

The H264-ULL-PCI is a ultra low latency H.264 encoder available on a single PCI card. The H264-ULL-PCI card allows system builders to easily add high definition digital video capture with H.264/MPEG-4 AVC (part 10) encoding to their embedded PC equipment designs.

The powerful encoding engine supports ultra low latency (<40mS), full frame rate encoding of high definition digital video from HDMI or DVI sources. The H264-ULL-PCI supports a range of input resolutions from a maximum of 1080p60 down to 480p60.

The H264-ULL-PCI is supported by a comprehensive Video Recording SDK for Windows and Linux to speed deployment. A RTSP streaming SDK for Video Streaming applications is also available.



Features

- ◆ H.264/MPEG-4 AVC (ISO/IEC 14496-10) Encoder
- ◆ High definition encode at up to 1080p60
- ◆ Digital Video input from DVI / HDMI sources
- ◆ Ultra Low Latency technology with a latency below 40ms
- ◆ Flexible encoding controls of quality/bitrate/framerate
- ◆ Extended temperature option (–40°C to +85°C)
- ◆ Drivers for Windows XP, 7 and Linux

Applications

Solid-State Digital Video Server
Electronic news gathering
Law Enforcement
Crime Scene Recording
HD Remote Video Surveillance
Video Conferencing
Traffic Monitoring and Control
Video Acquisition and Analytics
Intranet/Internet video streaming

PRELIMINARY INFORMATION (Rev A.00)
Subject to change without notification

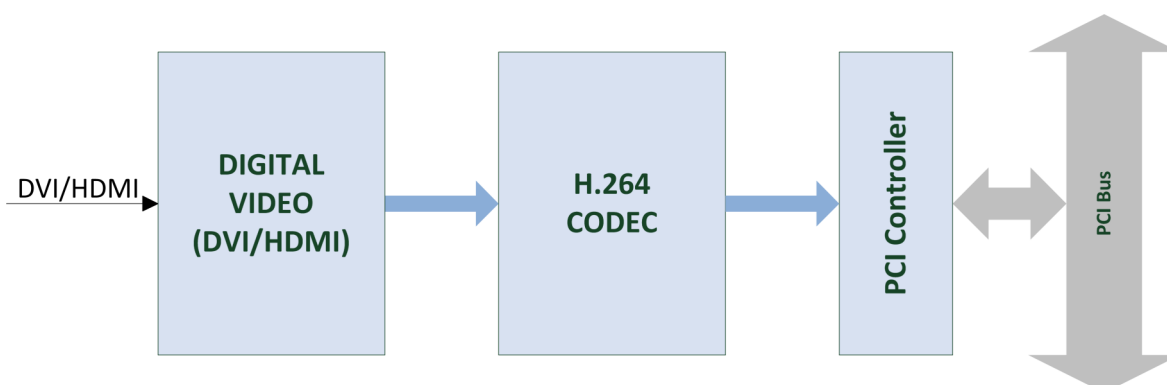
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THE EMBEDDED VIDEO EXPERTS



H264-ULL-PCI Functional Diagram

Technical Specification

PCI Bus Interface

132MBytes/sec bandwidth at 33.33MHz bus speed
Single +5V supply

Video Input

Digital DVI input (DVI/HDMI)
Flexible capture resolutions, 16x16 pixel granularity
Standard resolutions supported include:
1080p60, 1080i60, 1080p50, 1080i50
720p60, 720i60, 720p50, 720i50
480p60 576p50

Ultra Low Latency

Less than 40ms encode latency

H.264 Video Encoding

ITU-T H.264 (ISO/IEC 14496-10) supported profiles:
Baseline profile,
Main profile up to Level 4.2
Supports I and P Frame Compression
Supports Variable Bit Rate (VBR)
Supports Constant Bit Rate (CBR)

Configuration support

Frame rate
Resolution
Bit rate control
Key Frame interval
Intra-refresh mode

System Requirements

x86 Host Computer with spare PCI slot
Spare REQ/GNT on PCI bus
3.3V signalling

Miscellaneous

Full height PCI card
Operating temp 0°C to 60°C
Operating temp -40°C to +85°C (extended temp option)

Software Drivers

Drivers for Windows and Linux (other OS by request)
Sample video recording application in C/C++ source code

Related Products

H264-ULL-PCI-VStream RTSP Video Streaming SDK

Ordering Information

H264-ULL-PCI	H.264 Video Codec (0 to 60°C)
H264-ULL-PCI-Ext	H.264 Video Codec (-40°C to +85°C)

