

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

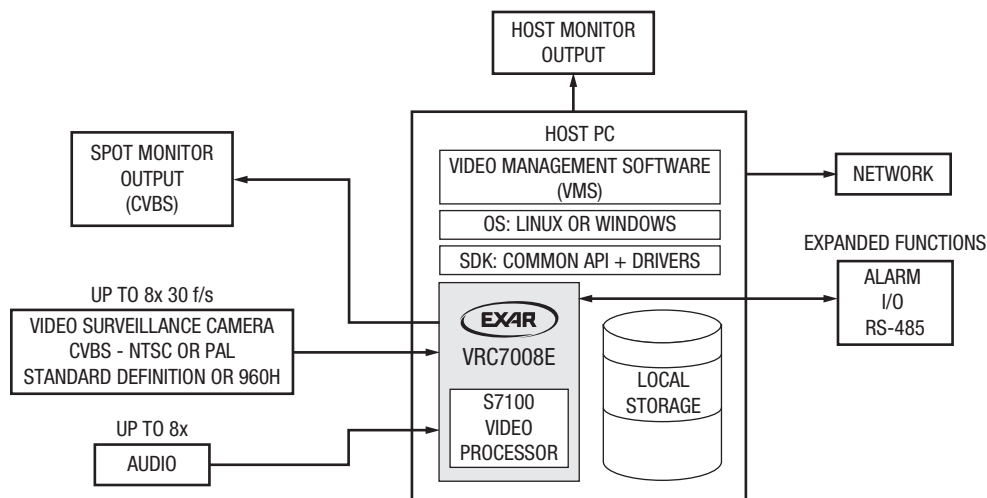


Figure 1. Typical Application

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.



www.exar.com

48760 Kato Road
Fremont, CA 94538
USA

Tel.: +1 (510) 668-7000
Fax: +1 (510) 668-7001
Email: videotechsupport@exar.com

Exar Corporation reserves the right to make changes to the products contained in this publication in order to improve design, performance or reliability. Exar Corporation conveys no license under any patent or other right and makes no representation that the circuits are free of patent infringement. While the information in this publication has been carefully checked, no responsibility, however, is assumed for inaccuracies.

Exar Corporation does not recommend the use of any of its products in life support applications where the failure or malfunction of the product can reasonably be expected to cause failure of the life support system or to significantly affect its safety or effectiveness. Products are not authorized for use in such applications unless Exar Corporation receives, in writing, assurances to its satisfaction that: (a) the risk of injury or damage has been minimized; (b) the user assumes all such risks; (c) potential liability of Exar Corporation is adequately protected under the circumstances.

Reproduction, in part or whole, without the prior written consent of Exar Corporation is prohibited. Exar, XR and the XR logo are registered trademarks of Exar Corporation. All other trademarks are the property of their respective owners.

©2016 Exar Corporation

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

MaxLinear:

[OEM-VRC7008E-H](#) [OEM-VRC7008E-L](#)