

ESCATEC finds clever solution to automatic testing of LCD displays

Heerbrugg, Switzerland – 7 May 2015 – ESCATEC faced a challenge when trying to devise a means of automatically testing LCD displays.

“We found that the LCD displays had strange patterns on them,” said Thomas Eschenmoser, ESCATEC’s Section Head Test Engineering. “We worked out that these are Moire patterns caused by an interference between the images on the arrays in the LCD and in the image sensor in the camera.”

Any slight angle of difference between the arrays resulted in a Moire patterns which meant that the camera could not be used to automatically verify that the output from the LCD was correct and had to be checked by an operator.

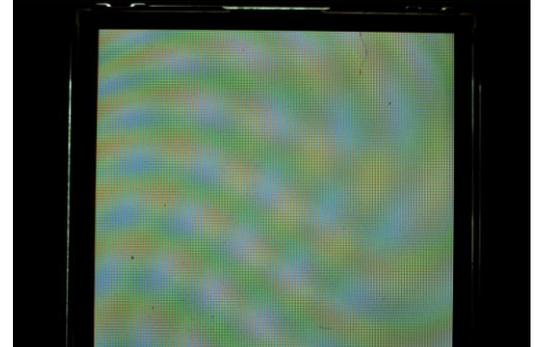


Figure 1 Moire patterns

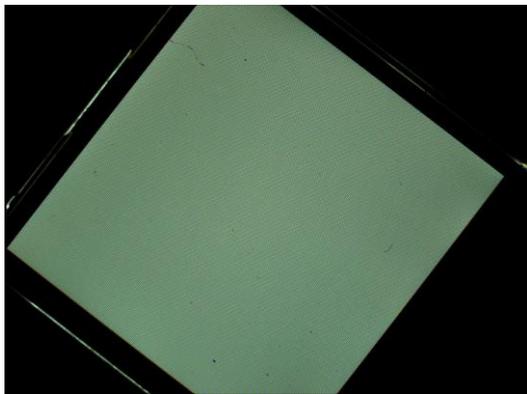


Figure 2 Rotating by 45 degrees removes Moire patterns

The same lightproof enclosure is also used for automatic testing of LEDs. High quality fibre optic cables conduct the output of the LEDs to a Feasa LED Analyser where the colour and brightness of each LED is checked. ESCATEC has found that this automation has reduced testing times per LED by 90%. This solution enables ESCATEC to qualify the LED instead of just knowing if the LED turns on.

See <http://www.feasa.ie/ledanalyser.html>

ESCATEC

The ESCATEC Group provides fully-integrated electronic and mechatronic design and manufacturing solutions to assist customers in achieving success in their market. Its one-stop solutions and best-in-class service enable companies around the world to operate more profitably, sustainably and efficiently.

Founded in 1984, its history is full of innovation, which made it a first choice partner for many European and North American OEMs. The Swiss-owned company perfectly blends Swiss business philosophy and attention to quality, precision and detail with the advantage of low-cost, mass-volume manufacturing capabilities in its Asian factories.

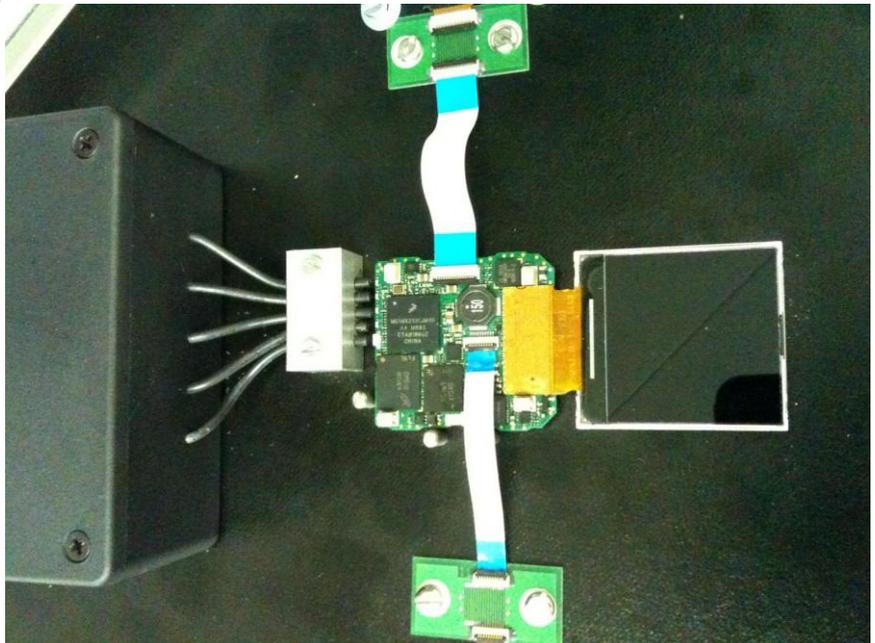


Figure 3 Automatic LED Testing

Further information about ESCATEC, one of Europe's leading providers of contract design and manufacturing services: www.escatec.com enquiries@escatec.com

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