

VCoderH264-HD-HDMI

HDMI H.264 Video Encoder for PCIe/104



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS

The VCoderH264-HD-HDMI is a High Definition H.264 video encoder on a single PCIe/104 expansion module. The VCoderH264-HD-HDMI captures a HDMI or DVI input at up to 1080p60 and encodes it using the H.264 video compression standard. The single board solution is ideal for demanding applications in Military, Communications, Transportation, mining and Energy industries.



The VCoderH264-HD-HDMI provides AAC audio encoding in addition to the H.264 video compression. Stereo audio embedded in input HDMI sources can be captured, encoded, and synchronized with the encoded video prior to transfer over the PCIe/104 bus.

The high performance, efficient video and audio encoding allows the VCoderH264-HD-HDMI to use only a single x1 PCI Express Link. Multiple VCoderH264-HD-HDMI can be used in a PCIe/104 system to allow multiple High Definition HDMI/DVI capture channels whilst leaving the system with spare bandwidth for other peripherals and expansion modules.

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Subject to change without notification

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Real-time
capture of
High definition
Video
and
Audio



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The VCoderH264-HD-HDMI is supported by a set of well-documented, comprehensive SDKs that minimize development risk and shorten time-to-market for applications in video recording, video streaming, and video analysis. The SDKS are available for both Windows and Linux.



Applications

Unmanned vehicles (UAV, ROV)
Rugged video recorders for marine, aviation
Situational Awareness
Remote Video Surveillance
Border Security
Traffic Monitoring and Control
Video Acquisition and Analytics
Solid state multi-channel video and sensor recorders

H.264 encode
at up to 1080p60

Comprehensive
SDKs that shorten
time-to-market

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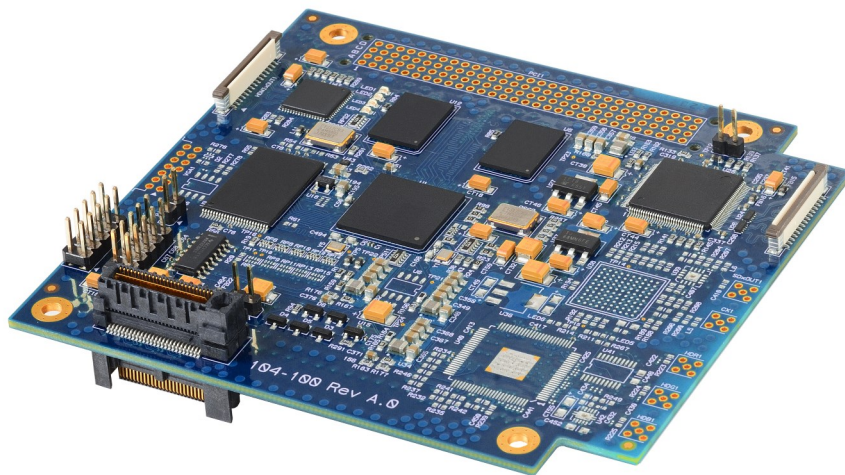
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VCoderH264-HD-HDMI

Features

- 1x HDMI/DVI input up to 1080p60
- Real-time HD H.264 encode at 1080p60
- Stereo audio capture from HDMI
- Low power operation for long endurance
- Standard PCIe/104 form factor
- SDK and Drivers for Windows and Linux
- Power consumption less than 4W

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

HDMI/DVI Video Input

Flexible Capture at up to 1080p60 from HDMI or DVI source

Audio Input

Embedded Audio captured from HDMI input
Provides Audio/Video synchronisation

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 Encoding

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

Audio Encoding

AAC Audio Codec

PCIe interface

Single x1 PCI Express Link using PCIe/104 OneBank™ connector
PCIe Gen 2.0

Mechanical

Standard 3.6 x 3.8in PCIe/104 form factor
Operating temp 0°C to 60°C
Operating temp -40°C to +85°C (extended temp option)
PCI-104 pass-through (option)

Power

Single +5V supply
Max power consumption < 4W

Software

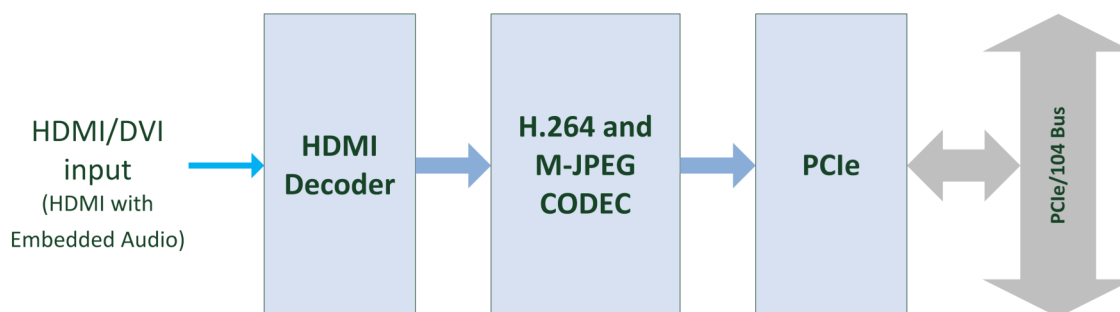
Drivers for Windows and Linux
Sample video recording application in C/C++ source code

Ordering Information

VCODERH264-HD-HDMI
H.264 HDMI Video Encoder (0 to 60°C)
VCODERH264-HD-HDMI-EXT
H.264 HDMI Video Encoder (-40°C to +85°C)

Related Products

VCODERH264-VSTREAM
RTSP Video Streaming SDK
TINYATOM-DC/8G
PCI/104-Express Intel ATOM SBC (0 to 60°C)



VCoderH264-HD-HDMI Functional Diagram