PRESS RELEASE

January 2010 Ref: ZY208/A

CiVUE uses Zytronic technology to deliver enhanced sunlight readability for ruggedized touch screen applications

Zytronic's highly acclaimed projected capacitive technology (PCT™)-based ZYBRID® touch sensors are being used by CiVUE Optotech Inc. of Taiwan. CiVUE, an industry-leading specialist in optical bonding for display systems, is providing its customers with complete display assembly solutions in a process which involves integrating the LCD, touchcreen, protective glass and optical bonding layer together to deliver enhanced image clarity and sunlight readability.

The advanced bonding process helps to overcome many of the issues that can be associated with conventional displays and touch screens, particularly in industrial, public area and outdoor applications. For example, typical display systems will have a small air gap between the LCD panel and the protective glass panel or touch sensor overlay that shields the display from potential damage. This gap will detract from the overall performance of the display in a number of ways. Light reflected between the internal surfaces of the display and the covering screen will reduce the intensity of output, often critical in outdoor applications where the display is "fighting" against high levels of ambient light. Furthermore, unless hermetically sealed, any air trapped in the gap can heat up and cool down in accordance with the LCD status and ambient temperatures, resulting in the risk of condensation formation. In extreme circumstances the trapped air will act as a thermal insulator, preventing heat dissipation from the front face of the display and in worse cases, causing the LCD to exceed its maximum operational temperature resulting in it "blacking out".

ZYBRID touchscreen with and without optical bonding

By limiting the effect of the internal reflective surfaces, the bonding process also prevents parallax errors arising – an optical effect caused by light moving through different media creating an anomaly between a point the viewer sees and touches on the overlaying surface and the image's actual position on the LCD panel. The reduction in parallax can be an important benefit to medical or industrial applications where the accurate input of data through a touch interface is critical.

Operating from its clean room manufacturing facilities in Taiwan, CiVUE affixes the rigid optical elements (which includes the LCD panel, protective glass and touch sensor overlay) using a proprietary transparent adhesive in a reversible process and delivering the optical and thermal benefits described, thereby reducing the necessity for costly upgraded display backlighting and thermal management systems. Furthermore, the elastic nature of the bonding material means it effectively provides a cushioning layer between overlay and LCD enhancing impact resistance of the display, particularly important in outdoor, industrial and public area applications.

As a result of these advantages the CiVUE optical bonding solution is utilised by all manner of high end display system applications - such as avionics, medical equipment, industrial controls and outdoor digital signage. To enhance the benefits that its optical bonding process can deliver to customers, the company is already using ZYBRID, in a range of form factors, with CiVUE's capability to optically bond displays and touch sensors of up to 82" complementing Zytronic's customisable and innovative Projected Capacitive Technology (PCT™) perfectly.

PCT consists of a matrix of micro-fine capacitive sensor elements, which are a quarter of the thickness of a human hair, embedded within a toughened laminated glass substrate. PCT is also drift-free and is significantly more durable and longer lasting than alternative touch sensing methods that are based on resistive, capacitive, optical, or acoustic technologies.

"The optical bonding we can deliver effectively dispenses with the problematic reflections produced between the facing surfaces of the display and the protective glass," states Natalie Chang, managing director of CiVUE. "It can reduce the reflectance figure for a display assembly to just 0.2% and increase the contrast ratio in high light environments, such as outdoors, so that the viewer sees clear crisp images on the display, regardless of the ambient conditions. The combination of our optical bonding with Zytronic's ultra-tough and fully-customisable ZYBRID touch sensors produces a cost-effective solution that meets the specific needs of modern user interfaces."

"CiVUE's unique optical bonding solution is a great fit with our PCT-based touch sensors," states Ian Crosby, sales and marketing director, Zytronic. "It allows the benefits of our unique touch technology to be utilised fully, while furnishing OEMs with the means to get the best possible optical clarity. It gives system designers another weapon in their armoury with which to develop more compelling, interactive displays systems that will be used in the most difficult and demanding of locations and environments. We are currently engaged in a number of significant projects with CiVUE, bringing together its optical bonding technology with our ZYBRID touch sensors, to address the growing need for touch-enabled functionality demanded by a broad spectrum of industry sectors."

-- Ends --

About Zytronic

Zytronic designs and manufactures a range of technologies that optimise the performance of electronic display applications. The company's principle products include award-winning touch sensor technologies, optical filters for enhanced performance and protection, and special filters to minimise electromagnetic emissions. In addition, the company can offer complex shaped glass composites for specialised applications.

Zytronic products are used in electronic displays for information kiosks, web phones, ATMs and gaming machines, as well as by military, computer, telecommunications, medical and lighting OEMs, and are available from its network of worldwide distributors.

The company has its headquarters and state-of-the-art manufacturing facilities in Blaydon, Tyne & Wear in the UK. In addition to ISO-approved manufacturing, these facilities are home to Zytronic's team of lamination, material science and electronics specialists who are responsible for ongoing product development in composite technology.

For more company information, please visit Zytronic's web site at: www.zytronic.co.uk

About CiVUE Optotech

With its proprietary materials and unique re-workable process, CiVUE Optotech provides advanced and cost-effective optical bonding solutions that enable sunlight readability without modifying of the backlight, as well as extra vandal resistance for outdoor viewing flat panel displays and portable devices. It affixes a cover lens, such as anti-reflective glass, plastic, or touch sensor directly onto a flat panel display and eliminates the air gap between, in order to reduce the reflectance levels, and dramatically increase contrast ratio in a high ambient light environment. This technology also allows information designers and mechanical engineers to design a larger cover lens or leave out front bezel for less total thickness, rather than the traditional bezel design. This is because not only can the bonding layer provide better impact absorption, but also better support to the cover lens.

For more company information, please visit the company's homepage at: **www.civueopto.com**

Contact details for editorial enquiries:
Sheila Dean, Zytronic
Whiteley Road, Blaydon on Tyne, Tyne & Wear, NE21 5NJ, UK
Tel: +44 (0) 191 414 5511 Fax: +44 (0) 191 414 0545
Email: sheila.dean@zytronic.co.uk

Contact details for CiVUE Optotech
Natalie Chang, CiVUE Optotech
4F-2, No. 609, Sec. 1, Wanshou Rd., Gueishan, Taoyuan 333, Taiwan
Tel: +886 (0) 2 8200-6060 Fax: +886-2-8200-6161
E-mail: natalie@civueopto.com

Contact details for sales enquiries
Chris Su, Professional Computer Technology (PCT) Ltd.
5F, No. 75, Sec. 1, Hsin Tai Wu Road, Sijhih City, Taipei County, Taiwan 221, R.O.C.
Tel: +886-2-2698-0098 #831 Fax: +886-2-2698-0096
Mobile: +886-922-419408 Email:chris.su@pct.com.tw
Website : www.pct.com.tw

Issued by:
Mike Green / Birgit Schöniger, Pinnacle Marketing Communications Ltd, Prosperity House, Dawlish Drive, Pinner, Middlesex, HA5 5LN, UK
Tel: +44 (0) 20 84296543 Fax: +44 (0) 20 8868 4373
Email: m.green@pinnaclemarcom.com / b.schoeniger@pinnaclemarcom.com
www.pinnacle-marketing.com

Ref: ZY208/A

For Asia please visit: http://www.zytronic.co.uk/about-zytronic/reps-and-distributors?article=61