

Title (en)
LIQUID CRYSTAL MICRODISPLAY AND CONTROL METHOD THEREOF

Title (de)
FLÜSSIGKRISTALLMIKRODISPLAY UND STEUERVERFAHREN DAFÜR

Title (fr)
MICRO-ECRAN DE VISUALISATION A CRISTAUX LIQUIDES ET SON PROCEDE DE COMMANDE

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Abstract (en)
[origin: WO2005036518A1] The invention relates to matrix liquid crystal microdisplays and, in particular, to those which are produced on a monolithic silicon substrate containing integrated electronic circuits for controlling a matrix array of liquid crystal cells. According to the invention, the matrix comprises, for each intersection point between a line and a column, an elementary electronic circuit for controlling an elementary liquid crystal cell which is located at said intersection. The circuit comprises at least one storage capacity (Ca, Cb) which is used to store an analog voltage applied by the column for the duration of an image frame, a first terminal of the storage capacity being connected to the gate of the transistor (Ta, Tb), and, in series between two voltage supply terminals, an elementary current source (SC1) and a switching transistor (Ta, Tb), the drain of the switching transistor being connected to the liquid crystal cell (LC). In addition, a periodic voltage ramp, which is common to all of the cells of at least one line, is applied to a second terminal of the storage capacity of the cells belonging to said line.

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