

Korusys Accelerator Card PCIE-VAC-01 & PCIE-VAC-01H PRODUCT BRIEF

Overview

The Korusys Video Accelerator Card is a high performance PCIe add in card designed to provide a flexible FPGA based platform to support the acceleration of video processing applications within server based architectures.

It is supplied for use with end customer FPGA designs or can be supplied with the Korusys broadcast/contribution class HEVC decode IPr (capable of 4kp60 422 10 bit 100 mbps HEVC decode)

Targeted at providing acceleration capabilities to lower power servers allowing a low cost video solution for high density footprint, low power and low cost scenarios.



The card can be used for multiple applications in the video domain utilising the high bandwidth gen3 PCIe connection and 4x3G SDI i/o with genlock.

Key Features

- Low Profile, PCIe form factor for maximum flexibility.
- PCIe x8 gen3 for ultra-fast data transfer to host PC.
- High Performance Intel Arria 10 1150 GX FPGA.
- Dual 64 bit 2,166MHz DDR3 banks.
- Bidirectional Quad 3G SDI Input and Output supports 4Kp60 10 bit UHD operation.
- Native GenLock over SDI support.
- Windows and Linux support via a simple common API

Example Applications

- Real time HEVC decode utilising Korusys decoder IPr
 - Ultra low latency
 - 422 10bit 4kp60 at 100 mbps
- Real-time 4K Video Encoding, Decoding and Transcoding
 - H.265
 - H.264
 - MPEG2
- Uncompressed video editing
 - Rescaling
 - Frame rate conversion
 - De-interlacing
- 4K Video Capture
 - Compressed
 - Uncompressed
- 4K Video Playback
 - Compressed
 - Uncompressed
- Generic CPU acceleration applications
 - Replace GPU solutions with FPGA
 - Algorithm acceleration (DNA sequencing, trading algos etc)

About Korusys

Korusys is a leading provider of FPGA Design Services and Embedded Product Development and member of the Altera Design Services Network.

Developing Intellectual Property, and Custom Product Solutions for customers in multiple markets including all aspects of Video Compression technology and real time Video Processing techniques

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Ordering Information

The card is supplied in two configurations :

Part number PCIE-VAC-01
PCB supplied with Example FPGA project,
pinout information and BSP for targeting
customers design.

PCIE-VAC-01H –
PCB supplied all materials as per the VAC-01
part number plus additionally including an
HEVC decode FPGA image along with API and
linux drivers for drop in implementation of a
low power high performance HEVC decode
solution

To order, or for enquiries, please contact us:

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CE Declaration

The Manufacturer, **Korusys Ltd**, of

2 Venture Road
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Declares that the product **PTP-PCIe-1** to which
this declaration relates is in conformity with
the following standards following the
provisions of the directives 2004/108/EC
(electromagnetic compatibility),:

BS EN55022:2006 + A1:2007 Class A Emissions
Standard for Information Technology
Equipment
BS EN55024:1998 + A1:2002 + A2:2003
Immunity Standard for Information
Technology Equipment
BS EN61000-4-2 1995 ESD Requirements
BS EN61000-4-3 1996 Radiated Susceptibility
BS EN61000-4-4 1995 Electrical Fast Transient
Burst Requirement
BS EN61000-4-5 1995 Surges Requirements
BS EN61000-4-6 1996 Conducted
Susceptibility
BS EN61000-4-11 1994 Voltage Dips and
Interruptions