

ABSTRACTREFLECTIVE MIXED-MODE TWISTED NEMATIC
LIQUID CRYSTAL DISPLAY

The invention relates to reflective mixed-mode twisted nematic liquid crystal displays. A direct-view display consists of a front substrate (1), a polarizer (3), liquid crystal (5) and a rear substrate (7) having a reflective coating. The twist angle, polarizer angle and retardation are optimised and fall within the following ranges: twist angle of between 67° and 83° ; polariser angle of between 5° and 21° or between 95° and 111° ; and retardation of between 0.18 and 0.28. An alternative configuration for the display is a projection display having a front substrate, a rear substrate with a reflective coating, liquid crystal between the substrates, a polarising beam splitter and a screen.

[Fig. 1]