



Ch-LCD Research for screens for eReaders may lead to display breakthroughs for the commercial market, says Taiwan's Industrial Technology Research Institute (ITRI). ITRI currently holds the world's highest number of patents (217) for Cholesteric LCD (Ch-LCD) development which will create a colourful new era in electronic reading.

Currently, Sony and Amazon panels are mainly EPD and monochrome products, but ITRI thinks the continuous development of Ch-LCDs will lead to solutions to overcome tech hurdles in colorization and flexibility. ITRI notes even Samsung has stated Ch-LCDs will become the ultimate technology for the electronic paper market.

Ch-LCD will also offer numerous benefits, such as being lightweight, thin, impact-resistant, extensible, rollable, and power conserving. Future high-quality polychrome technology can be applied towards e-signage, e-banners, and large-scale e-wallpapers, and more.

The Ch-LCD electronic paper developed by ITRI does not require extra addition of colour filtering paper. Its new single layer structure allows RGB Ch-LCD liquid crystals to be sprayed as pixels, via either ink-jet printing, or pixelized vacuum filling technology. Not only is ITRI's product thin, lightweight, and low-cost with wide viewing angle, its processing is also greatly simplified.

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