

## VIDEO PROCESSOR FOR HOME THEATER



### Bringing Hollywood Quality Video to the Home

HQV Insight\* is a complete video processing system for home theater systems. Previously sold by Silicon Optix only to select OEM customers, HQV Insight is now available to the home theater dealer/installer market exclusively from Flexible Picture Systems. HQV Insight brings the processing power previously available only in professional quality systems into the home theater environment.

HQV Insight isn't just another video processor, it is a complete revolution in home theater video technology. The key element at its heart is the Silicon Optix Realta SIMD engine, consisting of over 3000 simultaneously operating programmable processors with a total capability of over a trillion operations per second. The Realta SIMD engine is equipped with a full suite of video algorithms that have been finely honed through 100,000 hours of content verification by the most demanding customers – the Golden Eyes<sup>2</sup> of Hollywood post production and broadcast. Together, the combination of the Realta SIMD processor with the Golden Eyes algorithms, constitute the Hollywood Quality Video or HQV technology.

Created specifically to market Silicon Optix's system products, Flexible Picture Systems brings you HQV Insight, the only HQV processor designed and built by Silicon Optix engineers.

### FEATURES

- HQV True 1080i De-Interlacing - HQV Insight offers the best quality HD and SD de-interlacing available on the market today
- HQV SD/HD Multi-Directional Diagonal Filter (MDDF): A true 10-bit diagonal interpolation filter that removes "jaggies" and stair-stepping artifacts from de-interlaced video sources without blurring the image.
- HQV Noise Reduction: Using fully automatic per-pixel adaptive algorithm for detecting and reducing analog, film and MPEG compression noise common to DVD and broadcast sources.
- HQV Detail Enhancement: Improves image detail on a pixel-by-pixel basis, delivering crisp SD video that approaches HD quality.
- HQV Automatic Film Mode Cadence Processing: Automatic handling of film and video sources such as 3:2 and 2:2 sequences, plus the industry's only fully automatic support for "Vari-Speed" (i.e., 3:2:3:2:2, commonly used for movies broadcast on television) and animation (5:5, 6:4, and 8:7) cadences.
- HQV Automatic Per Pixel Video/Film Detection: Delivers cinema-like quality for mixed film and video sequences, precisely processing film pixels as film and video pixels as video.
- HQV 16- to 1024-Tap Adaptive Scaling: Realta delivers unprecedented image scaling quality with the industry's first 16- to 1024-tap adaptive scaling engine, using up to 1024 input pixels for determining each output pixel.
- True 10-Bit Processing: Complete input to output 10-bit internal data path, enabling the rendering of over 1 billion colors.
- Adjustable audio delay to correct for system audio latency (lip sync delay).

\* previously known as Whitehorse

### HEAR WHAT THE EXPERTS ARE SAYING ABOUT HQV TECHNOLOGY

"Most Important New Company: Silicon Optix with its Teranex-processor-on-a-chip. Silicon Optix has taken a \$60,000+ broadcast-quality scaler and shrunk it onto a single chip, claiming an outstanding one trillion calculations per second. I expect to hear a lot more about this advanced chip."

**Gary Merson**

(Sound & Vision, The Perfect Vision, and other top publications)

"There weren't too many "oh, wow!" demos at the (CEDIA) show, aside from Silicon Optix' launch of their Realta HQV video processor ... Right now, it just leaves Faroudja/Genesis and Silicon Image processing in the dust."

**Peter Putman**

(HDTVexpert.com, AV Video, Home Theater, and other top publications)

"Products using the Realta technology not only get a "\$60k" image today, but also have a "future-proof" hedge supporting updates, which should quell buyer resistance. Most importantly, several analysts who saw the product demonstration at CEDIA called the image quality nothing less than "amazing"."

**Insight Media**

Best Overall Buzz Award (CEDIA 2004)

Video Processing: The "Next Big Thing"?

"Without question, the Silicon Optix room provided the Home Entertainment show's most spectacular video demo ... 1080p video projected onto the jumbo-sized screen looked flawless."

**Steve Kindig**

(Crutchfield.com)

Best of the Year – Most Promising New Technology  
"Be on the lookout for any product that carries the "HQV Powered By Teranex" logo – there's good stuff inside."

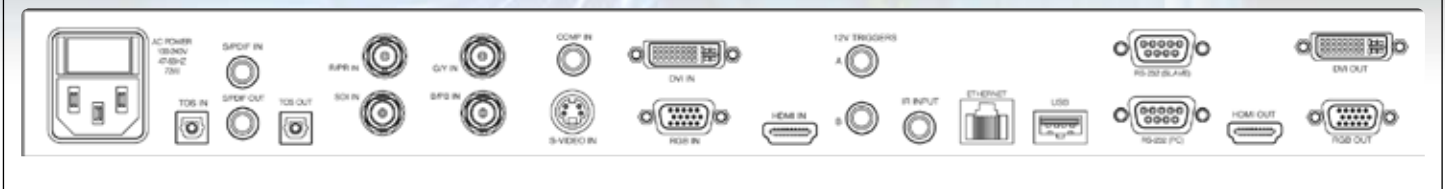
**Shane Buettner**

(The Perfect Vision)

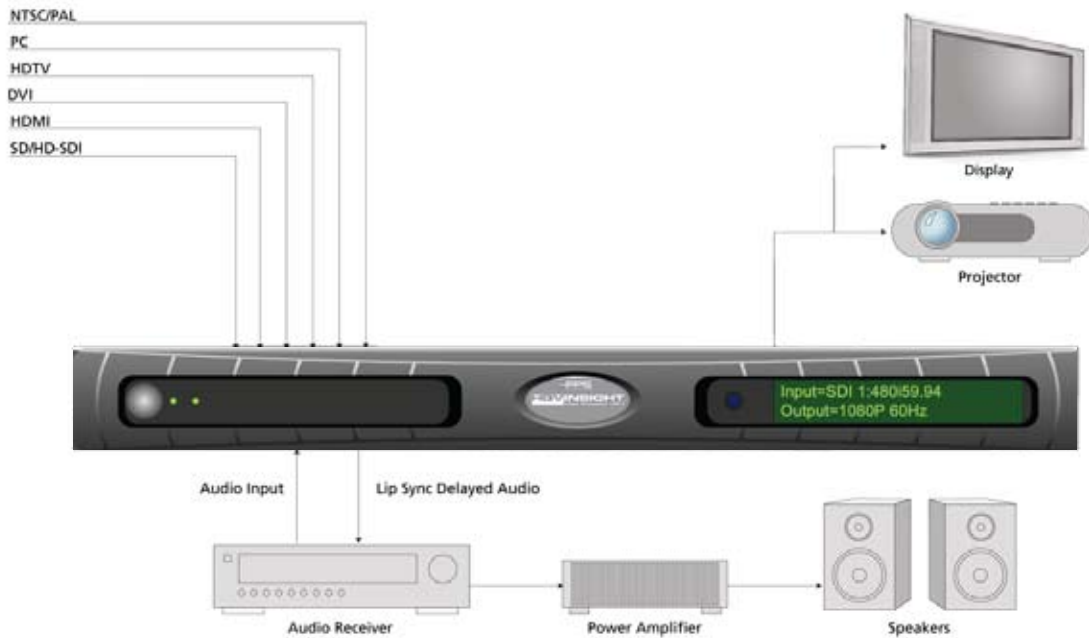
# HQV

## VIDEO PROCESSOR FOR HOME THEATER

### HQV INSIGHT BACK PANEL



### TYPICAL HQV INSIGHT APPLICATION



### SPECIFICATIONS

(subject to change)

**Inputs:**

- Analog RGB Resolutions up to SXGA+ (1400x1050)
- DVI Supports resolutions up to QXGA (some performance limitations apply for QXGA inputs)
- HDMI SD/HD resolutions up to 1080p
- SD/ HD-SDI Available with special order at extra cost
- Composite NTSC, PAL, SECAM
- S-Video NTSC, PAL, SECAM
- Component SD/HD resolutions up to 1080i, YPrPb, RGB (3-wire sync-on-G/Y)
- S/PDIF Audio
- Toslink Audio

**Outputs:**

- Analog RGB Support for VESA resolutions up to UXGA@60, 720p and 1080p
- HDMI SD/HD resolutions up to 1080p
- DVI Supports resolutions up to QXGA (some performance limitations apply for QXGA outputs)

- S/PDIF Audio
- Toslink Audio

**Control:**

- RS-232
- Ethernet
- IR Remote
- USB

### ORDERING OPTIONS

HQV Insight Video Processor

HQV-1