality while maintaining high compression levels. This results in a tremendous reduction in storage costs for surveillance installations using the VRC7008E card. The programmable accelerator of the S7100 at the core of the Intelligent Encoder delivers multi-stream encoding of baseline, main and high-profile H.264 Advanced Video CODEC (AVC) data streams. In addition, the S7100 video processor drives H.264 Scalable Video CODEC (SVC) compression that enables flexible and efficient resizing and resampling of multi-stream surveillance video.

The VRC7008E is a low profile PCIe short form factor card. A high bandwidth PCIe interface provides connectivity to host systems. Exar PCIe add-in cards are available with a standard height bracket or a low profile bracket. The part number will have an “-H” or an “-L” suffix respectively to designate the bracket type.

The card supports eight or sixteen channels of alarm I/O and an RS-485 interface for remote camera control through an I/O header with one or two optional 8-channel I/O card. The card also has a debug connector for UART and JTAG interfaces to facilitate hardware and software debugging.

FEATURES

- 8 NTSC/PAL video input channels
  - Up to 960H resolution
  - All 8 record/encode at full-frame rate
- 8 audio input channels
  - G.711 audio compression format
- Audio and video input via external DVI connector or internal header
- Video recording resolution:
  - 960H (960x480 NTSC), (960x576 PAL)
  - D1 (720x480 NTSC), (720x576 PAL)
  - CIF (360x240 NTSC), (360x288 PAL)
  - 4CIF (704x480 NTSC), (704x576 PAL)
  - QCIF (180x120 NTSC), (180x144 PAL)
- Baseline, main, high profile H.264 AVC or SVC, MJPEG and MPEG4 video encoding compression formats
- One CVBS spot monitor matrix display output
- Rich video preprocessing including de-interlacing, image enhancement, noise reduction, user-defined captioning overlays
- Motion, blind and night detection video analytics
- Motion detection multi-plane user-defined regions of interest
- User-defined privacy regions with macroblock resolution
- Watchdog timer and host reset capability

APPLICATION

- PC-based Digital Video Recorder (DVR)
- Hybrid Network Video Recorder (NVR)

Typical Application

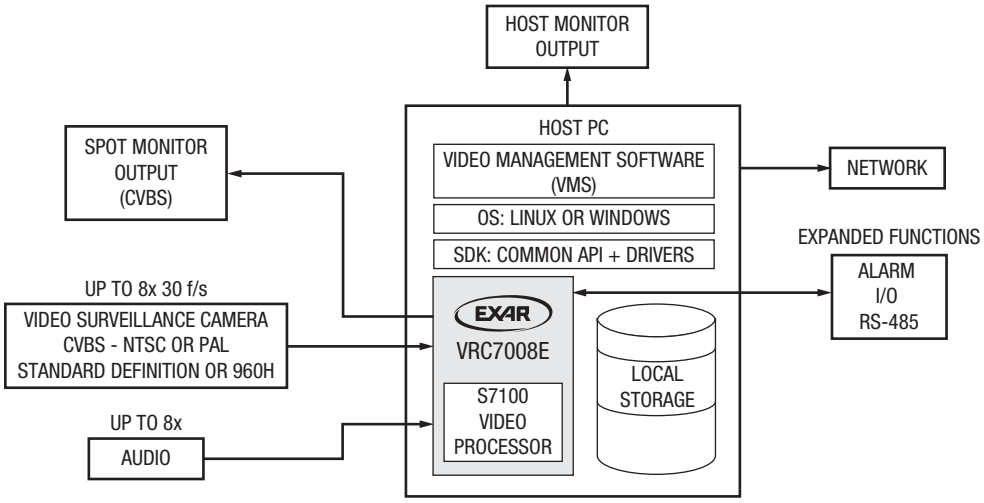

Figure 1. Typical Application

Ordering Information[1]

Part Number	Minimum Order Multiple	Description
OEM - VRC7008E-L	20	8-channel 960H low-profile PCIe DVR card with low-profile bracket
OEM - VRC7008E-H	20	8-channel 960H low-profile PCIe DVR card with standard-height bracket
CAB - DVI - V8A8S1	-	Cable, DVI to 8 video inputs, 8 audio inputs and 1 SMO
EVK-VRC7008E	-	VRC7008E evaluation kit

NOTE:
1. Refer to www.exar.com/VRC7008E for most up-to-date Ordering Information.

Please contact videotechsupport@exar.com to request a complete datasheet.

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