

nanoH264-HD

HD-SDI H.264 Video Encoder for miniPCI-express



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS

The nanoH264-HD is an intelligent high definition video recording solution that accepts a HD-SDI input at up to 1080p30 and encodes it to the H.264 video encoding standard. In addition to capturing video and stereo audio data the nanoH264-HD supports extraction of KLV (MISB 0605.3 compliant) embedded data contained within the HD-SDI signal.



The nanoH264-HD 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.02)

Subject to change without notification

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Aerial
Surveillance,
Mission
Recording
&
Border
Protection



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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

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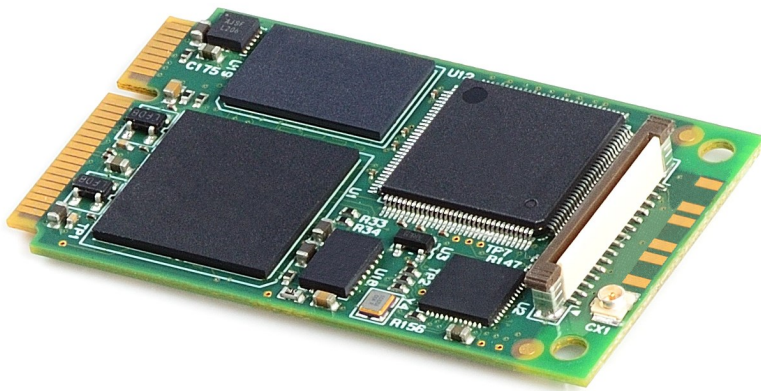
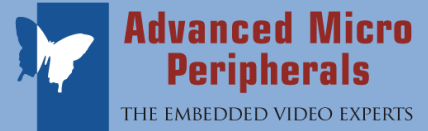
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Real-time
transmission of
High quality video,
Audio,
and
Synchronized
metadata

nanoH264-HD

HD-SDI H.264 Video Encoder for miniPCI-express



Features

- 1x HD-SDI input up to 1080p30
- Real-time HD H.264 encode at 1080p30
- Stereo audio capture from HD-SDI
- KLV Metadata capture from HD-SDI
- Super Low Power operation (less than 4W)
- Very small footprint miniPCI-express form factor

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Ideally suited to
the demanding
applications, space
requirements and
environmental
conditions of
Military,
Transportation,
Mining and
Energy Industries



HD-SDI Video Input

Flexible capture at up to 1080p30
HD-SDI monitor output

Audio Input

Embedded audio captured from HD-SDI input
Provides audio/video synchronisation

KLV Metadata

Embedded KLV metadata captured from HD-SDI input
MSB 0605.3 compliant
Synchronised with video/audio

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
Up to 1080p30 encode
CAVLC and CABAC coding
Supports Variable Bit Rate (VBR)
Supports Constant Bit Rate (CBR)

JPEG Encoder

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

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

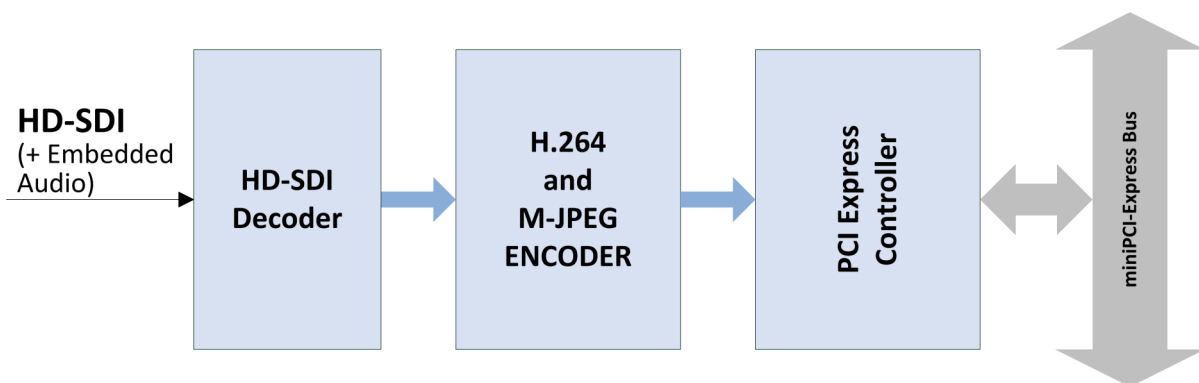
Drivers for Windows and Linux (other OS by request)
Sample video recording application in C/C++ source code

Related Products

nanoH264-HDVStream RTSP Video Streaming SDK

Ordering Information

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



nanoH264-HD Functional Diagram

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