

Title (en)  
LIQUID CRYSTAL DISPLAY INTEGRATED WITH CAPACITIVE TOUCH DEVICES

Title (de)  
MIT KAPAZITIVEN BERÜHRUNGSEINRICHTUNGEN INTEGRIERTES FLÜSSIGKRISTALLDISPLAY

Title (fr)  
DISPOSITIF D'AFFICHAGE À CRISTAUX LIQUIDES INTÉGRÉ À DES DISPOSITIFS TACTILES CAPACITIFS

Publication  
**EP 2406684 A4 20120808 (EN)**

Application  
**EP 09841360 A 20091112**

Priority  
• CN 2009074916 W 20091112  
• CN 200910008184 A 20090313

Abstract (en)  
[origin: CN101833184A] The invention provides an integrated structure of a capacitive touch pad and a liquid crystal display panel. In the integrated structure of the capacity-type touch pad and the liquid crystal display panel, a first touch inductive electrode layer is formed above an upper polaroid of the liquid crystal display panel, a second touch inductive electrode layer is formed below the upper polaroid of the liquid crystal display panel, and a touch object is respectively inducted with the first touch inductive electrode layer and the second touch inductive electrode layer to generate a corresponding capacitive coupling relation so as to achieve the touch effect.

IPC 8 full level  
**G02F 1/1333** (2006.01); **G06F 3/041** (2006.01); **G06F 3/044** (2006.01)

CPC (source: EP KR US)  
**G02F 1/13338** (2013.01 - EP KR US); **G02F 1/133528** (2013.01 - KR); **G06F 3/0412** (2013.01 - EP KR); **G06F 3/0445** (2019.04 - EP KR US);  
**G06F 3/0446** (2019.04 - EP KR US); **G06F 3/0448** (2019.04 - KR); **G02F 1/133528** (2013.01 - EP); **G06F 2203/04103** (2013.01 - KR)

Citation (search report)  
• [X] EP 1936479 A1 20080625 - RESEARCH IN MOTION LTD [CA]  
• [X] WO 2007146779 A2 20071221 - APPLE INC [US], et al  
• [A] US 2002167621 A1 20021114 - CHEN CHI RUEY [TW]  
• See references of WO 2010102491A1

Citation (examination)  
• EP 1986084 A1 20081029 - TPK TOUCH SOLUTIONS INC [TW]  
• TW M344544 U 20081111 - CANDO CORP [TW] & US 8537135 B2 20130917 - CHIH-YUNG TING [TW], et al

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**DE 202009006774 U 20090511**; CN 2009074916 W 20091112; CN 200910008184 A 20090313; EP 09841360 A 20091112;  
JP 2009002882 U 20090501; JP 2011553258 A 20091112; KR 20117023691 A 20091112