Title (en)

ILLUMINATION OF A LIQUID CRYSTAL DISPLAY

Title (de)

BELEUCHTUNG EINER FLÜSSIGKRISTALLANZEIGE

Title (fr)

ECLAIREMENT D'UN AFFICHAGE A CRISTAUX LIQUIDES

Publication

EP 1084444 A1 20010321 (EN)

Application

EP 99928422 A 19990604

Priority

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Abstract (en)

[origin: WO9963399A1] A high contrast, rapid response liquid crystal imaging system is provided. The imaging element (901) uses a liquid crystal composite (e.g. made of encapsulated liquid crystal) that is less than 4 micrometers thick, and preferably less than 2.5 micrometers thick. The imaging element is illuminated by at least one light source (903) that is positioned at an angle of less than 30 degrees off of the display normal. The viewing system (1307) is positioned on the same side of the display as the light source and is located approximately normal to the display. In one aspect, the liquid crystal composite is operated in a reverse mode and a virtual image is created. In another aspect, at least three light sources of different colors illuminate a liquid crystal imaging element. The sources are all located within an angle of approximately 30 degrees from the imaging element normal. A processor (1311) is coupled to both the light sources (903) and the imaging element (901), thereby allowing the individual color light sources to be synchronized with the output of the imaging element.

IPC 1-7

G02F 1/1335; G02F 1/1333; H04N 9/31

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

See references of WO 9963399A1

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