

CM313BW

Wide Temperature 3G-SDI HW H.264 Mini PCIe Capture Card



Features

- Hardware H.264 Compression
- PCI Express Mini Card form factor
- Wide temp range of $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$ ($-40^{\circ}\text{F} \sim 185^{\circ}\text{F}$)
- 3G-SDI input interface
- Max capturing 1920 x 1080 60fps
- BNC connector input
- Low power consumption (1.13 Watts)
- Supports AES embedded audio input

Introduction

The CM313BW is a Mini PCI Express video capture card on H.264 hardware compression which brings Full HD video capture with low CPU consumption. The CM313BW can ingest and capture SDI sources for monitoring, archiving or analyzing Full HD video content with more flexibilities and possibilities.

With encoding capabilities of up to 60Mbps and wide temperature range of $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$ ($-40^{\circ}\text{F} \sim 185^{\circ}\text{F}$), the CM313BW provides industry-leading hardware and encoding performance that preserves the crystal-like video quality while maintaining low CPU loading in extreme environmental conditions.

It is endowed with full functions that are required for performing Full HD video capture for industrial and commercial markets such as in-vehicle data recording, military scenarios, machine vision or any industrial imaging. The CM313BW commits to shorten the development schedule and providing integrators with a complete and rugged solution towards building their own applications.

Wide Temperature

Various applications are often carried out under harsh and extreme environmental conditions. The thermally robust CM313BW is specifically designed to provide greater flexibility for rugged and industrial applications. Wide temperature support extends the operation temperature to a range of $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$ ($-40^{\circ}\text{F} \sim 185^{\circ}\text{F}$). The CM313BW assures sustainable, reliable and stable video capture quality under extreme climatic environments.

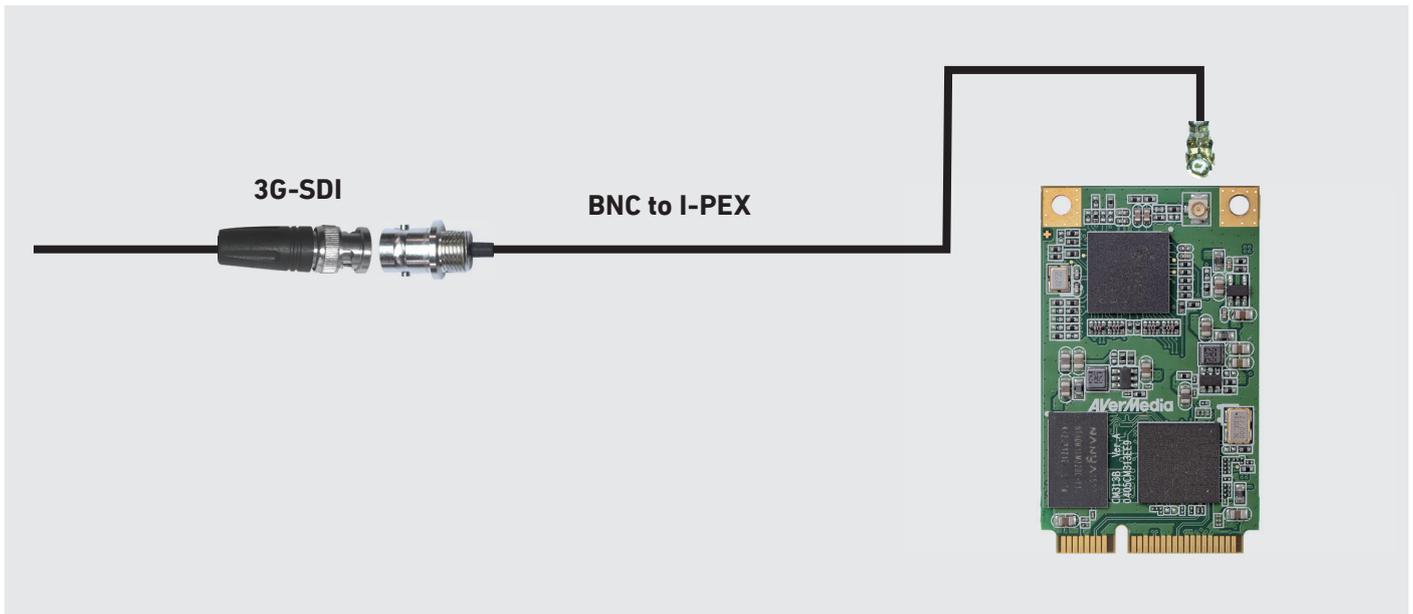
Hardware H.264 Compression

The CM313BW is equipped with an advanced built-in H.264 hardware encoder, which enables the system to encode without impacting the CPU's computing power but still maintain high quality video. This feature will help balance the loading and will increase the system's reliability. As a result, the CM313BW will significantly assist to reduce the computing efforts on hardware and software in order to focus on other important parts of application in hand.

Compact Form Factor

The compact form factor design from a PCI Express Mini Card is perfect to fit into small-footprint embedded system, as well as a lower power consumption resulting in a more efficient solution. Also available for vibration-proof, lock holes specifically suits in-vehicle, military and industrial applications.

Connection Diagram



Specifications

Host Interface	PCI Express Mini Card
Audio Interface	Embedded SDI
Audio Format	PCM
Audio Sampling Rate	48kHz
Connector Type	BNC
Input Interface	SDI
Video Format	YUV
Color Depth	8-bit
Channel No.	1 Ch
Max. Input Resolution	1920 x 1080 60fps
Max. Recording Resolution	1920 x 1080 30fps

Encoding Mode	Hardware Encoding (H.264)
Multi-Card Support	Yes
Supported OS	Windows 7/8.1/10 (32/64bits), Linux (32/64 bits) *
Form factor	Mini Card
Dimension (L x W)	29.8 x 50.8 mm
Power Consumption	1.13W
Operating Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Operating Humidity	5% ~ 80% Relative Humidity
Safety Certification	FCC / CE

* Linux Services

- Support Linux kernel 2.6.14 version and later based on V4L2 & ALSA framework
- Driver customization service by request

Versatile SDK

AVerMedia software development kit (SDK), a set of development tools that allows a software engineer to seamlessly integrate video capture modules into application specific systems. Available upon request are the SDK Basic, SDK Pro and to better match each application's specific requirements premium add-on kits.

Ordering Information

- CM313B : Wide Temperature 3G-SDI HW H.264 Mini PCIe Capture Card
- Accessories:
 - I-PEX to BNC adapter cable
- SDK kits
 - SDK Basic
 - SDK Pro (Optional)
 - Premium Add-on Kits (Optional)