

## CM313B

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



#### Features

- Hardware H.264 Compression
- PCI Express Mini Card form factor
- 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 CM313B is a PCI Express Mini video capture card based on H.264 hardware compression which brings Full HD video capture with low CPU consumption. The CM313B 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, CM313B provides industry-leading hardware encoding performance that preserves the crystal-like video quality while maintaining low CPU loading.

It is endowed with full functions that are required for performing Full HD video capture for industrial and commercial markets such as data recorder, medical imaging, machine vision or any industrial imaging. The CM313B commits to shorten the development schedule and providing integrators with a complete and rugged solution towards building their own applications.

#### Hardware H.264 Compression

The CM313B 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 CM313B will significantly assist to reduce the computing efforts on hardware and software in order to focus on other important parts of application in hand.

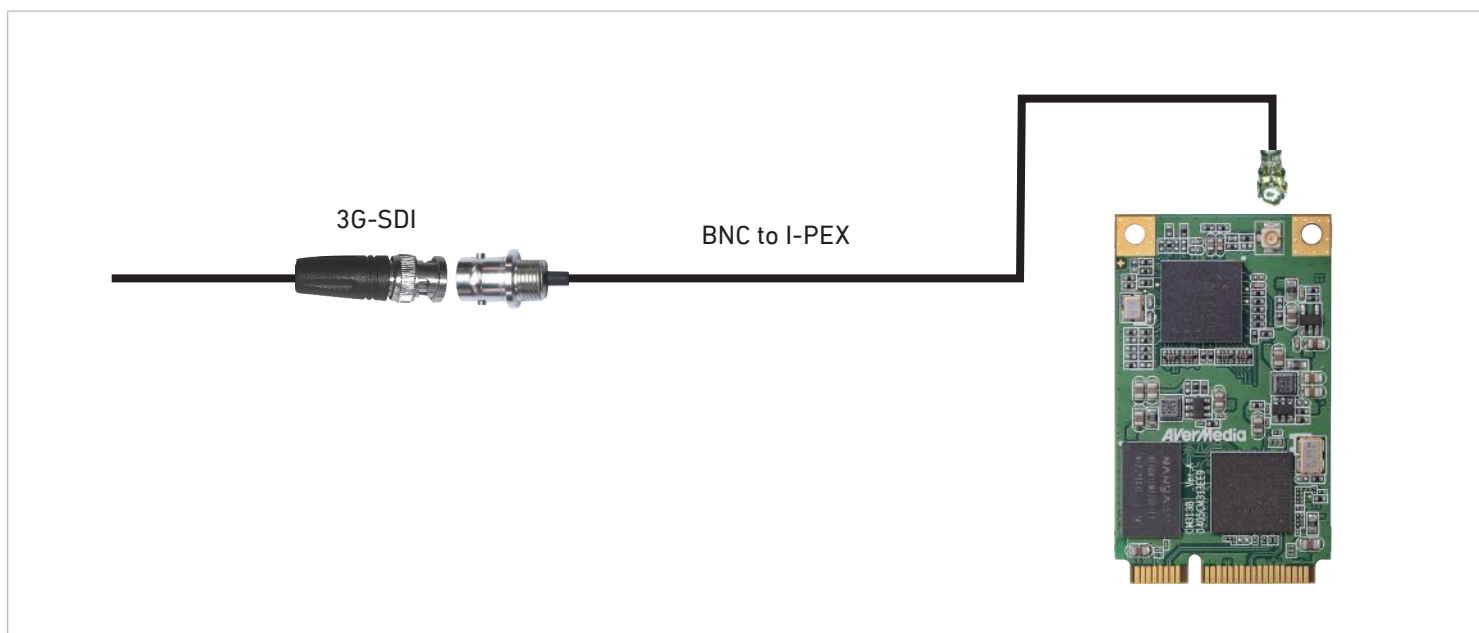
#### Mini PCIe Compact Form Factor

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.

#### 3G-SDI Interface

Downwards compatible with SD-SDI and HD-SDI, meaning that the can ingest any video source with SDI output, usually through BNC type connector. The SDI interface of the CM313B allows for video data acquisition over long distances, allowing a cabling distance from video source to capture card of about 150 meters without any distortion.

### 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 | 0°C ~ 55°C                                         |
| 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 : 3G-SDI HW H.264 Mini-PCle Capture Card
- Accessories:
  - I-PEX to BNC adapter cable
- SDK kits
  - SDK Basic
  - SDK Pro (Optional)
  - Premium Add-on Kits (Optional)