



VDC7004L

PCIe Decode and Display Add-in Card



Stretch VDC7004L PCIe Add-in Cards

The VDC7004L is a universal decode and display card with four standard definition video outputs. Featuring the powerful S7100 software configurable processor, the card can decode and display encoded video streams from either Stretch or third-party encoders. CODEC support includes H.264 (Main and High Profile), H.264 Scalable Video CODEC, MPEG4, and MJPEG. The S7100 processor's software-defined architecture ensures that the VDC7004L can be enhanced to decode streams from as yet unreleased encoders with a simple software upgrade.

Universal video decode

The VDC7004L can simultaneously decode up to 16 channels of H.264 High Profile encoded video and scale the resulting video streams to fit any user-defined video matrix. Four independent standard definition CVBS outputs provide maximum flexibility to drive up to four video monitors with user-defined video matrix displays. Industry standard CVBS outputs ensure plug-and-play compatibility with a wide variety of consumer and industrial monitors.

Four independent CVBS outputs

The VDC7004L features a high bandwidth PCIe interface for communication with host systems. Compressed or raw video data can be transferred over the PCIe bus for decode, scaling, and tiling. The VDC7004L also features two ports of eAIM. This high bandwidth bus can be used to connect directly to other Stretch add-in cards to route compressed or raw video data directly to the VDC7004L for decode and display on the four independent video outputs. This lowers host system compute requirements and reduces system costs.

Dual eAIM ports for high speed connectivity

The VDC7004L features the same Application Programming Interface (API) as all other Stretch add-in cards, ensuring plug-and-play compatibility with existing Stretch installations and rapid porting of third-party applications. The VDC7004L is available as a production-ready OEM unit for volume manufacture or as either Evaluation (EVK) or full Reference Design (RDK) Kits. Stretch EVKs are intended for evaluation purposes and produce watermarked streams. Stretch RDKs can be used as the basis for highly differentiated derivative designs and include hardware design files and a distribution license for the supplied software. All kits contain a complete software load for the board, a sample host application, and source code for all included software (the Stretch Intelligent Encoder and CODEC plug-ins are supplied as object code).

EVK and RDK kits ship with both full height and low profile mounting hardware for the VDC7004L card and can be used in either configuration. OEM units can be ordered in either of the two configurations.

Key Features

- Multi-CODEC support
- User-defined scaling and tiling
- Four standard definition CVBS outputs
- Dual eAIM interface ports

Key Benefits

- Universal video decode of compressed streams
- Four video channels for maximum display flexibility
- Plug-and-play connectivity

Part Numbers

Evaluation Reference Design Kit

- EVK-VDC7004L

Full Reference Design Kit – Includes non-watermarked version of the Stretch Intelligent Encoder and a distribution license for the supplied CODECs

- RDK-VDC7004L

OEM Cards – Sold in multiple-unit packaging

- OEM-VDC7004 – Full height
- OEM-VDC7004L – Low profile

