Liquid Crystal on Silicon

* Liquid crystal on silicon (LCoS or LCOS) is a miniaturized reflective active-matrix liquid-crystal display or "microdisplay" using a liquid crystal layer on top of a silicon backplane.
* By way of comparison, some LCD projectors use transmissive LCD, allowing light to pass through the liquid crystal.
* In a LCoS display, a CMOS chip controls the voltage on square reflective aluminium electrodes buried just below the chip surface, each controlling one pixel.

History

* General Electric first demonstrated a low-resolution LCoS display in the late 1970s.
* Developers and manufacturers who have left the LCoS imaging market include: Intel, Philips, MicroDisplay Corporation (the only company to successfully bring to market a single-panel LCoS television), S-Vision, Colorado Microdisplay, Spatialight, Syntax-Brillian.
* Every company which produces and markets LCoS rear-projection televisions uses three-panel LCoS technology.

