

Advancing Multi-Touch



Multi-touch is the interactivity flavour of the moment and building on that, Zytronic is pushing boundaries even further.

Latest development from UK projected capacitive touch screen manufacturer Zytronic is ZyFilm Multitouch, a rollable, flexible projected capacitive touch film. The development extends its lead in P-Cap technology further, building on its in-house manufacturing expertise, providing a cost-effective interactive solution with class leading touch performance.

ZyFilm is ideal for large, eye-catching retail and other interactive digital signage deployments. It's based on MPCT, the company's proprietary multi-touch P-Cap technology and gives users the option of creating their own touch screen displays by simply laminating it to the back of a window of any transparent substrate. Application is easy: just carefully squeegee on to the window and combine it with a projector or LCD.

"This new film delivers a highly flexible solution," says Zytronic Sales & Marketing Director, Ian Crosby, "in all senses of the

Zytronic's interactive multi-touch mirror solution at optician Kite is proving more than good for business.

word, and will enable brand owners to engage with customers in creative and productive ways."

The polyester touch foils, currently available in sizes up to 85in, can be deployed semi-permanently and permanently when used in applications correctly laminated to a suitable substrate. And when used in conjunction with Zytronic's ZXY200 and ZXY300 multi-touch controllers, up to 40 simultaneous touch points through glass up to 10mm thick can be detected.

Thin ZyFilm construction means easy, minimal cost shipping, packed in tubes for small quantities. In operation, the P-Cap sensor is protected and resilient to operational rigours. And coupled with one time calibration and the absence of drift, the foils deliver extremely high reliability, essential for year round operation.

TOTALLY MADE IN THE UK...

Zytronic manufactures its touch technology products from a single site comprising three modern factories at Blaydon upon Tyne for electronic displays in retail, kiosks, ATMs, ticketing, telematics, healthcare and gaming machine applications, as well as for military, computer, telecommunications and medical manufacturers.

The company's P-Cap processing realises highly durable, stable touch products with the sensing element embedded behind the first surface of the touch substrate. Zytronic's full, in-house glass processing is complemented by bending and thermal tempering ovens, as well as silk screen printing. The company also is expert in lamination, materials science and electronics.

In-house electro-plating and coating facilities enable optical filter production to enhance information display performance, providing anti-vandal protection. RFI/EMI filters minimise electromagnetic emissions and interference from electronic displays.

VISIONARY SOLUTION...

Fashionable high street optician Kite embarked on touch screen digital signage at its flagship London East End store. Now, the store is wowing customers with its mirrored point of sale system that encourages online social interaction.

Zytronic's P-Cap PCT touch sensor with a 42in active area, is applied to mirror finished toughened glass and supports up to 40 simultaneous touchpoints. The optician's customers use the interactive display to take photos of themselves wearing different frames and these are then posted on Twitter, Facebook, Instagram and other social media platforms, so friends and family can then give their opinions.

The system includes an ultra-thin high brightness, HD LCD screen from Display Technology. A Logitech HD Pro C920 web camera provides high resolution photos and video for storing on the host PC before being manipulated and uploaded. The customised software facilitates social interaction and content sharing.

"The vast majority of dispensing opticians haven't considered how technology can help them engage with their customers," explains Kite GB CEO Asad Hamir. "We really wanted to enhance the user experience and provide an environment conducive to social sharing. The unit is proving very popular and is a great differentiator for Kite. It allows customers to get advice on the



products they are thinking about purchasing from the people that matter most to them, not just the store staff!"

Ian Crosby adds, "The two-phase mirror is extremely advantageous for Kite. It gives the appearance of an elegant silver mirror when the monitor is not lit, consistent with the stylish decor of the store. It then becomes instantly transparent when the monitor is activated: an intuitive touchscreen interface materialises. PCT is fast becoming the sensor solution of choice for those looking to integrate touchscreens touch sensing across large mirrored surfaces. Its combination of strong touch performance and unmatched operational longevity, along with provision for multi-touch operation, make it very compelling."

DIGITAL FURNITURE...

Touch technology, with digital signage, has made transitions into pubs and restaurants, gaming and leisure with the advent of touch tables. Building on that, Zytronic has taken the move a stage further, with the assistance of its French distributor Eurocomposant, and secured on-going business with interactive furniture producer HUMElab. The touchscreen manufacturer is now producing ultra-durable P-Cap sensors for a multi-touch table range targeted at home, restaurant and hospitality applications.

Leading edge, multi-touch operation was a vital requirement for HUMElab to meet its challenging criteria for its innovative furniture. The touch sensors needed to withstand the stresses of high public usage and be low maintenance and easy to clean, whilst delivering accurate multi-touch response. The sensors also needed to aesthetically look good and fit in comfortably with high end, luxury environments.

HUMElab's Tabata table incorporates large format, HD touch for a host of applications from complex multi-user games and food ordering, to surfing the web and connecting with others via social media. Zytronic's 22, 32 and 42in sensors feature customised printed borders with sleek polished edges. The bezel-less design is anti-glare, thermally toughened with 4mm or 6mm glass, and providing high readability in all light conditions whilst protecting the sensing elements.

"Zytronic's touch sensors were chosen because of the fluidity of their touch response and the 40 simultaneous touch points that they can support," explains HUMElab International Sales Director Armand Menargues. "The sensors also showed other advantageous qualities in terms of maintenance as there is no need to calibrate the system anything like as often as with the previous solution we used."

Ian Crosby adds, "There were a number of key criteria that had to be met for this project. Firstly, HUMElab required a solution

1. HUMElab Tabata touch tables feature Zytronic P-Cap sensors.

2. Cowall from Recorconnect, with Zytronic touch.

3. ZyFIm, Zytronic's new and very flexible touch sensor solution.

4. Kite's Zytronic mirror solution has added big wow interactivity.

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4



that could deliver exceptional multi-touch detection. By being able to determine multiple touch points simultaneously, everyone around the touch table can participate and enjoy shared involvement. This needed to be backed up by both responsiveness and accuracy of the touch sensor, plus support for a sleek, eye-catching exterior. We were able to present HUMElab with a solution that surpassed their expectations on all of these points."

HEALTHCARE COMMUNICATIONS...

Healthcare is a growing arena for interactive touch screens. Through its Benelux based distribution partner Telerex, Zytronic now supplies Recorconnect with bespoke 32, 46 and 55in multi-touch sensors for a ground-breaking communication wall system, developed to help psychiatric patients in acute or longterm care facilities.

Cowall displays enable patients to control aspects of their living space under supervised care, from entertainment and changing ambient lighting, to conversing with family/friends and members of the medical team. Accessible apps can be changed by care managers according to individual case and patient needs. Radio, games, videos, music and drawing apps, as well as secure communications can all be made available.

While Cowall provides the patient with entertainment options, the system also collects useful data for support staff, enabling them to monitor the patient condition, assess recovery and modify treatment. The installed systems are free from projecting parts, bezels, switches and buttons that could potentially be damaged by aggression or cause self-harm.

"The aim of Cowall was to give patients the sort of superior user experience expected when operating smartphones or tablets, just on a much larger scale," explains Recorconnect Co-Founder Cor Datema. "We found Zytronic's product far more reliable than those from other manufacturers, offering better accuracy and response rate, with no lag witnessed. It also exhibited the touch performance required despite the thick glass, whereas other sensors struggled."

Front glass thicknesses up to 17mm were successfully tested by Recorconnect to ensure suitability and touch performance, finally resulting in a 12mm glass solution. Zytronic's attractive, water tight, smooth fronted touch screen solution is easy to clean, thus preventing build-up of dirt and germs.

"Cowall is a really novel use of touchscreen technology," says Ian Crosby. "Allowing more control to be given to patients has been demonstrated to reduce convalescence and improve quality of life whilst within a secure environment. Patients can interact with the outside world using a safe, intuitive interface with minimal risk to themselves or carers."

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