

## Title (en)

Liquid crystal display and driving method for liquid crystal display

## Title (de)

Flüssigkristallanzeigevorrichtung und Steuerverfahren dafür

## Title (fr)

Dispositif d'affichage à cristaux liquides et sa méthode de commande

## Publication

**EP 1111576 A3 20030409 (EN)**

## Application

**EP 00125689 A 20001123**

## Priority

JP 33517099 A 19991125

## Abstract (en)

[origin: EP1111576A2] For an image display area, a scanning signal circuit (14) sequentially outputs scanning signals (S14-61 to S14-1140) once for one horizontal period of an image input signal (lin), and pixel data signals (S13-1 to S13-m) are input from a display signal circuit (13) to a liquid crystal panel (15). For a blanking area, a plurality of input pulses (S11b) are input to the scanning signal circuit (14) synchronously with a high speed clock signal (S11c), and the input pulses (S11b) transfer to the blanking area. After writing blanking lines to thirty odd lines at an upper side of the liquid crystal panel (15) at a same time, blanking lines are written into thirty even lines at the upper side at a same time. Similarly, after writing blanking lines to thirty odd lines at a lower side of the liquid crystal panel (15) at a same time, blanking lines are written into thirty even lines at the lower side at a same time. With this operation, when a number of scanning signal lines (X1 to Xn) of the liquid crystal panel (15) is larger than a number of scanning lines of one vertical period of the image input signal (lin), the blanking area is made completely. <IMAGE>

## IPC 1-7

**G09G 3/36**

## IPC 8 full level

**G02F 1/133** (2006.01); **G09G 3/20** (2006.01); **G09G 3/36** (2006.01)

## CPC (source: EP KR)

**G09G 3/36** (2013.01 - KR); **G09G 3/3648** (2013.01 - EP); **G09G 3/20** (2013.01 - EP); **G09G 2310/0205** (2013.01 - EP); **G09G 2310/0232** (2013.01 - EP); **G09G 2310/0267** (2013.01 - EP)

## Citation (search report)

- [XY] WO 9821707 A1 19980522 - SEIKO EPSON CORP [JP], et al
- [YX] EP 0730258 A1 19960904 - SONY CORP [JP]
- [DYY] US 5867141 A 19990202 - ASADA HIDEKI [JP], et al
- [X] EP 0847194 A2 19980610 - NEC CORP [JP]
- [A] US 5448259 A 19950905 - HIDAKA KIYOSHI [JP] & US 6225969 B1 20010501 - ISHII KENYA [JP]
- [X] PATENT ABSTRACTS OF JAPAN vol. 016, no. 463 (P - 1428) 25 September 1992 (1992-09-25)

## Cited by

EP1117086A3

## Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

## DOCDB simple family (publication)

**EP 1111576 A2 20010627**; **EP 1111576 A3 20030409**; JP 2001154639 A 20010608; KR 100374378 B1 20030304; KR 20010051914 A 20010625; TW 501357 B 20020901

## DOCDB simple family (application)

**EP 00125689 A 20001123**; JP 33517099 A 19991125; KR 20000070217 A 20001124; TW 89125092 A 20001124