The H264ULL-DECODER is an ultra low latency, quad channel, H.264 decoder on a single PCI/104 form factor board. The H264ULL-DECODER provides a powerful solution for decompressing up to 4 H.264/MPEG-4 AVC (Part 10) encoded streams to analog NTSC/PAL composite displays.

The H264ULL-DECODER is an ideal companion to Advanced Micro Peripherals range of Ultra Low Latency H.264 encoder products. When combined with a card such as the H264-ULL-SD4 the H264-ULLDECODER can be used to create an ultra low latency video streaming solution with a glass to glass latency of less than 100mS.

The high performance H.264 video decompression and efficient bus utilization allows the H264ULL-DECODER to do multiple channel, low latency decoding when hosted on a low power, fanless CPU board.

The H264ULL-DECODER is supported by a set of well-documented and established SDKs that minimize development risk and shorten time to market for applications requiring video playback.

PRELIMINARY INFORMATION (Rev A.00)
Subject to change without notification
H264ULL-DECODER

Ultra Low Latency Quad H.264 Decoder

Multiple channels
Low Power
Low CPU load

Applications

Remote moving platforms
Remotely guided vehicles
UAVs
Vehicle cameras
Remote video surveillance
Electronic news gathering
Multi-camera systems
Traffic monitoring and control
Solid-state digital video recorder
Intranet/Internet video streaming
H264ULL-DECODER

Ultra Low Latency Quad H.264 Decoder

Features

Real time 4x full size H.264 decode at full frame rate

Composite NTSC/PAL/RS-170 video output

H.264/MPEG-4 AVC (Part 10) decoder

Ultra Low Latency technology with a latency below 40ms

Up to four H264ULL-DECODER boards per system

Standard PCI/104 form factor

Drivers for WinXP-E and Linux
**PCI/104 Bus Interface**
Compliant with PCI Rev 2.1
132 MBytes/sec bandwidth at 33.33 MHz bus speed
Single +5 V supply

**Analog Video Output**
4 composite NTSC/PAL/RS-170 video output channels
10-bit DAC per channel

**Video Output Formats**
Standard CCIR601-NTSC, CCIR-PAL
NTSC-M, RS-170, PAL-B/G

**Ultra Low Latency**
Less than 40ms decode latency

**Video Decoding**
H.264 ISO/IEC 14496-10 baseline and Main Profile up to L4.2
Real-time multi stream H.264 Ultra Low Latency decompression
4 channel NTSC D1 (720x480) at 30fps
4 channel PAL D1 (720x576) at 25fps

**Configuration support per output**
Video Standard

**System Requirements**
*x86 PC-Compatible PCI/104 Computer*
Spare REQ/GNT on PCI/104 Bus
3.3V signalling PCI/104 bus

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**Mechanical**
Standard 3.6 x 3.8in PCI/104 form factor

**Operational characteristics**
Operating temperature 0°C to 60°C
Extended temperature -40°C to +85°C (option)

**Software**
Drivers for Win-XP, Linux
Comprehensive video recording SDK
Sample video decoding application in C/C++ source code

**Ordering Information**
H264ULL-DECODER Video Decoder Card (0 to 60°C)
H264ULL-DECODER-Ext Video Decoder Card (-40°C to +85°C)

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**4-channel, Low Latency Video Streaming application**

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