Sharp Announces Second Generation 3D Notebook

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screen image simulated

 Following a wake of awards and recognition for the Sharp Actius Notebook line, Sharp Systems of America today announced the availability of the Sharp Actius AL3D. Featuring Sharp's 3D LCD Screen Technology, the Actius AL3D represents Sharp's second generation of 3D Technology enhanced notebook systems.

Building on the foundation laid by its groundbreaking predecessor (the Actius RD3D), the Actius AL3D represents a significant step up in

power and style for Sharp's 3D notebook line. Powered by Intel's brand new Pentium® M Processor 750, the New NVIDIA® GeForce™ Go 6600 graphics processor with 128 MB Video RAM, and stocked with 1024 MB of DDR2 SDRAM the powerful Actius AL3D is geared for high-end mobile performance.

"The Actius AL3D offers high-end power and functionality, providing users with some of the most advanced computing technology available in a very attractive package," said Ian Matthew, 3D Business Development Manager at Sharp Systems of America. "Viewed on the impressively bright LCD screen that the Actius AL3D possesses, Sharp's 3D LCD Technology provides users with a superb three-dimensional visual experience that is crisp, clear, and precise."

Sharp's 3D LCD Technology

Developed jointly by Sharp Corporation and Sharp Laboratories Europe, Ltd. (SLE), Sharp's TFT 3D LCD Technology provides a significantly enhanced visual experience by offering a realistic sense of depth and presence. Unique to Sharp's 3D technology, the Actius AL3D display can be easily switched between 2D and 3D display modes at the touch of a button, providing a flexible working environment that takes full advantage of both 2D and 3D applications.

The 3D effect is achieved using a parallax barrier technique to separate light signals. Light from the LCD is divided so that different patterns reach the viewer's left and right eyes. The direction in which light leaves the display is controlled so that the left and right eyes see different images. When centered in front of the display, each eye receives the correct visual information for the brain to process. This makes it possible for the image on the screen to appear in three dimensions without the user having to wear special goggles.

"Sharp's TFT 3D LCD technology works on the principle of displaying left and right eye views that are separated so that the left eye sees only the left eye image, and the right eye sees only the right eye image," explained Ian Matthew, 3D Solutions Business Development Manager at Sharp Systems of America. "Since these images have perspective and are offset in the same way that the human eye normally sees the two images, the brain naturally interprets the image disparity and creates a 'sense of depth' effect. The result is a 3D, 'out-of-screen' display, that provides users with a visual experience previously unattainable without polarized or liquid crystal shuttering lenses."

Target Markets

Aimed primarily at the professional market, the Actius AL3D is targeted toward market segments that are already familiar with 3D solutions using Shutter Glasses and page sequential display mode, which are widely supported on PC using both Windows and Linux.

Medical Market: Use for 3D computer modeling for diagnosis has increased tremendously over the last 3 years. Software tools now make accurate computer models from MRI data and other methods, and these models are providing very powerful analysis tools. With the increase in complexity of the computer models being generated, new visualization techniques are in demand to improve analysis. With the Actius AL3D, Sharp offers 3D stereoscopic visualization, without the need for glasses, in a mobile environment.
These same modeling tools are now being applied in the area of surgery preparation. In conjunction with haptic devices, which offer resistance feedback, surgeons are provided with a realistic practice environment where difficult procedures can be safely practiced, leading to better trained surgeons and faster surgeries.

Pharmaceutical Market: Computational Chemists have been using 3D

viewing as part of the drug synthesis process for many years. Now, Medicinal Chemists are employing 3D visualization techniques in the experiment process to create synthesized drugs. Sharp's Actius AL3D provides these chemists 3D visualization in a mobile computing environment for their experiments. In addition, the Actius AL3D takes up a smaller footprint than traditional CRT 3D solutions, allowing researchers to take back valuable lab space.

Educational Market: 3D visualization is finding its way into the classroom for K-12 as well as Universities and schools of higher education. Sharp has partnered with companies such as EON Reality, Inc., Emergence, and JTM to provide 3D platforms for teaching environments and for high-tech labs in the education field.

Oil & Gas: Scientists in petroleum exploration and production are using 3D visualization techniques to more accurately understand the complex geometry of oil reservoirs and to provide real-time input for navigating new oil drilling. The mobile platform offered by the Actius AL3D allows production engineers in the field to acquire real time data and control the drilling process more accurately.

Manufacturing: Advanced 3D visualization is a boon for manufacturers of all types, including automotive and aerospace, by providing three-dimensional virtual prototyping. By using 3D tools to verify the designs created on CAD systems, designers are able to scrutinize their designs in a 3D environment using virtual models and cutting down on the amount of defects before physical prototypes are created. Using the ability of the Actius AL3D, cycles between design and manufacturing can be reduced, significantly cutting time to market and development costs.

Consumer Market: Though aimed primarily at the professional market, significant progress has been made toward the consumer adoption of 3D Technology. NVIDIA Corporation has added stereoscopic display

support for the GeForce series graphic processors, enabling over 1000 games to take advantage of 3D viewing on Sharp's 3D LCD displays. Additionally, the Actius AL3D ships with the TriDef® DVD Player, created by DDD Group plc, which provides on-the-fly 3D conversion of any DVD movie.

The Actius AL3D – Powerful Mobile Computing & 3D Visualization

Designed with the high performance demands of 3D applications in mind, the Sharp Actius AL3D is equipped with the Intel Pentium M Processor P750 (1.86GHz) and driven by Microsoft® Windows® XP Professional operating system. The notebook is equipped with 1024 MB of DDR2 SDRAM, and comes complete with an 80 GB Serial ATA hard drive.

In order to provide the advanced visual processing power for 3D applications, the Actius AL3D comes equipped with the NVIDIA® GeForce™ Go 6600 graphic processing unit driven by PCI Express for faster bus performance with 128 MB of dedicated graphics memory. The GeForce Go graphics processor delivers awesome performance and unmatched feature set that includes a host of video enhancements and power management (via the NVIDIA PowerMizer™ Mobile technology) along with high-resolution anti-aliasing to deliver amazing detail and performance for all applications.

The Sharp Actius AL3D notebook comes equipped with a 15-inch XGA (1024 x 768) 3D LCD display panel that can be switched between 2D and 3D display modes with the touch of a button, making the notebook flexible for use in standard 2D and enhanced 3D applications. The notebook, equipped with a 15-inch XGA (1024 x 768) LCD screen, provides bright, clear pictures in which precise details can be clearly seen. The Actius AL3D also features Sharp's Clear LCD finish, which provides users with highly saturated, rich colors and a color purity that

isn't available with the matted finish traditionally available for notebook computers.

In addition to being able to support 3D software applications, the Actius AL3D comes equipped with an advanced optical drive, making the notebook capable of viewing 3D DVD content. The Actius AL3D comes complete with a DVD Dual Layer Super Multi-Drive with DVD-RAM/±R/±RW and CD-R/RW media compatibility that allows users to produce original DVDs, back up important data on DVD or CD, and watch DVD movies at the user's convenience. Fully equipped with premium quality stereo speakers below the LCD display, the Actius AL3D also supports 5.1 channel virtual surround sound for users using external 2 channel speakers with built-in Dolby Virtual Speaker (DVS) and WinDVD®.

In addition to strong multimedia performance and advanced 3D display technology, The Actius AL3D also includes an array of I/O options including an IEEE1394 (fire wire) port, three USB 2.0 compliant ports, and microphone & headphone jacks. The Actius AL3D also offers 10Base-T/100Base-TX/1000Base-T (Gigabit), LAN for super-fast wired networking, a 56kbps (V.90) fax modem, and includes a VGA out port.

The Actius AL3D will come complete with a software bundle to support its 3D and multimedia capability, which includes SHARP Smart Stereo Photo Editor / Slide Show for creating 3D images from digital photographs. Also included is TriDef® DVD Player from DDD Group, which converts standard DVD movies into a 3D experience, 'on-the-fly'. Finally, the laptop will come with an evaluation version of the Amira® visualization package from Mercury Computer Systems for realistic 3D visualization of 3D models for medicine, biology, physics or engineering.

Available immediately, the Sharp Actius AL3D sells for an estimated

street price of $3,499.