The nanoGrabber-HD-HDMI is a high-performance, high definition, raw video framegrabber miniPCI-Express card. The nanoGrabber-HD-HDMI provides a powerful and flexible solution for capturing HDMI digital video for local system display or software analysis and processing. The small form factor of the nanoGrabber-HDMI makes it ideal for embedded Situational Awareness systems in the most demanding environment.

The nanoGrabber-HD-HDMI supports real-time video capture at up to 1080p30. The flexible capture engine also supports other common HDMI resolutions allowing data to be captured 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 or further processing.

The nanoGrabber-HD-HDMI is supported by drivers and example applications for Windows and Linux.

Preliminary Information (Rev A.00)
Subject to change without notification
nanoGrabber-HD-HDMI

HD HDMI Video Frame Grabber for miniPCI-Express

Applications

High performance image capture
Vehicle-based Video Capture
Real-time Situational Awareness
Law Enforcement
Crime Scene Recording
Remote Video Surveillance
Asset Monitoring
Traffic Monitoring and Control
Video Acquisition and Analytics

SWaP optimised for demanding applications in the Military, Transportation, Mining, and Energy Industries

Photo credit: U.S. Government
Features

Live HDMI video input
Flexible capture resolution up to 1080p30/1080i60
Windows DirectShow/DirectDraw support
Linux Video4Linux support
Drivers for Windows, Linux
Compact miniPCI-express form factor
Low Power Operation
**Mini PCI Express Bus Interface**
- Full height miniPCI-Express card
- Live video capture to display, memory or disk

**Video Input**
- Digital HDMI input

**Video Input Resolutions**
- Flexible capture at up to 1080p30
- Supports common HDMI resolutions including:
  - 720p25, 720p30,
  - 720p50, 720p60,
  - 1080p25, 1080p30,
  - 1080i50, 1080i60

**Video Capture Formats**
- YCbCr 4:2:2
- YCbCr 4:2:0

**System Requirements**
- x86 PC-Compatible with mini PCI Express socket
- PCI VGA Display (if Video Preview to host is required)

**Miscellaneous**
- Operating temp 0˚C to 60˚C
- Operating temp –40˚C to +85˚C (extended temp option)
- Standard Full Height Mini PCI Express form factor

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

**Ordering Information**
- nanoGrabber-HD-HDMI
  - Video Capture Controller (0 to 60˚C)
- nanoGrabber-HD-HDMI-EXT
  - Video Capture Controller (-40˚C to +85˚C)

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**nanoGrabber-HD-HDMI Functional Diagram**

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Preliminary Information (Rev A.00)
Subject to change without notification
The AVC8000nano is a high-performance 8-channel video capture and overlay controller on a single Mini PCI Express card. The AVC8000nano provides a powerful and flexible solution for capturing up to eight concurrent analog video inputs for local system display or software analysis and processing, ideal for embedded Situational Awareness systems in the most demanding environment.

The AVC8000nano allows each of the 8 video channels to be captured at full D1 size, all at full frame rate. The captured video data can be streamed continuously to system memory or disk for either immediate local display or further processing. The capture engine of the AVC8000nano features hardware color space conversion to present the captured video data in the format best suited to the end application.

The AVC8000nano is supported by drivers for Windows and Linux.
Applications

High performance image capture
Vehicle-based Video Capture
Real-time Situational Awareness
Law Enforcement
Crime Scene Recording
Remote Video Surveillance
Multi-camera Security Application
Asset Monitoring
Traffic Monitoring and Control
Video Acquisition and Analytics
AVC8000nano

8x D1 Video Frame Grabber for mini PC1 Express

Features

8 Live NTSC/PAL video inputs
8 x D1 size capture at full frame rate
Windows DirectShow/DirectDraw support
Efficient PCI DMA cycle operation
Linux Video4Linux support
Drivers for Windows, Linux
Robust PC/104-Express construction
Low Power Operation
Mini PCI Express Bus Interface
- Full height Mini PCI Express card
- Live video capture to display, memory or disk

Analog Video Input
- Up to 8 concurrent composite PAL or NTSC video input channels
- Eight 10-bit Analog-to-Digital converters
- Anti-aliasing filters on inputs

Video Input Formats
- NTSC-M, NTSC-Japan, NTSC (4.43), RS-170
- SEACAM

Video Input Adjustments
- Contrast (or luma gain) adjustable from 0 - 255% of original
- Saturation (or chroma gain) adjustable from 0 - 200% of original
- Hue (or chroma phase) adjustable from -36° to +36°
- Brightness (or luma level) can be adjusted from -128 to 127 steps
- Software adjustable Sharpness, Gamma and noise suppression

Video Capture Formats
- RGB555, RGB565
- YCbCr 4:2:2
- YCbCr 4:1:1

System Requirements
- x86 PC-Compatible with mini PCI Express socket
- PCI VGA Display (if Video Preview to host is required)

Miscellaneous
- Operating temp 0°C to 60°C
- Operating temp -40°C to +85°C (extended temp option)
- Standard Full Height Mini PCI Express form factor

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

Ordering Information
- AVC8000nano Video Capture and Overlay Controller
  (0 to 60°C)
- AVC8000nano-EXT Video Capture and Overlay Controller
  (-40°C to +85°C)

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The nanoGrabber-HD-RGB/STANAG is a high performance, high definition, raw video frame grabber miniPCI-Express card. The nanoGrabber-HD-RGB/STANAG provides a powerful and flexible solution for capturing analog RGB HD sources for local system display or software analysis and processing. The small form factor of the nanoGrabber-RGB/STANAG makes it ideal for a wide range of embedded applications in the most demanding environments.

The nanoGrabber-HD-RGB/STANAG can capture from a wide range of analog RGB video sources. VGA, RGsB (sync-on-green) and Stanag3350 sources can all be captured. The flexible capture engine supports a wide range of input resolutions allowing data to be captured 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 or further processing.

The nanoGrabber-RGB/STANAG is supported by drivers and example applications for Windows and Linux.
nanoGrabber-HD-RGB/STANAG
HD RGB Video Frame Grabber for miniPCI-Express

Applications
High performance image capture
Vehicle-based Video Capture
Real-time Situational Awareness
Law Enforcement
Crime Scene Recording
Remote Video Surveillance
Asset Monitoring
Traffic Monitoring and Control
Video Acquisition and Analytics

Photo credit: U.S. Government

SWaP optimised for demanding applications in the Military, Transportation, Mining, and Energy Industries
nanoGrabber-HD-RGB/STANAG

HD RGB Video Frame Grabber for miniPCI-Express

Features

1x Analog HD RGB input
Flexible capture resolution up to 1080p30/1080i60
Capture from RGB, RGBS (sync-on-green), Stanag3350
Windows DirectShow/DirectDraw support
Linux Video4Linux support
Drivers for Windows, Linux
Compact miniPCI-express form factor
Low Power Operation
**Mini PCI Express Bus Interface**
- Full height miniPCI-Express card
- Live video capture to display, memory or disk

**Video Input**
- High definition Analog video input from:
  - RGB (Sync on Green)
  - Stanage3350
  - VGA (separate Hsync, Vsync)

**Video Input Resolutions**
- Standard resolutions supported include:
  - 1080p30, 1080i60, 720p60, 720i60
  - VGA, SVGA, XGA, SXGA

**Video Capture Formats**
- YCbCr 4:2:2
- YCbCr 4:2:0

**System Requirements**
- x86 PC-Compatible with mini PCI Express socket
- PCI VGA Display (if Video Preview to host is required)

**Miscellaneous**
- Operating temp 0˚C to 60˚C
- Operating temp -40˚C to +85˚C (extended temp option)
- Standard Full Height Mini PCI Express form factor

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

**Ordering Information**
- **nanoGrabber-HD-RGB**
  - Video Capture Controller (0 to 60˚C)
- **nanoGrabber-HD-RGB-EXT**
  - Video Capture Controller (-40˚C to +85˚C)

**Technical Specification**
- Rev A.00

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**nanoGrabber-HD-RGB/STANAG Functional Diagram**

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Preliminary Information (Rev A.00)
- Subject to change without notification

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nanoGrabber-HD-SDI

HD-SDI Video Frame Grabber for Mini PCI Express

The nanoGrabber-HD-SDI is a high-performance, high definition, raw video framegrabber on a single Mini PCI Express card. The nanoGrabber-HD-SDI provides a powerful and flexible solution for capturing HD-SDI digital video for local system display or software analysis and processing. The small form factor of the nanoGrabber-HD-SDI makes it ideal for embedded Situational Awareness systems in the most demanding environment.

The nanoGrabber-HD-SDI supports real-time video capture at up to 1080p30. The flexible capture engine also supports other common HD-SDI resolutions allowing data to be captured 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 or further processing.

The nanoGrabber-HD-SDI is supported by drivers and example applications for Windows and Linux.

Preliminary Information (Rev A.00)
Subject to change without notification
Applications

High performance image capture
Vehicle-based Video Capture
Real-time Situational Awareness
Law Enforcement
Crime Scene Recording
Remote Video Surveillance
Asset Monitoring
Traffic Monitoring and Control
Video Acquisition and Analytics
Features

Live HD-SDI video input
Flexible capture resolution up to 1080p30/1080i60
Windows DirectShow/DirectDraw support
Linux Video4Linux support
Drivers for Windows, Linux
Compact miniPCI-express form factor
Low Power Operation
**Mini PCI Express Bus Interface**

- Full height Mini PCI Express card
- Live video capture to display, memory or disk

**Video Input**

- Digital HD-SDI input

**Video Input Resolutions**

- Flexible capture at up to 1080p30
- Supports common HD-SDI resolutions including;
  - 720p25, 720p30, 720p50, 720p60
  - 1080p25, 1080p30
  - 1080i50, 1080i60

**Video Capture Formats**

- YCbCr 4:2:2
- YCbCr 4:2:0

**System Requirements**

- x86 PC-Compatible with mini PCI Express socket
- PCI VGA Display (if Video Preview to host is required)

**Miscellaneous**

- Operating temp 0˚C to 60˚C
- Operating temp –40˚C to +85˚C (extended temp option)
- Standard Full Height Mini PCI Express form factor

**Software Drivers**

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

**Ordering Information**

- **nanoGrabber-HD-SDI** Video Capture Controller
  - (0 to 60˚C)
- **nanoGrabber-HD-SDI-EXT** Video Capture Controller
  - (–40˚C to +85˚C)

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**Nano Grabber-HD-SDI Functional Diagram**

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**Preliminary Information (Rev A.00)**

Subject to change without notification

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The nanoH264-D4 is a 4 channel H.264 encoder on a single miniPCI-express card. The nanoH264-D4 provides a powerful and flexible solution for capturing and compressing 4 analog video inputs at full size and at full frame rate to either H.264 or MJPEG encoding standards.

The nanoH264-D4 also features 4 audio inputs allowing high quality real-time video and audio capture and compression from NTSC/PAL/RS-170 video sources for storage to disk and transmission over Ethernet networks.

The nanoH264-D4 is supported by comprehensive SDKs that minimize development risk and shorten time-to-market for applications in video streaming, recording, or routing. The SDKs are available for popular operating systems such as Windows and Linux.
nanoH264-D4

4 Channel H.264 Encoder for miniPCI-express

Applications

Solid-State Digital Video Server
Vehicle-based Video Codec
Law Enforcement
Crime Scene Recording
Remote Video Surveillance
Multi-camera Security Application
Asset Monitoring
Traffic Monitoring and Control
Video Acquisition and Analytics

Simultaneous
H.264
and
M-JPEG
encoding
nanoH264-D4

4 Channel H.264 Encoder for miniPCI-express

Features

4 channel standard definition video encoding to H.264 from NTSC/PAL/RS-170 composite inputs

4 channel of Audio Encoding

Real-time 4 x D1 H.264 Encode at full frame rate

H.264/MPEG-4 AVC Encoding (ISO/IEC 14496-10)

JPEG Encoding (ISO/IEC IS 10918-1)

NTSC/PAL preview output

Super Low Power operation (less than 4W)

Very small footprint miniPCI-express form factor.
mini-PCI Express Bus Interface
- Full height MiniPCI-Express card
- Live multi-stream H.264 capture to memory, disk, or network
- 4x NTSC D1 (720 x 480) at 30fps
- 4x PAL D1 (720 x 576) at 25fps

Analog Video Input
- Up to 4 concurrent composite PAL / NTSC / RS-170 video inputs
- Four 10-bit Analog-to-Digital converters
- Anti-aliasing filters on inputs

Video Input Formats
- Standard CCIR601-NTSC, CCIR-PAL
- NTSC-M, NTSC-N, NTSC-J, NTSC (4.43), RS-170

Video Input Adjustments
- Software configurable Contrast (luma gain), Saturation (chroma gain), Hue (chroma phase) and Brightness (luma level)

H.264 Video Encoding
- ITU-T H.264 (ISO/IEC 14496-10), supported profiles:
  - Baseline profile
  - Main profile (I, P frame coding only)
  - High profile (I, P frame coding only) at level 4.1
- Supports I and P Frame Compression
- Supports Variable Bit Rate (VBR)
- Supports Constant Bit Rate (CBR)

JPEG Video Encoding
- JPEG (ISO/IEC 10918-1)
- Baseline JPEG with JFIF support.

Audio Input
- 4x mono input
- Provides Audio/Vide Synchronisation

Uncompressed Video Path
- Preview to Composite PAL/NTSC output

System Requirements
- x86 Host Computer with spare miniPCI-Express socket

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

Software Drivers
- Drivers for Windows and Linux (other OS by request)
- Sample video recording application in C/C++ source code

Related Products
- nanoH264-D4-D4-VStream
- RTSP Video Streaming SDK

Ordering Information
- nanoH264-D4
  - H.264 Video Codec (0 to 60˚C)
- nanoH264-D4-Ext
  - H.264 Video Codec (-40˚C to +85˚C)

PRELIMINARY INFORMATION (Rev A.00)
Subject to change without notification
nanoH264-HD

HD-SDI H.264 Video Encoder for miniPCI-express

The nanoH264-HD is an intelligent high definition video recording solution that accepts a HD-SDI input at up to 1080p30 and encodes it to the H.264 video encoding standard. In addition to capturing video and stereo audio data the nanoH264-HD supports extraction of KLV (MISB 0605.3 compliant) embedded data contained within the HD-SDI signal.

The nanoH264-HD is supported by comprehensive SDKs that minimize development risk and shorten time-to-market for applications in video streaming, recording, or routing. The SDKs are available for popular operating systems such as Windows and Linux.

PRELIMINARY INFORMATION (Rev A.02)
Subject to change without notification
Real-time transmission of High quality video, Audio, and Synchronized metadata

Applications
Solid-State Digital Video Server
Vehicle-based Video Codec
Law Enforcement
Crime Scene Recording
Remote Video Surveillance
Multi-camera Security Application
Asset Monitoring
Traffic Monitoring and Control
Video Acquisition and Analytics
Ideally suited to the demanding applications, space requirements and environmental conditions of Military, Transportation, Mining and Energy Industries

**Features**

1x HD-SDI input up to 1080p30
Real-time HD H.264 encode at 1080p30
Stereo audio capture from HD-SDI
KLV Metadata capture from HD-SDI
Super Low Power operation (less than 4W)
Very small footprint miniPCI-express form factor
**HD-SDI Video Input**
Flexible capture at up to 1080p30
HD-SDI monitor output

**Audio Input**
Embedded audio captured from HD-SDI input
Provides audio/video synchronisation

**KLV Metadata**
Embedded KLV metadata captured from HD-SDI input
MSB 0605.3 compliant
Synchronised with video/audio

**H.264 Video Encoding**
ITU-T H.264 (ISO/IEC 14496-10), supported profiles:
Baseline profile,
Main profile (LP frame coding only)
High profile (I, P frame coding only) at level 4.1
Up to 1080p30 encode
CAVLC and CABAC coding
Supports Variable Bit Rate (VBR)
Supports Constant Bit Rate (CBR)

**JPEG Encoder**
JPEG (ISO/IEC 10918-1)
Baseline JPEG with JFIF support

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

**Software Drivers**
Drivers for Windows and Linux (other OS by request)
Sample video recording application in C/C++ source code

**Related Products**
nanoH264-HDVStream RTSP Video Streaming SDK

**Ordering Information**
nanoH264-HD H.264 Video Codec (0 to 60°C)
nanoH264-HD-Ext H.264 Video Codec (-40°C to +85°C)

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**nanoH264-HD Functional Diagram**

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PRELIMINARY INFORMATION (Rev A.02)
Subject to change without notification
The nanoH264-HD-HDMI is an intelligent high definition video recording solution that accepts HDMI/DVI input at up to 1080p30 and encodes it to the H.264 video encoding standard. The miniPCI-express solution is ideal for embedded applications in Transportation, Military, Communications, mining and Energy industries.

In addition to capturing video, the nanoH264-HD-HDMI can capture stereo audio data embedded in the HDMI input source. The video and audio are synchronized and transferred to the host system over the miniPCIe bus.

The nanoH264-HD-HDMI is supported by comprehensive SDKs that minimize development risk and shorten time-to-market for applications in video streaming, recording, or routing. The SDKs are available for popular operating systems such as Windows and Linux.
nanoH264-HD-HDMI

DVI/HDMI H.264 Video Encoder for miniPCI-express

Applications

Solid-State Digital Video Server
Vehicle-based Video Codec
Law Enforcement
Crime Scene Recording
Remote Video Surveillance
Multi-camera Security Application
Asset Monitoring
Traffic Monitoring and Control
Video Acquisition and Analytics

Photo credit: U.S. Government
nanoH264-HD-HDMI

DVI/HDMI H.264 Video Encoder for miniPCI-express

Features

1x HDMI input up to 1080p30
Real-time HD H.264 encode at up to 1080p30
Stereo audio capture from HDMI
Super Low Power operation (less than 4W)
Very small footprint miniPCI-express form factor
HDMI Video Input
Input from HDMI/DVI sources

Video Capture Resolutions
Flexible capture up to 1080p30

Audio Input
Embedded audio captured from HDMI input
Provides audio/video synchronisation

H.264 Video Encoding
ITU-T H.264 (ISO/IEC 14496-10), supported profiles:
- Baseline profile
- Main profile (I, P frame coding only)
- High profile (I, P frame coding only) at level 4.1
Up to 1080p30 encode
- CAVLC and CABAC coding
- Supports Variable Bit Rate (VBR)
- Supports Constant Bit Rate (CBR)

JPEG Encoder
JPEG (ISO/IEC 10918-1)
- Baseline JPEG with JFIF support

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

Software Drivers
Drivers for Windows and Linux (other OS by request)
- Sample video recording application in C/C++ source code

Related Products
- nanoH264-HD-VStream
- RTSP Video Streaming SDK

Ordering Information
- nanoH264-HD-HDMI: H.264 Video Codec (0 to 60˚C)
- nanoH264-HD-HDMI-Ext: H.264 Video Codec (-40˚C to +85˚C)

PRELIMINARY INFORMATION (Rev A.00)
Subject to change without notification
nanoH264-HD-RGB/STANAG

HD Analog RGB H.264 Video Encoder for miniPCI-express

The nanoH264-HD-RGB/STANAG is an intelligent high definition video recording solution that accepts analog RGB HD input at up to 1080p30 and encodes it to the H.264 video encoding standard. The miniPCI-express solution is ideal for embedded applications in Transportation, Military, Communications, mining and Energy industries.

The nanoH264-HD-RGB/STANAG can capture from a wide range of analog RGB video sources. VGA, RGsB (sync on green) and Stanag3350 sources can all be captured, encoded and then transferred to the host system over the miniPCIe bus.

The nanoH264-HD-RGB/STANAG is supported by comprehensive SDKs that minimize development risk and shorten time-to-market for applications in video streaming, recording, or routing. The SDKs are available for popular operating systems such as Windows and Linux.

PRELIMINARY INFORMATION (Rev A.00)
Subject to change without notification

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Applications

Solid-State Digital Video Server

Vehicle-based Video Codec

Law Enforcement

Crime Scene Recording

Remote Video Surveillance

Multi-camera Security Application

Asset Monitoring

Traffic Monitoring and Control

Video Acquisition and Analytics

nanoH264-HD-RGB/STANAG

HD Analog RGB H.264 Video Encoder for miniPCI-express

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Aerial Surveillance, Mission Recording & Border Protection
nanoH264-HD-RGB/STANAG

HD Analog RGB H.264 Video Encoder for miniPCI-express

Features

1x Analog HD RGB input
Real-time HD H.264 encode at up to 1080p30
Capture from RGB, RGsB (sync on green), Stanag3350
Super Low Power operation (less than 4W)
Very small footprint miniPCI-express form factor
Video Input
Analog HD Input from:
- RGBs (sync-on-green)
- Stanag3350
- VGA (separate Hsync, Vsync)

Video Capture Resolutions
Standard resolutions supported include:
- 1080p, 1080i, 720p, 720i
- VGA, SVGA, XGA, SXGA

H.264 Video Encoding
ITU-T H.264 (ISO/IEC 14496-10), supported profiles:
- Baseline profile
- Main profile (I, P frame coding only)
- High profile (I, P frame coding only) at level 4.1
Up to 1080p30 encode
- CAVLC and CABAC coding
- Supports Variable Bit Rate (VBR)
- Supports Constant Bit Rate (CBR)

JPEG Encoder
- JPEG (ISO/IEC 10918-1)
- Baseline JPEG with JFIF support

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

Software Drivers
- Drivers for Windows and Linux (other OS by request)
- Sample video recording application in C/C++ source code

Related Products
- nanoH264-HD-VStream
- RTSP Video Streaming SDK

Ordering Information
- nanoH264-HD-RGB H.264 Video Codec (0 to 60°C)
- nanoH264-HD-RGB-Ext H.264 Video Codec (-40°C to +85°C)

PRELIMINARY INFORMATION (Rev A.00)
Subject to change without notification
The nanoFlame is a high performance controller that provides 2 ports conforming to the IEEE-1394 OHCI specification—popularly known as FireWire.

The nanoFlame is an ideal way to interface high speed digital video and audio, and storage to embedded systems with a miniPCI-express socket. Automatic detection and configuration of device data speeds and transmitting both asynchronous and isochronous (real-time) data packets ensures robust system operation and high reliability. The dual ports allows multiple devices to be attached simultaneously on the high speed bus.

The nanoFlame is supported natively in most OS including Windows and Linux. Other operating system are available by request.

Features

- 2 High speed ports.
- Video/Audio/Mass storage auto detection
- Efficient DMA engine for high performance data transfer
- Speeds of 100/200/400 MBits/sec
- Hot pluggable connections
- Super Low Power operation
- Very small footprint miniPCI-express form factor.
- Drivers for Windows, Linux (other OS by request)

Applications

- Solid-State Digital Video Server
- Vehicle-based Video Codec
- Law Enforcement
- Crime Scene Recording
- Remote Video Surveillance
- Multi-camera Security Application
- Asset Monitoring
- Traffic Monitoring and Control
- Video Acquisition and Analytics

PRELIMINARY INFORMATION (Rev A.00)
Subject to change without notification
**mini-PCI Express Bus Interface**
- Full height MiniPCI Express card
- Full compliance with PCI Express Revision 1.1

**IEEE-1394 Function**
- Compliant with IEEE 1394a-2000, 1394-1995 and 1394a Open HCI
- Compliant with 1394 Open HCl specification 1.0 and 1.1
- Compliant with IEEE 1394-1995 specification release
- Compliant with IEEE 1394a P2000

**Physical Link Layer**
- 2 High Speed Serial ports supported
- Data rates of 100, 200 or 400MBits/sec
- Hot-pluggable attachment of devices
- Cable length up to 4.2M supported at up to 400MBits/sec rate
- Standard 6-way IEEE-1394 Connectors for self-powered devices

**System Requirements**
- x86 Host Computer with spare miniPCI-Express socket

**Miscellaneous**
- Standard full height miniPCI-Express form factor
- Operating temp 0°C to 60°C
- Operating temp –40°C to +85°C (extended temp option)

**Software**
- Drivers for Windows, Linux
- Other Operating Systems can be supported on request

**Ordering Information**
- nanoFlame IEEE-1394 Controller (0 to 60°C)
- nanoFlame-Ext IEEE-1394 Controller (-40°C to +85°C)