

nanoH264-D4

4 Channel H.264 Encoder for miniPCI-express



The nanoH264-D4 is a 4 channel H.264 encoder on a single miniPCI-express card. The nanoH264-D4 provides a powerful and flexible solution for capturing and compressing 4 analog video inputs at full size and at full frame rate to either H.264 or M-JPEG encoding standards.



The nanoH264-D4 also features 4 audio inputs allowing high quality real-time video and audio capture and compression from NTSC/PAL/RS-170 video sources for storage to disk and transmission over Ethernet networks.

The nanoH264-D4 is supported by comprehensive SDKs that minimize development risk and shorten time-to-market for applications in video streaming, recording, or routing. The SDKs are available for popular operating systems such as Windows and Linux.

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

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Real-time 4 x
fullsize,
full frame rate
H.264 encode of
PAL/NTSC/RS-170



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4 Channel H.264 Encoder for miniPCI-express



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS



Applications

Solid-State Digital Video Server

Vehicle-based Video Codec

Law Enforcement

Crime Scene Recording

Remote Video Surveillance

Multi-camera Security Application

Asset Monitoring

Traffic Monitoring and Control

Video Acquisition and Analytics

Simultaneous

H.264

and

M-JPEG

encoding

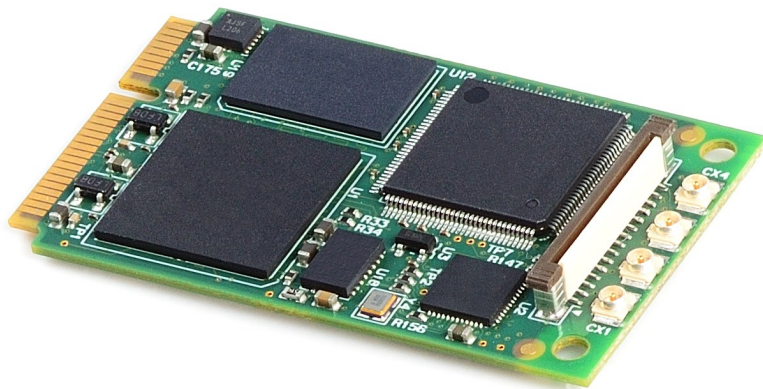
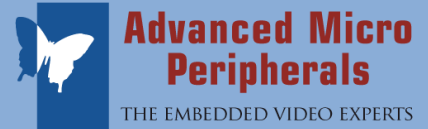
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SWaP optimised for
applications in the
Military,
Transportation,
Mining and
Energy Industries

Features

4 channel standard definition video encoding to H.264 from NTSC/PAL/RS-170 composite inputs

4 channel of Audio Encoding

Real-time 4 x D1 H.264 Encode at full frame rate

H.264/MPEG-4 AVC Encoding (ISO/IEC 14496-10)

JPEG Encoding (ISO/IEC IS 10918-1)

NTSC/PAL preview output

Super Low Power operation (less than 4W)

Very small footprint miniPCI-express form factor.

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mini-PCI Express Bus Interface

Full height MiniPCI-Express card
 Live multi-stream H.264 capture to memory, disk, or network
 4x NTSC D1 (720 x 480) at 30fps
 4x PAL D1 (720 x 576) at 25fps

Analog Video Input

Up to 4 concurrent composite PAL / NTSC / RS-170 video inputs
 Four 10-bit Analog-to-Digital converters
 Anti-aliasing filters on inputs

Video Input Formats

Standard CCIR601-NTSC, CCIR-PAL
 NTSC-M, NTSC-N, NTSC-J, NTSC (4.43), RS-170
 PAL-B,G,N, PAL-D, PAL-H, PAL-I, PAL-M, PAL-NC, PAL-60

Video Input Adjustments

Software configurable Contrast (luma gain), Saturation (chroma gain) , Hue (chroma phase) and Brightness (luma level)

H.264 Video Encoding

ITU-T H.264 (ISO/IEC 14496-10), supported profiles:
 Baseline profile,
 Main profile (I, P frame coding only)
 High profile (I, P frame coding only) at level 4.1
 Supports I and P Frame Compression
 Supports Variable Bit Rate (VBR)
 Supports Constant Bit Rate (CBR)

JPEG Video Encoding

JPEG (ISO/IEC 10918-1)
 Baseline JPEG with JFIF support.

Audio Input

4x mono input
 Provides Audio/Video Synchronisation

Uncompressed Video Path

Preview to Composite PAL/NTSC output

System Requirements

x86 Host Computer with spare miniPCI-Express socket

Miscellaneous

Standard full height miniPCI-Express form factor
 Operating temp 0°C to 60°C
 Operating temp -40°C to +85°C (extended temp option)

Software Drivers

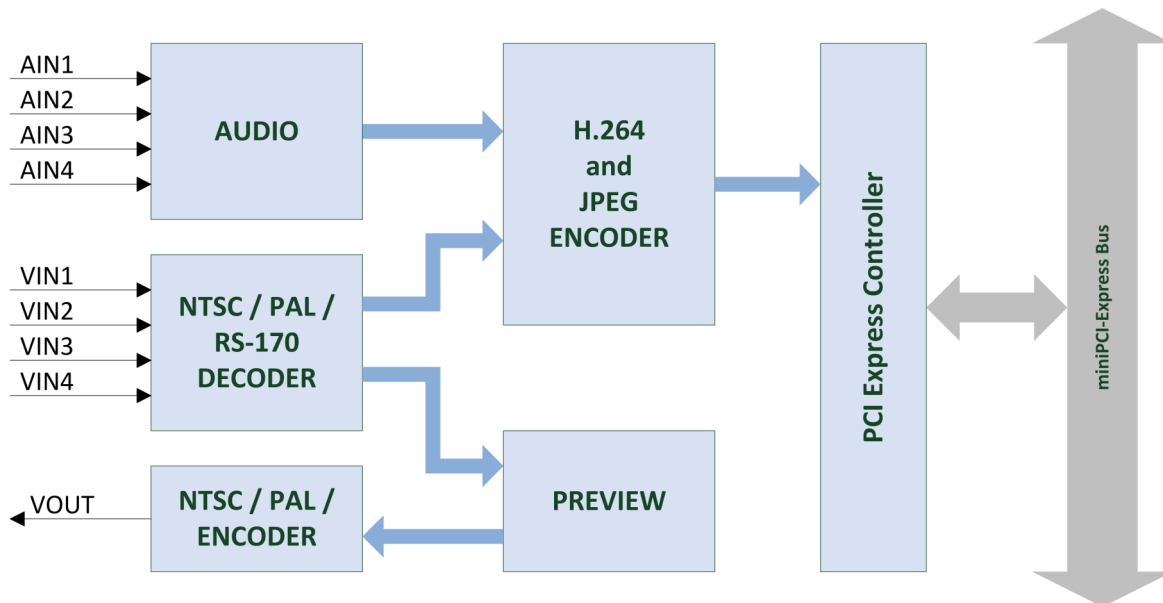
Drivers for Windows and Linux (other OS by request)
 Sample video recording application in C/C++ source code

Related Products

nanoH264-D4-VStream RTSP Video Streaming SDK

Ordering Information

nanoH264-D4 H.264 Video Codec (0 to 60°C)
 nanoH264-D4-Ext H.264 Video Codec (-40°C to +85°C)



nanoH264-D4 Functional Diagram

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