

H264ULL-DECODER

Ultra Low Latency Quad H.264 Decoder



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

Advanced Micro Peripherals Ltd
Cambridge, CB6 2HY, England
Tel (+44) 1353 659500
Fax (+44) 1353 659600
sales@ampitd.com
<http://www.ampitd.com>

Advanced Micro Peripherals Inc
New York, NY10016, USA
Tel (+1) 212 951 7205
Fax (+1) 212 951 7206
sales@amp-usa.com
<http://www.amp-usa.com>

40ms Ultra low latency

For

Surveillance

Remote vehicle platform

UAV ground stations

Situational Awareness



H264ULL-DECODER

Ultra Low Latency Quad H.264 Decoder



H264ULL-DECODER

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

Multiple channels

Low Power

Low CPU load

Advanced Micro Peripherals Ltd
Cambridge, CB6 2HY, England
Tel (+44) 1353 659500
Fax (+44) 1353 659600
sales@amp ltd.com
<http://www.amp ltd.com>

Advanced Micro Peripherals Inc
New York, NY10016, USA
Tel (+1) 212 951 7205
Fax (+1) 212 951 7206
sales@amp-usa.com
<http://www.amp-usa.com>



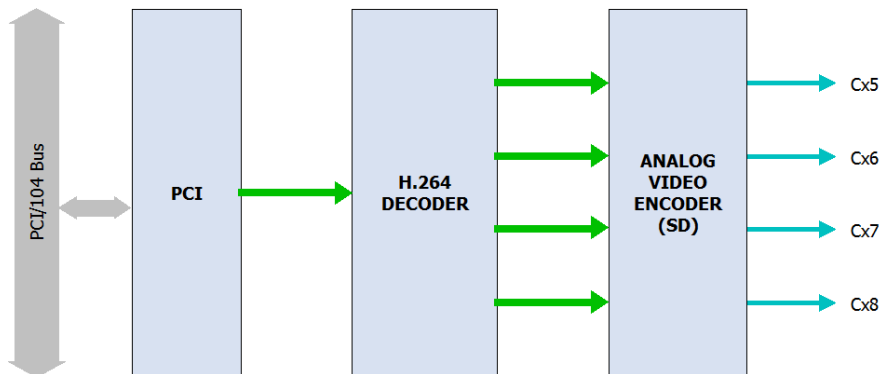
H264ULL-DECODER

Ultra Low Latency Quad H.264 Decoder



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS



H264ULL-DECODER Block Diagram

Comprehensive SDK

Sample applications

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

Advanced Micro Peripherals Ltd
Cambridge, CB6 2HY, England
Tel (+44) 1353 659500
Fax (+44) 1353 659600
sales@amp ltd.com
<http://www.amp ltd.com>

Advanced Micro Peripherals Inc
New York, NY10016, USA
Tel (+1) 212 951 7205
Fax (+1) 212 951 7206
sales@amp-usa.com
<http://www.amp-usa.com>



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

Mechanical

Standard 3.6 x 3.8in PCI/104 form factor

Operational characteristics

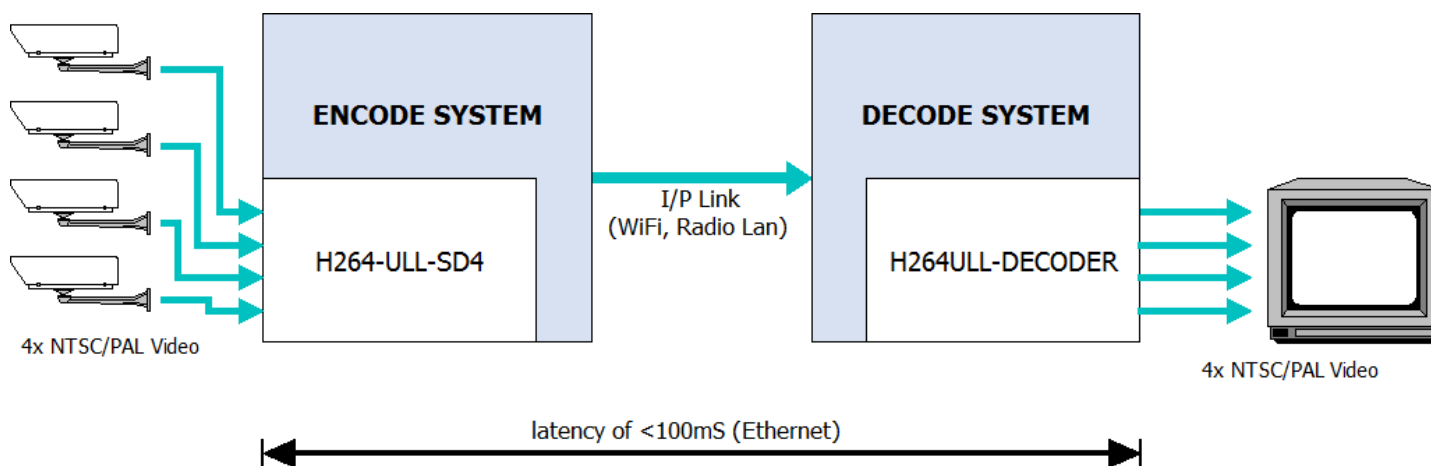
Operating temperature 0°C to 60°C
Extended temperature -40°C to +85°C (option)

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)



4-channel, Low Latency Video Streaming application

