

Title (en)  
LIQUID-CRYSTAL DISPLAY DEVICE WITH ADDRESSING SCHEME TO ACHIEVE HIGH CONTRAST AND HIGH BRIGHTNESS VALUES WHILE MAINTAINING FAST SWITCHING

Title (de)  
FLÜSSIGKRISTALLANZEIGE MIT EINEM ADRESSIERUNGSSCHEMA ZUM ERREICHEN VON HOHEM KONTRAST UND HOHER HELLIGKEIT MIT INSTANDHALTUNG VON SCHNELLEM SCHALTEN

Title (fr)  
DISPOSITIF D'AFFICHAGE A CRISTAUX LIQUIDES AVEC SYSTEME D'ADRESSAGE PERMETTANT D'OBTENIR DES VALEURS ELEVEES DE CONTRASTE ET DE LUMINOSITE TOUT EN CONSERVANT UNE GRANDE VITESSE DE COMMUTATION

Publication  
**EP 0587913 B1 19981028 (EN)**

Application  
**EP 93906873 A 19930401**

Priority  
• JP 9300421 W 19930401  
• NL 9200606 A 19920401

Abstract (en)  
[origin: WO9320550A1] In a liquid-crystal display device having a matrix structure, a plurality of lines is selected simultaneously during periodic scanning of the line electrodes, and the total selection time is split into a number of time intervals which occur distributed over the frame time. The select voltages required can be chosen to be considerably smaller than the voltages according to the standard Alt & Pleshko multiplex addressing scheme, which results in considerably lower voltages over the display elements during selection. These lower voltages, combined with the splitting of the total selection period per frame time into a number of time intervals distributed over the frame time lead to a reduction of the so-called "FRAME RESPONSE" behaviour and therefore result in improved contrast and brightness of rapidly switching liquid-crystal effects compared to the Alt & Pleshko addressing.

IPC 1-7  
**G09G 3/36**

IPC 8 full level  
**G02F 1/133** (2006.01); **G09G 3/36** (2006.01)

CPC (source: EP)  
**G09G 3/3625** (2013.01)

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**WO 9320550 A1 19931014**; DE 69321804 D1 19981203; DE 69321804 T2 19990512; EP 0587913 A1 19940323; EP 0587913 B1 19981028; JP H06508451 A 19940922; KR 100244905 B1 20000215; NL 194875 B 20030106; NL 194875 C 20030506; NL 9200606 A 19931101

DOCDB simple family (application)  
**JP 9300421 W 19930401**; DE 69321804 T 19930401; EP 93906873 A 19930401; JP 51730893 A 19930401; KR 930703675 A 19931130; NL 9200606 A 19920401