

# nanoH264-HD

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

The NanoH264-HD is an intelligent high definition video recording solution that accepts a HD-SDI input at up to 1080p60 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.

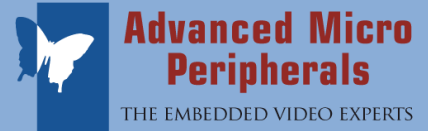


The nanoH264-D4 is supported by comprehensive SDKs that minimize development risk and shorten time-to-market for applications in video streaming, recording, or routing. The SDKs are available for popular operating systems such as Windows and Linux.

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

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Aerial  
Surveillance,  
Mission  
Recording  
&  
Border  
Protection



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**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

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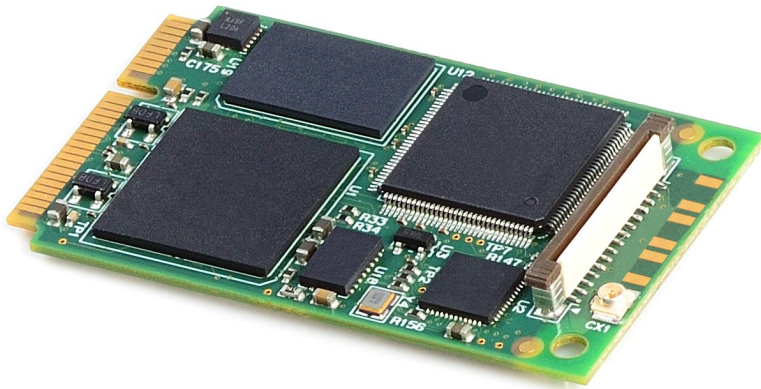
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Real-time  
transmission of  
High quality video,  
Audio,  
and  
Synchronized  
metadata



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## Features

- 1x HD-SDI input up to 1080p60
- Real-time HD H.264 encode at 1080p60
- 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

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

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**HD-SDI Video Input**

Flexible capture at up to 1080p60  
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 1080p60 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**

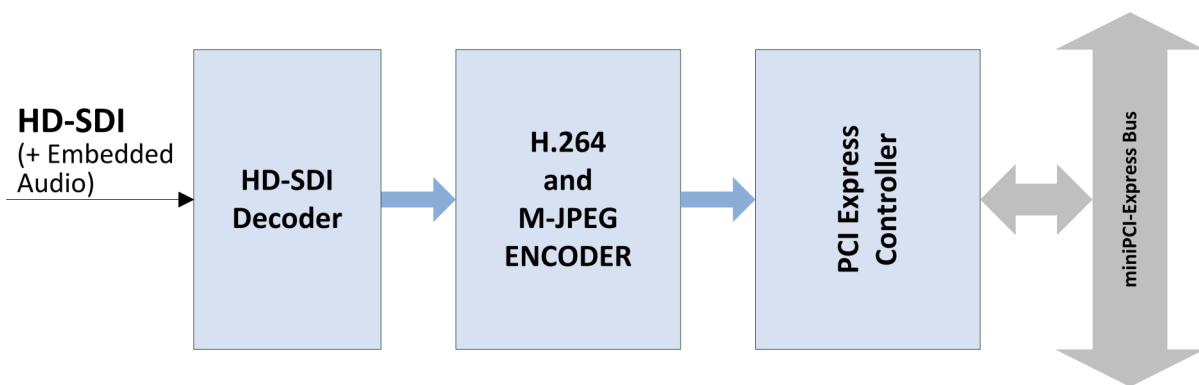
Drivers for Windows and Linux (other OS by request)  
Sample video recording application in C/C++ source code

**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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