

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

FORESIGHT IMAGING®

AccuStream Express HD+

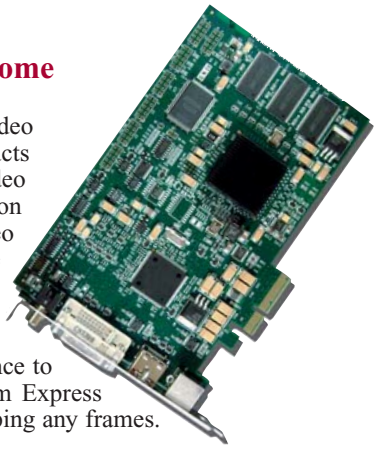
Key Features:

Extreme Accuracy
- ±0.5 ns pixel jitter
- 59 dB S/N ratio
- 8 or 10 bit monochrome
- 24 bit color
- Gain, black level, and phase adjustments

High Performance
- Real-time video streaming with AVI file creation
- 750 MB/second sustained PCI Express x4 bus transfers
- Simultaneous real-time transfer to memory and display

Video
- Up to 170 MHz pixel rate
- Up to 2048 x 2048
- Includes 1080p and VGA through WUXGA
- Non-standard and standard video inputs
- DVI, RGB, YPbPr, HDTV, S-video, composite color & monochrome
- Connectors: HDMI-style DVI, DVI-I, S-video

Software
- Windows 7, XP, Vista
- Auto-SYNC
- WDM driver
- Example programs with source code



High Resolution DVI, RGB, HDTV, Monochrome & Standard Definition Video Formats

The AccuStream™ Express Series of frame grabbers and video streamers is the most advanced, most versatile series of products from Foresight Imaging. AccuStream Express HD+ provides video capture from all popular high resolution and standard definition video sources: DVI, RGB, YPbPr, HDTV, monochrome, S-video and composite color. Physical input connectors on the board are HDMI-style DVI, DVI-I, and S-video. Up to 170 MHz pixel rates and up to 2048 x 2048 pixel resolution are supported. The extreme performance of AccuStream Express HD+ is due to the PCI Express x4 bus design, delivering sustained performance to system memory of 750 MB/second. For example, AccuStream Express HD+ can stream to memory 1080p HDTV video without dropping any frames.

Accuracy

The AccuStream Express HD+ delivers extreme accuracy and image quality for demanding customers with high resolution and precision applications. Extremely low pixel jitter of ±0.5 ns, superior analog design, and a 59 dB signal-to-noise ratio provide the accuracy and image fidelity required of high performance applications. For superior quality, 10 bit analog-to-digital converters are used throughout. Color video may be stored as 24 bit, and monochrome video at 8 or 10 bit. Pixel formats include RGB 24, RGB 32, RGB 5:5:5, RGB 8, YCbCr 4:2:2, YCbCr 4:4:4, 8 bit monochrome, and 10 bit monochrome.

Performance

AccuStream Express HD+ achieves its extreme 750 MB/second sustained performance via its PCI Express x4 bus mastering design, scatter-gather technology, and double buffering. This high performance requires minimal CPU intervention so that the processor is free to work on other tasks or process the data immediately. Real-time display is simultaneously enabled by real-time transfer of image data directly to display card memory over the bus. AccuStream Express HD+ also features independent, dual video data paths, allowing for the simultaneous DirectDraw display of YCbCr 4:2:2 color video and the transfer of full 24 bit RGB video data for processing.

Video

AccuStream Express HD+ acquires images and video streams from both non-standard and standard video inputs from DVI, RGB, YPbPr, HDTV, S-video, composite color, and monochrome sources. Video input connectors on the board include an HDMI-style DVI connector (for DVI-D input), a DVI-I connector (for DVI-D, DVI-A, RGBHV, & monochrome inputs), and a S-video connector (for S-video & composite color inputs). Input resolution is up to 4 megapixels total area and pixel rates are up to 170 MHz. For fine-tuning of the video signal, gain, black level, white balance, and phase controls are provided. Separate H and V sync are supported. An external trigger is available. AccuStream Express HD+ is fully compliant with the DVI 1.0 specification.

Software

AccuStream Express HD+ is supported by Auto-SYNC™, Foresight Imaging's flagship automatic configuration software. Auto-SYNC ensures quick and simple installation and image capture by automatically configuring AccuStream Express HD+ to the incoming standard or non-standard video signal. Auto-SYNC automatically analyzes the incoming video signal and builds a configuration file. Use the configuration file as created or utilize the Auto-SYNC Wizard for simple, step-by-step video adjustments. AccuStream Express HD+ is supported by the IDEA (Imaging Development Environment for Applications) software development kit. By using IDEA™, developers have the confidence of knowing that they can write their applications once and have support built-in for the entire AccuStream Series. A WDM driver and a TWAIN driver are included to further simplify development and use of AccuStream Express HD+. With IDEA, ActiveX controls are provided to facilitate easy development with Visual Basic, Visual C++, and Visual J++. Extensive example programs (with source code) are provided with IDEA. Functions of the example programs include triggered acquisition, video streaming to AVI files, integration with Pegasus Imaging compression for streaming, overlays, and much more. Auto-SYNC, IDEA, example programs, and drivers are provided free of charge with each AccuStream Express HD+.

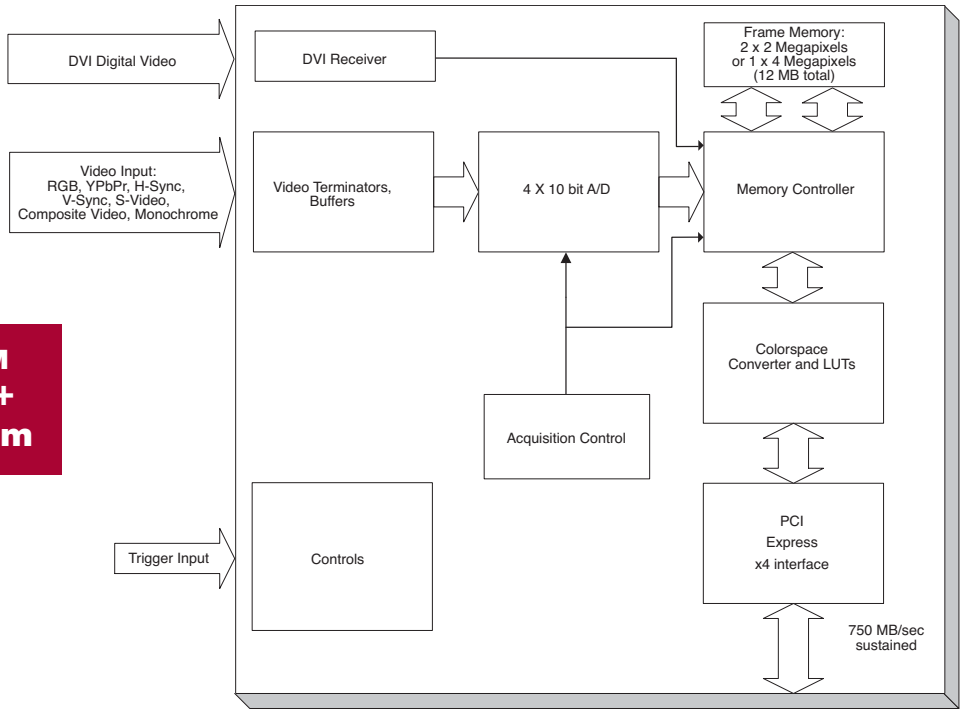
Applications

AccuStream Express HD+ is ideal for any application requiring high resolution and high performance imaging. Additionally, with all popular video formats supported, AccuStream Express HD+ can be used for virtually any video aquisition application.

Flight simulation: Acquire from high resolution simulation displays.
Medical imaging: Acquire from any medical imaging device.
Display monitoring: Acquire from high resolution displays.
Military imaging: Acquire from high resolution video screens for command & control.
Multimedia: Acquire from any HDTV or standard definition device.

AccuStream Express HD+ Specifications

AccuStream Express HD+ Block Diagram



Video - Analog

- Video input: RGB, YPbPr, S-video, composite color, or monochrome (up to three)
- Non-standard and standard video resolutions and frequencies
- Input range: 0.5 V pp to 1.0 V pp
- Offset: -1.0 V to 2.0 V DC
- 75 ohm termination
- Gain, black level, white balance, phase adjustment
- AC coupled with DC restoration
- H and V sync input
- Bandwidth: 330 MHz
- Pixel rate: up to 170 MHz
- Horizontal frequency: up to 105 kHz
- Pixel resolution: up to 4 megapixels total area, includes up to 1080p and from VGA to WUXGA (1920 x 1200 at 60 Hz)

Video - Digital

- DVI 1.0 compatible receiver
- Includes up to 1080p and from VGA to WUXGA (1920 x 1200 at 60 Hz)
- The receiver operates with true color (24-bit) panels in 1 or 2 pixel(s)/clock mode and features an intrapair skew tolerance of up to one full clock cycle
- Up to 165 MHz DVI

Image Quality

- Pixel jitter: ±0.5 ns
- S/N ratio: 59 dB
- Linearity: Better than 99%
- Gain and offset stability: 1% from 15°C to 40°C
- Synchronization time: less than 250 µs
- A/D conversion: 8 bits each of R, G, & B (24 bits per pixel), 24 bits YPbPr, 8 or 10 bits monochrome
- Color formats: RGB 24, RGB 32, RGB 5:5:5, RGB 8, YCbCr 4:2:2, YCbCr 4:4:4, 8 or 10 bits monochrome

Performance

- 750 MB/second sustained to system memory via PCI Express x4 bus master
- Real-time video streaming
- Real-time transfer to VGA memory
- Storage memory: 4 megapixels, 12 MB total

Physical

- Half-size PCI Express card (length 6.6 inches, height: 4.2 inches)
- One female HDMI-style DVI connector
- One female DVI-I connector
- One female S-video connector
- One female phono connector for trigger
- PCI Express x4

Cabling

- HDMI to HDMI cable (optional)
- DVI to DVI cable (optional)
- DVI to VGA cable (15 pin D-shell) (optional)
- DVI to VGA cable (5 BNC) (optional)
- S-video cable (optional)
- S-video adaptor (optional)
- DVI to HDMI cable (optional)
- DVI to VGA adaptor (optional)
- DVI to HDMI adaptor (optional)
- DVI to BNC adaptor (optional)
- Trigger adaptor (optional)

Software

- Windows 7, XP, Vista
- WDM driver
- VFW driver
- Auto-SYNC automatic configuration software
- Example application programs (source code included)
- Real-time video streaming with AVI file creation
- IDEA software development kit
- ActiveX controls
- TWAIN driver

Controls

- Trigger input

FORESIGHT IMAGING®

978-458-4624
info@fi-llc.com
www.fi-llc.com

Copyright © 2010 by Foresight Imaging, LLC. All specifications are subject to change without notice.

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP