VRC7016 Product Brief

16-Channel PCIe DVR Add-In Card

Description

Designed for professional video surveillance applications, the VRC7016 16 channel PCIe DVR add-in card features the Stretch S7100 software configurable processor and performs H.264 High Profile encoding on 16 channels of standard definition D1 NTSC/PAL video at full resolution and frame rate. The high levels of integration and processing capabilities of the S7100 processor give the VRC7016 the lowest cost per channel in the surveillance industry.

Extensive video preprocessing coupled with the power of the Stretch H.264 High Profile CODEC gives the VRC7016 the best video quality in the industry while maintaining high compression levels. 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). 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. At equivalent quality levels, VRC7016-compressed streams have one-half the bit rate of those produced by competitors' solutions. This results in a 50% reduction in storage costs for surveillance installations using the VRC7016.

The VRC7016 has a high bandwidth PCIe interface for connectivity with host systems.

The card also supports sixteen channels of alarm I/O and an RS485 interface for remote camera control through an I/O header with an optional I/O card.
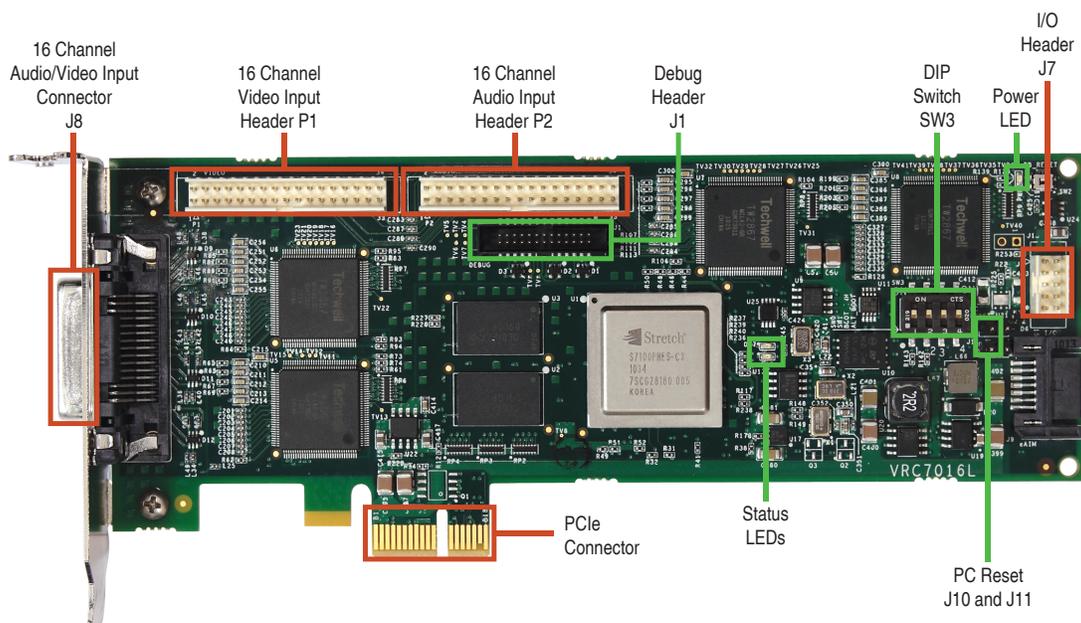
FEATURES

- 16 Channel H.264 High Profile encoding
- Stretch Intelligent Encoder™ with H.264 AVC/SVC
- Industry's lowest cost per channel
- Industry's best video quality
- Rich and intuitive API
- Linux and Windows SDK

BENEFITS

- Low system bills of materials
- Low bit rate for reduced storage costs
- High quality video archive
- Fast time to market
- Plug-and-play compatibility

APPLICATIONS

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

16 Channel Audio/Video Input Connector J8 · 16 Channel Video Input Header P1 · 16 Channel Audio Input Header P2 · Debug Header J1 · I/O Header J7 · DIP Switch SW3 · Power LED · PCIe Connector · Status LEDs · PC Reset J10 and J11

The card is controlled via the Intelligent Encoder Software Development Kit (SDK) for either Linux or Windows. The VRC7016 is also compatible with all Stretch S7000-based PCIe cards and OEMs already familiar with the SDK can integrate the card into their software in a matter of hours. With clear SDK documentation and support of Exar Application Engineering, new design teams also achieve rapid time-to-market. The VRC7016 features Stretch's standard Application Programming Interface (API), ensuring plug and play compatibility with existing Stretch installations and rapid porting of third-party applications.

The VRC7016 is designed specifically for video surveillance equipment OEMs. The VRC7016 is available as a production-ready OEM unit for volume production and can be ordered in either full height or low profile configurations. The low-profile short-form-factor card is readily embedded in compact industrial PCs and servers.

The VRC7016 has an Evaluation Kit (EVK) that contains a complete software load for the card, a sample host application, and source code for all included software (the Stretch Intelligent Encoder and CODEC plug-ins are supplied as object code). Stretch EVKs are intended for evaluation purposes and can be used in either full height or low profile applications.

Ordering Information[1]

Part Number	Minimum Order Multiple	Description
OEM - VRC7016-H	20	16-Channel PCIe DVR OEM low profile card, full height bracket
OEM - VRC7016-L	20	16-Channel PCIe DVR OEM low profile card, low profile bracket
EVK-VRC7016	-	VRC7016-H Evaluation Kit
EVK-VRC7016L	-	VRC7016-L Evaluation Kit

NOTE:

1. Refer to www.exar.com/VRC7016-H , www.exar.com/VRC7016-L, for most up-to-date Ordering Information.

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

Stretch
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