

## **Projected-Capacitive Technology Enhances Outdoor Touch Interaction**

Display integration specialist 2S2, under their OutdoorHDTV brand, has implemented Zytronic's ZYTOUCH Projected-Capacitive Technology (PCT) into its latest outdoor digital signage offering, the OHDC-EDSXXX series.

Taking advantage of the ultra large form factor capability of PCT, 2S2 has launched a range of touch displays in landscape and portrait configurations, covering 42 inch (106.7 cm), 46 inch (116.8 cm), 47 inch (119.4 cm), 55 inch (139.7 cm) and 65 inch (165.1 cm) display formats. Each OHDC-EDSXXX utilises a high brightness LCD with 1000:1 contrast ratio, making the resulting ruggedized digital signage unit capable of deployment in such high use, public environments as hotel lobbies, sports stadia, shopping malls, company reception areas, and theme parks. They have been designed to handle extremes of heat and cold, with an operating temperature range from -20 °C to 50 °C as standard and extended versions from -40°C to 60°C.

With an all-glass front, PCT can be readily sealed and is already proven in outdoor applications, therefore 2S2 was confident to house the touch displays in an IP 65-rated, all weather enclosure ensuring reliable performance in extremes of weather. Furthermore, the touch technology enabled 2S2, Inc to implement an edge-to-edge glass design that could be cleaned easily, facilitated water run-off and was visually appealing.

At the core of Zytronic's proprietary PCT touch sensing mechanism is a matrix of micro-fine copper capacitors, just 10µm in diameter. These are embedded into a tough laminated glass substrate, even capable of being mounted behind and operating through a protective glass or acrylic overlay for high levels of durability and rendering the screen virtually impervious to the type of wear and tear that would cripple the long-term operation of alternative touch sensing technologies, such as resistive or surface capacitive screens. As in the case of 2S2's design, PCT sensors can be integrated into displays without the bezel structure around the active area that is needed with infrared (IR) and surface acoustic wave (SAW) based touchscreens. This allows for flat fronted designs to be created which are both practical and attractive. As an additional benefit, with its active sensing elements embedded on the rear side of a screen, PCT does not require time consuming and costly sensor recalibration maintenance to be carried out.

"We have worked closely with Zytronic on a number of outdoor projects over the last two years. Through these collaborations we have seen that its technology is by far the most stable for this type of application," states Benjamin G. Chapman, 2S2 Vice President. "As these units are meant for outdoor use, in addition to being tough, their performance in direct sunlight and shade is critical. Several other technologies had been assessed in the past, but could not deliver the same levels of

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Published on Electronic Component News (<http://www.ecnmag.com>)

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optical clarity. Zytronic's expertise in this field and the support we received from its engineering team has been exemplary," he concludes.

"2S2's application required an all weather touch technology capable of operating reliably in demanding public environments. With the ever present risk of vandalism in such areas, the large screens also had to be resistant to impact and damage, maintaining high performance response even through the added protective layer of sacrificial glass specified," Ian Crosby, Zytronic's Sales and Marketing Director, notes. "Thanks to the unique levels of durability offered by the ZYTOUCH sensors, the OHDC-EDSXXX signage units can deal with all manner of environmental conditions, irrespective of location. This means cinema goers can access movie trailers and information in front of a multiplex, diners can check out the specials on an interactive menu at the entrance to their favourite restaurant or drive through, or football fans can look at player stats, action replays, team merchandise and future fixtures at half-time in the stadium."

For more company information, please visit Zytronic's web site at:

[www.zytronic.co.uk](http://www.zytronic.co.uk) [1]

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