

# AVerMedia

## CN331-H

### H.264 H/W Encoding M.2 Capture Card



#### Features

- FHD video capture with HDMI input and output
- H.264 HW encoding
- The latest M.2 compact interface
- HDMI with flexible connector angle
- Low power consumption
- Hardware video processing:
  1. hardware scaling
  2. de-interlacing
  3. color space conversion
- Ideal for industrial, education and enterprise applications

#### Introduction

The CN331-H is a PCI Express M.2 video capture card based on H.264 hardware compression that features Full HD video capture with minimum CPU consumption. The CN331-H can ingest and capture HDMI sources for monitoring, archiving or analyzing Full HD video content with more flexibilities and possibilities.

The CN331-H features hardware encoding performance that preserves the captured video quality under minimum CPU load. It is endowed with complete functions to capture videos in Full HD resolutions for industrial and commercial markets. The CN331-H is committed to shorten the development schedule and provide integrators with a complete and rugged solution towards building their own applications. Along with M.2 cards' compact size and AVerMedia proprietary SDK, it can be seamlessly integrated into vertical applications that require ultra high-definition video quality.

#### The Latest M.2 Compact Form Factor

With the compact form factor design from a PCI Express, the M.2 is perfect for the small-footprint embedded systems. It is an efficient low-power consuming solution. Ideal for applications that need to be vibration-proof such as industrial applications. As enterprise users aim for compact and slim designs, the M.2 has become the new trend and interface of choice for embedded systems.

#### Hardware H.264 Compression

The CN331-H is equipped with an advanced built-in H.264 hardware encoder. It enables the system to encode without impacting the CPU's computing power while retaining high quality video. This feature balances the loading and increases the system's reliability. As a result, the CN331-H significantly reduces the computing efforts on both hardware and software so that the CPU can focus on other important parts of application on hand.

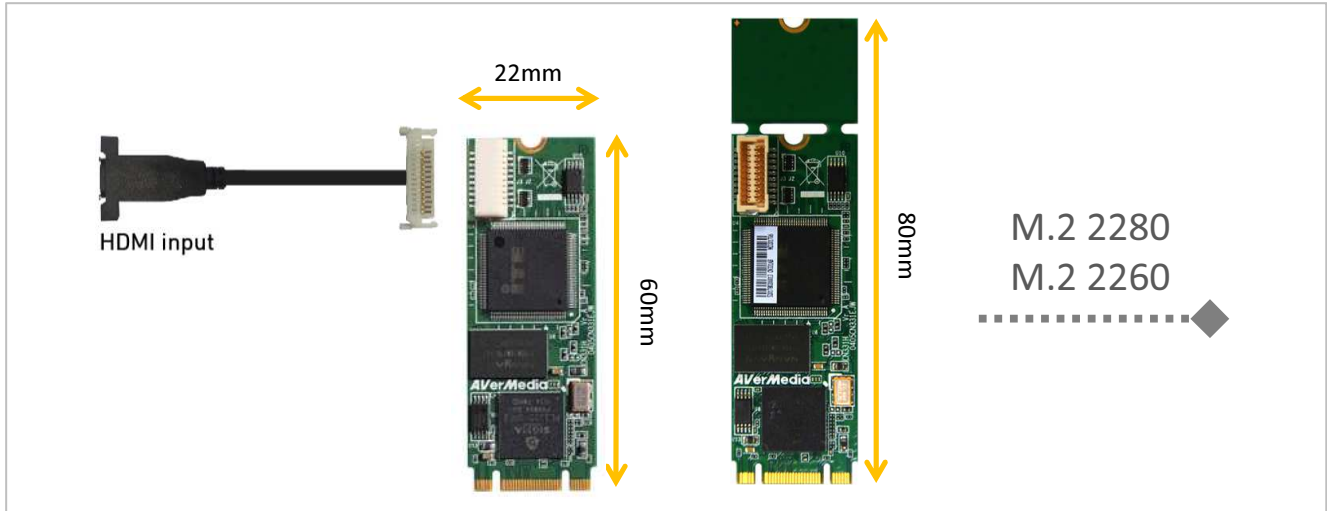
#### Hardware Scaling, De-Interlacing and Color Space Conversion

AVerMedia's hardware-based video engine technology implements practical video processing functions such as de-interlacing for a sharper image, color space conversion for more true-to-life video color and resolution scaling. The functions help reduce the computing burden on hardware and software in order to focus on other important applications.

# CN331-H

H.264 H/W Encoding M.2 Capture Card

## Connection Diagram



## Specifications

Host Interface	Gen1 x 1
Audio Interface	1xHDMI embedded audio L/R
Audio Sampling Rate	32/44.1/48KHz
Connector Type	Wafer
Input Interface	HDMI 1.4
Video Format	YV12, YUY2, RGB24
Color Depth	8-bit
Channel No.	1Ch
Max. Input Resolution	1920 x 1080 60fps
Max. Capturing Resolution	1920 x 1080 30fps

Encoding Mode	H.264 hardware encoding
Multi-channel Support	Up to 2 cards
Supported OS	Windows 7/8.1/10 (32/ 64 bit)* Linux (based on V4L2, support x64)
Form Factor	M.2 Type B/M
Dimension (W x L)	22 x 80 or 22 x 60 mm
Power Consumption	1 W
Operating Temperature	0°C ~ 55°C
Operating Humidity	0% ~ 95% relative humidity
Storage Temperature	-20°C ~ 80°C

All specifications are subject to change without prior notice.  
\* Linux support is coming soon.

## Versatile SDK

AVerMedia Software Development Kit (SDK) is a set of development tools that allows software engineers to seamlessly integrate video capture modules into application-specific systems. SDK Pro and SDK Premium are available upon request, they offer professional grade functionalities to better match each application's specific requirements.

## Ordering Information

CN331-H Capture Card

- SDK kits
  - SDK Basic
  - SDK Pro
  - SDK Premium Add-on Kits

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

### US

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +1 347 719 4508  
Support: +1 347 719 4508

1309 Coffeen Ave  
Ste 1200  
Sheridan  
WY 82801  
USA

### EMEA

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +44 (0)1785 879 050  
Support: +44 (0)1785 879 050

Unit A5 Douglas Park  
Stone Business Park  
Stone  
ST15 0YJ  
United Kingdom

VAT Number: 120 9546 28  
Business Registration Number: 07699660