

AVerMedia

CN311-H

4K 30FPS HDMI M.2 Capture Card



Features

- Max. input resolution 4096x2160 30fps
- Max. capturing/ recording 4096x2160 30fps
- The latest M.2 compact interface
- I/O Board design with HDMI micro coaxial cable
- Hardware video processing:
 1. hardware scaling
 2. de-interlacing
 3. color space conversion
- Ideal for industrial, medical, education and enterprise applications

Introduction

CN311-H is a PCIe Gen2 x2 M.2 capture card equipped with 1 HDMI channel with embedded audio input. With its HDMI video source input, it is able to support an astounding uncompressed real-time video capture resolution of up to 4K (4096 x 2160 30fps). 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 such as industrial, medical, education, video conference, etc. Utilizing software encoding, it offers users the customization ability to tweak or modify codecs' decompression and compression settings for optimum bit-rate or video quality. With AVerMedia Windows and Linux driver support, clients are able to choose from a wide range of platforms according to your needs; making CN311-H the best choice for all ultra-HD professional capturing applications.

The Latest M.2 Compact Form Factor

The dimensions of a PCI Express M.2 is perfect for small-footprint embedded systems, efficient low power solutions and ideal for solutions that need to be vibration-proof such as inspection or 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. CN311-H M.2 industrial capture card features PCIe Gen2 x2 interface with a theoretical bandwidth of 8 Gb/s. It is the ideal solution for slim industrial and medical applications that require 4K capture capability.

4K 30 FPS Video Capture

Supporting the HDMI 1.4a standard, CN311-H is able to transmit 4K lossless video data through its PCIe Gen2 x2 data bus at 30 frames per second, meaning it can record the finest of details for smooth playback.

I/O Board Design with HDMI Micro Coaxial Cable

Another noteworthy mention is the capture card's design. It features an I/O board with HDMI micro coaxial cable, which is optimized for signal and HDMI input compatibility.

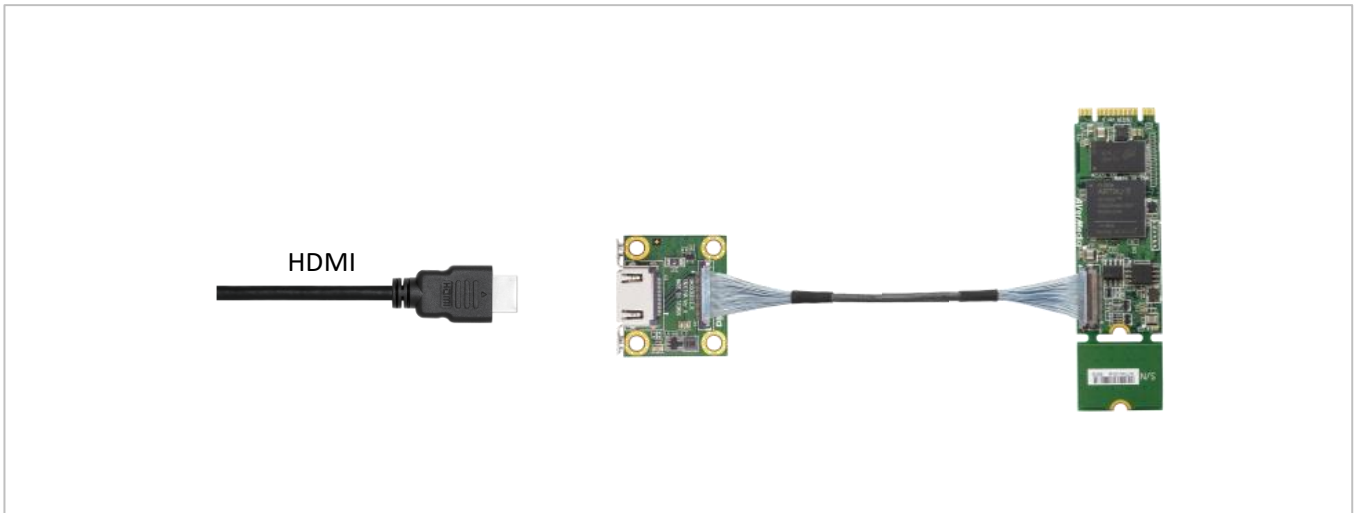
Hardware Scaling, De-Interlacing and Color Space Conversion

AVerMedia 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 at hand.

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Connection Diagram



Specifications

Host Interface	Gen2 x 2
Audio Format	HDMI embedded audio
Audio Sampling Rate	32/44.1/48KHz
Connector Type	HDMI Type A
Input Interface	HDMI 1.4a, DVI-D 1.0
Video Format	YUV444: IYU2, AYUV, V410, Y410 YUV422: YUY2, YUYV, UYVY, V210, Y210 YUV420: I420, NV12, YV12 RGB: RGB565, RGB555, RGB24, RGB32, ARGB
Color Depth	8-bit/10-bit
Channel No.	1Ch
Max. Input Resolution	4096 x 2160 @ 30fps
Max. Capturing Resolution	4096 x 2160 @ 30fps

Encoding Mode	Software encoding
Multi-Card Support	Yes
Supported OS	Windows 7/ 8.1/ 10 (32/ 64 bit)* Linux (based on V4L2, support x86, x64)
Form Factor	M.2
Dimension (W x L)	22 x 80 or 22 x 60 mm
Power Consumption	3.8 W
Operating Temperature	0°C ~ 40°C
Operating Humidity	0% ~ 95% relative humidity
Storage Temperature	-30°C ~ 80°C
Safety Certification	FCC / CE

All specifications are subject to change without prior notice.

* Linux support 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

- **CN311-H**: 4K 30FPS HDMI M.2 Capture Card, I/O Board, HDMI Micro Coaxial Cable
- **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.

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