nanoCapture-3G

3G-SDI Video Frame Grabber for miniPCI-Express

Advanced Micro Peripherals
THE EMBEDDED VIDEO EXPERTS

The nanoCapture-3G is a high performance, high definition, raw video frame grabber on a miniPCI-Express card. The nanoCapture-3G provides a powerful and flexible solution for capturing 3G-SDI digital video for local system display or software analysis and processing. The small form factor of the nanoCapture-3G makes it ideal for embedded situational awareness in the most demanding environments.



The nanoCapture-3G supports real-time video capture at up to 1080p60. The flexible capture engine also supports other common 3G-SDI and HD-SDI resolutions allowing data to be capture from a wide range of sources and sensors. The captured video data can be streamed continuously to system memory or disk for either immediate local display of further processing.

The nanoCapture-3G is supported by drivers and example applications for Windows and Linux.

Raw video capture

from

HD-SDI / 3G-SDI

at up to

1080p60

PRELIMINARY INFORMATION (Rev A.01)
Subject to change without notification

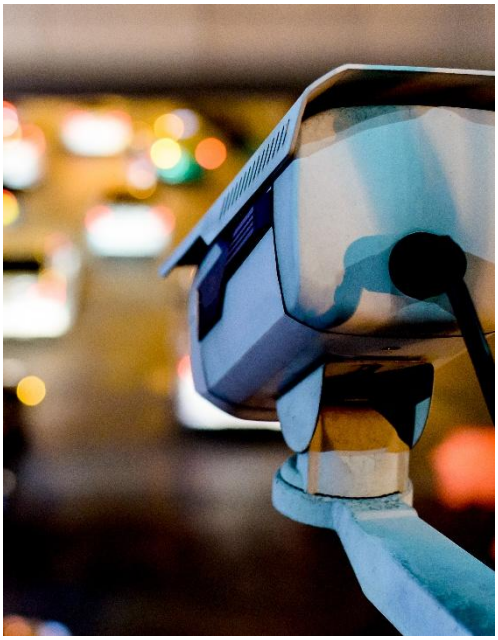
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Windows

DirectShow

and

Linux

Video4Linux2

(V4L2)

support

Applications

Real-time situational awareness
Vehicle-based Video Capture
Law Enforcement
Crime Scene Recording
Remote video surveillance
Multi-camera Security Application
Asset Monitoring
Traffic Monitoring and Control
Video Acquisition and Analytics

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

Features

1x SDI input supporting HD-SDI / 3G-SDI
Flexible capture resolution up to 1080p60
Windows DirectShow/DirectDraw support
Linux Video4Linux2 (V4L2) support
Drivers for Windows, Linux
Compact miniPCI-express form factor

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Rev A.01*

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Technical Specification

Digital Video Input

SMPTE compliant SDI input:
- SMPTE 292M High definition (up to 1080p30)
- SMPTE 424M 3G (up to 1080p60)

Video Input Resolutions

Flexible capture at up to 1080p60
Standard resolutions supported include:
- 1080p60, 1080p50,
- 1080p30, 1080p25
- 720p60, 720p50

Video Capture Formats

YUY2 (YCbCr 4:2:0)
NV12

System Requirements

PCIe Gen 2 host computer
miniPCI-Express socket
VGA/DVI/HDMI display (if video preview to host is required)

Mechanical

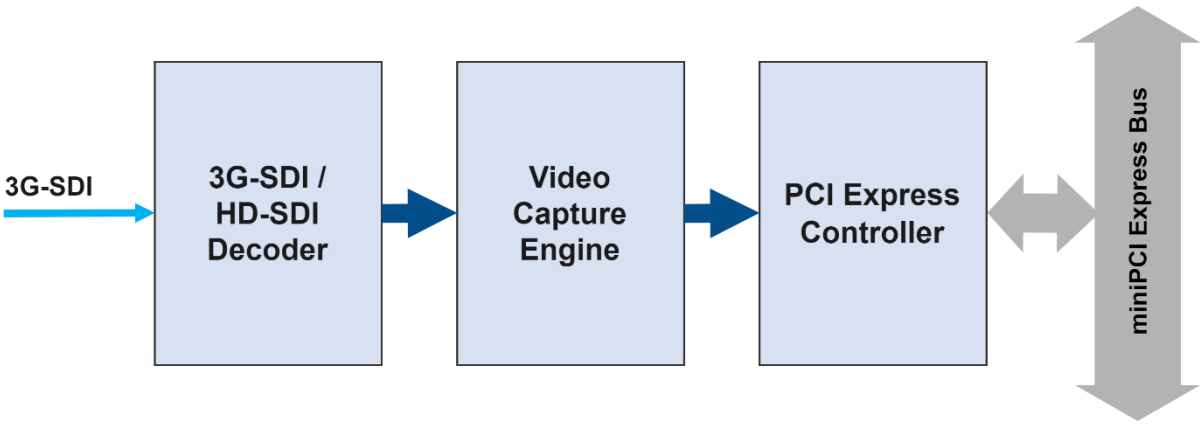
Standard full height miniPCI-Express form factor
Operating temperature 0˚C to +60˚C
Operating temperature -40˚C to +85˚C (extended temp option)

Software Support

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

Ordering Information

nanoCapture-3G-EXT
Video Capture Controller (-40 to +85˚C)



nanoCapture-3G Functional Diagram

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