

Title (en)

TOUCH SCREEN LIQUID CRYSTAL DISPLAY

Title (de)

TOUCHSCREEN-FLÜSSIGKRISTALLANZEIGE

Title (fr)

ÉCRAN D'AFFICHAGE TACTILE À CRISTAUX LIQUIDES

Publication

**EP 2027527 A2 20090225 (EN)**

Application

**EP 07812072 A 20070608**

Priority

- US 2007070725 W 20070608
- US 80436106 P 20060609
- US 88387907 P 20070108
- US 76003607 A 20070608
- US 76006007 A 20070608
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- US 76008007 A 20070608

Abstract (en)

[origin: WO2007146780A2] Disclosed herein are liquid-crystal display (LCD) touch screens that integrate the touch sensing elements with the display circuitry. The integration may take a variety of forms. Touch sensing elements can be completely implemented within the LCD stackup but outside (not between) the color filter plate and the array plate. Alternatively, some touch sensing elements can be between the color filter and array plates with other touch sensing elements not between the plates. In another alternative, all touch sensing elements can be between the color filter and array plates. The latter alternative can include both conventional and in-plane- switching (IPS) LCDs. In some forms, one or more display structures can also have a touch sensing function. Techniques for manufacturing and operating such displays, as well as various devices embodying such displays are also disclosed.

IPC 8 full level

**G06F 3/041** (2006.01)

CPC (source: EP GB KR US)

**G02F 1/13338** (2013.01 - EP KR); **G02F 1/133514** (2013.01 - KR); **G02F 1/133528** (2013.01 - KR); **G02F 1/134309** (2013.01 - KR);  
**G02F 1/134363** (2013.01 - EP KR); **G02F 1/1362** (2013.01 - KR); **G06F 3/0412** (2013.01 - EP GB KR US); **G06F 3/04164** (2019.05 - EP US);  
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**G06F 2203/04103** (2013.01 - EP KR); **G06F 2203/04112** (2013.01 - EP KR)

Citation (examination)

- US 2004155991 A1 20040812 - LOWLES ROBERT J [CA], et al
- US 5648642 A 19970715 - MILLER ROBERT J [US], et al
- EP 1422601 A1 20040526 - SHARP KK [JP]
- See also references of WO 2007146780A2

Designated contracting state (EPC)

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DOCDB simple family (publication)

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EP 2027527 A2 20090225; EP 2259172 A2 20101208; EP 2259172 A3 20110413; GB 0820661 D0 20081217; GB 2451210 A 20090121;  
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