Zytronic touch sensors specified in multi-user workstations for the classrooms of the future

Zytronic expands the breadth of applications that its award winning Projected Capacitive Technology (PCT) is being deployed into, with the news of an exciting new contract. The company is providing the touch functionality needed for Asian user interface specialist VitalTouch's Interactive School Desk.

This groundbreaking desk design enhances the whole learning process, dispensing with traditional writing equipment and white boards. Each desk incorporates a full colour display with an integrated touchscreen, utilising Zytronic's ZYPOS 19-inch touch sensor product. The company's ZXY100 touch controller is also specified, allowing dual touch operation to be realised.

The Interactive School Desk has now gone beyond the concept phase, with 10 tables already being used for educational purposes at the Nan-Hu Junior High School in Taipei. This is part of the Taiwanese government's e-Future Initiative, which will see desks of this kind deployed in 50 schools per year throughout the country.

The innovative PCT touch sensing mechanism, developed by Zytronic, is made up of

a matrix of micro-fine (10 µm diameter) copper capacitor tracks embedded within a laminated substrate. The substrate material can be placed behind a thick protective overlay, made of glass or polycarbonate – safeguarding the touch sensor from the various forms of impairment that blight alternative methods of sensing touch events, such as surface capacitive and resistive. This means that PCT-based touchscreens have a considerably higher degree of resilience and greater longevity than solutions offered by other manufacturers, making them highly suited to heavy duty public use and outdoor applications. In addition, PCT has major performance advantages over infrared (IR), optical and surface acoustic wave (SAW) touch sensing technologies, and is not reliant on use of a bezel around the sensor perimeter, thereby allowing more attractive, smooth-fronted designs.

“Durability is clearly of prime importance in this application environment. The touchscreens integrated into the desks are constantly exposed to various forms of trauma - scratches from pupils’ bags and writing implements, as well as liquid spillages, shocks, etc, which would potentially damage conventional touch sensors,” states Morgan Wen, General Manager of VitalTouch. “Touch accuracy is also vital, as children have smaller hands than adults. The inclusion of Zytronic’s ZXY100 touch controller in this design has meant that it has greater precision, in addition to supporting complex gesture recognition.”

Ian Crosby, Sales & Marketing Director at Zytronic, adds, “VitalTouch’s Interactive Spatial Desk has major implications for how lessons are structured, permitting far greater pupil/teacher interaction. The strong through-glass performance exhibited by PCT permits overlay thickness to be maximised, keeping the touch sensor further away from any sources of harm. Thanks to this technology appealing, bezel-free designs can now be brought to all industry sectors, without compromising on robustness or operational lifespan.”

For more company information, visit Zytronic’s web site at www.zytronic.co.uk [1]

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